California Department of Transportation

United States Department of Transportation Federal Highway Administration

Record of Decision

FOR THE INTERSTATE 710 CORRIDOR PROJECT FROM OCEAN BOULEVARD TO STATE ROUTE 60

LOS ANGELES COUNTY, CALIFORNIA DISTRICT 7-LA-710 (I-710) EA 249900/EFIS 0700000443

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans

This Record of Decision (ROD) was developed pursuant to 40 Code of Federal Regulations (CFR) 1505.2 and 23 CFR 771.127 for the Interstate 710 (I-710) Corridor Project in Los Angeles County, California (proposed project). The California Department of Transportation (Caltrans), in cooperation with the Los Angeles County Metropolitan Transportation Authority (Metro), the Gateway Cities Council of Governments (Gateway Cities COG), the Southern California Association of Governments (SCAG), the Ports of Los Angeles (POLA) and Long Beach (POLB) (collectively referred to as the Ports), and the Interstate 5 Joint Powers Authority (I-5 JPA) (collectively referred to as the I-710 Funding Partners), identified a need to improve I-710 between Ocean Blvd. and State Route 60 (SR-60). The proposed project's Purpose and Need are described in Chapter 1 of the Final Environmental Impact Report/Final Environmental Impact Statement and Final Section 4(f) Evaluation, approved and published by Caltrans on February 23, 2024.

A. DECISION

This ROD approves the Preferred Alternative, which is the No Build (or No Action) Alternative (Alternative 1). The identification of the Preferred Alternative was based on the environmental technical analysis and the resultant determination of the project's impact on the environment (including the inability to achieve project-level air quality conformity for particulate matter), comments received from the general public and agencies during the public review period of the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and the Recirculated Draft EIR/Supplemental Draft EIS (RDEIR/SDEIS), and input from the Metro Board of Directors, who are the project sponsors.

Although both Alternative 5C and Alternative 7 would meet the Purpose and Need of the project and provide mobility benefits for travel within the I-710 Corridor, the No Build (Alternative 1) was identified as the Preferred Alternative for the following reasons:

- Community and Public Opposition to added lanes on I-710 under Alternatives 5C and 7. Throughout the life of the project, a robust community outreach program was implemented. This included several advisory committees that met on a regular basis, public meetings and hearings, and community briefings. Through this process, the community expressed concern related to the following:
 - Number of displacements associated with the build alternatives including residences (specifically in the cities of Commerce and Compton), businesses, homeless shelters (Bell Shelter), the Long Beach Multi-Service Center, and transitional housing.
 - Construction and operational air quality and health risk impacts especially related to asthma and cancer risks to the communities and facilities (such as schools and parks) adjacent to the I-710 Corridor.
 - Disproportionately high and adverse effects to Environmental Justice populations related to air quality, noise, traffic, parks, construction, and displacements.
 - Impacts to parks and recreational facilities such as the Julia Russ Asmus Park,
 Coolidge Park, Ralph C. Dills Park, Bandini Park, Maywood Park, Cesar E. Chavez
 Park, Dominguez Gap and DeForest Treatment Wetlands, and Parque Dos Rios.
 - Impacts related to proposed peak period parking restrictions on arterials, specifically along Atlantic Ave. where businesses are reliant upon on-street parking.
 - Impacts to bicycle and pedestrian facilities specifically related to safety for pedestrians and bicyclists when crossing diverging diamond interchanges proposed throughout the project limits.
 - Impacts related to noise including impacts to park use and enjoyment and impacts to sensitive receptors from heavy trucks and the inadequate mitigation provided.
- Inability to achieve project-level conformity for particulate matter. Alternatives 5C and 7 included a zero emission/near zero emission (ZE/NZE) truck program as a project feature. Alternative 7 also included a ZE/NZE freight corridor. While project analysis showed that the ZE/NZE truck program would ultimately reduce diesel trucks operating in the I-710 Corridor, extensive discussions with the United States Environmental Protection Agency (EPA) indicated that Alternatives 5C and 7 would be considered a project of air quality concern due to tire wear, brake wear, and fugitive dust as well as their concerns associated with the enforceability of the ZE/NZE truck program. Therefore, a hotspot analysis was required for air quality conformity determination. Preliminary results of the

hotspot analysis indicated that the two build alternatives would not demonstrate project-level conformity requirements for particulate matter and would not successfully satisfy the requirements to demonstrate conformity to the purpose of the State Air Quality Implementation Plan (SIP).

B. MAJOR ALTERNATIVES CONSIDERED

This section summarizes the major alternatives considered in the Draft EIR/EIS and the RDEIR/SDEIS. Both the Draft EIR/EIS and RDEIR/SDEIS contain detailed descriptions of each of the alternatives considered in these documents.

B.1 Major Alternatives Considered in the Draft EIR/EIS

Alternative 1: No Build – Alternative 1 would maintain the current configuration of the existing I-710 Corridor. There would be no capacity-increasing improvements to the I-710 mainline; only approved and planned projects included in SCAG's 2008 Regional Transportation Plan (RTP) and 2011 Federal Transportation Improvement Program (FTIP) are considered part of Alternative 1.

Alternative 5A: I-710 Widening and Modernization — Alternative 5A would widen the I-710 mainline to eight general purpose lanes south of Interstate 405 (I-405) and up to ten general purpose lanes north of I-405 (on I-710 northbound and on I-710 southbound). This alternative would modernize the design at the I-405 and State Route 91 (SR-91) interchanges, modernize and reconfigure most local arterial interchanges throughout the I-710 Corridor, modify freeway access at various locations, and shift the I-710 centerline at various locations to reduce right-of-way impacts. In addition to improvements to the I-710 mainline and the interchanges, Alternative 5A would also include Transportation Systems Management/Transportation Demand Management (TSM/TDM), transit, and Intelligent Transportation Systems (ITS) improvements, improvements to 42 local arterial intersections, visual/aesthetic features, and drainage/water quality features.

Alternative 6A: I-710 Widening and Modernization Plus Freight Corridor (Trucks) – Alternative 6A would include all the components of Alternatives 1 and 5A described above. In addition, Alternative 6A would include a separated four-lane freight corridor from Ocean Blvd. northerly to its terminus near the Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) Railroad rail yards in the city of Commerce. The freight corridor would be restricted to the exclusive use of heavy-duty trucks (5+ axles – assumed conventional). The freight corridor would be both at-grade and on elevated structures with two lanes in each direction and would include exclusive, truck-only ingress and egress ramps to and/or from the freight corridor.

Alternative 6B: I-710 Widening and Modernization Plus a Zero-Emission Four-Lane Freight Corridor (Zero-Emission Vehicles) — Alternative 6B includes all the components of Alternative 6A as described above but would restrict the use of the freight corridor to ZE/trucks rather than conventional trucks. Alternative 6B assumes that all trucks using the freight corridor would have

an automated control system that would steer, brake, and accelerate the trucks under computer control while traveling on the freight corridor. This would safely allow for trucks to travel in "platoons" (e.g., groups of 6–8 trucks) and increase the capacity of the freight corridor. The design of the freight corridor would also allow for possible future conversion, or be initially constructed, as feasible (which may require additional environmental analysis and approval), of a fixed-track guideway family of alternative freight transport technologies (e.g., Maglev).

Alternative 6C: I-710 Widening and Modernization Plus Tolled Freight Corridor – Alternative 6C would include all the components of Alternative 6B as described above but would toll trucks using the freight corridor. This alternative would provide for higher freight corridor capacity than Alternative 6A due to the automated guidance feature of Alternative 6B.

Alternative 6A/B/C Design Options – For Alternatives 6A/B/C, three design options for the portion of I-710 from the I-710/Slauson Ave. interchange to just south of the I-710/I-5 interchange were considered. Option 1 would provide access to Washington Blvd. using three ramp intersections at Washington Blvd.; Option 2 would provide access to Washington Blvd. using two ramp intersections at Washington Blvd.; and Option 3 would apply only to Alternative 6B and would remove access to Washington Blvd. at its current location. The southbound off-ramp and northbound-on-ramp access would be accommodated by Alternative 6B in the vicinity of the existing interchange by the proposed new southbound off-ramp and northbound on-ramp at Oak St. and Indiana St.

MAJOR ALTERNATIVES CONSIDERED IN THE RDEIR/SDEIS

During the 2012 public circulation period, may comments were received in support for the Project Team to consider and analyze different alternatives, including a recurring request for an alternative that would add a four-lane ZE/NZE freight corridor with no expansion of general purpose lanes on I-710. In addition, some changes to the design plans for the I-710 Corridor were also proposed during project development and in consultation with local cities. Also, during the I-710 Corridor Project development process, as studies were developed and coordinated with interested and jurisdictional agencies, several potentially substantive issues or conflicts became evident to the Project Team. One of these conflicts was illustrated in more detail in the completed Utility Studies performed for the project and required a more robust avoidance strategy. Similarly, ongoing coordination with the United States Army Corps of Engineers (USACE) and the Los Angeles County Flood Control District (LACFCD) indicated that substantive changes to the Los Angeles River levee would be infeasible. Therefore, avoidance efforts for the Los Angeles River were undertaken as well. As a result of this feedback, the following alternatives were considered in the RDEIR/SDEIS:

Alternative 1: No Build – Alternative 1 would maintain the current configuration of the existing I-710 Corridor. There would be no capacity-increasing improvements to the I-710 mainline; only approved and planned projects included in SCAG's 2012–2035 RTP/Sustainable Communities Strategy (SCS) and 2011 FTIP are considered part of Alternative 1.

Alternative 5C: I-710 Widening and Modernization — Alternative 5C would widen the I-710 mainline to eight general purpose lanes from Anaheim St. to I-405 and up to ten general purpose lanes north of I-405 (on I-710 northbound and on I-710 southbound) to Olympic Blvd. by adding up to one general purpose lane in each direction. The alternative would also add two truck bypass lanes in each direction around the I-405 freeway-to-freeway interchange, and a lane buffer in each direction between Pacific Coast Hwy. and Shoreline Dr., to address safety and operational deficiencies. Alternative 5C would modernize the design at the freeway-to-freeway interchanges at I-405, SR-91, Interstate 105 (I-105), and I-5 and would modify local interchanges to address safety, operational, and capacity deficiencies. In addition, two additional pedestrian and bicycle-only bridges would be included.

Alternative 7: I-710 Modernization Plus Freight Corridor (Zero-Emission Vehicles) -Alternative 7 would include all the components of Alternative 1 and would also consist of the addition of two separate truck-only lanes in each direction (total of four lanes) between Long Beach and Commerce, adjacent to the freeway, approximately 16 miles in length. This principal feature is referred to as a "Clean-Emission Freight Corridor." This alternative would restrict the use of the freight corridor to ZE/NZE trucks rather than conventionally powered diesel trucks. Alternative 7 also includes the assumption that all trucks using the freight corridor would have an automated vehicle control system that would steer, brake, and accelerate the trucks under computer control while traveling on the freight corridor. This would safely allow for trucks to travel in "platoons" (e.g., groups of 6–8 trucks with short spacing between trucks). In addition, Alternative 7 would construct two northbound and two southbound truck lanes on a combination of viaduct and/or retaining wall structures and at-grade roadbeds adjacent to or in the median of the freeway. Freight corridor connector ramps to/from the I-710 general purpose lanes would be provided at three locations on I-710. Local street access/egress ramps would be provided connecting to the freight corridor at four locations. In addition to the freight corridor, this alternative would modernize the design at the freeway-to-freeway interchanges at I-405, SR-91, I-105, and I-5.

Design Options 1A and 1B – Design Option 1A would apply to Alternative 5C, and Design Option 1B applies to Alternative 7. Design Option 1A would retain the proposed interchange configuration and local street circulation of Alternative 5A, but the general location of the highway alignment would be different. Design Option 1B would retain the proposed interchange configuration of Alternative 7, but local street circulation, highway alignment, and right-of-way requirements would differ from those of Alternative 7.

Design Option 2A – Design Option 2A would apply to Alternative 5C and would restore circulation between Shoreline Dr. and Pacific Coast Hwy. via I-710. The design option limits extend from the Shoreline Dr. interchange north to the Pacific Coast Hwy. interchange, a distance of approximately one mile through the City of Long Beach.

Design Options 3A and 3B – Design Option 3A would apply to Alternative 5C, and Design Option 3B would apply to Alternative 7 and would further improve safety and operation of the freeway by

reducing weaving conflicts. The design option limits extend from the Washington Blvd. interchange north to the SR-60 interchange, a distance of approximately two miles through the City of Commerce and the unincorporated area of East Los Angeles.

Options 7ZE – Option 7ZE would be applicable only to Alternative 7 and would provide for the use of the freight corridor exclusively by ZE trucks, excluding NZE trucks. This option would be operational in nature and would not represent a difference in the geometric design of Alternative 7.

C. ENVIRONMENTALLY PREFERRED ALTERNATIVE

Caltrans as the Lead Agency under the National Environmental Policy Act (NEPA), as assigned by the Federal Highway Administration (FHWA), and in cooperation with Metro, has selected the No Build Alternative as the Preferred Alternative. The No Build Alternative was selected based on the environmental technical analysis and the resultant determination of the project's impact on the environment (including the inability to achieve project-level air quality conformity for particulate matter), comments received from the general public and agencies during the public review period of the Draft EIR/EIS and RDEIR/SDEIS, and input from the Metro Board of Directors, who are the project sponsors.

Although the No Build Alternative has the least environmental impacts, it does not meet the Purpose and Need for the project, resulting in continued unmet air quality and public health, traffic safety, design, projected growth, and goods movement needs.

Section A provides details regarding the reasons that the No Build Alternative was identified as the Preferred Alternative.

The Draft EIR/EIS and RDEIR/SDEIS included a Section 4(f) analysis of the potential uses of Section 4(f) resources resulting from the alternatives considered in both documents. Since Caltrans is selecting the No Build Alternative, there would be no potential uses of any Section 4(f) resources resulting from the alternatives; therefore, a Section 4(f) alternatives analysis is not included with this document.

D. MEASURES TO MINIMIZE HARM

Because there would be no direct impacts associated with the No Build Alternative, there are no measures to minimize harm to the environment included in the ROD.

E. Monitoring or Enforcement Program

Because there would be no mitigation measures incorporated into the No Build Alternative, there is no monitoring and enforcement plan included in this ROD.

F. RESPONSES TO COMMENTS ON THE FINAL EIS

The following letters with comments were received when the Final EIS was made available for a 33-day waiting period (August 2, 2024 to September 3, 2024) from the following agencies and parties:

Federal Agencies

- United States Environmental Protection Agency (EPA), Region 9
- o Federal Emergency Management Agency (FEMA), Region IX

Organizations

Coalition for Environmental Health and Justice (CEHAJ)

Comments received, as well as Caltrans' responses to the comments, are provided in Attachment 1.

G. RECORD OF DECISION APPROVAL

The environmental analysis of the I-710 Corridor Project is in conformity with applicable provisions of Chapter 40 of the CFR 1505.2 and 23 CFR 771.127 and satisfactorily addresses the anticipated impacts of the project. Based on the factors outlined in Section A above, it is my decision to select the No Build Alternative for this project. This is done with the recognition that the No Build Alternative does not address the project's stated Purpose and Need and will leave unresolved the air quality and public health, traffic safety, design, projected growth, and goods movement needs in the project area.

11/07/2024	Il Atherta
Date	Gloria Roberts, District Director
	California Department of Transportation, District 7

ATTACHMENT 1 COMMENTS RECEIVED ON THE I-710 CORRIDOR PROJECT FINAL EIS AND RESPONSES



September 3, 2024

Kelly Ewing-Toledo Caltrans District 7 Division of Environmental Planning 100 S Main Street, MS-16A Los Angeles, California 90012

Subject: US EPA Comments – I-710 Corridor Final Environmental Impact Report/Environmental Impact

Statement, Los Angeles County (EIS No. 20240133)

Dear Kelly Ewing-Toledo:

The United States Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. The CAA Section 309 role is unique to the EPA. It requires the EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The Final Environmental Impact Statement indicates that Caltrans and Metro have identified Alternative 1 (No Build) as the Preferred Alternative and therefore no expansion or construction along the 710 Corridor is supported by the subject Environmental Impact Statement. As a cooperating agency under NEPA during the development of the EIS, the EPA provided scoping comments, participated in interagency calls and meetings through our role as a cooperating agency, and provided feedback to Caltrans on the Draft EIS, the Supplemental Draft EIS, and administrative draft of the Final EIS, and various technical reports, analyses, and methodology, including information related to project-level transportation conformity. We value the past collaboration with Caltrans and Metro and the time and resources devoted to getting to the decision to choose Alternative 1 (No Build) as the Preferred Alternative in light of potential unacceptable displacement impacts and the inability of the Build Alternatives to demonstrate project level transportation conformity.

We appreciate the invitation to provide input and feedback throughout the NEPA process, and have valued our role in the recent Long Beach to East Los Angeles Mobility Investment Plan process that recently concluded. We are providing the following comments to assist in next steps. We are also providing feedback for preparing the Record of Decision, and for consideration in the event that any analyses and conclusions prepared in support of the subject EIS are proposed to be incorporated by reference to support future decisionmaking.

Independent Utility and Logical Termini of 12 Interchanges and 2 Auxiliary Lanes Advancing for Consideration

As identified in the Long Beach to East Los Angeles Mobility Investment Plan, there are 12 interchange

As identified in the Long Beach to East Los Angeles Mobility Investment Plan, there are 12 interchange improvements and 2 auxiliary lanes that occur within the mainline of the 710 corridor that are being advanced for continued consideration. These projects were, at one point in the Mobility Investment Plan process, labeled Early Action Projects. The EPA has emphasized through interagency coordination that it is necessary to demonstrate independent utility and logical termini for each of those interchanges, or "bundles of interchanges and connected actions," in order to comply with NEPA. However, the Response to Comments, Appendix V,

Response to Comments, Section 1.7, Page 14 states, "Based on guidelines adopted by the I-710 Corridor TAC, proposed improvements associated within the I-710 Corridor Study Area may qualify as Early Action Projects if they: (1) are consistent with the I-710 Corridor planning process and objectives; (2) demonstrate independent utility; and (3) require no additional permanent right-of-way to construct, therefore requiring minimal environmental clearance. As such, improvements identified as Early Action Projects are considered independent projects from the I-710 Corridor EIR/EIS and are individually subject to CEQA and NEPA and the project development process."

Recommendations for the Record of Decision: Include a clarifying statement in the Record of Decision acknowledging that the criteria listed in the Response to Comments section excerpted above describing projects "individually subject to CEQA and NEPA" does not apply to the 12 "mainline" individual interchanges and auxiliary lanes along the 710 that were identified for future study per the Long Beach to East Los Angeles Mobility Investment Plan. Confirm that a determination has not been made by Caltrans that each individual interchange and auxiliary lane meets the definition of a stand-alone project that complies with NEPA, and has independent utility and logical termini.

Please provide this clarifying statement in the Record of Decision:

"Any future project (interchange, auxiliary lane, etc.) that was previously included within the build footprint of Alternative 5C or Alternative 7 will need to be shown to demonstrate independent utility and logical termini by Caltrans, as the lead NEPA agency and decisionmaker, pursuant to the requirements of NEPA. In some cases an interchange may not be able to meet those criteria without also including connected actions such as auxiliary lanes or other project features. Future planning and coordination led by Caltrans will include opportunities for community members, partners, and resource and regulatory agencies to understand potential segments of the previous Alternative 5C and how those projects may be able to advance for further study and funding, either individually or as grouped projects which, considered together, meet the standards of independent utility and logical termini, NEPA requirements, and project level transportation conformity analysis requirements."

"Timeliness" of Analyses/Conclusions

The Final EIS data and analyses used to support decisionmaking, and to establish the baseline setting, do not reflect 2024 conditions and assumptions. For example, cost estimates are in 2017 dollars, growth projections are based on 2016 figures, and traffic assessments are based on "2012 to 2035" projections, rather than the current baseline year of 2024. Because Caltrans is using this EIS to justify choosing Alternative 1 (No Build), the EPA is not recommending that Caltrans go through the exercise of updating every resource description in the "Statement of Need," the "Setting/Affected Environment," and every conclusion in the "Environmental Impacts" section to accurately reflect a 2024 baseline, as such an update is not necessary for a No Build decision. The EPA does, however, reemphasize the inability of the document to satisfy the statutory requirement under Clean Air Act section 176(c)(1) for determining conformity for the Build Alternatives that are not being further pursued, as accompanying analysis must be based on "... the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel and congestion estimates..." and the associated regulatory requirements under 40 CFR Part 93. Accordingly, the Final EIS is not suitable to incorporate by reference in future analyses without updated information.

Recommendations for the Record of Decision:

Include in the Record of Decision a statement that the document is not appropriate for use for
future analyses as "incorporation by reference" in its entirety, with an acknowledgement that the
underlying assumptions and analyses represent 2017 and prior information. Direct that any future

EPA-2

EPA-1

EPA-2

- incorporation by reference specifically acknowledge the limitations noted, and that the analyses did not support a Build Alternative decision.
- Include in the Record of Decision a commitment to consult with resource and regulatory agencies to discuss the appropriateness and relevancy of data and conclusions in the Final EIS before referring to that document to support future decisionmaking in compliance with NEPA or Clean Air Act requirements.

Characterization of Displaced Residents and Businesses

Page S-15 and S-16, and Page 3.3-47 state, "Generally, the relocations proposed under Alternative 5C would not represent a substantial adverse impact to the cities and communities within the I-710 Corridor because these relocations would occur along the fringes of the I-710 Corridor, impacting parts of communities rather than whole neighborhoods." The Final EIS further describes that community cohesion impacts would occur at a localized level within the Cities of Long Beach, Bell, and Commerce due to relocations of existing cohesive communities or vital community facilities under Alternative 7.

Recommendation for the Record of Decision:

The text of the Final EIS currently concludes that displacements "would not represent a substantial adverse impact to cities and communities." The EPA recommends that the Record of Decision update this conclusion by including a statement that the anticipated displacements would have been considered as an adverse impact, since the high number of displacements was part of the basis for not moving forward with the build alternatives.

EPA-3

Characterization of Project Level Conformity

Multiple components of the air quality discussion and conclusions would benefit from a more complete and accurate description of the context and intensity of impacts regarding project-level transportation conformity challenges with the Build Alternatives. For example, Appendix V, Response to Comments, Section 1.4.1, Page 10 of the Final EIS states that "EPA indicated that Alternatives 5C and 7 must be considered a POAQC [Project of Air Quality Concern] mainly because EPA staff stated that the enforceability provisions of the I-710 Clean Truck Program were not sufficient to ensure that the projected reduction in 2035 diesel truck trips." However, EPA's determination, as detailed in a March 25, 2021 letter, was due to the significant increase in the number of diesel vehicles, the associated increased emissions of particulate matter associated with tire wear, brake wear, and fugitive dust and concerns regarding the enforceability of the zero and near zero emissions truck program as a mitigation measure for the required PM hot-spot analysis. Specific edits and suggested text were provided to Caltrans by EPA in November 2023 correspondence, following a review of an administrative draft of the Final EIS.

Recommendations for the Record of Decision:

Prior to referencing, or incorporating by reference, any of the conformity related analyses, methodology, and conclusions to support future decisionmaking, please refer to the March 2021 and November 2023 EPA correspondence to Caltrans, and coordinate with the EPA.

Please add the following text to the Record of Decision to provide a more complete description of the EPA's evaluation and discussion of the rationale regarding the determination that the I-710 Build alternatives would meet the requirements of being a Project of Air Quality Concern, and therefore would need a particulate matter hot-spot analysis. Please refer to our March 2021 letter and add it to Agency Correspondence section.

EPA-4

Please consider the Response to Comments and the body of the Final EIS to be revised as follows so that the summary accurately reflects the EPA's determination regarding project level transportation conformity related to Alternative 5C. The EPA's determination, as detailed in a

prior March 2021 letter, was due to the significant increase in the number of diesel vehicles, the associated increased emissions of particulate matter associated with tire wear, brake wear, and fugitive dust and concerns regarding the enforceability of the zero and near zero emissions truck program as a mitigation measure for the required PM hot-spot analysis. The EPA stated that "hot-spot regulations are to implement the Clean Air Act's requirements so that projects do not cause or contribute to violations of the EPA's national ambient air quality standards (NAAQS), worsen existing violations, or delay attainment or other milestones. There is no current air quality modeling that demonstrates that the I-710 Clean Truck Program sufficiently reduces emissions such that the I-710 expansion project does not create PM NAAQS hot-spots. In fact, we expect increases in the severity of existing violations even if the proposed I-710 Clean Truck Program were to be fully implemented given dust, tire wear and brake wear."

EPA Role as Cooperating Agency

Page S-48, Section S.9 summarizes EPA coordination as the following: "USEPA has raised concerns regarding the analytical methodologies used to evaluate potential impacts of the I-710 Corridor Project build alternatives as well as concerns about potential impacts to low income and minority populations resulting from the build alternatives."

Recommendations for the Record of Decision:

As written, this above statement does not fully capture coordination and feedback by the EPA. Please include this additional statement in the Record of Decision:

"Please consider this as a more complete description of EPA's Role as a Cooperating Agency in the preparation of the EIS and coordination regarding project-level conformity. In 2018, following publication of the Revised Draft EIR/Supplemental EIS for the Interstate 710 South Corridor project, Caltrans and Metro asked the EPA to consider a variation from project-level transportation conformity analysis processes and requirements. Prior to this request, the transportation agencies were pursuing coordination related to required particulate matter (PM) hot-spot modeling assumptions and protocols. As an alternative, Caltrans and Metro proposed the I-710 Clean Truck Program to potentially offset the significant increase of diesel-emitting trucks that would result from the project, thereby attempting to remove the status of the project as a "Project of Air Quality Concern" and the need for a PM hot-spot analysis as part of the project-level transportation conformity determination.

After thoughtful consideration, multiple interagency meetings, and good faith efforts by the EPA, Caltrans and Metro to identify a potential alternative path forward for the analysis of project-level transportation conformity, the EPA ultimately concluded via an interagency meeting on November 20, 2020, and via a follow-up letter on March 25, 2021 that a PM hotspot analysis would be necessary for the project's transportation conformity determination."

Request for future coordination, modifying the Regional Transportation Plan and Transportation Improvement Plan

The EPA agrees that the preferred alternative, Alternative 1 (No Build), must be included in the Southern California Associate of Government's Regional Transportation Plan/Sustainability Communities Strategy (RTP/SCS) and Federal Transportation Improvement Program (FTIP). The EPA also agrees that moving forward, Metro will continue to work with SCAG to ensure that future modifications to the RTP and TIP reflect the No Build Alternative (Alternative 1) as opposed to Alternative 5C.

EPA-5

Recommendation for the next steps regarding conformity:

Please coordinate with the EPA regarding the commitment that Metro will continue to work with SCAG to ensure that the future modifications to the RTP and TIP reflect the No Build Alternative (Alternative 1) as opposed to Alternative 5C, and that the Metro Final 2009 Long-Range Transportation Plan will be amended to remove the build alternatives.

EPA-6

Thank you for the opportunity to review the Final EIS/EIR. Please contact me at donez.francisco@epa.gov, or the lead reviewers, Connell Dunning (dunning.connell@epa.gov; 415-947-4161) or Karina O'Connor (document-serios (dunning.connell@epa.gov; 415-947-4161) or Karina O'Connor (document-serios (document-serios (document-se

Sincerely,

FRANCISCO DONEZ Digitally signed by FRANCISCO DONEZ Date: 2024.09.03 16:31:30 -07'00'

Francisco Doñez, Manager Environmental Review Section 2

Cc: Michael Cano

Executive Officer, Countywide Planning & Development, Los Angeles Metro

Sam Wang

Program Supervisor, CEQA IGR, Planning, Rule Development & Implementation South Coast Air Quality Management District

Stanley Armstrong,

Air Pollution Specialist, California Air Resources Board

EPA-1

Any project identified as part of the Corridor Mobility Investment Plan (CMIP) would be individually subject to CEQA and NEPA and the project development process, including ensuring independent utility and logical termini. Therefore, the requested statement will not be added to the Record of Decision (ROD).

EPA-2

Extensive analyses were done, across multiple disciplines, in support of the document. The information could be useful for future projects, particularly for cumulative impacts. The assertion that the analyses didn't support a build alternative is not accurate. As documented in section 2.4 of the FEIR/FEIS, the No Build Alternative was identified as the Preferred Alternative as a result of community opposition and the inability to achieve project-level conformity for particulate matter. In addition, consultation with resource or regulatory agencies related to future decisionmaking is already part of the CEQA/NEPA process and will therefore occur for any future project.

EPA-3

The conclusions contained in the FED are based on analysis and are not arrived at arbitrarily. During the time of the analysis, the studies were consistent with current Caltrans and/or Metro policies. Therefore, no change recommended. In addition, Caltrans and Metro strives to find solutions to displacing residents through project design.

EPA-4

As noted in the interagency consultation process for the project-level conformity, Caltrans/Metro maintain their position that both build alternatives (Alternative 5C and 7) would not result in a significant increase in the number of diesel vehicles. This is primarily due to the inclusion of the Clean Truck Program in these alternatives. Therefore, the suggested language will not be added to the ROD.

EPA-5

The language include in Section S.9 was a summary of the coordination that occurred between Metro, Caltrans, and EPA. Therefore, the suggested language will not be added to the ROD.

EPA-6

Metro commits to ensuring that the RTP, TIP, and Long-Range Transportation Plan reflect the No Build Alternative as opposed to Alternative 5C.

U.S. Department of Homeland Security FEMA Region IX 1111 Broadway, Suite 1200 Oakland, CA. 94607-4052



August 22, 2024

Kelly Ewing-Toledo Caltrans District 7, Division of Environmental Planning 100 South Main Street, MS 16A Los Angeles, California 90012

Dear Mr. Ewing-Toledo:

This is in response to your request for comments regarding Public Notice of Final Environmental Impact Report/Final Environmental Impact Statement (FEIR/FEIS) Available for the Interstate (I-710) Corridor Project.

Please review the current effective Flood Insurance Rate Maps (FIRMs) for the City of Los Angeles (Community Number 060137), County of Los Angeles (Community Number 065043), Maps revised June 2, 2021, and City of Long Beach (Community Number 060136) Maps revised April 21, 2021. To locate FIRMs online, visit the Map Service Center (MSC) at https://msc.fema.gov. Please note that the Cities of Long Beach and Los Angeles, Los Angeles County, California are participants in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.
- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any *development* must not increase base flood elevation levels. The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials. A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

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• Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at https://www.fema.gov/flood-maps/change-your-flood-zone/paper-application-forms.

Please Note:

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The City of Los Angeles floodplain manager can be reached by calling Ted Allen, City Engineer, at (213) 485-4935. The Los Angeles County floodplain manager can be reached by calling Patricia Wood, Senior Civil Engineer, at (626) 458-4300. The Long Beach floodplain manager can be reached by calling Monique De La Garza, City Clerk, at (562) 570-6101.

If you have any questions or concerns, please do not hesitate to contact Carlos Rendo, NFIP Planner of the Mitigation staff at carlos.rendo@fema.dhs.gov.

Sincerely,

EDITH C LOHMANN Digitally signed by EDITH C LOHMANN Date: 2024.08.24 12:26:52 -07'00'

Edie Lohmann, Acting Branch Chief Floodplain Management and Insurance Branch

cc:

Ted Allen, City Engineer, City of Los Angeles

Patricia Wood, Senior Civil Engineer, Los Angeles County

Monique De La Garza, City Clerk, City of Long Beach

Garret Tam Sing, State of California, Department of Water Resources, Southern Region Office

Salomon Miranda, State of California, Department of Water Resources, Southern Region Office

Kelly Soule, State of California, Department of Water Resources, Sacramento Headquarters

Carlos Rendo, NFIP Planner, DHS/FEMA Region 9

Aaron Clark, Acting Environmental Officer, DHS/FEMA Region 9

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Since the I-710 Corridor Project has selected the No Build Alternative as the Preferred Alternative, no construction will occur and therefore the referenced National Flood Insurance Program floodplain management building requirements are not applicable.













Via Electronic Mail

August 19, 2024

Kelly Ewing-Toledo Caltrans District 7, Division of Environmental Planning 100 South Main Street, MS 16A Los Angeles, CA 90012 710.Corridor.FEIRFEIS@dot.ca.gov

Re: I-710 Corridor Project Final Environmental Impact Report/ Final Environmental Impact Statement

Dear Ms. Ewing-Toledo:

On behalf of the Coalition for Environmental Health and Justice ("CEHAJ") and its members, we write to provide comments on the I-710 Corridor Project ("Project") Final Environmental Impact Report/Final Environmental Impact Statement ("FEIR/FEIS"). We appreciate the opportunity to provide comments on the FEIR/FEIS. We are pleased to see the Caltrans and the Los Angeles County Metro Board ("Board") officially adopt Alternative 1 ("No Build Alternative") that will formally end plans to expand the southern portion of the I-710 freeway. This critical decision culminated after years of community members, environmental justice organizations, and environmental groups opposing freeway-widening projects and pointing out the damage a widening project would cause. In 2021, the Board listened, and freeway-widening Alternative 5C was finally put to rest.

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Given the known regional and acute local impacts that freeways manifest in our communities and the racist legacy of redlining that disproportionately places communities of color in harm's way when it comes to air pollution and environmental harm, the FEIR/FEIS must make clear that any effort at freeway expansion is antithetical to Metro and Caltrans' renewed commitment to equity and the protection of public health. While we support a "No Build" commitment if it means that both agencies will abandon all aspects of Alternative 5C, we remain concerned that the FEIR/FEIS contains the now outdated findings and references to the benefits of 5C that are no longer viable and were never confirmed.

As we have stated in prior comments, we need an unequivocal commitment from Caltrans and the Metro Board that freeway widening will not be pursued and that Alternative 5C, including its outdated findings and analysis, will not be revived or utilized years later. The potential negative impact of Alternative 5C's revival is significant, including the prospect of later adopting capacity-expanding widening projects that are now known to be flawed, contrary to state and federal policy, and contrary to the agency's equity principles and community desires. We urge you to consider revising this FEIR/FEIS significantly before certifying it as the official environmental review document.

In these comments, we focus our attention on the flaws in the FEIR/FEIS that create dangerous ambiguity at a time when our region and impacted communities need clarity on what will happen along the I-710 Corridor, not only today but in the future. Over the course of roughly three years, we have seen progress made in identifying projects and programs that have the potential to be community-serving rather than extractive and harmful. While we support many projects and programs in the final Long Beach-East Los Angeles Corridor Mobility Investment Plan ("CMIP"), we know that several are still in development and will be worked out through a separate working group process. As further vetting for those projects and programs moves forward, this FEIR/FEIS needs to be clear that a No-Build Alternative does not specifically authorize any construction activity, whether through permitting or plan approval, without additional environmental review required under State and Federal law.

I. Immediate Action is Required to Address the Flaws in the FEIR/FEIS.

While FEIR/FEIS proclaims the adoption of No Build Alternative as the preferred alternative, the analysis maintained from prior project iterations now contains significant inconsistencies with the Board's clear direction to abandon build alternatives completely. These inconsistencies are a cause for concern and require immediate attention. If left unaddressed, these flaws could lead to further confusion regarding the Project's scope and impact. It is imperative that Caltrans as the lead agency acts swiftly to rectify these issues.

In May 2021, the Board directed staff to "immediately suspend" further work to advance the 710 South Corridor Project EIR/EIS, which previously contained freeway widening under

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Alternative 5C as the preferred alternative. In deciding to suspend the Project under Alternative 5C, the Board noted that the U.S. Environmental Protection Agency's (EPA) assessment that particulate matter hot-spot analysis would be required for the Project, the California Transportation Commission's assessment that the project would no longer align with California transportation policy, and community opposition to freeway widening, led them to suspend any further development. The Board further emphasized its commitment to equity, stating that, in light of these reasons, Metro would need to "re-think the Project scope and undertake a holistic, equity-based examination of the Project." This commitment is crucial to ensuring that Metro's investments do not disproportionately impact communities of color, inadvertently worsen induced demand, or work against existing greenhouse gas emissions reduction goals.

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The Board's decision to abandon Alternative 5C was not done in a vacuum but instead resulted from a comprehensive analysis of the potential environmental and public health harm, community opposition, and the lack of thorough air quality conformity analysis. In a subsequent motion, the board determined "[g]iven that capacity expansion freeway widening will not get support from Caltrans or the EPA, we adopt as Board policy that capacity expansion freeway widening will no longer be in the project." 5

Yet, the FEIR/FEIS maintains dangerous inferences suggesting that Alternative 5C somehow offers superior protections from an air quality perspective, even though we now know that is inconsistent with EPA's conclusions and the prior analysis used to support such a claim is no longer valid. Including these old references to freeway-widening Alternative 5C undermines the decision to pursue the No Build Alternative and creates unnecessary confusion for decision-makers and impacted communities. The following list is not exhaustive, but it includes examples of references regarding the build alternatives, and Alternative 5C in particular, that are worth revising:

• "Overall, the build alternatives would have many beneficial effects on the surrounding communities and I-710 corridor users when compared with current conditions, including reductions in emissions levels and associated health risk."

¹ Metro Board of Directors, File #: 2021-0368, Motion by Directors Solace, Sandoval, Butts, Garcetti, and Mitchell (May 27, 2021), Agenda Number 47.

https://boardagendas.metro.net/board-report/2021-0368/.

² Ibid.

³ Ibid.

⁴ Ibid.

⁵ Metro Board of Directors, Regular Board Meeting Agenda, (May 26, 2022), Item No. 9, I-710 South Corridor Motion by Hahn, Solis, Mithcell, and Dutra; https://metro.legislationDetail.aspx?ID=5652969&GUID=D46F3FB4-129D-487F-AB48-0F3E9AB443D8.

⁶ I-710 Corridor Project Final Environmental Impact Report/Environmental Impact Statement and Final Section 4(f) Evaluation, Volume 1, State of California Department of Transportation and the Los Angeles County Metropolitan Transportation Authority, page S-17 and S-18.

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- "Air toxics are dramatically lower (95 percent or more) for all 2035 build alternatives compared to 2012."⁷
- "Each of the 2035 alternatives would result in lower nitrogen oxides (NOx), carbon monoxide (CO), PM2.5 and volatile organic compound (VOC) emissions for all study areas when compared to 2012 Baseline emissions."
- "Each of the 2035 build alternatives would result in lower NOx emissions, compared to the 2035 No Build Alternative, for all study areas."
- "All of the alternatives, when compared to the 2012 Baseline, including the No Build Alternative, would decrease the regional traffic GHG emissions by approximately 13,000,000 metric tons of CO2e per year . . . When compared to the No Build conditions, the regional GHG emissions would remain essentially the same for Alternatives 5C and 7." 10

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- "Either build alternative would generally improve air quality and reduce public health risk in the Basin and the I-710 AOI. Along I-710, air quality would be improved and public health risk would be reduced at most locations, but there are a few nearby roadway locations where there would be an increase in certain emissions but no increase in cancer risk compared to 2012."
- In the Summary Comparison of Alternatives, Alternative 5C is said to reduce "public health risk at most locations." ¹²

These references should be removed from the FEIR/FEIS to align with the Board's rationale and ultimate decision for the Project and the information now available concerning the flawed environmental analysis that led to Caltrans and Metro identifying No Build Alternative as the Preferred Alternative. As the FEIR/FEIS rightfully acknowledges, the South Coast Air Quality Management District (SCAQMD) Multiple Air Toxic Exposure Studies (MATES) demonstrate that "the highest levels of calculated cancer risk...occur in the Study Area, particularly near the Ports, the rail yards, and along the I-710 freeway." It is imperative that the FEIR/FEIS does not include invalid inferences elevating Alternative 5C as a positive solution to the Study Area's air quality concerns.

II. Including Outdated References to Support a Build Alternative that is No Longer Being Pursued Creates Confusion and is Inconsistent with CEQA and NEPA Standards.

CEHAJ-2

After deciding to pursue the No Build Alternative, the Board recognized that the information previously used to support Alternative 5C was outdated and could no longer justify the freeway-widening project. One of the many reasons for the Board's decision not to pursue Alternative 5C

⁷ I-710 Corridor Project FEIR/FEIS page S-24.

⁸ Ibid.

⁹ I-710 Corridor Project FEIR/FEIS page S-26.

¹⁰ Ibid.¹¹ I-710 Corridor Project FEIR/FEIS page S-42.

¹² I-710 Corridor Project FEIR/FEIS page S-50.

¹³ I-710 Corridor Project FEIR/FEIS page S-3.

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was the EPA's concerns over air quality conformity, which had "rendered the data supporting Alternative 5C- and the entire environmental document- stale and in need of re-evaluation." ¹⁴

The Board ultimately determined that whatever analysis, determinations, or characterization previously tied to Alternative 5C were no longer valid. In fact, a May 18, 2022 Board Report points out that even if EPA had ultimately supported the original Project, staff would still have to "re-evaluate most of the traffic, safety, and air quality data contained in the document before any component of the project... could progress" and that the "process to re-evaluate that environmental data to allow any of the component projects to proceed would take at least 18 months to complete."¹⁵

This FEIR/FEIS should accurately reflect the Board and Staff's position that the information is no longer valid and should not imply any merit in the discarded alternatives. Including references to outdated and invalid findings in the FEIR/FEIS makes the document flawed and undermines the credibility of the agency's analysis.

III. The FEIR/FEIS Should be Revised to Define the Scope of the Adopted No Build Alternative Clearly.

The FEIR/FEIS fails to offer finality to the Project by cross-referencing, without further specification, a list of projects outlined in Appendix U and "assumed to be part of the No Build (Alternative 1)." This open-ended description of the adopted No Build Alternative, skews the analysis of impacts and undercuts the validity of the entire document under CEQA and NEPA. Without a complete and accurate determination of the Project's scope, neither the lead agency nor the public can be assured that all the concomitant environmental impacts have been revealed and mitigated. "An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." An incomplete or inaccurate project description would lessen the decision-makers' understanding and appreciation of the full set of impacts the Project might usher in.

CEQA defines "project" as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.¹⁷ The law requires the project description to include detail sufficient to ascertain the nature and general magnitude of environmental impacts.¹⁸ A deficient project description— like one lacking clarity on the scope of subsequent projects that may be tied to it—renders the analysis of significant environmental impacts inherently unreliable. If an agency will need to make more than one decision on a project, then the EIR must list all decisions subject to

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¹⁴ Metro Board of Directors Report, File#:2022-0100, Agenda Number: 8, (May 18, 2022), p.1; https://boardagendas.metro.net/board-report/2022-0100/.

¹⁵ Ibid.

¹⁶ Cty. Of Inyo v City of L.A., 71 Cal.App.3d 185, 192-93 (1977).

¹⁷ 14 Cal. Code Regs. § 15378(a) [hereinafter CEQA Guidelines]; see also id. at § 15003(h); Pub. Res. Code § 21065.

¹⁸ See CEQA Guidelines § 15124 (requirements of an EIR).

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CEQA, preferably in the order in which they will occur. 19 Creating ambiguity around which future elements will necessarily be a part of the project, the associated environmental impacts from those elements, and whether additional approvals will be required leads to an incomplete project description and results in a "truncated project concept" that violates CEQA and mandates the conclusion that the lead agency did not proceed in a manner required by law.²⁰

References in the FEIR/FEIS to corollary projects, like the statements quoted below, create a great deal of confusion and uncertainty regarding the scope of the project:

CEHAJ-3

Within the region, generally only approved and planned projects included in SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Future Baseline Scenario and 2011 Federal Transportation Improvement Program (FTIP) are considered part of the No Build Alternative (Alternative 1).²¹

The freight rail elements assumed in the No Build (Alternative 1) include the SCIG and ICTF capacity expansion plans in addition to the current plans and projects outlined herein. This alternative also included current plans and projects related to goods movement to and from the Ports, such as maximum utilization of existing and planned railroad capacity, as well as application of advanced technologies and programs to manage transportation systems and travel demand within the I-710 Corridor. See Appendix U for a list of projects assumed to be part of the No Build (Alternative 1).²²

The lead agency must clarify what exactly it means for the FEIR/FEIS to proclaim that this broad list of projects is "assumed" to be a part of the No Build Alternative. If these projects are intended to be part of approving this project, with automatic approval and streamlined permitting, then that would be unlawful under CEQA and NEPA. The FEIR/FEIS should explicitly state that by adopting the No Build Alternative, no transportation expansion project is being approved or permitted without a separate and full CEQA/NEPA environmental review.

IV. All Project Communication Should Clearly, Unequivocally, and Consistently State that Any Alternative that Includes Freeway Widening is Not Being Considered or Authorized.

CEHAJ-4

The FEIR/FEIS should reflect the Board's adopted policy indicating that "capacity expansion freeway widening will no longer be in the project."²³ The Board's May 2022 decision to abandon freeway widening reflected changing state and federal policies to protect communities, especially

¹⁹ Ibid.

²⁰ San Joaquin Raptor/Wildlife Rescue Center, 27 Cal. App. 4th at 730; Communities for a Better Environment v. City of Richmond, 184 Cal. App. 4th 70, 89 (2010).

²¹ I-710 Corridor Project FEIR/FEIS page S-8 and S-9.

²² I-710 Corridor Project FEIR/FEIS page 2-10.

²³ Board of Directors - Regular Board Meeting, (May 26, 2022), page 5-6. https://boardagendas.metro.net/event/regular-board-meeting-dee41b5f65d3/.

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those with environmental justice concerns.²⁴ Notably, the word "widening" appears over 200 times in the FEIR/FEIS. By comparison, the FEIR/FEIS offers a cursory discussion on why freeway widening is no longer being considered and instead opens further ambiguity by referencing Appendix U as a list of projects "assumed to be part of the No Build (Alternative 1),"²⁵ which we discuss in Section III.

The FEIR/FEIS must be revised to clearly and consistently state an unequivocal opposition to freeway widening, including the disposal of Alternative 5C. The included analysis of the Build Alternatives unnecessarily focuses on the previously assumed benefits of freeway widening. Instead of praising freeway widening, the FEIR/FEIS should explicitly concentrate on the dangers of the Build Alternatives, given the Board's stance against the "displacement of people and businesses in disadvantaged, minority communities through widening the I-710 South freeway as part of Alternative 5C." The FEIR/FEIS should clearly commit to the No Build Alternative scenario by providing the basis for selecting it as the most environmentally sound.

Metro and Caltrans can eliminate uncertainty and increase confidence among Corridor communities by striving for clear, unequivocal, and consistent communication. The FEIR/FEIS is the culmination of decades of planning, consultation, and analysis. The Project's complex history merits a FEIR/FEIS that clearly communicates what can be expected across the I-710 Corridor. However, the current language in the FEIR/FEIS may cause confusion and lead stakeholders to believe that Build Alternatives are still viable and favorable options. For example, on the front page of the FEIR/FEIS, the abstract touts Build Alternatives as improving air quality and public health, even though Metro and Caltrans have since discounted this theory. The agencies identified the No Build Alternative as the Preferred Alternative because of the Build Alternatives' "inability to achieve project-level conformity for particulate matter." A thorough revision that removes language elevating Build Alternatives solidifies the Board's commitment, advances the Project's revised priorities, and better serves to make the FEIR/FEIS a meaningful document.

V. The FEIR/FEIS Should Contain an Unequivocal Commitment to No Displacement.

Our coalition has repeatedly called on Metro and Caltrans to commit to not displacing residents or small businesses due to its investments or construction projects. Most recently, in April 2024, as part of the comment process on the CMIP, CEHAJ reiterated its call for Metro to fully commit to a no-displacement policy regarding projects related to the I-710 Corridor. ²⁸ In late February

CEHAJ-5

CEHAJ-4

²⁴ Ibid.

²⁵ I-710 Corridor Project FEIR/FEIS page 2-10.

²⁶ Ibid.

²⁷ I-710 Corridor Project FEIR/FEIS page S-8.

²⁸ See CEHAJ Letter to Chair Bass and Members of the Los Angeles County Metropolitan Transportation Authority, Regarding Item #11- Long Beach- East LA Corridor Mobility

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2024, Metro Board member Supervisor Janice Hahn voiced her unambiguous call for Metro to "commit itself to zero residential property takes" and to have as "one of its top priorities ensuring that [its] projects do not result in kicking people out of their homes."²⁹

Unfortunately, the FEIR/FEIS lacks a consistent and unequivocal commitment not to displace residents or businesses. The FEIR/FEIS describes community and public opposition to added lanes under Alternatives 5C and 7 and acknowledges the "[n]umber of displacements associated with the build alternatives including residences (specifically in the cities of Commerce and Compton), businesses, homeless shelters (Bell Shelter), the Long Beach Multi-Service Center, and transitional housing" as a community-raised concern. The closest the FEIR/FEIS comes to a commitment of no displacement is a brief mention in the Summary Comparison of Alternatives table, which lists "No Displacement" under the No Build Alternative. On Considering the long history of opposition to freeway widening and its associated displacement impacts, the FEIR/FEIS should minimize ambiguity and include additional language on its commitment to no displacement.

If Metro and Caltrans are proceeding with the No Build Alternative, in part, to address community opposition and concerns over displacement triggered by Alternatives 5C and 7, then it should state how adoption of the No Build Alternative will lead to no displacements. Currently, there are no such assurances. Instead, Appendix A (CEQA Checklist) flags a potentially significant impact, the finding that the Project build alternatives would displace substantial numbers of existing housing and people, "necessitating the construction of replacement housing elsewhere." ³¹ While it is possible that these references are a relic of prior analysis done over a decade ago regarding the build alternatives, the FEIR/FEIS, including attachments and appendices, should be updated to reflect Metro's commitment to choosing the No-Build Alternative as a way to address community concerns and make an unequivocal commitment to no displacement.

VI. The FEIR/FEIS Must Clarify that Recommended Projects and Programs, Inclusding those in Appendix U, Require Separate Environmental Review and Approval.

Section 2.6, "Next Steps," of the FEIR/FEIS references the I-710 Task Force and a new set of recommended "projects and programs" resulting from that process, which "will undergo further refinement, including environmental reviews and approvals following a process separate from

CEHAJ-6

Investment Plan, April 24, 2024, pp.2-3.; See also, CEHAJ Letter to Michael Cano, Regarding Long Beach- East Los Angeles Corridor Mobility Investment Plan, March 28, 2024, pp. 6,15-16, 20-22, 30, 32, 38.

²⁹ Supervisor Janice Hahn, Letter to LA County Metropolitan Transportation Authority CEO, Stephanie Wiggins, (February 27, 2024).

³⁰ I-710 Corridor Project FEIR/FEIS page S-50.

³¹ I-710 Corridor Project FEIR/FEIS, Appendix A, Section XIII Population and Housing, page 7 of 10.

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this Final EIR/EIS."³² Section 2.7, "Anticipated Permits and Approvals Needed," appears to confirm the finality of the No-Build determination by stating, "[a]s the No Build (Alternative 1) has been identified as the Preferred Alternative, there are no anticipated permits and approvals needed for this project."³³ To eliminate any ambiguity, Section 2.7 should go a step further by adding that "certification of this FEIR/FEIS does not result in the issuance of any permit or approval."

As discussed above, the current iteration of the FEIR/FEIS is still confusing and may be read as approving a host of projects without a clear commitment that further environmental analysis will be necessary. For example, the FEIR/FEIS includes Appendix U, which lists 52 projects assumed to be part of the No Build Alternative. Of the 52 projects, 27 are related to freeways and arterial roadways, which trigger similar concerns about the prospect of widening and displacement and require further vetting and environmental review before they can move forward. Below are the 23 freeway and arterial roadway projects that indicate some level of widening or construction:

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- 1. Route I-710: Firestone Blvd.
- 2. Route I-5: Orange County Line to I-605
- 3. Route I-10: I-605 to Puente Avenue
- 4. Route I-10: Puente Avenue to Citrus
- 5. Route I-10: Citrus to Route 57/71
- 6. Route I-110: At John S. Gibson Blvd. interchange
- 7. Route I-405: At Wilmington Ave./223rd St.
- 8. Route I-405: At Avalon Blvd.
- 9. Route I-405: Euclid Ave. to I-605, in Orange Co.
- 10. Route SR-710: Valley Blvd. to California Blvd.
- 11. Route I-605/I-405/SR-22: SR-22 to I-605 in Orange Co.
- 12. Route SR-22: SR-55 to I-405 in Orange County
- 13. Route Ocean Boulevard/Gerald Desmond Bridge: Gerald Desmond Bridge over the entrance channel
- 14. Route Harry S. Bridges Boulevard: Figueroa St. to Alameda St.
- 15. Route Anaheim Street: Farragut Ave. to Dominguez Channel
- 16. Route Del Amo Boulevard: At I-405
- 17. Route Sepulveda Boulevard: Alameda St. to Eastern City Limits of Carson
- 18. Route Firestone Boulevard: Firestone Blvd. Bridge over the Los Angeles River
- 19. Route Washington Boulevard: Commerce/Vernon city boundary to I-5 Fwy at Telegraph Rd.
- 20. Route Lakewood Boulevard: Florence to Telegraph Rd.
- 21. Route Del Amo Boulevard: Normandie Ave. to New Hampshire Ave.
- 22. Route Beverly Boulevard: Montebello Blvd. to the west of Rea Dr.

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³² I-710 Corridor Project FEIR/FEIS page 2-102.

³³ Ibid.

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23. Route SR-91/I-605/I-405 Study Area: 28 Arterial Highway intersection improvements.

Although some of these projects could lead to local benefits, their vague inclusion in the No Build Alternative creates ambiguity and uncertainty that are antithetical to CEQA and NEPA. These references, without further elaboration on what type of additional environmental review will be required, also contradict the Board and Staff's commitment to thoroughly provide an environmental review for future projects. For example, in response to comments on the CMIP, Metro responded to criticism that the proposed CMIP projects and programs lacked specificity regarding the health, air quality, and climate implications of those projects by stating that "projects will undergo and need to meet CEQA/NEPA requirements as they move toward implementation." Omitting this commitment in the FEIR/FEIS contradicts CEQA and NEPA standards, which require transparency with respect to the scope of the actual project.

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Future projects, especially those triggering roadway construction and the potential for displacement, should be carefully reviewed for compliance with environmental laws, no matter how laudable. The FEIR/FEIS could more clearly designate how and why certain projects may be on Metro and Caltrans's horizon while still making it clear that they are not automatically approved under this certification. The current lack of clarity undermines the integrity of the environmental review process. The FEIR/FEIS should be revised to clearly state that certification only approves the No Build Alternative and does not authorize or approve any construction project without additional CEQA/NEPA analysis.

VII. Cumulative Impacts Should Not Exclude Analysis of Hazardous Waste.

We are very concerned with the exclusion of hazardous waste and materials from the cumulative impacts analysis.³⁵ Not only does freeway widening have the potential to increase greenhouse gases from additional traffic, but construction activities [equipment operations, refueling, cleaning, and maintenance], grading, and excavation on/of contaminated soil can release toxic pollutants into the air, water, and surrounding environment. The FEIR/FEIS analysis of cumulative impacts may be a relic of Caltrans and Metro's prior support for build alternatives, but hazardous waste analysis should have been included.

CEHAJ-7

According to the parcels maps and data in Volumes 3 and 4 of the FEIR/FEIS³⁶ and Properties of Potential Concern map in Volume 1,³⁷ some of the potential acquisitions, partial acquisitions, and/or easements are known to be on contaminated land or have contaminants of concern

³⁴ Correspondence from Michael Cano to CEHAJ, April 6, 2024, LB-ELA CMIP CEHAJ LiBRE Comment Log.

³⁵ I-710 Corridor Project FEIR/FEIS page 3.25-3.

³⁶ I-710 Corridor Project FEIR/FEIS Volumes 3 and 4.

³⁷ I-710 Corridor Project FEIR/FEIS page 3.12-6.

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(COCs)³⁸. Most alarming is that the FEIR/FEIS states that no new permanent hazardous waste/materials are anticipated as the result of the build alternatives when disrupting contaminated land, which can, in fact, cause permanent risks and long-term damage to community and environmental health. Hazardous waste impacts properties and the FEIR/FEIS falls short of mentioning the need for strict control during construction, handling, transportation, and disposal of hazardous materials.³⁹ This analysis is inadequate if there is a possibility of it being renewed in future I-710 projects since it shows little accountability to any meaningful safeguards and protections that will protect the health and safety of construction workers and corridor residents from COCs.

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VIII. Construction Impacts Fall Short in Analyzing Hazardous Waste & Air Quality Impacts.

The FEIR/FEIS states that "typical" construction impacts are short-term and would not increase public health risks related to hazardous waste but instead decrease risks in the long term due to the cleanup and remediation of hazardous waste contamination on properties. 40 As the No Build Alternative is being selected, maintaining these references to construction creates a great deal of uncertainty regarding the scope of the Project. First, the FEIR/FEIS lacks a comprehensive remediation/response plan for contaminated land and/or for the possibility of crosscontamination that may be encountered during construction or excavation. Second, the FEIR/FEIS fails to acknowledge how dangerous hazardous waste can be to human health and the environment. The report fails to define the types of hazardous waste that might be encountered in build alternatives such as combustible, corrosive, reactive, or infectious waste. 41 Exposure to hazardous materials can cause several health issues including skin irritation, respiratory issues, cancer, hormonal disruption, disruption of the nervous system, liver damage, developmental problems, etc., depending on the type of waste and method to which humans are exposed. 42 Not only would there be displacement of homes and businesses, but there is a high risk of exposing communities and workers to hazardous waste and contamination from accidental hazardous spills or cross-contamination from construction activities. The FEIR/FEIS should accurately describe the dangers of hazardous waste exposure instead of raising the beneficial effect of improved traffic safety for transporting hazardous materials.

CEHAJ-8

³⁸ Emerging Contaminants and Issues of Concern Program, Translational Toxicology Division, National Institute of Environmental Health Sciences, (November 2023), https://www.niehs.nih.gov/research/atniehs/dtt/strategic-plan/responsive/emerging.

³⁹ Levi Anatolia S.M. Exposto and I Nengah Sujaya, "The Impacts of Hazardous and Toxic Waste Management: A Systematic Review," Interdisciplinary Social Studies, p. 103-104 (November 2021), https://iss.internationaljournallabs.com/index.php/iss/article/view/20/21.

⁴⁰ I-710 Corridor Project FEIR/FEIS page 3.24-25.

⁴¹ M A Hasan et.al., "Hazardous Waste and its Impact on Human Health," International Symposium on Fusion of Science and Technology,(2020), https://iopscience.iop.org/article/10.1088/1757-899X/804/1/012056/pdf.

⁴² Ibid.

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It is disconcerting that the FEIR/FEIS minimizes the air quality impacts from construction activities when it has clear potential health and environmental health impacts, which are made worse without the proper mitigation strategies. The FEIR/FEIS repeatedly states that construction emissions are temporary [through short construction phases], yet it fails to analyze other emission sources, especially ones from working on contaminated land.

Table S-4: Summary of Air Pollutants⁴³ provides a list of the air pollutants evaluated in the I-710 air quality analysis, except lead, arsenic, VOCs, and COCs. Both traffic-based air pollution and air pollution from disturbed contaminated soil from construction harm human health, yet the FEIR/FEIS focuses more on greenhouse gases associated with transportation. The air quality analysis is inadequate and harmful to I-710 corridor communities. Even if construction phases are temporary and limited, emissions have short-term impacts on human health and can cause long-term damage to both the community and the environment. Before the FEIR/FEIS is certified, it should be revised to include all potential air pollutants associated with construction activities and the disturbance of contaminated land or clarify that no such activities will be authorized due to certification.

CEHAJ-7

IX. Conclusion.

While we are pleased to see Caltrans and Metro officially close out the prospect of any freeway widening through the adoption of the No Build Alternative, we believe this FEIR/FEIS should be revised before it is officially certified. It is imperative that the FEIR/FEIS accurately reflects the Board's decision to pursue the "No Build" option. We strongly urge that any language suggesting the continued viability of Build Alternatives be removed, along with references to outdated analyses that no longer support prior conclusions. Making these corrections will ensure that the environmental impact report accurately aligns with current decisions and avoids misleading information.

CEHAJ-8

Respectfully,

The Coalition for Environmental Health and Justice (CEHAJ)

Fernando Gaytan Vanessa Rivas Villanueva **Earthjustice** Janeth Preciado Vargas Ambar Rivera Jay Parepally Jennifer Ganata

Laura Cortez

Communities for a Better Environment

East Yard Communities for Environmental Justice

[Additional Signatories Continued on Next Page]

⁴³ I-710 Corridor Project FEIR/FEIS page S-22.

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Sylvia Betancourt
Marlin Dawoodjee Vargas
Long Beach Alliance for Children
with Asthma (LBACA)

Kimberly E. Leefatt
Natural Resources Defense Council

Attachments

Table of Contents

Attachment A- Metro Board Report, Motion by Solis, Sandoval, Butts, Garcetti & Mitchell, May 27, 2021.

Attachment B- Regular Board Meeting, Item No.9, Motion by Hahn, Solis, Mithcell, and Dutra, I-710 South Corridor Motion, May 26, 2022.

Attachment C- Metro Board of Directors Report, Agenda Number: 8, May 18, 2022.

Attachment D- County of Inyo v City of L.A., 71 Cal.App.3d 185, 192-93 (1977).

Attachment E- Communities for a Better Environment v. City of Richmond, 184 Cal. App. 4th 70, 89 (2010).

Attachment F- CEHAJ Letter to Chair Bass and Members of the Los Angeles County Metropolitan Transportation Authority, Regarding Item #11- Long Beach- East LA Corridor Mobility Investment Plan, April 23, 2024, pp.2-3.; See also, CEHAJ Letter to Michael Cano, Regarding Long Beach- East Los Angeles Corridor Mobility Investment Plan, March 28, 2024, pp. 6,15-16, 20-22, 30, 32, 38.

Attachment G- Supervisor Janice Hahn, Letter to LA County Metropolitan Transportation Authority CEO, Stephanie Wiggins, February 27, 2024.

Attachment H- Correspondence from Michael Cano to CEHAJ, April 6, 2024, LB-ELA CMIP CEHAJ LiBRE Comment Log.

Attachment I: Emerging Contaminants and Issues of Concern Program, Research by Translational Toxicology Division, National Institute of Environmental Health Sciences. Nov 2023.

Attachment J- Article by Anatolia, Levi. "The Impacts of Hazardous and Toxic Waste Management: A Systematic Review." Interdisciplinary Social Studies, pg. 103-104. November 2021.

Attachment K- Article by Hasan, MA. "Hazardous Waste and its Impact on Human Health." International Symposium on Fusion of Science and Technology. 2020.

Attachment A



Board Report

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Agenda Number: 47.

REVISED REGULAR BOARD MEETING MAY 27, 2021

Motion by:

DIRECTORS SOLIS, SANDOVAL, BUTTS, GARCETTI, AND MITCHELL

710 South Corridor Project

In March of 2018, the Metro Board of Directors approved Motion 5.2 which adopted Alternative 5C as the Locally Preferred Alternative for the 710 South Corridor Project Environmental Impact Report/ Environmental Impact Statement (EIR/EIS). The Motion also directed staff to implement an Early Action Program that would quickly deliver safety, mobility, and air quality benefits to the region, and to "re-evaluate and re-validate the remaining elements of Alternative 5C" upon completion of the Early Action Program. The Early Action Program includes a slew of projects throughout the 710 South Corridor such as streets and interchange improvements, active transportation facilities, the Clean Truck Program, and the Community Health Benefit Program. These Early Action Program improvements were required for completion before any mainline freeway work began.

Since approval of Motion 5.2, Metro staff has worked towards completion of the EIR/EIS. However, in just the last few weeks, the United States Environmental Protection Agency (EPA) opined that a particulate matter hot-spot analysis would be required for the 710 South Corridor Project's EIR/EIS transportation conformity determination. Without this hot-spot analysis, the EPA cannot determine whether or not the Project is a project of air quality concern and a record of decision cannot be issued for the EIR/EIS. Additionally, at a recent meeting of the California Transportation Commission, Caltrans Director Toks Omishakin stated that Caltrans would "put an absolute pause on this project in the format that it's currently in," explaining that the Project does not align with the current trajectory of California's transportation policy.

The issues raised by our federal and state partners suggest the need to re-think the Project scope and undertake a holistic, equity-based examination of the Project to ensure Metro's investments do not disproportionately impact communities of color, inadvertently worsen induced demand, or work against existing greenhouse gas emissions reduction goals. There are elements currently included in the EIR/EIS that support local and state transportation goals and should move forward as individual projects separate from any mainline improvements to the 710 South Corridor.

SUBJECT: 710 SOUTH CORRIDOR PROJECT

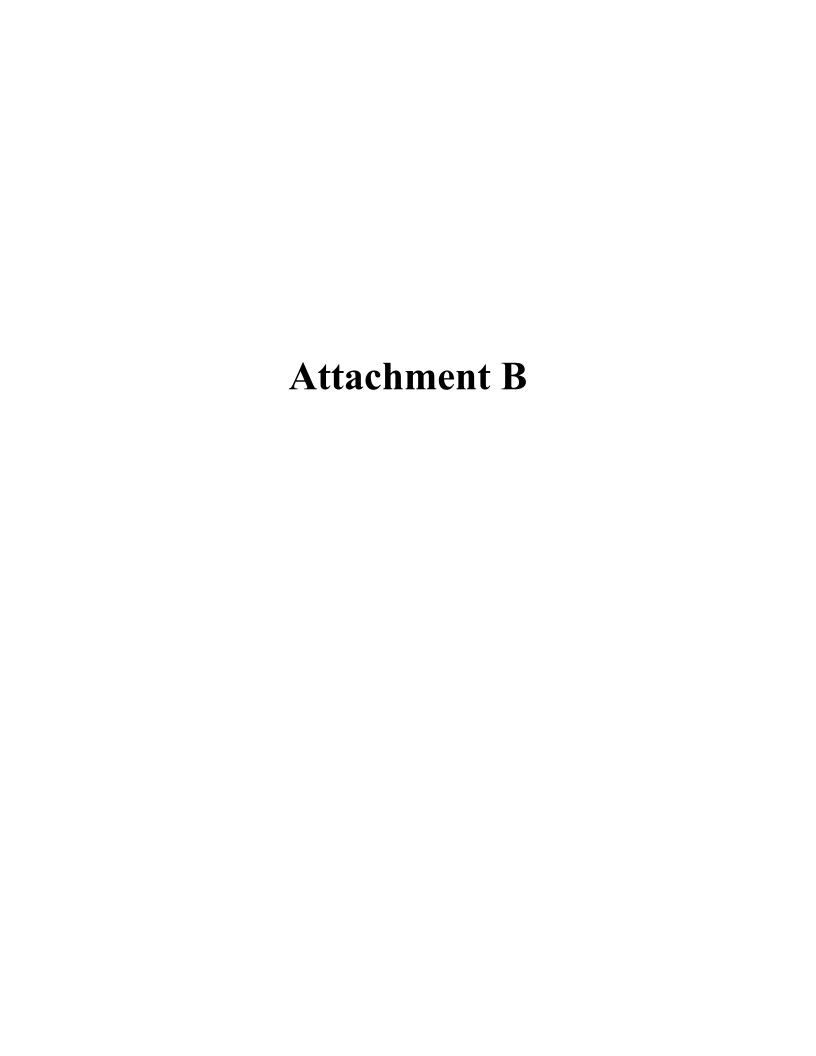
File #: 2021-0368, File Type: Motion / Motion Response

File #: 2021-0368, File Type: Motion / Motion Response Agenda Number: 47.

RECOMMENDATION

APPROVE Motion by Directors Solis, Sandoval, Butts, Garcetti, and Mitchell that direct the Chief Executive Officer to:

- 1. Immediately cease suspend further work to advance the current 710 South Corridor Project EIR/EIS:
- 2. Evaluate all improvements included in the EIR/EIS that can be advanced separately from mainline 710 South infrastructure improvements including, but not limited to, projects related to active transportation, operational improvements, clean truck infrastructure, and community health:
- Identify additional locally-supported projects that can be advanced to enhance mobility along the 710 South Corridor and complement the non-freeway projects mentioned above, including but not limited to the West Santa Ana Branch, the LA River/Rio Hondo Confluence Station, LA River Master Plan, Rail to River, and the Atlantic Boulevard Bus Rapid Transit;
- 4. Collaborate with corridor cities, local stakeholders, community based organizations, the Ports of Los Angeles and Long Beach, and the Gateway Council of Governments to conduct outreach and develop a funding plan in order to advance a revised Early Action Program that includes projects identified in Directives 2 and 3. The revised Early Action Program should emphasize shovel ready projects and prioritize partnerships with labor to advance Metro's Project Labor Agreement and Construction Careers Policy;
- 5. Report back on all directives in September 2021.





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Agenda - Final

Thursday, May 26, 2022

10:00 AM

To give written or live public comment, please see the top of page 4

Board of Directors - Regular Board Meeting

Hilda L. Solis, Chair
Ara Najarian, 1st Vice Chair
Jacquelyn Dupont-Walker, 2nd Vice Chair
Kathryn Barger
Mike Bonin
James Butts
Fernando Dutra
Eric Garcetti
Janice Hahn
Paul Krekorian
Sheila Kuehl
Holly Mitchell
Tim Sandoval

Tony Tavares, non-voting member

Stephanie Wiggins, Chief Executive Officer

METROPOLITAN TRANSPORTATION AUTHORITY BOARD RULES

(ALSO APPLIES TO BOARD COMMITTEES)

PUBLIC INPUT

A member of the public may address the Board on agenda items, before or during the Board or Committee's consideration of the item for one (1) minute per item, or at the discretion of the Chair. A request to address the Board must be submitted electronically using the tablets available in the Board Room lobby. Individuals requesting to speak will be allowed to speak for a total of three (3) minutes per meeting on agenda items in one minute increments per item. For individuals requiring translation service, time allowed will be doubled. The Board shall reserve the right to limit redundant or repetitive comment.

The public may also address the Board on non agenda items within the subject matter jurisdiction of the Board during the public comment period, which will be held at the beginning and/or end of each meeting. Each person will be allowed to speak for one (1) minute during this Public Comment period or at the discretion of the Chair. Speakers will be called according to the order in which their requests are submitted. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant item.

Notwithstanding the foregoing, and in accordance with the Brown Act, this agenda does not provide an opportunity for members of the public to address the Board on any Consent Calendar agenda item that has already been considered by a Committee, composed exclusively of members of the Board, at a public meeting wherein all interested members of the public were afforded the opportunity to address the Committee on the item, before or during the Committee's consideration of the item, and which has not been substantially changed since the Committee heard the item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

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REMOVAL FROM THE BOARD ROOM The Chair shall order removed from the Board Room any person who commits the following acts with respect to any meeting of the MTA Board:

- a. Disorderly behavior toward the Board or any member of the staff thereof, tending to interrupt the due and orderly course of said meeting.
- b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
- c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
- d. Any other unlawful interference with the due and orderly course of said meeting.

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- x3 中文 (Chinese)
- x4 한국어 (Korean)
- x5 Tiếng Việt (Vietnamese)
- x6 日本語 (Japanese)
- **х7** русский (Russian)
- x8 Հայերէն (Armenian)

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Public comment will be taken as the Board takes up each item. To give public comment on an item, enter #2 (pound-two) when prompted. Please note that the live video feed lags about 30 seconds behind the actual meeting. There is no lag on the public comment dial-in line.

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La Reunion de la Junta comienza a las 10:00 AM, hora del Pacifico, el 26 de Mayo de 2022. Puedes unirte a la llamada 5 minutos antes del comienso de la junta.

Marque: 888-251-2949 y ingrese el codigo Codigo de acceso en ingles: 8231160# Codigo de acceso en espanol: 4544724#

Los comentarios del público se tomaran cuando se toma cada tema. Para dar un comentario público sobre una tema ingrese # 2 (Tecla de numero y dos) cuando se le solicite. Tenga en cuenta que la transmisión de video en vivo se retrasa unos 30 segundos con respecto a la reunión real. No hay retraso en la línea de acceso telefónico para comentarios públicos.

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Written public comments must be received by 5PM the day before the meeting. Please include the Item # in your comment and your position of "FOR," "AGAINST," "GENERAL COMMENT," or "ITEM NEEDS MORE CONSIDERATION."

Email: BoardClerk@metro.net

Post Office Mail: Board Administration One Gateway Plaza

MS: 99-3-1

Los Angeles, CA 90012

CALL TO ORDER

ROLL CALL

1. APPROVE Consent Calendar Items: 2, 5, 6, 7, 8, 10, 13, 17, 18, 25, 27, 29, 30, and 34.

Consent Calendar items are approved by one vote unless held by a Director for discussion and/or separate action.

All Consent Calendar items are listed at the end of the agenda, beginning on page 9.

NON-CONSENT

3. SUBJECT: REMARKS BY THE CHAIR 2022-0365

RECOMMENDATION

RECEIVE remarks by the Chair.

4. SUBJECT: REPORT BY THE CHIEF EXECUTIVE OFFICER 2022-0366

RECOMMENDATION

RECEIVE report by the Chief Executive Officer.

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

9. SUBJECT: I-710 SOUTH CORRIDOR MOTION 2022-0355

RECOMMENDATION

APPROVE Motion by Directors Hahn, Solis, Mitchell, and Dutra that:

Given that the 710 Task Force will very soon be finalizing the project's Vision Statement, Guiding Principles, and Goals, the Chief Executive Officer shall report back on the Task Force's recommendations for these project directives in June 2022 for Board consideration and approval.

Given the 710 Task Force's pending Vision Statement, Guiding Principles, and Goals, we, further direct that the 710 South Corridor Project shall be renamed, in consultation with the 710 Task Force and corridor stakeholders, in order to be more inclusive of the priorities and approaches that will be advanced in the future of this project, with attention to more than just the freeway, with a new name to be presented to the Board for consideration and approval in September 2022.

Given that capacity expansion freeway widening will not get support from Caltrans or the U.S. EPA, we adopt as Board policy that capacity expansion

freeway widening will no longer be in the project.

We, therefore, further direct the Chief Executive Officer to:

- A. Develop and Implement a project Investment Plan, which:
 - Incorporates feedback from the 710 Task Force and its Working Groups and Community Leadership Committee, the Corridor Cities, and the Gateway Cities Council of Governments, and community stakeholders;
 - 2. Aligns initiatives with funding opportunities, including:
 - a. An Early Investment Plan for a minimum of three initiatives that will apply for available State and Federal funding opportunities in Calendar Year 2022; and
 - A Mid- and Long-Term Investment Plan for initiatives that can reasonably apply for Federal and State funding opportunities in out years;
 - 3. Leverages applicable Measure R and Measure M funds to maximize deliverables and Federal and State funding matches;
 - 4. Provides a suite of major investments that can be completed no later than 2028:
 - Identifies Federal funding opportunities that can be incorporated into the Infrastructure Investment and Jobs Act "Grants Strategy and 5-Year Implementation Plan" currently under development for presentation to the Metro Board;
- B. Engage the California Department of Transportation and State
 Transportation Agency, California Air Resources Board, California Energy
 Commission, and the U.S. Departments of Energy and Transportation and
 U.S. Environmental Protection Agency, to develop guidance around the
 Mid- and Long-Term Investment Plan.
- C. Engage city, county, and regional partners, including the South Coast Air Quality Management District and Los Angeles Cleantech Incubator, to organize and support local initiatives as part of the project's Investment Plan; and
- D. Report back in September 2022 on the development and implementation of this Investment Strategy, including the minimum of three initiatives applying for available State and Federal funding in Calendar Year 2022.

FINANCE, BUDGET, AND AUDIT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

15. SUBJECT: FISCAL YEAR 2023 (FY23) BUDGET

2022-0243

RECOMMENDATION

CONSIDER:

- A. ADOPTING the proposed FY23 Budget as presented in the budget document (provided in a separate transmittal and posted on metro.net/about/financebudget/);
 - AUTHORIZING \$8.8 billion annual consolidated expenditures to achieve goals and objectives set forth by the Board adopted mission and goals; and
 - 2. AUTHORIZING a total of 10,596 FTEs with 8,778 Represented FTEs and 1,818 Non-Represented FTEs; and
 - AUTHORIZING an average 3.5% performance-based merit increase for Non-Represented employees. The wage increases for Represented employees, in accordance with the pre-negotiated Collective Bargaining Agreements, is an average 3.5% (except for SMART); and
 - APPROVING the Life of Project (LOP) budgets for new capital projects; new capital projects with LOP exceeding \$5.0 million are presented in Attachment A; and
 - 5. AMENDING the proposed budget to include any Board approved actions currently under consideration, from now to the end of fiscal year (June 30, 2022); and
 - 6. AMENDING the proposed budget by \$3.2 million, taking it from \$6.8 million to \$10.0 million for Crenshaw Northern for a technical correction; and
- B. APPROVING the Reimbursement Resolution declaring Metro's intention to issue debt in FY23 for capital projects, as shown in Attachment B, with the provision that actual debt issuance will require separate Board approval; and
- C. APPROVING the addition of one new Non-Represented pay grade to alleviate the pay progression and maintain a consistent pay range from mid-point to mid-point as shown in Attachment E; and

D. APPROVING pay grade upgrade for the Board Clerk job classification.

Attachments: Attachment A - FY23 New Capital Projects

Attachment B - FY23 Reimbursement Resolution

Attachment C - FY23 Public Outreach (Public Comments)

Attachment D - Public Inquiry and Board Follow-Ups

Attachment E - FY23 New Non-Represented Pay Grade

Presentation

FINANCE, BUDGET, AND AUDIT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

16. SUBJECT: PROPOSITION C BONDS

2022-0114

RECOMMENDATION

ADOPT a Resolution (Attachment A) that authorizes the issuance and sale of up to \$67 million in aggregate principal amount of the Proposition C Sales Tax Revenue Refunding Bonds in one or more series, and the taking all other actions necessary in connection with the issuance of the refunding bonds.

(REQUIRES SEPARATE, SIMPLE MAJORITY BOARD VOTE)

<u>Attachments:</u> Attachment A - Authorizing Resolution

35. SUBJECT: RESPONSE TO MOTION 24: POLICING ON THE METRO

BUS AND RAIL TRANSIT SYSTEM

2022-0288

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. RECEIVE and FILE the Safety Contingency Plan for Law Enforcement; and
- B. DELEGATE authority to the Chief Executive Officer to take any and all actions necessary and appropriate to implement the contingency plan if the Los Angeles County Sheriff's Department (LASD) fails to meet its contractual obligations over the course of the next 12 months.

Attachments: Attachment A - Motion 24

END ON NON-CONSENT

36. SUBJECT: CLOSED SESSION

2022-0367

2022-0239

- A. Conference with Legal Counsel Existing Litigation G.C. 54956.9(d)(1)
 - 1. Amir Golshani v. LACMTA, Case No. 20STCV00725
 - Guadalupe Zamundio-Serafin v. LACTMA, Case No. 19STCV14421
 - 3. Mei Wong v. LACMTA, Case No. 19STCV43291
 - 4. Jobs To Move America v. New Flyer of America, Inc., Case No. 18STCV06276
 - B. Conference with Labor Negotiator G.C. 54957.6

Agency Designated Representative: Robert Bonner and Cristian Leiva, or designees.

Employee Organization: SMART

CONSENT CALENDAR

2. SUBJECT: MINUTES 2022-0368

RECOMMENDATION

APPROVE Minutes of the Regular Board Meeting held April 28, 2022.

Attachments: MINUTES - April 28, 2022 RBM

April 2022 Public Comments

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

5. SUBJECT: MATCH REQUIREMENT FOR FEDERAL TRANSIT

ADMINISTRATION LOW OR NO EMISSION PROGRAM AND

BUSES & BUS FACILITIES PROGRAM GRANT

APPLICATIONS

RECOMMENDATION

APPROVE the programming of \$108.79 million in state and local funds to commit local match for Metro's grant applications to the Federal Transit Administration (FTA) to procure up to 160 battery-electric buses and supportive charging infrastructure and for related workforce development activities, as detailed in the funding plan in Attachment A.

<u>Attachments:</u> <u>Attachment A - Funding Plan</u>

Attachment B - Project Eligibility and Evaluation Criteria

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

6. SUBJECT: MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM
ANNUAL UPDATE - NORTH COUNTY SUBREGION

2022-0198

RECOMMENDATION

CONSIDER:

A. APPROVING:

- programming of an additional \$550,000 within the capacity of Measure M Multi-Year Subregional Program (MSP) - Active Transportation Program (Attachment A);
- 2. programming of an additional \$3,449,000 within the capacity of Measure M MSP Transit Program (Attachment B);
- 3. inter-program borrowing and programming of an additional \$2,400,000 from the Subregion's Measure M MSP Active Transportation Program to the Highway Efficiency Program (Attachment C); and
- B. REPROGRAMMING of projects previously approved to meet environmental, design, right-of-way, and construction time frames; and
- C. AUTHORIZING the CEO or their designee to negotiate and execute all necessary agreements and/or amendments for approved projects.

<u>Attachments:</u> <u>Attachment A - Active Transportation Program Project List</u>

Attachment B - Transit Program Project List

Attachment C - Highway Efficiency Program Project List

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

7. SUBJECT: MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM
UPDATE - SAN GABRIEL VALLEY SUBREGION

2022-0234

RECOMMENDATION

CONSIDER:

A. APPROVING:

 programming of an additional \$150,000 within the capacity of Measure M Multi-Year Subregional Program (MSP) - Bus System Improvement Program, (Attachment A);

- 2. programming of an additional \$6,452,974 within the capacity of Measure M MSP Active Transportation Program (Attachment B);
- 3. inter-program borrowing and programming of an additional \$8,395,000 from Measure M MSP Active Transportation and Highway Demand Based Programs to the First/Last Mile and Complete Streets Program (Attachment C); and
- 4. programming of \$1,000,000 within the capacity of Measure M MSP Highway Demand Based Program (Attachment E); and
- B. REPROGRAMMING of projects previously approved in order to meet environmental, design, right-of-way, and construction time frames; and
- C. AUTHORIZING the CEO or their designee to negotiate and execute all necessary agreements for approved projects.

Attachments:

Attachment A - Bus System Improvement Program Project List

Attachment B - Active Transportation Program Project List

Attachment C - First Last Mile and Complete Streets Program Project List

Attachment D - Highway Efficiency Program Project List

Attachment E - Highway Demand Based Program Project List

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

8. SUBJECT: I-710 SOUTH CORRIDOR PROJECT

2022-0100

RECOMMENDATION

CONSIDER:

- A. Alternative 1, the "No Build" alternative, as the new Locally Preferred Alternative for the I-710 South Corridor Project Final Environmental Document; and
- B. RECEIVING AND FILING overview of 710 Task Force and development of the I-710 South Corridor Investment Plan in place of the previous I-710 South Corridor Project.

<u>Attachments:</u> <u>Presentation</u>

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

10. SUBJECT: CAP-AND-TRADE LOW CARBON TRANSIT OPERATIONS
PROGRAM (LCTOP)

2022-0094

RECOMMENDATION

APPROVE the Resolution in Attachment A that:

- A. AUTHORIZES the Chief Executive Officer (CEO) or their designee to claim \$51,241,974 in fiscal year (FY) 2021-22 LCTOP grant funds for the Crenshaw/LAX Transit Corridor Operations Project and/or the Fareless System Initiative (FSI) Pilot;
- B. CERTIFIES that Metro will comply with LCTOP certification and assurances and the authorized agent requirements; and
- C. AUTHORIZES the CEO or their designee to execute all required documents and any amendment with the California Department of Transportation.

<u>Attachments:</u> <u>Attachment A - Resolution to Execute LCTOP Project</u>

FINANCE, BUDGET, AND AUDIT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

13. SUBJECT: MANAGEMENT AUDIT SERVICES FY 2022 THIRD QUARTER REPORT AND AUDIT CHARTER

2022-0251

RECOMMENDATION

CONSIDER:

- A. RECEIVING AND FILING the Management Audit Services FY 2022 third quarter report; and
- B. ADOPTING the Management Audit Services Audit Charter (Attachment B).

<u>Attachments:</u> Attachment A - FY 2022 Third Quarter Report

Attachment B - MAS Audit Charter

Presentation

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

17. SUBJECT: PS51220, ZEBGO PARTNERS, JOINT VENTURE, ZERO <u>2021-0814</u>
EMISSIONS PROGRAM MASTER PLAN

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. EXECUTE Modification No. 8 with ZEBGO Partners, JV, to continue technical consultant services for the Zero Emission Bus (ZEB) Program Master Plan and as needed tasks for ZE implementation support at the cost-plus fixed fee price of \$3,500,624, increasing the Contract value from \$7,139,376 to \$10,640,000 thus allowing for an 18 month period of performance extension from June 30, 2022 to January 1, 2024; and
- B. INCREASE Contract Modification Authority by \$350,062 for a total of \$3,850,687 to facilitate the as needed tasks for ZE implementation support under Modification No. 8.

<u>Attachments:</u> <u>Attachment A - Board Motion 50</u>

Attachment B - Procurement Summary

Attachment C - Contract Modification Change Order

Attachment D - DEOD Summary

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

18. SUBJECT: GLASS REPLACEMENT AND INSTALLATION SERVICES 2022-0185

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute Modification No. 4 to Contract No. OP1405120003367 with Los Angeles Glass Company, Inc. for Glass Replacement, and Installation services in the amount of \$1,440,000, increasing the contract four-year base authority from \$2,795,911 to \$4,235,911.

<u>Attachments:</u> <u>Attachment A - Procurement Summary</u>

Attachment B - Contract Modification - Change Order Log

Attachment C - DEOD Summary

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

25. SUBJECT: LINK UNION STATION PROJECT

<u>2021-0773</u>

RECOMMENDATION

APPROVE:

- A. The California High Speed Rail Authority Project Management Funding Agreement (PMFA) in the amount of \$423.335 million for the Link US Phase A Project and authorize the CEO to execute the Project Management Funding Agreement (PMFA) pursuant to Senate Bill 1029; and
- B. A Partial Preconstruction Phase Life of Project Budget in the amount of \$297.818 million, including \$121.382 million for the new Preconstruction Work and \$176.436 million for work previously approved by the Board since 2015.

Attachments: Attachment A - CHSRA Final Resolution Link US Phase A PMFA

Attachment B - State DOF Proposition 1A Agreement Approval

Attachment C - Lifecycle of CMGC Project Delivery Method

Attachment D - Link US Partial Preconstruction LOP Budget

Attachment E - Motion and Board Report on Delegated LOP Authority

Presentation

EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (6-0):

27. SUBJECT: METRO ADVISORY BODY COMPENSATION POLICY 2022-0090

UPDATE

RECOMMENDATION

CONSIDER:

- A. APPROVING proposed amendments to the Metro Advisory Body Compensation Policy (ABC Policy) (Attachment A); and
- B. DELEGATING authority to the CEO or their designee to amend the ABC Policy, with the exception of the advisory body tiers and respective compensation amounts, as-needed to implement the policy.

Attachments: Attachment A - Amended Advisory Body Compensation Policy

Attachment B - File #: 2021-0509 Metro Advisory Body Compensation Policy

Attachment C - Metro Advisory Body Policy

EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (6-0):

29. SUBJECT: SUBREGIONAL EQUITY PROGRAM GUIDELINES

2020-0501

RECOMMENDATION

APPROVE guidelines for the use of the Subregional Equity Program funds (Attachment A).

<u>Attachments:</u> <u>Attachment A - Proposed Subregional Equity Program Guidelines</u>

Attachment B - Motion 38.1

EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (6-0):

30. SUBJECT: 48 BY '28: INCREASING SMALL AND DISADVANTAGED

2022-0101

2022-0369

BUSINESS PARTICIPATION

RECOMMENDATION

CONSIDER:

- A. RECEIVING and FILING the report back to Motion 43 on a 48 by 2028 Policy Objective to Increase Small and Disadvantaged Business Participation; and
- B. ADOPTING the Top 8 for 48 by '28 Plan.

Attachments: Attachment A - Motion 43 (December 2, 2021 Board Meeting)

34. SUBJECT: FINDINGS REQUIRED TO CONTINUE TO MEET VIA

TELECONFERENCE IN COMPLIANCE WITH AB 361
WHILE UNDER A STATE OF EMERGENCY AND WHILE
STATE AND LOCAL OFFICIALS CONTINUE TO PROMOTE

SOCIAL DISTANCING

RECOMMENDATION

CONSIDER making the following findings:

Pursuant to AB 361, the Metro Board, on behalf of itself and other bodies created by the Board and subject to the Ralph M. Brown Act, including Metro's standing Board committees, advisory bodies, and councils, finds:

The Metro Board has reconsidered the circumstances of the state of emergency, and that:

- A. The state of emergency continues to directly impact the ability of the members to meet safely in person, and
- B. State or local officials continue to impose or recommend measures to promote social distancing.

Therefore, all such bodies will continue to meet via teleconference subject to the requirements of AB 361.

SUBJECT: GENERAL PUBLIC COMMENT

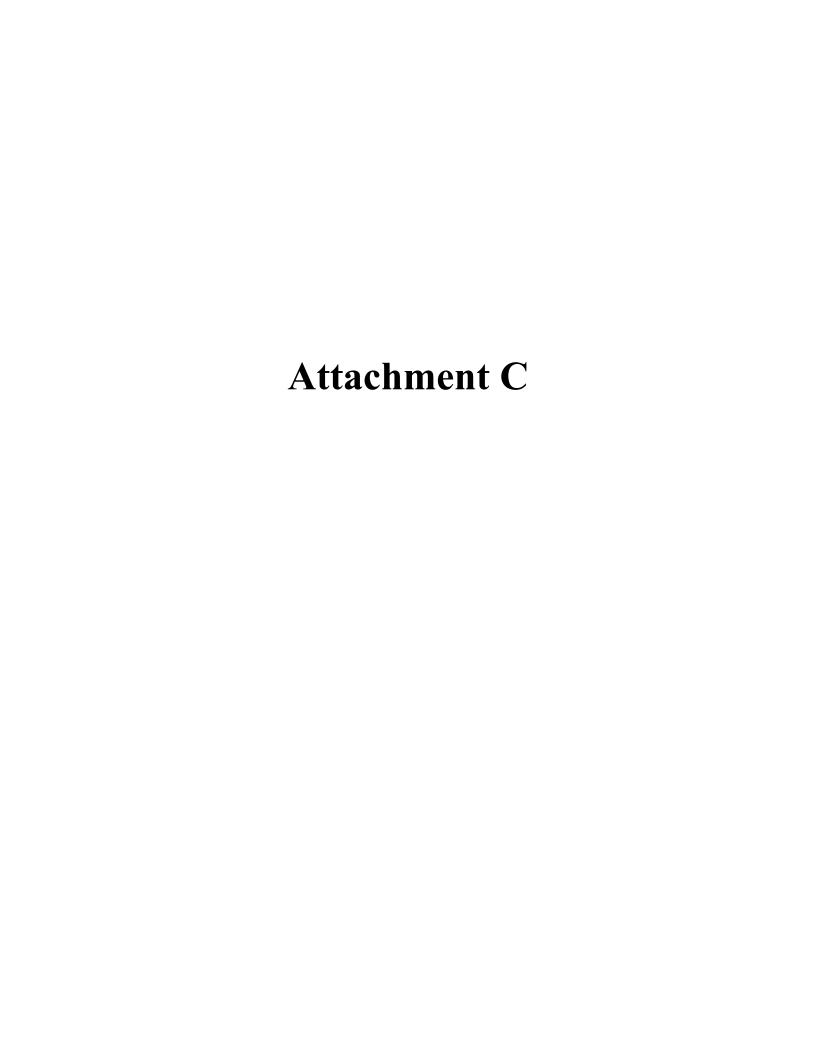
2022-0370

RECEIVE General Public Comment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.

COMMENTS FROM THE PUBLIC ON ITEMS OF PUBLIC INTEREST WITHIN COMMITTEE'S SUBJECT MATTER JURISDICTION

Adjournment





Board Report

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Agenda Number: 8.

PLANNING AND PROGRAMMING COMMITTEE MAY 18, 2022

SUBJECT: I-710 SOUTH CORRIDOR PROJECT

ACTION: APPROVE RECOMMENDATIONS

File #: 2022-0100, File Type: Project

RECOMMENDATION

CONSIDER:

- A. Alternative 1, the "No Build" alternative, as the new Locally Preferred Alternative for the I-710 South Corridor Project Final Environmental Document; and
- B. RECEIVING AND FILING overview of 710 Task Force and development of the I-710 South Corridor Investment Plan in place of the previous I-710 South Corridor Project.

ISSUE

Staff has worked with Caltrans through a lengthy process to develop the I-710 South Corridor Project, resulting in three final project alternatives that were considered by the Metro Board for the I-710 South Corridor Project: Alternative 1 (the "No Build" alternative) and "Build" Alternatives 5C and 7. At the March 2018 meeting, the Board approved Alternative 5C as the Locally Preferred Alternative (LPA) for the project to advance in the environmental process. Three years later, EPA decided to require a hotspot analysis for the for LPA 5C due to their concerns over air quality conformity for the project. This delay rendered the data supporting Alternative 5C-and the entire environmental document -stale and in need of re-validation. Even if the EPA decided to support the environmental document and determine the project met air quality conformity standards in May 2021, staff would have had to re-validate most of the traffic, safety, and air quality data contained in the document before any component of the project-including the EAP projects-could progress. The process to re-validate that environmental data to allow any of the component projects to proceed would take at least 18 months to complete.

At the May 2021 meeting the Board decided to suspend further work on the environmental clearance of the I-710 South Corridor Project LPA due to environmental, community impact and displacement concerns raised by local communities, Caltrans, and the EPA. The Board also directed staff to pursue an alternative path to developing a better program of projects for the I-710 South Corridor by reengaging impacted communities and stakeholders to develop a more multimodal, equitable and

sustainable approach to addressing the transportation and community challenges created by the heavy movement of people and goods through the I-710 South Corridor. In response to this direction, Metro and Caltrans initiated the I-710 South Corridor Task Force (710 Task Force¹) in September 2021, comprising members of local communities, community-based organizations and advocates, transportation agencies, the Ports of LA and Long Beach, goods movement industry, labor, business, academic, and regulatory partners. Given the progress of the task force engagement, the validity of the existing 710 S. alternative 5C LPA designation requires reconsideration.

BACKGROUND

Following years of project development, community outreach and technical analysis, staff presented three alternatives to the Board at its March 1, 2018, meeting and recommended the Board select Alternative 5C as the LPA for the I-710 South Corridor Project Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (RDEIR/DEIS) (File #2017-0849, Attachment B). The three alternatives presented were as follows:

- Alternative 1: The "No Build" alternative, which served as the baseline against which every alternative developed was evaluated. The "No Build" alternative is required by CEQA and NEPA and it reflects a future scenario where the proposed project is not built.
- Alternative 5C: A "Build" alternative which featured widening I-710 to 5 mixed flow lanes in each direction; improvements at I-710 interchanges with I-405, State Route (SR) 91 and I-5 and local interchange between Ocean Boulevard and SR 60; truck by-pass lanes. This alternative also included programmatic elements for the corridor comprising a Near Zero/Zero Emission Truck Technology Deployment Program, Community Health Benefits Grant Program, Congestion Relief Program and a Transit Enhancements Program.
- Alternative 7: A "Build" alternative which featured two dedicated lanes in each direction for clean technology trucks from Ocean Boulevard in Long Beach to the intermodal railroad yards in Commerce/Vernon, plus improvements at I-710 interchanges with I-405, State Route (SR) 91 and I-5 and local interchange between Ocean Boulevard and SR 60. This alternative also included programmatic elements for the corridor comprising a Near Zero/Zero Emission Truck Technology Deployment Program (NZ to ZE Truck Program), Community Health Benefits Grant Program, Congestion Relief Program and a Transit Enhancements Program.

The Board approved staff's recommendation to select Alternative 5C as the LPA and directed staff to work with Caltrans to finalize the project's environmental document.

The Board's actions were responsive to 1) concerns that Alternative 5C would not meet desired outcomes for air quality, equity, mobility, and sustainability; 2) a public lack of support from regulatory agencies on the project-level air quality conformity determination for Alternative 5C; and 3) a changing policy landscape at the state and federal level under which freeway widening projects,

especially through communities with environmental justice concerns, are not supported.

In response to the Board's direction, Metro and Caltrans staff conceived the creation of a 710 Task Force, initiated in September 2021, to re-engage impacted communities in a new process more aligned with current Board, state, and federal priorities and designed to bring community representatives and advocates to the table as partners in developing the future multimodal, sustainable and equitable vision and investment plan for improving the I-710 South Corridor.

Regarding the close out of the suspended I-710 South Corridor Project EIR/EIS, Caltrans is the lead agency responsible for compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Under CEQA, Caltrans will certify the I-710 South Corridor Project with the requirements of CEQA for a No Project determination. Under NEPA assignment, Caltrans, as lead agency, will document and explain its decision regarding the selected Preferred No Build Alternative.

DISCUSSION

Considerations

Metro staff and Caltrans District 7 support the approval of the No Build alternative as the LPA, for the following reasons:

- The two build alternatives (5C and 7) found in the suspended environmental document face insurmountable policy issues and regulatory barriers as currently constituted, the I-710 South Corridor Project will not meet federal air quality conformity requirements and, consequently, will not receive a ROD.
- The Board has suspended all further work to advance Alternative 5C.
- The Board has provided direction to receive a new set of recommendations from the 710 Task Force in place of Alternative 5C
- The displacement of people and businesses in disadvantaged, minority communities through widening the I-710 South freeway as part of Alternative 5C runs contrary to current Board, state, and federal sentiment.

Findings

Selecting the No Build alternative would be responsive to the Board's concerns related to community, property, equity, and environmental/air quality impacts. This determination also allows Caltrans and Metro to focus on:

- Bringing proper closure to the now-suspended I-710 South Corridor Project environmental process and opening the opportunity for the 710 Task Force to develop the I-710 South Corridor Investment Plan (710 IP) in its place.
- Working with community leaders to develop a more robust and inclusive community engagement strategy and Task Force infrastructure to support public input into the development of the 710 IP.
- Generating more sustainable, equitable, and multimodal transportation projects and

programs to move people and goods through the corridor and improve the quality of life for impacted members of corridor communities.

• Reducing Vehicle Miles Traveled (VMT), greenhouse gases and diesel particulate matter in the corridor as a result of the implementation of the 710 IP.

Status of Early Action Program Candidate Projects

As described in the Background section, after the Board action to adopt Alternative 5C as the LPA, staff identified a draft set of EAP candidate projects that were components of and tied to the entire scope of Alternative 5C. These projects were never formally adopted, nor were they fully considered by the GCCOG due to ongoing concerns raised by EPA over the air quality conformity determination for the environmental document EIR/EIS. The EAP candidate projects were never considered to be projects independent of, or severable from, Alternative 5C.

The now-suspended environmental document would have environmentally cleared the EAP candidate projects as an initial stage, not phase, of the full Alternative 5C buildout. By selecting the "No Build" option, all previously considered EAP candidate projects are nullified as is the remainder of the Alternative 5C scope, including freeway widening.

Any future projects recommended by the 710 Task Force for Board consideration-including any proposed improvements to the freeway-will need to be evaluated through a new environmental process which will take a minimum of 24 months, depending on the scope of the project or projects. Some of the engineering design work performed as part of the EIR/EIS could still be salvaged as a foundation for the new environmental process if those freeway operational improvements originally identified in Alternative 5C are considered and re-approved through the 710 Task Force process.

Moving forward with new environmental documentation for any improvements proposed by the 710 Task Force process should the Board approve the 710 IP is the only feasible path forward to funding and implementing new improvements to the I-710 South Corridor.

Other I-710 South Corridor-related Projects and Funding Opportunities

Other projects related to the I-710 South Corridor, but separate from Alternative 5C, are still viable for advancement. These projects currently being led by the I-710 South Corridor cities as well as the "early action" soundwalls and Integrated Corridor Management projects led by Metro will not be affected by the 'No Build' decision as they each have separate environmental documents and approvals and have demonstrated independent utility.

Additionally, 710 Task Force member organizations are concurrently developing projects for implementation that will likely provide benefits to the I-710 South Corridor. Examples of these projects include:

- On-dock rail expansion at the Ports of Los Angeles (POLA) and Long Beach (POLB), designed to shift the movement of containers through the region from truck to train.
- Development of a joint Goods Movement Training Campus by POLA and POLB that will provide workforce development skills and training in zero-emission port equipment operations.
- Incentive funding opportunities for ZE truck deployment as a result of the clean truck fund rate implemented by POLA and POLB in April 2022.
- A micro-mobility transit service pilot program sponsored by the Southeast Los Angeles Collaborative and the METRANS Transportation Consortium.
- Local Active Transportation and First / Last Mile projects developed by jurisdictions in the corridor.

Furthermore, the GCCOG is nearing completion of its Ad Hoc Committee process that will provide a comprehensive report on GCCOG recommendations for the I-710 Task Force to evaluate as part of the 710 IP. Staff will work with the GCCOG to provide the opportunity to present this final report at the June 2022 710 Task Force meeting and work with the GCCOG to integrate these recommendations into the final 710 IP in alignment with the Vision and Goals set forth by the Task Force.

Staff intends to engage Task Force members and the GCCOG to identify near-term projects that will be seeking discretionary grant funding in upcoming federal and state cycles of grant programs funded through the Bipartisan Infrastructure Legislation (BIL), Senate Bill 1 (SB 1) and other opportunities. Staff will report back on this effort at the June Board meeting.

Overview of 710 Task Force: Development of the I-710 South Corridor Investment Plan

The 710 Task Force is currently finalizing its Vision and Goals for the I-710 South Corridor and will seek a consensus vote at the June 2022 meeting. With this milestone decision, the Task Force will then be working to generate multimodal strategies responsive to advancing the vision and goals, a program of projects to implement the multimodal strategies, and a strategic Investment Plan that identifies local, regional and state funding opportunities-and legislative/policy initiatives-so that Metro and Caltrans can leverage the \$1.09 billion in Measure R and M funding LA County voters earmarked and entrusted would help fund an I-710 South Corridor program of projects aligned with Board, regional, state and federal policies to improve regional mobility, air quality, public health, access to opportunity and the quality of life for residents in impacted corridor communities.

The target date for the 710 IP report to be delivered to the Board is in early 2023, but staff anticipates near term funding opportunities as contemplated above or as part of the Zero-Emission Truck Working Group will advance before the final report is delivered to the Board. More information on the status of the 710 Task Force will be presented at the June Board meeting.

DETERMINATION OF SAFETY IMPACT

Approval of the new LPA will not impact the safety of Metro's customers or employees.

File #: 2022-0100, File Type: Project Agenda Number: 8.

EQUITY PLATFORM

This action supports Metro's effort to center equity in all future decision-making, budget allocation, and community engagement activities for the Project(s) along the I-710 South Corridor. Through the 710 Task Force process, staff is currently working with stakeholders, including residents most impacted by potential projects along the corridor who will serve on the new Community Leadership Committee, to collaboratively develop an investment plan to implement priority multimodal projects and programs. The 710 Task Force process is key to achieving equitable outcomes for the I-710 South Corridor communities and users.

Program elements proposed and vetted by stakeholders will be considered and may be advanced in support of equitable outcomes. Transparent communication with the stakeholders and the public will help build consensus and trust moving forward and hopefully strengthen the communities' support for future improvements. Without this action and subsequent timely planning and investment to address the current corridor conditions, the I-710 South Corridor users and corridor communities will continue to experience pollution, congestion, unsafe traffic conditions, spillage of freeway traffic onto local neighborhoods, and other negative impacts of the anticipated escalating traffic demand in the corridor.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Metro staff collaboration with local, regional, state, and federal agencies, as well as the local communities to develop an innovation and investment strategic plan to implement the prioritized projects for the I-710 South Corridor and a long-term vision to improve I-710 is consistent with the following goals of the Metro Vision 2028 Strategic Plan:

Goal 1: Provide high-quality mobility options that enable people to spend less time traveling.

Goal 4: Transform LA County through regional collaboration by partnering with the GCCOG, Caltrans, impacted communities, and regional stakeholders to identify the needed improvements and take the lead in developing and implementing the Projects.

ALTERNATIVES CONSIDERED

The Board could decide to not approve No Build as the LPA at this time. This is not recommended as it would create uncertainty amongst corridor stakeholders regarding the final disposition of Alternative 5C and, in turn, make it more difficult for Metro and Caltrans staff to build community trust, a critical element in the ultimate success of the 710 Task Force effort.

NEXT STEPS

Staff will work with Caltrans, the CEQA/NEPA lead agency, to complete the necessary documentation and coordination with regional, state, and federal agencies to finalize the No Build determination.

Metro and Caltrans will also continue to lead the 710 Task Force to develop a collective vision and goals for the corridor, generate multimodal strategies to address these goals, identify projects that

advance the multimodal strategies, and create an I-710 South Corridor Investment Plan to implement the prioritized projects.

The 710 Task Force outcomes will be presented to the Board in early 2023, with updates provided periodically during this process. Staff will seek Board adoption of an I-710 South Corridor Investment Plan at that time.

Staff will return in June with an update on the progress of the 710 Task Force, including a process for incorporating recommendations for near and long-term strategies, projects and programs into the development of the I-710 South Investment Plan, and a request for additional funds to support the Task Force efforts.

Prepared by: Carlos J. Montez, Sr. Director, Countywide Planning & Development, (213) 418-3241 Michael Cano, EO (Interim), Countywide Planning & Development, (213) 418-3010 Ernesto Chaves, SEO (Interim), Countywide Planning & Development, (213) 547-4362 Laurie Lombardi, SEO, Countywide Planning & Development, (213) 418-3251

Reviewed by: James de la Loza, Chief Planning Officer, Countywide Planning and Development, (213) 922-2920

Executive Officer



KeyCite Yellow Flag - Negative Treatment

Declined to Extend by City of Irvine v. County of Orange, Cal.App. 4

Dist., June 12, 2015

71 Cal.App.3d 185, 139 Cal.Rptr. 396, 7 Envtl. L. Rep. 20,583

COUNTY OF INYO, Petitioner,

v.

CITY OF LOS ANGELES et al., Respondents

Civ. No. 13886. Court of Appeal, Third District, California. June 27, 1977.

SUMMARY

On return of a writ of mandate directing the City of Los Angeles to prepare an environmental impact report covering its extraction of subsurface water from lands owned by it in Inyo County, the Court of Appeal held the environmental impact report failed to comply with the law and with the court's writ, and therefore refused to discharge the writ and directed the city to take reasonably expeditious action to comply with it. The court held the report prepared and filed by the city did not provide an accurate, stable and finite project description in accordance with the court's prior decision, and that the report also failed to describe all reasonable alternatives to the project, particularly omitting a "no project alternative," and a water conservation program within the Los Angeles service area. The court also stated that compliance with the writ of mandate did not necessarily mark the boundaries of the city's obligations under the California Environmental Quality Act, and that the legal sufficiency of the city's environmental report on groundwater extractions would be reviewable by the court even though it was included within an environmental impact report of larger scope. (Opinion by Friedman, Acting P. J., with Regan and Evans, JJ., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1)

Public Works and Contracts § 13--Environmental Impact-Statutory Requirements--Report.

When the law requires preparation of *186 an environmental impact report, the report must be considered by every public agency before it approves or disapproves the project.

(2)

Public Works and Contracts § 14--Environmental Impact--Actions-- Report--Judicial Review.

Consideration of a filed environmental impact report's adequacy is a judicial function. In a lawsuit charging noncompliance with the California Environmental Quality

Act (Pub. Resources Code, § 21000 et seq.), judicial inquiry is limited to the question of abuse of discretion, which is established if the agency has not proceeded as required by law and if its decision is not supported by substantial evidence. The court does not pass on the correctness of the environmental impact report's environmental conclusions, but only on its sufficiency as an informative document.

(3)

Public Works and Contracts § 13--Environmental Impact--Statutory Requirements--Report.

An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient environmental impact report.

(4a, 4b)

Public Works and Contracts § 13--Environmental Impact--Statutory Requirements--Report--Validity.

An environmental impact report prepared by the City of Los Angeles, pursuant to a writ of mandate in connection with its program for increasing the average rate of groundwater extraction and use from lands owned by it in Inyo County, both for export to Los Angeles and use in the county, above a baseline rate reasonably representing the average rate of groundwater extraction and use both for export and use in the county preceding the availability for use of a second aqueduct, was legally insufficient and failed to comply with the writ, where the environmental impact report did not provide an accurate, stable and finite project description, thus vitiating the report's usefulness as a vehicle for intelligent public participation, and where the report did not describe all reasonable alternatives to the project, particularly by omitting a "no project alternative" by failing to describe the pre-project stage, and by omitting a proposal for water conservation in Los Angeles as an alternative to the project.

[See Cal.Jur.2d, Conservation of Natural Resources, § 3; Am.Jur.2d, Pollution Control, § 14.]

(5)

Public Works and Contracts § 14--Environmental Impact--Actions-- Report--Judicial Review.

It is not the function of the court to *187 determine the accuracy of an environmental impact report's environmental forecasts, as reasonable foreseeability is sufficient.

(6)

Public Works and Contracts § 13--Environmental Impact--Statutory Requirements.

The dissemination of information to the general public was a statutory objective of the California Environmental Quality

Act (Pub. Resources Code, § 21000 et seq.), prior to the amendment of Pub. Resources Code, § 21061, declaring that the purpose of an environmental impact report was to provide "the public in general" with information, and such amendment did no more than articulate a preexisting implied statutory demand.

(7)

Public Works and Contracts § 13--Environmental Impact--Statutory Requirements.

The underlying policy and express provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.), limit an approving agency's power to authorize an environmentally harmful proposal when an economically feasible alternative is available.

(8)

Public Works and Contracts § 13--Environmental Impact--Statutory Requirements--Report.

A major function of an environmental impact report is to insure that all reasonable alternatives to the proposed project are thoroughly assessed by the responsible official or board. The report must describe all reasonable alternatives to the project including those capable of reducing or eliminating environmental effects, and the specific alternative of "no project" must also be evaluated.

COUNSEL

L. H. Gibbons, District Attorney, and Antonio Rossmann for Petitioner.

Fredric P. Sutherland, Ralph Winter, Richard E. Gutting, Jr., Brent N. Rushforth, John R. Phillips and Carlyle W. Hall, Jr., as Amici Curiae on behalf of Petitioner.

Burt Pines, City Attorney, Edward C. Farrell, Chief Assistant City Attorney, Kenneth W. Downey, Assistant City Attorney, Edward A. Schlatman, Deputy City Attorney, and Donald D. Stark for Respondents.

Robert P. Will, Carl Boronkay, Jarlath Oley, George F. Flewelling, Ball, Hunt, Hart, Brown & Baerwitz, Edmund G. Brown, Sr., Allan E. Tebbetts and Henry F. Lippitt II as Amici Curiae on behalf of Respondents. *188

FRIEDMAN, Acting P. J.

In 1973, at the instance of Inyo County, this court issued a writ of mandate directing the City of Los Angeles and its department of water and power to prepare an environmental impact report (EIR) covering their extraction of subsurface water in the Owens Valley. (County of Inyo v. Yorty (1973) 32 Cal.App.3d 795, 814–816 [County of Inyo v. Yorty (1973)] In August 1976 the City of Los Angeles filed its return to the writ, submitting its final EIR, which had been approved and certified by its board of water and power commissioners on July 15, 1976. Inyo County, the petitioner, has objected to the return, charging that the final EIR fails to comply with the requisites of the California Environmental Quality Act (CEQA). We sustain the county's objection.

We shall not extend this opinion by narrating the history of Los Angeles' acquisition of extensive lands and water rights in the Owens Valley and its establishment of a system for exporting water to the City of Los Angeles. Nor do we describe the prior events in this litigation. The unconversant

reader should read County of Inyo v. Yorty, supra, 32 Cal.App.3d 795, and County of Inyo v. City of Los Angeles (1976) 61 Cal.App.3d 91 [132 Cal.Rptr. 167], to comprehend the present decision adequately. We shall refer to portions of these two earlier opinions only to explain and support our present decision.

Section 21151 of CEQA directs all local agencies (here, the Board of Water and Power Commissioners of the City of Los Angeles) to prepare and certify the completion of an EIR on any project they intend to carry out or approve which may have a significant effect on the environment. The term "project" is sparsely defined as including "activities directly undertaken by any public agency." (§ 21065.) When the law requires preparation of an EIR, it must be considered by every

public agency before it approves or disapproves the project. (§ 21061; guidelines, Cal. Admin. Code, tit. 14, § 15012; No Oil, Inc. v. City of Los Angeles (1974) 13 Cal.3d 68, 79–80, fn. 8 [118 Cal.Rptr. 34, 529 P.2d 661.) *189

(2) Consideration of a filed EIR's adequacy is a judicial function. (Environmental Defense Fund, Inc. v. Coastside County Water Dist. (1972) 27 Cal.App.3d 695, 704 [-104 Cal.Rptr. 197].) In a lawsuit charging noncompliance with CEQA, judicial inquiry is limited to the question of abuse of discretion, which is established if the agency has not proceeded as required by law or if its decision is not supported by substantial evidence. (§ 21168.5; No Oil, Inc. v. City of Los Angeles, supra, 13 Cal.3d at p. 74.) The court does not pass upon the correctness of the EIR's environmental conclusions, but only upon its sufficiency as an informative document. (Plan for Arcadia, Inc. v. City Council of Arcadia (1974) 42 Cal.App.3d 712, 725-726 117 Cal.Rptr. 96]; Environmental Defense Fund, Inc. v. Coastside County Water Dist., supra, 27 Cal.App.3d at p. 705; see also San Francisco Ecology Center v. City and County of San Francisco (1975) 48 Cal. App. 3d 584, 593 [122 Cal.Rptr. 100].)

Ι

Volume I of the final EIR commences with a section entitled "Project Definition and Objectives." In its entirety the section reads as follows:

"The Third District Appellate Court in County of Inyo v. Yorty (32 C.A.3d 795) found that the 'expanded groundwater extraction was a "project" separate and divisible from the Second Aqueduct' (32 C.A.3d 806) and that an EIR was required on the increased pumping.

"The project is an increase in pumping from 89 cubic feet per second (cfs) to 140 cfs measured on a long-term average and from 250 cfs to 315 cfs during the highest single year. The increased puming [sic] is necessary to supply uses of water on City of Los Angeles lands in Inyo and Mono Counties that were not anticipated in 1963 when the Second Aqueduct project was adopted. Those uses consist of greater irrigation for ranching, recreation, fish and wildlife habitat projects, expansion of two fish hatcheries, and domestic supplies for the towns."

So described, the project consists of a proposed increase of 51 cfs in the long-term subsurface extraction rate and an increase of 65 cfs in the high-year rate, these increases being destined solely for "unanticipated" uses within the Owens Valley. So described, the project excludes subsurface extractions designed for export to Los Angeles via the department's twin aqueduct system. *190

The EIR, however, discusses proposals far broader than the initially described project. Indeed, the project concept expands and contracts from place to place within the EIR. These conceptual fluctuations are particularly distinct in an EIR section entitled "Recommended Project." This section opens by focusing on the EIR's initial, narrow project description. Next, it adopts a somewhat broader stance, referring to the designated "project" as one part of the larger operation of the Los Angeles Aqueduct System, thus impelling a "reappraisal" of the rate of export through the aqueducts. This statement provides a transition to a yet wider description of the recommended project, which appears in the footnote below. 4

As compared with the initially defined project, that is, pumping for unanticipated Owens Valley needs, the "recommended project" represents a vastly enlarged concept. It includes a number of described technical features, including: concrete-lining two canals to reduce percolation to the groundwater basin; in years of high runoff, exportation of additional water from the Owens Valley for the purpose of recharging the San Fernando groundwater basin in Los Angeles County; a water conservation program within the City of Los Angeles; rearrangement of Owens Valley reservoir operations in dry years by cutting the export rate as well as the supply of irrigation water within the valley; reduction of stockwater supplied within the Owens River basin from 18,600 to 5,600 acre-feet; extraction of groundwater at a long-term average pumping rate of 140 cfs and a high-year average of 315 cfs for export via the twin aqueducts as well as for in-valley use.

Two sections of the final EIR describe the recommended project's environmental impact within the Owens Valley. (Vol. I, pp. B–5 to B–13; vol. II, ch. 6, part A.) Inferably, the environmental forecasts are premised upon the 140 cfs long-term extraction rate of the "recommended project" rather than the 51 cfs increase specified in the officially described *191 "project." In general, pumping at a long-term rate of 140 cfs would lower the water table of the subsurface basin 10 to

15 feet, altering the ecosystem of the valley floor. Descent of the water table would cause irreversible changes in the pattern of natural vegetation, replacing moisture-loving plants with semidesert species; in some zones decreases in vegetative cover would expose the soil to wind erosion, causing seasonal increases of atmospheric dust. (Final EIR, vol. I, pp. B–5 to B–9; C–13 to C–28.) The shift in the character of the vegetation community would have an impact on fauna, reducing but not eliminating the population of certain animal species. (*Id.*, pp. B–9 to B–11.)

After its completion by the department's staff the final EIR was submitted to the Board of Water and Power Commissioners of the City of Los Angeles. On July 15, 1976, the board adopted a resolution approving the EIR and the "proposed project." The approval resolution commences with an explanation of the project's character; the explanation, as we interpret it, parallels the narrowly restricted project description at the outset of the EIR; the explanation excludes from the project the 89 cfs rate of subsurface extractions designed for export via the Los Angeles aqueduct system. Following that explanation the resolution describes the essential factors of "the proposed increased groundwater pumping project" and approves the project so described. 6 *192

II

The EIR is the heart of the environmental control process. (County of Inyo v. Yorty, supra, 32 Cal.App.3d at p. 810.) CEQA describes the report's purpose—to provide the public and governmental decision-makers (here, the board of water and power commissioners) with detailed information of the project's likely effect on the environment; to describe ways of minimizing significant effects; to point out alternatives to the project, (§§ 21002.1, 21061, 21100; Friends of Mammoth v. Board of Supervisors (1972) 8 Cal.3d 247, 263 [-104 Cal.Rptr. 761, 502 P.2d 1049].) The EIR process facilitates CEQA's policy of supplying citizen input. (See People v. County of Kern (1974) 39 Cal.App.3d 830, 841 [115 Cal.Rptr. 67].) By depicting the project's unavoidable effects, mitigation measures and alternatives, the report furnishes the decision-maker information enabling it to balance the project's benefit against environmental cost. (See \$\int_{\}^{\}\$ 21100; Environmental Defense Fund, Inc. v. Coastside County Water Dist., supra, 27 Cal.App.3d at p. 705.) The report should function as an environmental "alarm bell." (*County of Inyo v. Yorty, supra*, 32 Cal.App.3d at p. 810.)

CEQA defines "project" only by the synonymous term "activity." (§ 21065; cf. Friends of Mammoth v. Board of Supervisors, supra, 8 Cal.3d at pp. 260-262.) In most cases the scope and character of the proposed activity will be clear; when they are not, they can be discerned only in the light of CEQA's policy to "ensure that the longterm protection of the environment shall be the guiding criterion in public decisions." (§ 21001, subd. (d).) The CEQA Guidelines flesh out the "project" concept by referring to it as "the whole of an action, which has a potential for resulting in a physical change in the environment, directly or ultimately. ..." (Cal.Admin.Code, tit. 14, § 15037, subd. (a).) Commenting on the comparable provisions of the National Environmental Policy Act, the federal Supreme Court has pointed out that an accurate description of the project is necessary in order to decide what kind of environmental impact statement need be prepared. (Aberdeen & Rockfish R. Co. v. SCRAP (1975) 422 U.S. 289, 322 [45 L.Ed.2d 191, 216, 95 S.Ct. 2336]; see also Swain v. Brinegar (7th Cir. 1976) 542 F.2d 364, 369.)

A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, *193 assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.

(4a) In terms of legal sufficiency, the Los Angeles EIR's narrow project description presents two salient features: first, the assumption that subsurface water produced by a long-term pumping rate of 89 cfs and a high-year rate of 250 cfs is outside the "project," available for export as part of the total flow of 666 cfs and immune from CEQA's demands; second, the assumption that the project is confined to increased groundwater extraction (that is, a net increase of 51 cfs in the long-term rate and of 65 cfs in the high-year rate) destined solely for use on city-owned lands in Inyo and Mono Counties.

These postulates represent an egregious misinterpretation of this court's 1973 decision. They create the foundation for an

EIR which falls short of the letter and spirit of the California Environmental Quality Act and fails to satisfy the writ of mandate issued by this court in 1973.

This lawsuit had its origin in an equity action instituted by Inyo County and moved by change of venue to Sacramento County. In its first amended complaint, filed in November 1972, Inyo County sought injunctive restraints upon the extraction of subsurface water for export from the Owens Valley and against utilization of subsurface water in place of surface water within Inyo County. The complaint also sought a mandatory injunction requiring one or more EIRs.

At that point the focus of the lawsuit was clear—its primary aim was protection of subsurface water aquifers against pumping for the purpose of exportation to Los Angeles; secondarily, it sought to restrict utilization of underground water as a substitute for surface water diverted from in-valley uses to exportation.

At that stage of the litigation, the city insisted that exportation of increased groundwater was an inseparable part of its second aqueduct, an "ongoing project" completed prior to the effective date of CEQA and thus immune from the demands of CEQA. In a declaration filed early in the litigation Duane L. Georgeson, aqueduct engineer in charge of the *194 city's water-gathering operations in the Owens Valley, stated: "Although ground water pumping for export has been carried on historically since 1917, expansion of ground water pumping by the Department is part and parcel of the Second Barrel or Second Los Angeles Aqueduct. ... At all times the utilization of Owens Valley ground water and increased ground water pumping have been part and parcel of the Second Los Angeles Aqueduct project. But for the construction of the Second Los Angeles Aqueduct there would have been no need for Los Angeles to increase ground water pumping on a long term average. ... [¶] The increased utilization of water underlying City-owned land in Inyo County is and has been a significant part of the reason for the construction of the Second Los Angeles Aqueduct and the expenditure of \$91,200,000 by the Department. As stated, but for the construction of the Second Los Angeles Aqueduct there would be no reason to increase long term ground water extraction."8

Thus the City of Los Angeles joined Inyo County in recognizing the primary focus of the lawsuit—increased utilization of groundwater following the second aqueduct's availability for use. After the superior court denied Inyo

County's request for a preliminary injunction, the county filed an appeal and an application for supersedeas in this court. We chose to treat the latter as a petition for mandate and issued an alternative writ. That proceeding culminated in our decision of June 1973 in *County of Inyo v. Yorty, supra*. At numerous points our decision manifested a continued understanding that the proposed increase of groundwater exportation via the two aqueducts supplied the impetus for the lawsuit and formed its primary concern. We observed: "Narrowly stated, the issue before us is whether City is required to file an EIR with reference to its continued extraction of subsurface waters from the Owens Valley area of County." (32 Cal.App.3d at p. 798.)

We rejected the city's "ongoing project" argument, stating: "While the capacity of both aqueducts was known and presumably fixed irrevocably from the period of planning and design onward (666 cfs), the actual extraction of subsurface water has steadily increased from a long-term average 10.3 cfs during the 35-year period 1935 to 1969, to an estimated 89 cfs in 1963, to an existing capacity of 248 cfs in 1971, to an ultimate capacity of 415 cfs estimated in 1971, to an ultimate pumping capacity of 485 cfs estimated in October 1972. In short, while the capacity of the *195 second aqueduct was fixed and known for a number of years before CEQA, the effect of its construction on subsurface water extraction has been a variable but steady escalation, dependent in large part, no doubt, upon the extent of seasonal rain and snowfall from year to year. Thus the ecological impact of the second aqueduct, viewed in conjunction with the underground pumping and measured by the quantity of extraction, has not been fixed but has substantially increased in severity in the period before, during and after its construction. ... [¶] We conclude from the foregoing that the legislative intent so strongly expressed in CEQA can be met only by considering the expanded groundwater extraction as a 'project' separate and divisible from the second aqueduct, and we so treat

it." (32 Cal.App.3d at p. 806.)

The final EIR utilizes the last-quoted statement as the departure point for a serious misinterpretation. We had drawn a distinction between the second aqueduct, the physical project completed prior to CEQA, and the CEQA-subject program of expanded groundwater extraction. By an exparte stroke of the pen, the project definition of the final EIR subtracts a long-term average pumping rate of 89 cfs (i.e., 64,436 acre-feet per year) and a high-year pumping rate of 250 cfs (181,000 acre-feet) from the CEQA-subject side of the line and places it on the exempt side of the line. The EIR

views the 89 cfs and the 250 cfs pumping rates as nothing but a baseline from which to describe the CEQA-subject project; the latter, by a process of verbal transmutation, will now be devoted to in-valley use and not exported at all. Such are the assumptions underlying the project description of the final EIR.

These assumptions are fallacious. The final EIR represents an ex parte attempt to narrow the city's CEQA obligation—and the scope of this lawsuit—down to the relatively small flow of underground water destined for in-valley use. The Genesis account of creation draws a figurative line between the water above the firmament and that below. The authors of the final EIR have essayed a similarly figurative line, dividing subsurface waters according to their destination. This was not the line drawn by our June 1973 interpretation of CEQA. According to that interpretation, increased pumping for export via the two aqueducts *196 was included in the CEQA-subject project. The EIR's project description excludes that pumping and contradicts that interpretation. ¹⁰

At the outset of the EIR process the department of water and power had recognized the uncertainty of its homemade project description. The department released a draft EIR in August 1974, followed by a revised draft in January 1975, both of which were circulated for comment by interested persons and agencies. The revised draft (Final EIR, vol. II, p. 1–1) acknowledges that "there were significantly different interpretations of the Appellate Court's decision with regard to the definition of the project." ¹¹

In any objective view the outlines of the "project" conceived by our 1973 decision were quite clear. They were clear in 1973 and they are clear now. Unfortunately there is a limit to the precision of words. Judicial opinion writers cannot always armor their language against wishful misinterpretation. At the risk of future misinterpretation we shall attempt the following reformulation of our 1973 formulation: The project which forms both the scope of this litigation and the subject of the EIR mandated by this court is the department of water and power's program for increasing the average rate of groundwater extraction and use (both for export and in-valley use) above a baseline rate reasonably representing the average rate of groundwater extraction and use (both for export and in-valley use) preceding the second aqueduct's availability for use. ¹² *197

As we have observed, the Los Angeles EIR does not cling to its truncated project description. Rather, it shifts from that description to a "reappraisal" of the rate of water export and then to a third concept called the "recommended project." The recommended project includes not only the rate of groundwater extraction but also the management of exports of mixed surface and subsurface water arriving in Los Angeles via the twin aqueducts. Its features are summarized in the approval resolution of the board of water and power commissioners; they are quoted in footnote 6, *ante*.

The elasticity of the project concept does not vitally affect the "impact" sections of the report. The forecasts of environmental consequences in the Owens Valley are premised upon a long-term pumping rate of 140 cfs, which approximates the "project" as conceived in this court's decision of June 1973. (See fn. 12, *ante*, and accompanying text.) Thus the informative quality of the EIR's environmental forecasts is not affected by the ill-conceived, initial project description.

Inyo County strongly criticizes the environmental impact sections of the EIR, charging that the report understates the harm to flora and fauna of the Owens Valley and fails to describe air pollution potentialities. Courts are not equipped to select among the conflicting opinions of warring experts. (5) It is not the function of the court to determine the accuracy of the report's environmental forecasts. (Plan for Arcadia, Inc. v. City Council, supra, 42 Cal.App.3d at pp. 725–726; see Gelpe & Tarlock, The Uses of Scientific Information in Environmental Decision-making (1974) 48 So.Cal.L.Rev. 371, 407–411.) Reasonable foreseeability is enough. (Scientists' Inst. For Pub. Info., Inc. v. Atomic Energy Com'n (D.C.Cir. 1973) 481 F.2d 1079, 1092 [156 App.D.C. 395].)156 App.D.C. 395].)

The incessant shifts among different project descriptions do vitiate the city's EIR process as a vehicle for intelligent public participation. (6) The city contends that dissemination of information to the general public was not a statutory objective of CEQA at the time of the EIR process, which was completed in July 1976. Section 21061 of CEQA now declares that an environmental impact report's purpose is to provide public agencies and the public in general with detailed information concerning the proposed project's likely environmental effects. The phrase "and the public in general" was inserted as the result of a 1976 *198 amendment which

did not become effective until November 30, 1976. (Stats. 1976, ch. 1312.)

The contention is incorrect. Before the 1976 amendment the courts had discerned in CEQA a purpose to assure general public input both in the formulation of the EIR and in the ultimate governmental decision. (Friends of Mammoth v. Board of Supervisors, supra, 8 Cal.3d at p. 263, fn. 8; Environmental Defense Fund, Inc. v. Coastside County Water Dist., supra, 27 Cal.App.3d at p. 705; People v. County of Kern, supra, 39 Cal.App.3d at p. 841; see Guidelines, Cal. Admin. Code, tit. 14, § 15164.) The 1976 amendment did no more than articulate a preexisting, implied demand.

A curtailed, enigmatic or unstable project description draws a red herring across the path of public input. Among the public comments in the final EIR were many objections and expressions of uncertainty aroused by the department's homemade project description. In general, critics charged that the city's real objective was the long-term exportation of 666 cfs of ground and surface water via the Los Angeles aqueducts, rather than the narrow proposal to augment groundwater extraction for "unanticipated" uses within the Owens Valley; that a long-continued draft of 666 cfs would dwarf the environmental damage caused by the relatively minor increase of groundwater pumping for in-valley use.

One authoritative comment emanated from the State Water Resources Board. In an April 1975 memorandum which was subsequently forwarded to the city, the board's executive officer declared: "Our basic concern with both the draft EIR and the [revised draft] is that the 'project' is considered improperly within the meaning of the California Environmental Quality Act. ... The descriptions of project features and analysis of impacts are almost entirely focused on the pumping of groundwater and its use on city-owned lands within Mono and Inyo Counties. The effect of preparing the [revised draft EIR] in this manner is to divert attention from the impacts of the major project which is importation of additional water to Los Angeles." 13 *199

In its own comments on the revised draft EIR, Inyo County complained: "The document leaves the reader quite confused as to the objectives ... The revised draft EIR purports to be an EIR on a reassessment of city policies regarding the use of water on city lands in the Owens Valley while at the same time

it seems to assume the filling of the second aqueduct." (Final EIR, vol. III, appen. 2.)

Similar comments were received from other sources. The final EIR rejected all these criticisms, declaring: "Project is increased pumping for uses on City lands in Mono and Inyo Counties. Second Aqueduct is a separate part of DWP operations. The pumping rate above which the increase takes place is 89 cfs measured on a long-term average and 250 cfs measured on a one-year average." (*Id.*, vol. I, p. A–7.)

The small-scale groundwater project described at the outset was dwarfed by the "recommended project" ultimately endorsed by the final EIR and approved by the board of commissioners. Commencing with its modest proposal to pump an additional 51 cfs for "unanticipated" uses within the Owens Valley, the final EIR became the vehicle for an approval resolution dealing with important, large-scale phases of the city aqueduct management program. Massive fruits blossomed from the tiny seed of the initial project description—dry-year curtailment and wet-year expansion of combined surface and subsurface exportation in unspecified quantities; storage of Owens Valley water in the subsurface basin of the San Fernando Valley in Los Angeles County; construction of a pipeline in the San Fernando Valley; a water conservation program within the City of Los Angeles through an intensified public education effort. 14

We reiterate—an accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR. The defined project and not some different project must be the EIR's bona fide subject. The CEQA reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial project; indeed, new and unforeseen insights may emerge during investigation,

evoking revision of the original proposal. (*Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 284–285

[118 Cal.Rptr. 249, 529 P.2d 1017].) Here, in contrast, the interrelated character of the proposals was known in advance. Here, the selection of a narrow project as the launching pad for *200 a vastly wider proposal frustrated CEQA's public information aims. The department's calculated selection of its truncated project concept was not an abstract violation of CEQA. In formulating the EIR, the department of water and power did not proceed "in a manner required by law." (§ 21168.5.)

IV

An EIR must describe all reasonable alternatives to the project. (§ 21061; Guidelines, Cal.Admin.Code, tit. 14, § 15143, subd. (d).) We summarize the six alternatives listed in the final EIR:

Alternative 1 would supply city-owned lands with water generated by a long-term pumping rate of 180 cfs (less 89 cfs destined for export) and a high-year average of 385 cfs. This rate of pumping would "cause changes in native vegetation over comparatively large areas on the valley floor." (Final EIR, vol. II, p. 3–16.)

Alternative 2 would continue existing water uses on city land within the valley but reduce groundwater extraction to a long-term average rate of 100 cfs (including the 89 cfs designed for export). Rate of deliveries for consumptive use would be sustained by lining the canals and ditches with concrete and preventing water seepage into the underground basin. A high capital cost, some damage to vegetation and a dimunition of subsurface recharge are foreseen. (*Id.*, p. 3–17.)

Alternative 3 offers a long-term pumping rate of 140 cfs (including 89 cfs designed for export) and a high-year average of 345 cfs. It would distribute the water differently among the various categories of the city's Owens Valley commitments, reducing the proportion available for irrigation. (*Id.*, p. 3–17.)

Alternative 4 would reduce total groundwater pumping to a long-term rate of 90 cfs (including 89 cfs available for the aqueducts), reducing irrigated acreage from 18,700 to 1,600 acres and providing groundwater primarily for town domestic supplies. It would substantially reduce the local cattle industry, damage the local economy and turn irrigated acreage into "rabbitbrush scrubland." (*Id.*, at p. 3–18.) According to the report, the curtailment of cattle-raising would prevent over-grazing, provide more forage for wildlife, make the area more available for ecology classes, sight-seeing, fossil collection and other pastimes. (*Id.*, p. 3–8.) *201

Alternative 5 proposes a total groundwater pumping rate of 90 cfs, the maintenance of existing rates of supply to Owens Valley uses and a 90 cfs reduction in exportation via the aqueducts. The 90 cfs reduction in aqueduct deliveries to the Los Angeles area would be replaced by the purchase of water from the Metropolitan Water District. The purchase price of water and the power costs would add about \$7 million per

year to the operating expenses of the department of water and power. (*Id.*, at p. 3–18.)

Alternative 6 would combine alternatives 4 and 5. It would severely restrict deliveries to city lands within the Owens Valley, curtail the aqueduct export by 90 cfs and require purchase of replacement water from the Metropolitan Water District. The subsurface basin would be pumped at only 10 cfs to supply the towns within the Owens Valley. (*Id.*, p. 3–19.) This alternative would severely affect the cattle-raising economy of Inyo County which depends almost entirely on city-owned lands. (*Id.*, p. 3–15.) Alternative 6 is the last of the project alternatives enumerated in the final EIR.

The final EIR describes these options as alternatives "relative to the uses of water on city-owned lands and the export of water to Los Angeles." (*Id.*, vol. II, p. 3–1.) They are, for the most part, conceived as choices to be weighed against the impermissibly truncated project for increasing the groundwater extraction by 51 cfs.

Alternative 1 proposes pumping a net increase of 91 instead of 51 cfs for the identical in-valley uses; it is not a meaningful alternative to the "project" for it simply proposes greater environmental invasion for the same purposes. (See § 21002.) Alternative 3 is no more meaningful. It apparently assumes combined long-term pumping of 89 cfs for export and 51 cfs for the uses described in the artificially curtailed project description. It offers a management or distribution alternative, not an environmentally significant alternative.

Although alternative 4 is not labeled as the "no project alternative," the city asserts that it is actually tendered for that purpose. It fails to fulfill that purpose. In order to mark out a "no project alternative," the EIR should describe what condition or program preceded the project. Alternative 4 does not portray the pre-project stage; does not describe what quantities of water from what surface or subsurface sources were supplied to what lands. The litigation record supplies some helpful data. For many years before the construction of the second aqueduct the city *202 had supplied irrigation water (surface and subsurface) to ranchers on city-owned lands. The 1963 report on feasibility of the Second Los Angeles Aqueduct stated that total Inyo-Mono acreage (inclusive of Indian lands) then supplied with city irrigation water was 40,117 acres, of which 31,817 acres were supplied on an interruptible basis. (1963 Report, vol. VI, p. 6-13.) In 1973, 10 years later, Mr. Georgeson filed an affidavit in the Sacramento Superior Court proceeding, stating that

approximately 19,000 acres of city-leased land (11,000 in Inyo County and 8,000 in Mono County) were being supplied with irrigation water. The project described in the EIR would supply subsurface water for uses "not anticipated" in 1963, when the second aqueduct was planned. As a purported "no project" alternative to fulfilling these unanticipated uses, alternative 4 would deny water to both anticipated and unanticipated uses, including the bulk of land supplied in 1963. Alternative 4 offers a synthetically conceived election between the synthetically conceived project and destruction of the Owens Valley cattle industry. The EIR's project description and its purported "no project" alternative simply do not match.

Alternatives 2 and 5 represent true alternatives to the narrowly described project. The latter would reduce exports and utilize the reduction as a substitute for the proposed 51 cfs increase in groundwater extraction. Alternative 6 is much broader than alternative 4; it echoes the latter's threat to choke off water supplied to ranchers who had been receiving it in 1963. In the latter respect, it is not a genuine "no project" alternative.

Collectively, the list of alternatives does not match the project as conceived in this court's 1973 decision. On the assumption that 10 cfs was the average pumping rate preceding the second aqueduct's availability and that the proposed average extraction will be 140 cfs, the CEQA-subject project within the range of this court's writ of mandate would consist of a net increase of 130 cfs in the average pumping rate, designed both for export and in-valley use. Exported water will never return to the Owens Valley aquifers; some locally used water will. The environmental consequences of a program for mixed export and local use are necessarily different from those emanating from local use alone. The alternatives to a net increase of 130 cfs for mixed export and local use are quite different from the alternatives to a net increase of 51 cfs for local use alone. The EIR embodies a distinct refusal to view the 130 cfs increase as a "project" and offers no alternatives to it. *203

Alternatives 5 and 6 embody a proposal for abstention from increasing the draw on the Owens Valley groundwater basin, for reduction of exports, utilization of the reduction for in-valley needs and purchase of replacement water from an outside source for use in Los Angeles. That proposal presents the board of water and power commissioners with a choice between economic and environmental values. (7) The underlying policy and express provisions of CEQA limit the approving agency's power to authorize an environmentally

harmful proposal when an economically feasible alternative is available. (§§ 21002, 21002.1, subd. (c); see also Friends of Mammoth v. Board of Supervisors, supra, 8 Cal.3d at p. 263, fn. 8; San Francisco Ecology Center v. City and County of San Francisco, supra, 48 Cal.App.3d at pp. 590–591; Younger, Environmental Protection in California: Perspective Of The Attorney General (1974) 5 Pacific L.J., 19.) Notably, the Los Angeles EIR omits another alternative, one freighted with costs other than dollars. The omitted alternative is a tangible, foreseeably effective plan for achieving distinctly articulated water conservation goals within the Los Angeles service area. It is doubtful whether an EIR can fulfill CEQA's demands without proposing so obvious an alternative.

- (8) A major function of an EIR is "to ensure that all reasonable alternatives to proposed projects are thoroughly assessed by the responsible official" or board. (Wildlife Alive v. Chickering (1976) 18 Cal.3d 190, 197 [132 Cal.Rptr. 377, 533 P.2d 537].) The report must describe all reasonable alternatives to the project including those capable of reducing or eliminating environmental effects; the specific alternative of "no project" must also be evaluated. (§§ 21002, 21100; Guidelines, Cal.Admin. Code, tit. 14, § 15143, subd. (d).)
- (4b) Because the final EIR does not include a genuine "no project" alternative, because its list of alternatives is not tied to a reasonably conceived or consistently viewed project, the Los Angeles EIR does not comply with CEQA's demand for meaningful alternatives. This lack results in an EIR which does not meet CEQA's goal of ensuring that "the long-term protection of the environment shall be the guiding criterion in public decisions." (§ 21001, subd. (d).)

\mathbf{V}

As we stated at the outset, we sustain Inyo County's objection to the city's return to the writ of mandate, holding that the EIR prepared by the department of water and power fails to comply with CEQA. The *204 parties, as well as amici curiae, have raised other questions, including legality of the approval resolution of the Board of Water and Power Commissioners. These questions broaden the issues beyond those entailed in the measurement of the EIR's sufficiency; hence we do not examine them. It is enough to say that the final EIR falls short of compliance with the California Environmental Quality Act; that a legally sufficient EIR is a precondition to legality of the public agency's approval resolution (§ 21151; see People v. County of Kern, supra,

39 Cal.App.3d 830; Environmental Defense Fund, Inc. v. Coastside County Water Dist., supra, 27 Cal.App.3d at pp. 703–704); that this court's peremptory writ of mandate will not be satisifed until a valid EIR is prepared, certified and filed.

The perimeters of this lawsuit do not necessarily mark the boundaries of the city's CEQA-imposed obligations. Our writ of mandate directs the preparation of a legally sufficient EIR covering the projected increase of subsurface drawdown in the Owens Valley. "The subsurface water which forms the subject of this lawsuit is one component of an integrated array of water resources—surface runoff, natural and artificial reservoirs, springs, groundwater basins, and transport facilities. Control over such an array permits shifts from one source to another as natural needs or management desires may dictate." (County of Inyo v. City of Los Angeles, supra, 61 Cal.App.3d at p. 100.) Increased utilization and changes in management of these integrated water resources resulting from completion of the second aqueduct may itself constitute a project or an integrated series of projects calling for a comprehensive EIR. In a comment to the department of water and power dated April 4, 1975, the state Attorney General noted: "The legal question presented to the

Court of Appeal [in County of Inyo v. Yorty, supra, 32 Cal.App.3d 795] was not broad enough to include the issue of CEQA's application to Los Angeles' entire water management activities." The Attorney General observed that a "serious unresolved legal question" exists whether the Department of Water and Power must prepare an EIR covering its "ultimate project." (Vol. III, Final EIR, appen. 2.) 15 *205

A public agency need not and should not await the compulsion of judicial decrees before fulfilling the demands of CEQA. In a related context a federal court has declared:

"To make faithful execution of this duty contingent upon the vigilance and diligence of particular environmental plaintiffs would encourage attempts by agencies to evade their important responsibilities. It is up to the agency, not the public, to ensure compliance with [the environmental control statute] in the first instance." (**City of Davis v. Coleman (9th Cir. 1975) 521 F.2d 661, 678.) We indulge in this deliberate dictum for two reasons: first, to avoid any implication that compliance with our writ of mandate is the full measure of the department's CEQA-imposed obligations, and second, to express this court's willingness to review legal sufficiency of the city's environmental report on groundwater extractions even though it is included within an EIR of larger scope.

We hold that the city's return to the writ of mandate issued as a result of our June 1973 decision fails to comply with the writ. This court has continuing jurisdiction to enforce the writ until it is fully satisfied. (Code Civ. Proc., § 1097; County of Inyo v. City of Los Angeles, supra, 61 Cal.App.3d at p. 95.) The writ is not discharged but remains in force; the City of Los Angeles and its department of water and power are directed to take reasonably expeditious action to comply with it. Interim restraints upon the rate of extraction of groundwater and upon the decrease of water supplied to Owens Valley uses will remain in effect until further order of the court.

Regan, J., and Evans, J., concurred.

A petition for a rehearing was denied July 25, 1977, and the opinion was modified to read as printed above. Respondents' petition for a hearing by the Supreme Court was denied October 6, 1977. Richardson, J., did not participate therein. *206

Footnotes

The guidelines issued by the State Office of Planning call for a final EIR, which shall include a section of comments from others and the agency's response to significant environmental comments. (Cal.Admin.Code, tit. 14, § 15146.) The final EIR before us consists of three volumes: (1) A summary of the EIR and categorical responses; (2) the revised draft EIR and the technical supplement; (3) an appendix containing individual responses to comments submitted by a citizens' advisory committee, copies of all comments received, and additional background material.

- The California Environmental Quality Act appears in Public Resources Code section 21000 et seq. All our statutory citations will refer to the Public Resources Code unless otherwise specified.
- Here the report states: "The objective of the project is to develop a water source that can supplement surface flow during years of normal and below normal runoff to supply the uses of water on City of Los Angeles lands that have developed but were not planned for when the Second Los Angeles Aqueduct was authorized and constructed." (Final EIR, vol. I, p. B–1.)
- 4 "The project being recommended by the staff in this Final EIR is to operate the Los Angeles Aqueduct System in an environmentally sensitive manner to benefit the citizens of Los Angeles and the people of Inyo County. Water supplies for local uses on City lands is [sic] being made possible with a locally derived water source, i.e., increased pumping of the Owens Valley Groundwater Basin." (Id.)
- The report declares: "The operation of the Aqueduct System with the recommended project is the basis of the impact statements." (*Id.*, vol. I, p. B–5.)
- We quote the essential features of the proposed project as described in the approval resolution of the Board of Water and Power Commissioners:
 - "1. The construction of no new production wells, i.e., no increase in present well capacity.
 - "2. Continuance of existing capacity through normal and routine maintenance activities including well deepening and construction of replacements for damaged or inoperable wells.
 - "3. Long-term pumping average of 140 cfs. and maximum annual average of pumping of 315 cfs in dry years.
 - "4. Dry year operation guidelines that call for equal reductions of water export and irrigation supplies.
 - "5. Increased export during wet years and conjunctive operations of the Los Angeles Aqueduct System with the San Fernando Valley Groundwater Basin.
 - "6. Constructing a pipeline in the San Fernando Valley to permit storage of Owens Valley water in the underground during wet years for subsequent extraction during dry years.
 - "7. Water conservation program within the City of Los Angeles.
 - "8. Constructing a concrete lined canal to collect pumped groundwater in the Laws area and concrete lining the middle reach of the Big Pine Canal.
 - "9. A change in the pumping pattern with a smaller percentage of average pumping taking place in the Independence area.
 - "10. Reduction in irrigation usage in the Mono Basin of 2,200 acre-feet and in inefficient stock water practices throughout the Inyo and Mono area that will result in a decrease of approximately 13,600 acre-feet from that shown in the Revised Draft EIR."
- The City of Los Angeles owns approximately 300,000 acres in Mono and Inyo Counties. In the latter county it supplies domestic water for the towns of Independence, Lone Pine, Big Pine and Laws, stockwater, recreation water and irrigation water for ranchers leasing city-owned lands.
- In the same declaration Mr. Georgeson stated that after authorization of the second aqueduct, additional needs had arisen for use of city water within the Owens Valley. These needs included irrigation of an additional

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- 4,000 acres plus recreational and wildlife enhancement. The increased in-valley utilization was estimated at 48 cfs.
- The distinction is borne out by the CEQA Guidelines, which recognize that the impact statement process covers environmentally related programs as well as tangible construction projects. (See Cal.Admin.Code, tit. 14, § 15068; Scientists' Inst. For Pub. Info., Inc. v. Atomic Energy Com'n (D.C.Cir. 1973) 481 F.2d 1079, 1087–1088 [156 App.D.C. 395].)156 App.D.C. 395].)
- At one point of the final EIR the contradiction becomes explicit: "In the process of preparing this environmental impact report, other aspects of Aqueduct System operation have been reevaluated. This includes a reappraisal of the rate of export through the Los Angeles Aqueducts. Thus, the project description presented below includes references to the rate of export, even though the rate of export was not part of the project as defined by the Third District Appellate Court in Invo v. Yorty (32 C.A.3d 795)." (Final EIR. vol. I,p. B–1.)
- At another point, the authors of the EIR complain that in our 1973 decision, "The court did not give clear guidance on the level from which the increase [in groundwater pumping] takes place." (Final EIR, vol. I, p. C–102.) Despite this alleged lack of clarity, the department of water and power spent three years of EIR preparation without returning to this court for clarification.
- The above formulation views completion of the second aqueduct in 1970 as the time point for calculating the "pre-project" baseline rate of groundwater extraction. An alternate and legally supportable time point is November 1970, when CEQA first became effective. Thus there is a general coincidence of time points for calculating the average pumping rate forming the baseline for the CEQA-subject project. The parties apparently agree that the pre-1970 long-term average rate of groundwater extraction was roughly 10 cfs.
 - Our reformulation achieves no extremes of invulnerability. It does not qualify the concept of average rate by a time factor. It utilizes the wavering adverb "reasonably" to describe the baseline average. We have the impression that the hydrological engineers have not yet exhibited uncertainties or quarrels over averages.
- In our August 1976 decision we voiced a related concern stating: "At the inception of the proceeding, the city took the position that the lawsuit included the pumping of groundwater for export to Los Angeles via the enlarged Los Angeles Aqueduct system. As the proceedings developed, the city's position shifted until it arrived at its current position, which is that the increase of groundwater pumping is designed solely and entirely for use within the Owens Valley." (County of Inyo v. City of Los Angeles, supra, 61 Cal.App.3d at pp. 99–100.)

FN14

- 11Several of the recommendations adopted by the commissioners (see fn. 6, *ante*) would launch environmentally significant activities in the Los Angeles environs. The EIR's sufficiency as the basis for such proposals is open to question.
- The problem of timing an EIR covering an integrated series of programs was analyzed by the Court of Appeals for the District of Columbia in *Scientists' Inst. For Pub. Info., Inc. v. Atomic Energy Com'n., supra.* At one point of its analysis (~481 F.2d at pp. 1087–1088) the court quoted approvingly from a policy memorandum of the Council on Environmental Quality: "Individual actions that are related either geographically or as logical parts in a chain of contemplated actions may be more appropriately evaluated in a single, program statement. Such a statement also appears appropriate in connection with ... the development of a new program that contemplates a number of subsequent actions. ... [T]he program statement has a number of advantages. It provides an occasion for a more exhaustive consideration of effects and alternatives than

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would be practicable in a statement on an individual action. It ensures consideration of cumulative impacts that might be slighted in a case-by-case analysis. And it avoids duplicative reconsideration of basic policy questions. ..."

End of Document

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Attachment E

KeyCite Yellow Flag - Negative Treatment

Declined to Extend by North Coast Rivers Alliance v. Kawamura,

Cal.App. 3 Dist., December 2, 2015

184 Cal.App.4th 70 Court of Appeal, First District, Division 4, California.

COMMUNITIES FOR A BETTER ENVIRONMENT et al., Plaintiffs and Respondents,

(OND

CITY OF RICHMOND, Defendant and Appellant; Chevron Products Company et al., Real Parties in Interest and Appellants.

No. A125618.

| April 26, 2010.

Rehearing Denied May 13, 2010.

Synopsis

Background: Environmental groups petitioned for writ of mandate, challenging city council's certification of final environmental impact report (EIR) related to construction project designed to upgrade manufacturing facilities at oil refinery, and requested injunctive relief. The Superior Court, Contra Costa County, No. MSN08-1429, Barbara A. Zuniga, J., entered judgment in favor of environmental groups, invalidating all project permits, and suspended all project-related construction activities. Refinery appeal.

Holdings: The Court of Appeal, Ruvolo, P.J., held that:

- [1] EIR failed as an informational document to inform public as to project's environmental effects;
- [2] city was required to defer approval of the EIR until proposed mitigation measures were fully developed; and
- [3] city did not unlawfully segment its environmental review of project by failing to analyze a proposed hydrogen pipeline from refinery.

Affirmed in part, and reversed in part.

West Headnotes (16)

[1] Environmental Law - Assessments and impact statements

Courts should afford great weight to the California Environmental Quality Act (CEQA) Guidelines except when a provision is clearly unauthorized or erroneous under CEQA.

West's Ann.Cal.Pub.Res.Code § 21000 et seq.; 14 CCR § 15000 et seq.

[2] Environmental Law - Scope of review

In reviewing an agency's compliance with the California Environmental Quality Act (CEQA), the Court of Appeal reviews the agency's action, not the trial court's decision. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

5 Cases that cite this headnote

[3] Environmental Law Consideration and disclosure of effects

On appeal, the existence of substantial evidence supporting the agency's ultimate decision on a disputed issue is not relevant when assessing purported violation of the information disclosure provisions of the California Environmental Quality Act (CEQA); if a final environmental impact report (EIR) does not adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project, informed decision-making cannot occur under CEQA and the final EIR is inadequate as a matter of law. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

4 Cases that cite this headnote

[4] Environmental Law 🕪 Scope of review

Claimed deficiencies in the environmental impact report (EIR) related to construction project designed to upgrade manufacturing

facilities at oil refiners' site compelled de novo review by the Court of Appeal to determine whether EIR had been completed in compliance with the California Environmental Quality Act (CEQA), as required for city to certify the EIR, where environmental groups claimed that the EIR concealed, ignored, excluded, or simply failed to provide pertinent information on whether processing lower quality, heavier, and inherently more polluting, crude oil was a reasonably foreseeable consequence of the project. West's Ann.Cal.Pub.Res.Code § 21000 et seg.

3 Cases that cite this headnote

[5] Environmental Law > Scope of review

It is the adequacy of an environmental impact report (EIR), not the propriety of the subsequent decision to approve a construction project, with which the Court of Appeal is concerned about on de novo review of whether the information about a project properly complied with informational requirements of the California Environmental Quality Act (CEQA).

[6] Environmental Law 🗁 Effect of Deficiency

West's Ann.Cal.Pub.Res.Code § 21000.

An agency's ultimate decision of whether to approve a construction project, be that decision right or wrong, is a nullity if based upon an environmental impact report (EIR) that does not provide the decision-makers, and the public, with the information about the project, as required by the California Environmental Quality Act (CEQA). West's Ann.Cal.Pub.Res.Code § 21000.

2 Cases that cite this headnote

[7] Environmental Law <table-cell-rows> Mining; oil and gas

Supplemental information provided by oil refinery's expert witness during the post-environmental impact report (EIR) "battle of the experts" was too little, and too late, to satisfy California Environmental Quality Act's (CEQA)

requirements that the public be fully informed as to the environmental effects of a proposed project, as required for final EIR to be certified.

West's Ann.Cal.Pub.Res.Code § 21000.

[8] Environmental Law - Mining; oil and gas

Oil refinery's expert witness's reliance on undisclosed data from refinery did not meet the "informational" goals of the California Environmental Quality Act (CEQA), which required the public to be fully informed as to the environmental effects of a proposed project.

West's Ann.Cal.Pub.Res.Code § 21000.

1 Case that cites this headnote

[9] Environmental Law 🌭 Mining; oil and gas

Environmental impact report (EIR) failed as an informational document to fully inform the public as to the environmental effects of oil refinery's proposed construction project, as required by the California Environmental Quality Act (CEQA), because the EIR's project description was inconsistent and obscure as to whether the project enabled the refinery to process heavier crude oil, and failed to properly establish, analyze, and consider an environmental baseline; EIR claimed that the project was designed to allow more flexibility in refining future crude supplies that the EIR described as "increasingly heavier," while denying that the project would enable the refinery to process heavier crude. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

See 12 Witkin, Summary of Cal. Law (10th ed. 2005) Real Property, § 841; Cal. Jur. 3d, Pollution and Conservation Laws, §§ 546, 552; 9 Miller & Starr, Cal. Real Estate (3d ed. 2001) § 25A:16; Cal. Civil Practice (Thomson Reuters 2010) Environmental Litigation, § 8:19; Annot., Validity, construction, and application of statutes requiring assessment of environmental information prior to grants of entitlements for private land use (1977) 76 A.L.R.3d 388.

21 Cases that cite this headnote

[10] Environmental Law 🐎 Mitigation measures

An environmental impact report (EIR) is inadequate under the California Environmental Quality Act (CEQA) if the success or failure of mitigation efforts may largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

8 Cases that cite this headnote

[11] Environmental Law 🐎 Mitigation measures

The development of mitigation measures, as envisioned by the California Environmental Quality Act (CEQA), is not meant to be a bilateral negotiation between a project proponent and the lead agency after project approval; but rather, an open process that also involves other interested agencies and the public. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

9 Cases that cite this headnote

[12] Environmental Law 🕪 Mitigation measures

For kinds of environmental impacts for which mitigation is known to be feasible under the California Environmental Quality Act (CEQA), the environmental impact report (EIR) may give the lead agency a choice of which measure to adopt, following approval of an EIR, so long as the measures are coupled with specific and mandatory performance standards to ensure that the measures, as implemented, will be effective.

West's Ann.Cal.Pub.Res.Code § 21000 et seq.

17 Cases that cite this headnote

[13] Environmental Law Proceedings; certification and approval

City's decision to allow oil refinery to formulate a mitigation plan a year after certifying environmental impact report (EIR) process failed to satisfy California Environmental Quality Act's (CEQA) requirement to analyze impacts of project and formulate mitigation measures before project was brought to planning commission and city council for final approval; proper course was not to defer adoption of mitigation measures, but to defer approval until proposed mitigation measures were fully developed, defined, and made available to public and interested agencies for review and comment.

West's Ann.Cal.Pub.Res.Code § 21000 et seq.

25 Cases that cite this headnote

[14] Environmental Law Proceedings; certification and approval

City was not precluded under the California Environmental Quality Act (CEQA) from incorporating guidelines to continue utilizing new scientific information as it became available once mitigation measures were publicly reviewed and identified, before final approval of environmental impact report (EIR) related to construction project designed to upgrade manufacturing facilities at oil refinery.

West's Ann.Cal.Pub.Res.Code § 21000 et seq.

2 Cases that cite this headnote

[15] Environmental Law Adequacy of Statement, Consideration, or Compliance

The California Environmental Quality Act (CEQA) forbids piecemeal review of the significant environmental impacts of a construction project; rather, CEQA mandates that environmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.

West's Ann.Cal.Pub.Res.Code § 21000 et seq.

6 Cases that cite this headnote

[16] Environmental Law — Mining; oil and gas

City's approval of environmental impact report (EIR) related to construction project designed to

upgrade refiner's oil processing facilities did not constitute illegal piecemealing in violation of the California Environmental Quality Act (CEQA) on ground that city unlawfully segmented its environmental review of project by failing to analyze, as part of project itself, a proposed hydrogen pipeline; principal purpose for upgrade project was to allow refinery to modify and/ or replace existing refinery equipment in order to improve the refinery's ability to process crude oil, whereas principal purpose of the hydrogen pipeline project was to provide a way to transport excess hydrogen that was not required for refinery operations to other hydrogen consumers in general area.

hydrogen consumers in general area. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

9 Cases that cite this headnote

Attorneys and Law Firms

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Center for Biological Diversity, Matthew Vespa for Center for Biological Diversity, Environmental Defense Center, Ventura, and the Planning & Conservation League, Sacramento, as Amici Curiae on behalf of Respondents.

RUVOLO, P.J.

*75 I.

INTRODUCTION

On April 6, 2005, Chevron Products Company (Chevron) submitted an application to the City of Richmond (City) for the necessary permits to proceed with construction of the Chevron Energy and Hydrogen Renewal Project (the Project). The Project was designed to replace and upgrade certain manufacturing facilities at the Chevron Richmond Refinery (the Refinery), with the objective of improving the Refinery's ability to process a more varied mix of crude oil types from a wider variety of sources than it currently processes. Approximately three years later, on July 17, 2008, by a 5to-4 vote, the Richmond City Council (City Council) issued Chevron the necessary permits to proceed with construction of the Project after finding that the *76 final Environmental Impact Report (EIR) had been completed in compliance with the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq. (CEOA)). 1

Communities for a Better Environment, West County Toxics Coalition, and the Asian Pacific Environmental Network (collectively, respondents) filed a petition for writ of mandate against the City and Chevron, arguing that the environmental review of the Project was flawed because the EIR failed to disclose, analyze and mitigate all the potential environmental impacts of the Project. The trial court granted the writ, holding that the EIR violated CEQA based on its failure to provide an adequate project description, its failure to consider the whole project, and its failure to define mitigation measures for greenhouse gas emissions. Chevron appeals, arguing the trial court's decision was "based on erroneous factual assumptions regarding the nature of the Project, application of the incorrect standard of review, and clear legal error." We affirm in part

II.

and reverse in part.²

FACTS AND PROCEDURAL HISTORY

Chevron is an oil refiner based in California, whose parent corporation is Chevron Corporation, a Delaware corporation **482 based in San Ramon, California. The Refinery is located on approximately 2,900 acres along the western edge of the City in Contra Costa County, occupying most of the Point San Pablo Peninsula. The Refinery is situated near a populated area—portions of five residential neighborhoods are within a one-mile radius of the Refinery. The Refinery processes crude oil into a variety of fuel and oil products, such as gasoline for passenger cars; jet fuel for aircraft; diesel

fuel for trucks, trains and buses; and lubricating oils for motor vehicles and other uses.

This case involves a project proposed by Chevron that would allow the Refinery to increase production of gasoline by approximately 6 percent (300,000 gallons per day) that would meet California Air Resources Board (CARB) standards, and could be sold in California. However, there would be an equivalent decrease in production of that portion of total Refinery gasoline that does not meet CARB standards. Therefore, the Project would not increase the Refinery's consumption of crude oil, although it is *77 repeatedly acknowledged that the "upgrades would expand the Refinery's options for using a wider range of crude oils."

It was anticipated that the "future crude and gas oil supplies" to be processed in the post-Project Refinery would contain higher amounts of sulfur and associated contaminants. The sulfur content of incoming crude varies, with a typical content being around 1.7 percent. The Refinery currently can process a crude mix of approximately 2 percent sulfur with existing equipment. However, new equipment installed under the Project will increase this capability to 3 percent sulfur.

The record indicates that the "Project involves expenditure of hundreds of millions of dollars...." There are four major components of the Project designed primarily to replace and upgrade existing equipment and units at the Refinery. They are (1) the Hydrogen Plant Replacement, (2) the Power Plant Replacement, (3) the Catalytic Reformer Replacement, and (4) the Hydrogen Purity Improvements. The Hydrogen Plant Replacement is identified as a "key element" of the Project which, when combined with the new Power Plant and Catalytic Reformer replacements, will allow Chevron to replace older, less efficient equipment with new equipment and facilities that provide improved reliability, energy efficiency, better environmental controls, and will enable "the production of a larger portion of clean California gasoline." Other components of the Project include replacing 10 existing tanks, constructing 8 new storage tanks, and constructing a new central control room and a new maintenance facility. The Project will also involve modifying, replacing, and installing refinery equipment including piping, heat exchangers, instrumentation, catalytic reactors, fractionation equipment, pumps, compressors, furnaces, and tanks. All of the new equipment and facilities will be located within the boundaries of the existing Refinery, and will generally be placed among similar existing equipment.

On June 15, 2005, the City issued a Notice of Preparation (NOP) that an EIR would be prepared for the Project. The draft EIR was published on May 11, 2007, with a 45–day public review period. The draft EIR was reviewed by various governmental agencies, as well as numerous interested individuals and organizations. At the request of members of the public, the City extended the review period until July 9, 2007, for a total review period of 59 days. A public hearing was held on June 7, 2007, and 24 members of the public commented.

**483 *78 The final EIR, consisting of six volumes, was published on January 25, 2008. The EIR identified numerous significant or potentially significant impacts associated with the Project, including emission of pollutants, greenhouse gas emissions, noise levels during construction, and Project-generated increases in traffic. The EIR concluded that all impacts associated with the Project would be eliminated or reduced to less than significant level by mitigation measures that would be made a condition of Project approval.

On June 5, 2008, the Richmond Planning Commission (Planning Commission) certified that the final EIR was completed in compliance with CEQA. Respondents then appealed the Planning Commission's certification of the final EIR to the City Council. Chevron filed a separate appeal to the City Council challenging certain mitigation measures adopted by the Planning Commission.

The City Council heard public comment during a hearing beginning on July 15, 2008, and continuing into the early morning hours of July 17, 2008. On the first night of the hearing, Chevron presented the City with a "community benefits agreement," which was a \$61 million package to fund various civic improvements. In return, among other things, the City was obligated to create a fast track for additional future permitting for the Project, if it was approved.

On July 17, 2008, by a 5-to-4 vote, the necessary permits for the Project were approved by the City Council, subject to numerous conditions addressing Project construction, air quality, greenhouse gas emissions, refinery gases, and water quality. It was determined that all significant environmental effects due to the Project's approval "have been eliminated or substantially lessened where feasible." The City Council also certified that the final EIR for the Project had been completed in compliance with CEQA. Both Chevron's and respondents'

appeals from the Planning Commission's decision were denied.

On September 4, 2008, respondents filed a petition for writ of mandate and complaint for injunctive relief requesting the superior court to set aside the City Council's certification of the EIR and approval of the Project permits. Primarily, respondents argued that the EIR was inadequate based on its alleged failure: (1) to disclose and analyze the likelihood that the Project would increase the Refinery's ability to process heavier, lower quality, and more contaminated crude; (2) to analyze and provide adequate mitigation for greenhouse gas emissions from the Project; (3) to include a proposed new *79 pipeline for the transport and sale of excess hydrogen as part of the Project, thus improperly "piecemealing" the pipeline from the Project; and (4) to properly analyze cumulative impacts. In addition, respondents claimed the City should have revised and recirculated the EIR when significant new information arose during the approval process.

The matter was argued on May 20, 2009. On July 1, 2009, the trial court entered a judgment in favor of respondents on three issues. The court found that the EIR was deficient because it was "unclear and inconsistent as to whether [the] [P]roject will or will not enable Chevron to process a heavier crude slate than it is currently processing." The court further held that the City had "improperly deferred the formulation of greenhouse gas mitigation **484 measures" by allowing Chevron to prepare a mitigation plan for submission to City staff up to a year after the Project's approval. The court also declared that Chevron had improperly "piece-mealed" the Project, by failing to include and analyze a hydrogen pipeline as part of the Project. The court then concluded that it was not "necessary to reach the other issues ... because the above violations require revision of the EIR." Accordingly, the trial court entered judgment granting the writ and setting aside the Project's EIR, invalidating all of the Project permits, and suspending all Project-related construction activities.

Chevron filed a notice of appeal on July 20, 2009. The City filed a separate appeal, raising no challenge to the trial court's resolution of the issues, but requesting solely that this court decide the issues left undecided by the trial court. On August 4, 2009, this court granted Chevron's motion for calendar preference and for an expedited briefing schedule. (Cal. Rules of Court, rule 8.240.)

III.

DISCUSSION

A. CEQA Overview

Among other requirements, an EIR must describe [1] the proposed project and its environmental setting, state the objectives sought to be achieved, identify and analyze the significant effects on the environment, state how those impacts can be mitigated or avoided, and identify and analyze alternatives to the project. (§§ 21100, subd. (b), 21151; Cal.Code Regs., tit. 14, §§ 15124, 15125, 15126.6.) ⁴ As our Supreme Court has recently emphasized, "The preparation and circulation of an EIR is more than a set of *80 technical hurdles for agencies and developers to overcome. The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been taken into account. [Citation.] For the EIR to serve these goals it must present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made." (Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 449–450, 53 Cal.Rptr.3d 821, 150 P.3d 709 (Vineyard Area Citizens).)

[2] In reviewing compliance with CEQA, we review the agency's action, not the trial court's decision. (Vineyard Area Citizens, supra, 40 Cal.4th at p. 427, 53 Cal.Rptr.3d 821, 150 P.3d 709.) In doing so, our "inquiry 'shall extend only to whether there was a prejudicial abuse of discretion.' [Citation.]" Abuse of discretion is established "if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence...." (§ 21168.5.) Substantial evidence in this context means "enough relevant information and reasonable inferences from this **485 information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." (Guidelines, § 15384, subd. (a).)

B. The Project Description Is Unclear and Inconsistent As To the Specific Gravity of the Crude Oil that Could Be Processed

A stated objective of the Project is "to improve the Refinery's ability to process a more varied proportional mix of crude oil types than it currently processes, including crude oil with higher sulfur content." (Fn. omitted.) Respondents argued, and the trial court found, that the EIR's discussion of the types of crude that the Refinery currently processes, as compared to the types of crude the Refinery would be able to process after the Project was implemented, was so "unclear and inconsistent" that the EIR failed to provide an "accurate, stable, and finite project description."

Crude is described in the EIR as "the basic feedstock for the Refinery." It is a composite of oils that vary in weight and levels of contaminants. Refining crude involves, among other things, separating out the oils of differing weights and using hydrogen to remove contaminants such as sulfur. The heaviness of the crude (i.e., its specific gravity) is related to the abundance of the larger, *81 heavier hydrocarbons it contains and is determined by the American Petroleum Institute (API) scale. API gravity is on a reverse scale—the lower the density of crude oil, the higher the degree of API gravity and the greater the value. Crude oil ranges from "light" crude (above API 36) to "intermediate" crude (between API 18–36), to "heavy" crude (between API 1–18).

As the EIR explains, the Refinery does not and cannot process "heavy" crude (meaning crude with an API gravity of 18 or below) because it lacks an essential piece of equipment, a coker. There is no indication that Chevron has any plans to acquire a coker, which would allow the Refinery to process heavy crude. Instead, the Refinery is configured to process light to intermediate crude, and the EIR maintains "[i]t is reasonably foreseeable that" after the Project "Chevron would run a crude slate similar to that which is currently processed at the Refinery—but in a mixture that has higher sulfur levels."

Throughout the environmental review process, respondents and others expressed concern that Chevron was obscuring the fact that the changes in Refinery equipment proposed by the Project, while not allowing the processing of heavy crude, would nevertheless significantly increase Chevron's ability to process lower quality, heavier crude as compared with the crude the Refinery currently processes. They maintained that heavier, lower-quality crude requires more intensive processing and is inherently more polluting, creating serious public health risks, including increased releases of selenium,

mercury, sulfur flare gas, greenhouse gases, particulate matter, and the greater likelihood of upsets, which lead to emergencies and flaring.

For example, the City's mayor, Gayle McLaughlin, submitted a letter dated July 9, 2007, indicating her concern that the community would be adversely impacted if heavier crude were processed at the Refinery. She indicated that the "surrounding community to the [R]efinery already suffers from high rates of asthma and other respiratory diseases, as well as cancer." She wrote, "Higher refining temperatures and a heavier crude slate will most definitely lead to poorer air quality and a greater risk of accidents that regularly impact our neighborhoods that are already overly and unjustly burdened with pollutants and risk."

**486 The final EIR dismisses these comments based on its conclusion that "a change to a substantially heavier crude slate ... would not be a reasonably foreseeable consequence of the Proposed Project because the Proposed Project would not alter the Refinery's current design for processing intermediate and light crudes." Thus, while the EIR discloses that the Project will result in an increase in the sulfur content of the crude processed at the *82 Refinery, it steadfastly denies that the Project will increase the Refinery's ability to process heavier, lower quality, more contaminated crude, which could potentially create serious environmental consequences. Consequently, the EIR does not address the public health or other environmental consequences of processing heavier crude, let alone analyze, quantify, or propose measures to mitigate those impacts.

As to this issue, respondents' claim revolves around whether the EIR concealed, ignored, excluded, or simply failed to provide pertinent information on whether or not processing lower quality, heavier crude is a reasonably foreseeable consequence of the project. (**Laurel Heights I, supra, 47 Cal.3d at p. 396, 253 Cal.Rptr. 426, 764 P.2d 278 [a complete description of a project has to address not only the immediate environmental consequences of going forward with the project, but also all "reasonably foreseeable consequence[s] of the initial project"]; **Vineyard Area Citizens, supra, 40 Cal.4th at p. 428, 53 Cal.Rptr.3d 821, 150 P.3d 709 [same].) They claim the EIR's conclusions are unsupported and unverifiable because the EIR has failed to quantify and analyze the crude slate the Refinery currently

processes as compared with the Refinery's ability to run a

heavier crude slate once the Project is implemented.

Initially, we note that the parties vehemently disagree as to what standard of review is applicable to respondents' claims, an important prologue issue to our analysis. Chevron characterizes respondents' claims as challenging the evidence supporting the EIR's determination that the Project would not result in the Refinery's equipment being physically altered to allow the processing of heavier crude. Chevron argues that "[t]his is a quintessential factual dispute governed by the substantial evidence test." Respondents, on the other hand, argue that when "a final EIR does not adequately apprise all interested parties of the true scope of the project," the agency has failed to proceed in a manner required by law, and the final EIR is inadequate as a matter of law.

Our Supreme Court has counseled that "[i]n evaluating an EIR for CEQA compliance, ... a reviewing court must adjust its scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a dispute over the facts." (Vineyard Area Citizens, supra, 40 Cal.4th at p. 435, 53 Cal.Rptr.3d 821, 150 P.3d 709.) The dispute on this issue centers on the question of whether pertinent information was omitted from the EIR.

On appeal, "the existence of substantial evidence supporting the agency's ultimate decision on a disputed issue is not relevant when one is assessing a violation of the information disclosure provisions of CEOA." (Association of Irritated Residents v. County of Madera (2003) 107 Cal.App.4th 1383, 1392, 133 Cal.Rptr.2d 718 (Irritated Residents).) "If a final environmental impact report (EIR) does not 'adequately apprise all interested parties of the true *83 scope of the project for intelligent weighing of the environmental consequences of the project,' informed decisionmaking cannot occur under CEQA and the final EIR is inadequate as a matter of law. [Citation.]" (Riverwatch v. Olivenhain **487 Municipal Water Dist. (2009) 170 Cal.App.4th 1186, 1201, 88 Cal.Rptr.3d 625 (Riverwatch); Bakersfield Citizens for Local Control v. City of Bakersfield (2004) 124 Cal.App.4th 1184, 1197-1198, 22 Cal.Rptr.3d 203; Firitated Residents, supra, 107 Cal.App.4th at p. 1391, 133 Cal.Rptr.2d 718; Save Our Peninsula Committee v. Monterey County Bd. of Supervisors (2001) 87 Cal.App.4th 99, 118, 104 Cal.Rptr.2d 326 (Save Our Peninsula).)

[4] Thus, we conclude that the claimed deficiencies in the EIR compel de novo review. (Vineyard Area Citizens, supra, 40 Cal.4th at p. 427, 53 Cal.Rptr.3d 821, 150 P.3d 709.) As we explain, under this standard of review, we agree with the trial court that the EIR is inadequate as a matter of law because it does not adequately address the issue of whether the Project includes any equipment changes that would facilitate the future processing of heavier crudes at the Refinery. The EIR states in conclusory terms that the proposed Project will not result in an increased capacity to process lower quality heavier crude, and that Chevron seeks only the ability to refine crude with higher sulfur content. However, that statement is not adequately supported by facts and analysis contained in the EIR. Moreover, there was conflicting information developed during the EIR process that casts serious doubt on these assertions.

Significantly, the EIR itself contains conflicting statements about the objectives of the Project. On one hand, the EIR states "[t]he Proposed Project does not include any process and equipment changes that would facilitate the processing of heavier crudes at the Chevron Richmond Refinery." On the other hand, the EIR explains that "[r]efiners have had to adapt to a crude oil supply that is increasingly heavier and moresour (higher sulfur content)." (Italics added.) "The supply of crude oil to California refineries has changed substantially during the last 10 years, with light to intermediate crudes becoming less available It is within the context of these changes in crude oil supply that the Renewal Project is proposed." (Italics added.) Consequently, the EIR claims that the Project is designed to allow more flexibility in refining future crude supplies that the EIR describes as "increasingly heavier"; but on the other hand, denies that the Project will enable the Refinery to process heavier crude.

Furthermore, the Project that Chevron described in a filing with the United States Security and Exchange Commission (SEC), which was made under oath, differs considerably from the EIR's project description. Chevron's SEC Form 10–K for the fiscal year ending December 31, 2007, identifies the central purpose of the Project as enabling the processing of heavier (lower gravity) crude. Chevron's 10–K filing included the following statement about *84 the Refinery: "Design and engineering for a project to increase the flexibility to process lower API-gravity crude oils at the company's Richmond, California refinery continued in 2007." Mayor McLaughlin immediately grasped the significance of Chevron's SEC disclosure: "So, we know that 'lower API gravity' means heavier crude oil. Chevron did not [tell their investors] that

they would be increasing the flexibility to process higher sulfur content crude oil. They said lower API gravity crude oil."

Moreover, in response to the EIR's assurance that the Project would not facilitate the processing of a heavier crude mix at the Refinery, it was repeatedly suggested that the Project's conditional use permit contain a provision ensuring that the Refinery would not switch to a heavier crude slate; the socalled "crude cap." California's **488 Attorney General was one of the most vocal advocates of imposing such a conditional use requirement. In correspondence to the City, the Attorney General noted that "[i]f this Project enables Chevron to use a different, dirtier crude mix with greater polluting potential, this fact is not disclosed" and the EIR "is legally deficient under CEOA on this issue." In order to correct this potential "deficiency," the Attorney General proposed "imposing a limitation on the conditional use permit precluding Chevron from altering its crude slate mix other than the 3% sulfur increase which has already been disclosed and analyzed" in the EIR.

This "crude cap" proposal was met with Chevron's heated opposition, and was never implemented. When asked at a public hearing why Chevron would object to placing controls on processing a heavier crude slate if "you can't do it anyway," a Chevron official made a revealing statement: "[I]t's an extremely fluid and complex process for identifying and selecting crudes to process at a given refinery, and depending on the operating scenario, the product demand, what's available, ... there is [sic] any number of combinations of crude oil that can come into the refinery. And the concern is that this selection of crude oil would be so far constrained that we would not be able to take full advantage of the process capability of the refinery." (Italics added.) Clearly, a legitimate interpretation of this answer was that Chevron sought to preserve its operational flexibility to process a heavier range of crude than was currently being processed.

"By giving such conflicting signals to decision makers and the public about the nature and scope of the activity being proposed, the Project description was fundamentally inadequate and misleading." (San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645, 655–656, 57 Cal.Rptr.3d 663, fn. omitted (San Joaquin Raptor).) Compounding this problem was the uninformative analysis of the crude oil issue in the EIR. In the final EIR, the City held fast to its position that Chevron *85 was

changing only the sulfur content of the crude, and not its

heaviness. In the Master Response to public comments, the City insisted once again that "[t]he Proposed Project does not include any process and equipment changes that would facilitate the processing of heavy crudes at the Refinery. The crude oils used would continue to be a mix of the intermediate and light crudes that the Refinery is designed to process." However, it was explained that the implementation of the Project would result in "the ability to process a higher percentage of Middle Eastern crudes," accordingly, the Refinery's "crude gravity (lbs/barrel) may fluctuate up to 3%, which is within the range of gravities of crudes historically processed at the Refinery...." This statement about the range of crude feedstock historically flowing into the Refinery was supported by a virtually unreadable chart entitled "Gravity (API) of Crude Oil Processed at Richmond from 1992 through 2007," with no narrative explaining the data or providing any reference to source documents supporting its graphic conclusions.

Far from being an informative document, the EIR's conclusions call for blind faith in vague subjective characterizations. (See **Berkeley Keep Jets Over the Bay Com. v. Board of Port Cmrs. (2001) 91 Cal.App.4th 1344, 1371, 111 Cal.Rptr.2d 598 (Berkeley Jets) ["[t]he conclusory and evasive nature of the response to comments is pervasive, with the EIR failing to support its many conclusory statements by scientific or objective data"]; **San Joaquin Raptor,

by scientific or objective data"]; San Joaquin Raptor, supra, 149 Cal.App.4th at p. 659, 57 Cal.Rptr.3d 663 ["decision makers and general public should not be forced to ... **489 ferret out the fundamental baseline assumptions that are being used for purposes of the environmental analysis"].) The problem with this type of analysis, as recognized by the trial court, is that it does not provide any objective quantification of the "continuing mix that [the] Refinery was 'designed to process.' " Nor does it explain "whether the mix the [R]efinery is 'designed' to process is heavier than [the] mix [the] Refinery is currently processing." As the trial court pointed out, unless the data as to crude slate currently processed at the Refinery (the environmental baseline) is divulged, the EIR's conclusion that the future crude slate would be "similar to that which is currently processed" is meaningless.

As an example of what should have been done *before* the EIR became final, we note that after the final EIR was issued, three experts rendered their opinions on the pivotal question of whether or not the Project would result in changes in the refining process that would enable Chevron to process

heavier crude oil. In some respects, this expert input answered many of the site-specific questions left unaddressed and unanswered by the EIR. (See Los Angeles Unified School Dist. v. City of Los Angeles (1997) 58 Cal.App.4th 1019, 1030, 68 Cal.Rptr.2d 367 [criticizing agency's postponement of analysis of air quality impacts of specific plan when "authors of the EIR had sufficiently reliable data to permit preparation

*86 City of Santee v. County of San Diego (1989) 214 Cal.App.3d 1438, 1454–1455, 263 Cal.Rptr. 340 [adoption of project limits as part of the certification of the EIR "was too little too late to adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences"].)

of a meaningful and accurate report on its impact."]; see also

For example, on March 20, 2008, when the final EIR was before the City's Planning Commission for approval, respondent Communities for a Better Environment submitted the opinion of their senior scientist, Gregory Karras. Karras concluded that "[t]he [final EIR] omits current process data and wrongly concludes that the Project will not significantly increase Refinery capacity for low quality feedstock." (Fn. omitted.) Since it is generally acknowledged that the weight of the crude oil that can be refined is dictated by the specifications of the Refinery's equipment, Karras explained, in copious detail, his theory of how the increased process flow through the Solvent Deasphalter (SDA) would enable the Refinery to process lower quality, heavier crude. ⁵

On March 19, 2008, California's Attorney General submitted the report of another refinery expert, Geoffrey E. Dolbear, Ph.D. Dr. Dolbear is described as a physical chemist with more than 40 years of industrial experience developing improved refining processes. He indicated that "Chevron's statements that it 'will continue to run the same crude oil types as processed **490 currently' is incomplete at best, and misleading at worst." He agreed with Karras that "[t]he increased SDA capacity will allow Chevron to process increased levels of heavier crudes, and, if it does so, the [R]efinery will likely increase its emissions of pollutants." His report concludes with the admonition, "it is not possible to tell for certain what Chevron will do with the proposed increased capacity for the SDA, but undoubtedly Chevron will have the ability to process more heavy crude oil unless restrictions or permit conditions are imposed."

On March 20, 2008, the Planning Commission held a public hearing to decide whether to certify the EIR and approve the Project. After hearing five hours of public testimony, the hearing was continued to determine whether a *87 "crude cap" was needed to ensure the veracity of Chevron's assertion that it had no intention or ability to run a heavier crude slate than was currently being processed.

As part of this post-EIR effort, in late March 2008, the City retained a private consultant concerning these issues, Dr. Ranajit Sahu. Dr. Sahu is described as having over 17 years of experience in the fields of environmental, mechanical, and chemical engineering. In his written report dated July 8, 2008, shortly before the Project received final approval from the City Council, Dr. Sahu tacitly gave credence to the expert analysis already received. He admitted "[s]ince the Renewal Project involves changes in the crude slate (i.e., to more sour or higher sulfur crudes, some of which may be 'heavier'), the throughput in the SDA is pertinent to the project. Increasing the SDA throughput would allow more residuum to be processed, which in turn means that heavier crude oils could be processed." (Italics added.) However, Dr. Sahu ultimately agreed with the EIR's conclusion that, after the Project, the Refinery would not have greater capacity to process a crude slate different from that which is currently being processed. For purposes of this conclusion, Dr. Sahu indicated that "[d]uring the last decade or so, Chevron has processed blended crude oils with monthly-average API gravity in the 29.7-34.4 degree range," and he considered "heavier" crude to mean crude oils "outside the range the Refinery has processed in the last decade."

However, Dr. Sahu's calculations and analysis were based, in part, on confidential data supplied by Chevron that was not made available to anyone else. Dr. Sahu described the confidential information that he reviewed as follows: "One document showed the Refinery's SDA throughput level for the past 10 years. The other document was a spreadsheet containing data on the composition of crude oils used at the Refinery."

Based on this confidential data, Dr. Sahu proposed a permit condition, Condition C12, which would limit the SDA throughput to an average of approximately 48,700 barrels a day on an annual 12-month rolling average, which Dr. Sahu claimed would "ensure that all future crude slates, including higher sulfur slates[,] will be consistent with the Renewal Project EIR project description." He believed that Condition C12, in combination with other proposed conditions, made a "comprehensive crude cap" unnecessary. Condition C12, as proposed by Dr. Sahu, was adopted by the Planning

Commission as part of its approval of the Project. However, when the Project was ultimately approved by the City Council, that body acquiesced to demands made by Chevron that the SDA throughput level should be changed to the maximum throughput level of the SDA—56,000 barrels per day—without any analysis by Dr. Sahu, or any expert, on the question of whether the SDA's **491 full production level, as authorized by this condition, materially altered, or at least was inconsistent with the then-extant Project description.

*88 Chevron urges this court not to [5] [6] [7] take sides in this "disagreement amongst experts," insisting instead there was sufficient reliable information given by Dr. Sahu during the approval process so that the City Council could reject respondents' "crude switch" theory, and make an informed decision to approve the EIR. Chevron then mounts a robust defense of Dr. Sahu's analysis, explaining in painstaking detail why his opinion was more persuasive than the opinions rendered by the other experts. This, however, is beside the point. It is the adequacy of the EIR with which we are concerned, not the propriety of the subsequent decision to approve the Project. "[T]he ultimate decision of whether to approve a project, be that decision right or wrong, is a nullity if based upon an EIR that does not provide the decision-makers, and the public, with the information about the project that is required by CEQA." (Santiago County

Water Dist. v. County of Orange (1981) 118 Cal.App.3d 818, 829, 173 Cal.Rptr. 602 (Santiago); Vineyard Area Citizens, supra, 40 Cal.4th at p. 443, 53 Cal.Rptr.3d 821, 150 P.3d 709 ["That a party's briefs to the court may explain or supplement matters that are obscure or incomplete in the EIR ... is irrelevant, because the public and decision makers did not have the briefs available at the time the project was reviewed and approved."].) Furthermore, the supplemental information provided by Dr. Sahu during the post-EIR "battle of the experts" is too little, and certainly too late, to satisfy

CEQA's requirements. (See Save Our Peninsula, supra, 87 Cal.App.4th at p. 124, 104 Cal.Rptr.2d 326 [information about baseline "occurred at the very end of the environmental review process, thus avoiding public scrutiny and precluding the meaningful comparison of preproject and postproject conditions required by CEQA"].)

[8] Even if this post-EIR information could somehow be used to cure the EIR's shortcomings, Dr. Sahu's reliance on undisclosed data from Chevron does not meet the "informational" goals of CEQA. CEQA requires full environmental disclosure, but Chevron apparently decided

that the public and the decisionmakers did not need to see proprietary data given only to Dr. Sahu and relied on by this expert. On appeal, Chevron provides no explanation why this information was restricted to Dr. Sahu's eyes only. An expert's opinion "concerning matters within [his or her] expertise is of obvious value, but the public and decision-makers, for whom the EIR is prepared, should also have before them the basis for that opinion so as to enable them to make an independent,

reasoned judgment." (Santiago, supra, 118 Cal.App.3d at p. 831, 173 Cal.Rptr. 602.) If Chevron's position becomes the rule—that a project proponent can pick and choose who sees pertinent data—then a stake is driven into the "heart of CEQA" by preventing the information necessary for an informed decision from reaching the decisionmakers and the

public. (See Laurel Heights Improvement Assn. v. Regents of the University of California (1993) 6 Cal.4th 1112, 1123, 26 Cal.Rptr.2d 231, 864 P.2d 502 (Laurel Heights II).)

[9] *89 For the foregoing reasons, we agree with the trial court that the EIR fails as an informational document because the EIR's project description is inconsistent and obscure as to whether the Project enables the Refinery to process heavier crude. Furthermore, the EIR completely fails to properly establish, analyze, and consider an environmental baseline. Establishing a baseline at the beginning of **492 the CEQA process is a fundamental requirement so that changes brought about by a project can be seen in context and

significant effects can be accurately identified. (Save Our Peninsula, supra, 87 Cal.App.4th at p. 125, 104 Cal.Rptr.2d 326 ["baseline determination is the first rather than the last step in the environmental review process"].) When an EIR omits relevant baseline environmental information, the agency cannot make an informed assessment of the project's

impacts. (County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931, 952, 91 Cal.Rptr.2d 66.) Due to these errors, the EIR failed its informational purpose under CEQA.

If the EIR is revised to address these deficiencies, we note that on March 15, 2010, our Supreme Court issued important guidance on what constitutes the proper project baseline against which significant environmental effects can

be determined. In Communities for a Better Environment v. South Coast Air Quality Management District (2010) 48 Cal.4th 310, 106 Cal.Rptr.3d 502, 226 P.3d 985 the project proponent, ConocoPhillips, argued that "the analytical baseline for a project employing existing equipment should be

the maximum permitted operating capacity of the equipment, even if the equipment is operating below those levels at the time the environmental analysis is begun." (Id. at p. 316, 106 Cal.Rptr.3d 502, 226 P.3d 985.) The Supreme Court disagreed and unanimously held that CEQA requires that the baseline should reflect "'established levels of a particular use," and not the "'merely hypothetical conditions allowable' under the permits..." (Id. at p. 322, 106 Cal.Rptr.3d 502, 226 P.3d 985, quoting San Joaquin Raptor, supra, 149 Cal.App.4th at p. 658, 57 Cal.Rptr.3d 663.) In finding that the actual operational conditions must be reflected in the baseline, the Supreme Court stressed that the purpose of CEQA is to fully inform the public as to the environmental effects of a proposed project. The court stated that using hypothetical, allowable conditions as a baseline "will not inform decision makers and the public of the project's significant environmental impacts, as CEQA mandates." (Id. at p. 328, 106 Cal.Rptr.3d 502, 226 P.3d 985.)

C. Improper Deferral of Greenhouse Gas Mitigation Measures

In seeking writ relief, respondents complained that the final EIR provided only a perfunctory list of possible measures to mitigate the Project's significant contribution to greenhouse gas emissions and improperly deferred identification of these measures until *after* the CEQA process. The trial court agreed, finding that the EIR had improperly deferred an analysis of mitigation *90 measures for the Project's greenhouse gas impacts to a future, post-EIR process. For this reason, the court found the City failed to proceed as required by law and had abused its discretion in certifying the EIR and approving the Project. (§ 21168.5.)

It should first be pointed out that the formulation of greenhouse gas mitigation measures was delayed due to the City's reluctance to make a finding early in the EIR process that the greenhouse gas emissions generated by the Project would create a significant effect on the environment. The draft EIR concluded that "[w]hen considering the maximum potential **493 emissions" created by the Project, it could result in "a net increase in CO₂ emissions of approximately 898,000 metric tons" per year. ⁷ However, the draft EIR explicitly declined to "state conclusions about the extent of any impacts or potential mitigation."

After numerous objections to the City's treatment of the greenhouse gas issue, the final EIR acknowledged the environmental significance of greenhouse gas emissions and the effect of those emissions on global warming, but still avoided labeling the Project's contribution to climate change as a significant effect on the environment. Instead, the Final EIR stated that making a significance determination for greenhouse gas impacts of the Project would be too "speculative."

After issuance of the final EIR in January 2008, there was an outpouring of public comment arguing that the EIR had failed to provide a convincing and complete explanation as to why the increase of greenhouse gas emissions caused by the Project would not have a significant impact on the environment. Those commenting, including California's Attorney General, submitted numerous scientific reports and studies regarding the relationship between climate change and greenhouse gas emissions and the expected impacts on the environment.

The proposition that climate-change impacts are significant environmental impacts requiring analysis under CEQA was bolstered by several ongoing *91 developments. First, the Legislature enacted the Global Warming Solutions Act of 2006, which implements deep reductions in greenhouse gas emissions after recognizing that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment

of California...." (Health & Saf.Code, § 38501, subd. (a).) Through this enactment, the Legislature has expressly acknowledged that greenhouse gases have a significant environmental effect. Also, in January 2008, a "white paper" was issued by the California Air Pollution Control Officers Association entitled CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emission from Projects Subject to the California Environmental Quality Act < http://www.capcoa.org/CEQA/CAPCOA% 20White % 20Paper.pdf> (as of April 26, 2010). Among other topics, the paper discusses different approaches for making a determination whether a project's greenhouse gas emissions would be significant or less-thansignificant.

Based on the foregoing, the City belatedly issued a finding in a newly published volume of the EIR issued in May 2008, that it "now believes that the Proposed Project's estimated new emissions of 898,000 metric tons per year of GHGs [greenhouse gases] prior to mitigation would most likely be a significant effect on the environment." Having recognized

and acknowledged that incremental increases in greenhouses gases would result in significant adverse impacts to global warming, the EIR was now legally required to describe, evaluate and ultimately adopt feasible mitigation measures which would "mitigate or avoid" those impacts. (§ 21002.1, **494 subd. (b); see also, Guidelines, §§ 15126.4, subd. (a) (1), 15091.) As amici point out, "[t]he quantity of emissions the EIR aims to mitigate is far from trivial. Mitigating the 898,000 tons of greenhouse gas emissions the [P]roject would generate is equivalent to taking 160,000 cars off the road." ⁸ (Fn. omitted.)

In response to this significance finding, the EIR puts forth some proposed mitigation measures to ensure that the Project's operation "shall result in no net increase in GHG emissions over the Proposed Project baseline." The centerpiece of the mitigation plan is Mitigation Measure 4.3–5(e), which was ultimately adopted by the City Council in approving the Project. Mitigation Measure 4.3–5(e) states: "No later than one (1) year after approval of this Conditional Use Permit, Chevron shall submit to the City, for approval by the City Council, a plan for achieving complete reduction of GHG emissions up to the maximum estimated Renewal Project GHG emissions increase over the baseline (898,000 metric tons per year....)"

*92 First, the mitigation plan requires Chevron, within one year of Project approval, to hire and fully fund "a qualified independent expert" to complete an inventory of greenhouse gas emissions and to identify potential emissions reduction opportunities. In preparing the mitigation plan, Chevron "shall consider implementation of measures that achieve GHG reductions including, but not limited to, the following measures:" (Italics added.) Mitigation Measure 4.3–5(e) then lists a handful of candidate mitigation measures. Among the mitigation measures proposed are "Add/ improve heat exchangers" and "Initiate carbon sequestration, capture and export." Another mitigation measure proposes "Replac[ing] stationary, non-emergency diesel internal combustion engines," while another proposes "Reduc[ing] mobile emission sources through 'transportation smart' development such as Greenprint." Mitigation Measure 4.3-5(e) outlines the priority in which measures should be implemented, with first priority given to on-site mitigation at the Refinery before mitigation measures are to take place elsewhere.

In the writ proceeding below, respondents argued that the City failed in not submitting a plan to mitigate greenhouse gas emissions during the environmental review process, but instead proceeding by preparing a menu of potential mitigation measures, with the specific measures to be selected by Chevron and approved by the City Council a year after Project approval. The superior court agreed with petitioners that the "City has improperly deferred formulation of greenhouse gas mitigation measures, by simply requiring Chevron to prepare a mitigation plan and submit it to City staff up to a year later after approval of conditional use permit."

"Formulation of mitigation measures should not be [10]deferred until some future time." (Guidelines, § 15126.4(a) (1)(b).) An EIR is inadequate if "[t]he success or failure of mitigation efforts ... may largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR." (San Joaquin Raptor, supra, 149 Cal.App.4th at p. 670, 57 Cal.Rptr.3d 663.) "A study conducted after approval of a project will inevitably **495 have a diminished influence on decisionmaking. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA. [Citations.]" (Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296, 307, 248 Cal.Rptr. 352 (Sundstrom).)

Numerous cases illustrate that reliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decision making; and consequently, these mitigation plans have been overturned on judicial review as constituting improper deferral of environmental assessment.

(See, e.g., Gentry v. Murrieta (1995) 36 Cal.App.4th 1359, 1396, 43 Cal.Rptr.2d 170 (Gentry) [conditioning a permit on "recommendations of a report that had yet to be performed"

*93 constituted improper deferral of mitigation]; Defend the Bay v. City of Irvine (2004) 119 Cal.App.4th 1261, 1275, 15 Cal.Rptr.3d 176 [deferral is impermissible when the agency "simply requires a project applicant to obtain a biological report and then comply with any recommendations

that may be made in the report"]; Endangered Habitats League, Inc. v. County of Orange (2005) 131 Cal.App.4th 777, 794, 32 Cal.Rptr.3d 177 ["mitigation measure [that] does no more than require a report be prepared and followed, ... without setting any standards" found improper

deferral]; Sundstrom, supra, 202 Cal.App.3d at p. 306, 248 Cal.Rptr. 352 [future study of hydrology and sewer disposal

problems held impermissible]; Quail Botanical Gardens Foundation, Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597, 1605, fn. 4, 35 Cal.Rptr.2d 470 [city is prohibited from relying on "postapproval mitigation measures adopted during the subsequent design review process"].)

[11] This mitigation plan for greenhouse gases is similarly deficient. Here, the final EIR merely proposes a generalized goal of no net increase in greenhouse gas emissions and then sets out a handful of cursorily described mitigation measures for future consideration that might serve to mitigate the 898,000 tons of emissions resulting from the Project. No effort is made to calculate what, if any, reductions in the Project's anticipated greenhouse gas emissions would result from each of these vaguely described future mitigation measures. Indeed, the perfunctory listing of possible mitigation measures set out in Mitigation Measure 4.3-5(e) are nonexclusive, undefined, untested and of unknown efficacy. The only criteria for "success" of the ultimate mitigation plan adopted is the subjective judgment of the City Council, which presumably will make its decision outside of any public process a year after the Project has been approved. Fundamentally, the development of mitigation measures, as envisioned by CEQA, is not meant to be a bilateral negotiation between a project proponent and the lead agency after project approval; but rather, an open process that also involves other interested agencies and the public.

We find this proposal is no different than the deferred mitigation rejected by the appellate court in San Joaquin Raptor, supra, 149 Cal.App.4th 645, 57 Cal.Rptr.3d 663. There, the EIR required "a management plan" to be prepared "by a qualified biologist to 'maintain the integrity and mosaic of the vernal pool habitat.' "[Id. at p. 669, 57 Cal.Rptr.3d 663.] The court held that this measure was deficient because it merely included a "generalized goal of maintaining the integrity of the vernal pool habitats," placing the onus of mitigation to the future plan and leaving the public "in the dark about what land management steps will be taken, or what **496 specific criteria or performance standard will be met...." [Id. at p. 670, 57 Cal.Rptr.3d 663.]

[12] In defending the greenhouse gas mitigation plan, Chevron emphasizes that CEQA does not always require the details of mitigation measures to be *94 laid out prior to project approval, and in some cases, the best method for mitigating an impact will not be known until after project construction begins. (See Guidelines, § 15126.4.)

Deferred selection of mitigation measures is permissible under the following circumstances: "'[F]or kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process ..., the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval. Where future action to carry a project forward is contingent on devising means to satisfy such criteria, the agency should be able to rely on its commitment as evidence that significant impacts will in fact be mitigated.'...

[Citation.]" (Sacramento Old City Assn. v. City Council (1991) 229 Cal.App.3d 1011, 1028–1029, 280 Cal.Rptr. 478 (SOCA).) In summary, for kinds of impacts for which mitigation is known to be feasible, the EIR may give the lead agency a choice of which measure to adopt, so long as the measures are coupled with specific and mandatory performance standards to ensure that the measures, as implemented, will be effective.

Chevron argues that this is a case in which CEQA allows the EIR to specify "performance standards" rather than choose the specific mitigation methods in advance. Chevron states that "the EIR concludes the Project's GHG emissions will have a potentially significant environmental effect on climate change. The EIR adopts a strict numeric performance standard ("net-zero," which is a 100% reduction).... To enforce this performance standard, the EIR provides a list of potential mitigation strategies...." Chevron contends that the mitigation strategy employed in this case is similar to the mitigation plans upheld in **California Native Plant Society v. City of Rancho Cordova (2009) 172 Cal.App.4th 603, 91 Cal.Rptr.3d 571 (CNPS) and in SOCA, **Supra, 229 Cal.App.3d 1011, 280 Cal.Rptr. 478.

In CNPS, supra, 172 Cal.App.4th 603, 91 Cal.Rptr.3d 571, during the environmental review process it was determined that the proposed project would significantly impact vernal pools, wetlands, and associated animal species. The lead agency in CNPS then identified and formulated a specific measure to mitigate these impacts—"preservation or creation of replacement habitat offsite in a specific ratio to the habitat lost as a result of the [p]roject." (Id. at p. 622, 91)

Cal.Rptr.3d 571.) The court concluded that "the [c]ity here did not have to identify exactly where ... any offsite mitigation site would be located." (*Ibid.*) The court stated that it was appropriate to defer such analysis where there was nothing

in the record that suggested "the offsite mitigation measures the [c]ity proposed were not feasible or that the [c]ity had not fully committed to implementing those measures." (Id. at pp. 622–623, 91 Cal.Rptr.3d 571.)

In SOCA, supra, 229 Cal.App.3d 1011, 280 Cal.Rptr. 478, the city prepared an EIR which identified potentially significant traffic and parking impacts resulting from the *95 proposed project, the expansion of a downtown convention center and the construction of a nearby office building. (Id. at p. 1015, 280 Cal.Rptr. 478.) The draft EIR discussed many options for mitigating the parking impacts, including plans for redesigning the project to provide onsite parking and construction of new garages **497 in the project area. (Id. at p. 1029, 280 Cal.Rptr. 478) The draft EIR also contained specific performance criteria which required that " 'the overall level of parking utilization in the study area should not exceed 90 percent.'..." (In Id. at p. 1022, 280 Cal.Rptr. 478.) The court found that it was not feasible to select the exact mitigation measures to be implemented prior to project approval because the city had provided funding for a "major study of downtown transportation" that would help in defining the final mitigation plan. (Id. at p. 1029, 280 Cal.Rptr. 478.)

Consequently, the appellate courts in CNPS and SOCA permitted the lead agency to defer the formulation of specific mitigation measures after the lead agency: (1) undertook a complete analysis of the significance of the environmental impact, (2) proposed potential mitigation measures early in the planning process, and (3) articulated specific performance criteria that would ensure that adequate mitigation measures were eventually implemented. In contrast to the situations profiled in CNPS and SOCA, the lead agency in our case delayed making a significance finding until late in the CEQA process, divulged little or no information about how it quantified the Project's greenhouse gas emissions, offered no assurance that the plan for how the Project's greenhouse gas emissions would be mitigated to a net-zero standard was both feasible and efficacious, and created no objective criteria for measuring success.

[13] For the foregoing reasons, we agree with the trial court that the City's decision to approve the Project, after giving the City Council final approval over a mitigation plan that Chevron formulates a year later outside the EIR process, does not satisfy CEQA's requirements. We emphasize once again

that the time to analyze the impacts of the Project and to formulate mitigation measures to minimize or avoid those impacts was during the EIR process, *before* the Project was brought to the Planning Commission and City Council for final approval. Because the City belatedly acknowledged at the very end of the EIR process that the Project's greenhouse gas emissions would constitute a significant impact on the environment, the City was obviously unable to gather sufficient information during the EIR process itself to develop specific mitigation measures. The solution was not to defer the specification and adoption of mitigation measures until a year after Project approval; but, rather, to defer approval of the Project until proposed mitigation measures were fully developed, clearly defined, and made available to the public and interested agencies for review and comment.

*96 Chevron justifies the vagueness of the proposed mitigation measures by emphasizing that it was difficult to make a firm commitment to take any specific action when the scientific information about greenhouse gas emissions was constantly expanding during the years that the Project was being environmentally reviewed. We recognize the everchanging nature of this complex scientific field. For example, it was only during the pendency of this appeal that the EPA made an official finding that greenhouse gases are endangering people's health and must be regulated (See < http://www.epa.gov/climate change/endangerment.html> [as of April 26, 2010].) However, the difficulties caused by evolving technologies and scientific protocols do not justify a lead agency's failure to meet its responsibilities under CEQA by not even attempting to formulate a legally adequate mitigation plan. (See Remy et al., Guide to the California Environmental Quality Act (11th ed. 2007) p. 552 [when "a mitigation measure embodies nothing more than the hope that the agency or **498 applicant, with more effort or analysis, can somehow find a solution to a thorny environmental problem, an agency may violate CEQA"].)

In our opinion, the novelty of greenhouse gas mitigation measures is one of the most important reasons "that mitigation measures timely be set forth, that environmental information be complete and relevant, and that environmental decisions be made in an accountable arena. [Citation.]" (Oro Fino Gold Mining Corp. v. County of El Dorado (1990) 225 Cal.App.3d 872, 885, 274 Cal.Rptr. 720.) To that end, "[w]hile foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." (Guidelines, § 15144; see also, Vineyard Area

Citizens, supra, 40 Cal.4th at p. 428, 53 Cal.Rptr.3d 821, 150 P.3d 709.)

[14] In light of our conclusion that the EIR is inadequate on another, even more fundamental ground, and must be revised, the revised EIR should take advantage of any pertinent new information in analyzing the Projects potential greenhouse gas emissions and their cumulative impact on climate change, as well as defining legally adequate mitigation measures to avoid those impacts. (See, e.g., newly enacted Guidelines § 15064.4 [determining significance of project's greenhouse gas emissions]; § 15183.5 [tiering analysis].) Moreover, once mitigation measures are publicly reviewed and identified, nothing prevents the City from incorporating guidelines to continue utilizing new scientific information as

it becomes available. (See, e.g., Napa Citizens for Honest Government v. Napa County Bd. of Supervisors (2001) 91 Cal.App.4th 342, 358, 110 Cal.Rptr.2d 579 [assuming a valid reason, nothing "establish[es] that a particular mitigation measure, once adopted, is a commitment that may never be modified or deleted"].)

D. Hydrogen Pipeline Project is not Part of the Proposed Project

Also at issue in this writ proceeding was respondents' allegation that the City unlawfully segmented its environmental review of the Project by failing *97 to analyze, as part of the Project itself, a proposed hydrogen pipeline that would transport excess hydrogen to other hydrogen consumers, such as other Bay Area refineries. The EIR treated the hydrogen pipeline as a separate project; however, the EIR identified the potentially significant cumulative impacts to which the hydrogen pipeline project would contribute. The trial court concluded that the City improperly "piece mealed" the Project by failing to include and analyze the hydrogen pipeline as part of the Project. We disagree with the trial court's conclusion, finding instead that there was no improper segmentation of a larger project here.

As noted, one of the four main components of the Project was replacing the existing hydrogen plant, which began operating in 1965, with a new hydrogen plant (the Hydrogen Plant Replacement). The Refinery uses substantial amounts of hydrogen for a variety of purposes, including the hydrotreating process (the use of heat, hydrogen, and catalyst to remove impurities such as sulfur) to produce the clean fuels that conform to California standards. The Hydrogen Plant Replacement is fully described and analyzed in the EIR.

While the new Hydrogen Plant Replacement will be located on the Refinery's property, it will be constructed, owned and operated by Praxair, a third-party industrial gas company. Praxair has considerable experience in operating hydrogen plants—it has built 18 hydrogen plants throughout the world. The Hydrogen **499 Plant Replacement's design will allow Praxair to produce additional hydrogen, if it chooses to do so, beyond that needed by Chevron at the Refinery. Any excess hydrogen generated must be exported, as the Refinery does not have the capability to store it.

In February 2007, Praxair filed an application with Contra Costa County for a conditional use permit for a proposed hydrogen pipeline to transport and sell any excess hydrogen to other hydrogen users in the Bay Area besides Chevron. The route of the approximately 21.5 mile proposed hydrogen pipeline would start at the new Hydrogen Plant Replacement at the Refinery and then span a number of jurisdictions, although it would be located entirely within Contra Costa County.

While the hydrogen pipeline project was not considered to be part of the Project reviewed here, there is no dispute that the project is being environmentally reviewed under CEQA in a different EIR with Contra Costa County identified as the CEQA Lead Agency with the responsibility of preparing the EIR. ⁹ The City is identified as a responsible agency for *98 approvals relating to the smaller portion of the pipeline that is within the City's jurisdiction. Regarding this distinction, "'the lead agency is responsible for considering all environmental impacts of the project before approving it, a responsible agency has a more specific charge: to consider only those aspects of a project that are subject to the responsible agency's

jurisdiction. [Citations.]' [Citation.]" (*Riverwatch, supra,* 170 Cal.App.4th at pp. 1205–1206, 88 Cal.Rptr.3d 625.)

In the EIR prepared for the Project, the City set out the reason why the hydrogen pipeline project was treated as a separate, stand-alone project: "The Contra Costa Pipeline Project is not a crucial or functional element of the Chevron Renewal Project. The Chevron Renewal Project does not depend on the Contra Costa Pipeline Project in order to proceed, and would be implemented with or without a pipeline being constructed by Praxair. The scope of the remainder of the Chevron Renewal Project is not dependent upon, and would not change if the pipeline is, or is not, constructed. Rather, the Contra Costa Pipeline Project's purpose would be to serve

Bay Area hydrogen consumers and producers in addition to Chevron."

"There is no dispute that CEQA forbids 'piecemeal' [15] review of the significant environmental impacts of a project." (Berkeley Jets, supra, 91 Cal.App.4th at p. 1358, 111 Cal.Rptr.2d 598.) Rather, CEQA mandates "that environmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences." (Bozung v. Local Agency Formation Com. (1975) 13 Cal.3d 263, 283-284, 118 Cal.Rptr. 249, 529 P.2d 1017.) Thus, the Guidelines define "project" broadly as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment...." (Guidelines, § 15378, subd. (a).) The question of which acts constitute the "whole of an action" for purposes of CEQA is one of law, which we review de novo based on the undisputed facts in the record. (Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora (2007) 155 Cal.App.4th 1214, 1224, 66 Cal.Rptr.3d 645 (Tuolumne County).)

**500 [16] In the seminal case of Laurel Heights I, supra, 47 Cal.3d 376, 253 Cal.Rptr. 426, 764 P.2d 278, the California Supreme Court set aside an EIR for failing to analyze the impacts of the reasonably foreseeable second phase of a multi-phased project. That case involved a plan by the University of California, San Francisco (UCSF) to move its School of Pharmacy basic science research units to a new building, of which only about one-third was initially available to UCSF. (Id. at p. 393, 253 Cal.Rptr. 426, 764 P.2d 278.) Although the EIR acknowledged that UCSF would eventually occupy the remainder of the building once that space became available, the EIR only *99 discussed the environmental effects relating to the initial move. (In Id. at p. 396, 253) Cal.Rptr. 426, 764 P.2d 278.) The court concluded that the EIR should have analyzed both phases and was deficient for omitting the expansion plans. (Id. at p. 399, 253 Cal.Rptr. 426, 764 P.2d 278.) In so holding, the court announced the following test: "[A]n EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be

significant in that it will likely change the scope or nature of the initial project or its environmental effects." (Id. at p. 396, 253 Cal.Rptr. 426, 764 P.2d 278.)

Since the planned expansion was a key component of the project reviewed in *Laurel Heights I*, and the successive phases were really part and parcel of the same project, it is easy to see how the court found that the planned expansion was a reasonably foreseeable consequence of the initial project. By contrast, the projects at issue here, the hydrogen pipeline and the Refinery upgrade, are independently justified separate projects with different project proponents—not "piecemealed" components of the same project. At the same time, the City saw that the hydrogen pipeline project was related to the Refinery upgrade, so the pipeline's cumulative contribution to the Project's environmental impacts was included in the EIR.

Some courts have concluded a proposed project is part of

a larger project for CEQA purposes if the proposed project

is a crucial functional element of the larger project such that, without it, the larger project could not proceed. For example, in San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 32 Cal.Rptr.2d 704, the court concluded the description of a residential development project in an EIR was inadequate because it failed to include expansion of the sewer system, even though the developer recognized sewer expansion would be necessary for the project to proceed. [Id. at pp. 729–731, 32 Cal.Rptr.2d 704.] Because the construction of additional sewer capacity was a "required" or "crucial element []" without which the proposed development project could not go forward, the EIR for the project had to consider the environmental impacts of such construction. [Id. at pp.

More recently, in Tuolumne County, supra, 155 Cal.App.4th 1214, 66 Cal.Rptr.3d 645, the court held that a proposed Lowe's home improvement center and a planned realignment of the adjacent Old Wards Ferry Road were improperly segmented as two separate projects in light of the dispositive fact that the road realignment was included by the City of Sonora as a condition of approval for the Lowe's project. (Id. at p. 1220, 66 Cal.Rptr.3d 645.) The court held that this was really one project, not two, because "[t]heir independence was brought to an end when the road realignment was added as a condition to the

731–732, 32 Cal.Rptr.2d 704.)

approval of the home improvement **501 center project. [Citation.]" (Id. at 1231, 66 Cal.Rptr.3d 645.)

*100 Other courts have used a similar analysis to reach the opposite result. In National Parks & Conservation Assn. v. County of Riverside (1996) 42 Cal.App.4th 1505, 50 Cal.Rptr.2d 339 (National Parks), an environmental advocacy group contended an EIR's project description for a proposed landfill was inadequate because it failed to discuss potential impacts from several "materials recovery facilities" (MRFs) that would be constructed offsite and used to process solid waste before the waste material was transported to the landfill. The proposed landfill would only accept wastes that had been processed through the MRFs, and the trial court observed the landfill could not operate without the MRFs. (Id. at pp. 1517–1518, 50 Cal.Rptr.2d 339.) However, because the exact location of the MRFs was not yet known, the landfill's EIR did not attempt to discuss any sitespecific impacts they could be expected to generate. (Id. at pp. 1518-1519, 50 Cal.Rptr.2d 339.) While recognizing the MRFs were "in some respects a support facility for the landfill," the court observed such facilities would have to be built and "located somewhere, whether or not this [landfill] project is completed...." (Fld. at p. 1518, 50 Cal.Rptr.2d 339.) Because the MRFs were needed to process waste, regardless of the existence of the landfill project, the court concluded they were not "crucial elements" of the landfill project, and thus an environmental review of their impacts could be deferred. (Id. at p. 1519, 50 Cal.Rptr.2d 339.)

In Christward Ministry v. County of San Diego (1993) 13 Cal.App.4th 31, 16 Cal.Rptr.2d 435, the court considered an expansion proposal for a landfill site. Petitioners contended that other waste management projects in the area should have been included in the project description and evaluated in the EIR as part of the project. The court disagreed, finding that even though there were a number of separate waste management projects occurring at the same time, there was "no record reflecting a contemplated larger project...." (Id. at p. 46, 16 Cal.Rptr.2d 435.) Consequently, treating the landfill project as an independent project in the EIR could not be equated to the "chopping up" of a larger project into smaller parts to evade environmental review.

(Ibid.) Furthermore, the court noted the other projects were

addressed in the cumulative impacts analysis of the EIR in

accordance with CEQA requirements. (Id. at p. 47, 16 Cal.Rptr.2d 435.)

Similarly, in Berkeley Jets, the court rejected an argument that the project description in an EIR for an airport development plan (ADP) should have included long-range plans for potential runway expansions. (Berkeley Jets, supra, 91 Cal.App.4th at pp. 1361-1362, 111 Cal.Rptr.2d 598.) The runway expansion projects were not functionally linked to the ADP; and because the airport's existing runways were expected to continue operating below capacity for several years, the runway projects were unnecessary for completion of the ADP. The court noted, "the ADP does not depend on a new runway and would be built whether or not runway capacity is ever expanded." (Id. at p. 1362, 111 Cal.Rptr.2d 598.) Because runway expansion was not a crucial element of the ADP or a reasonably *101 foreseeable consequence of the ADP, the court concluded the EIR's project description was adequate and did not violate the policy against piecemealing. (Ibid.)

This case presents a similar scenario to that considered in National Parks, Christward Ministry, and Berkeley Jets. The Project at issue here and the hydrogen **502 pipeline project, are not interdependent. In fact, they perform entirely different, unrelated functions. The principal purpose for the Project is to allow Chevron to modify and/or replace existing Refinery equipment in order to "improve the Refinery's ability to process crude oil and other feed stocks from around the world and to direct more of current gasoline production capacity to the California market." The principal purpose of the hydrogen pipeline project is to provide a way for Praxair to transport excess hydrogen that is not required for Chevron's operations to other hydrogen consumers in the Bay Area. Because Chevron's efforts to process a larger percentage of California fuel at the Refinery does not "depend on" construction of the hydrogen pipeline, the City's treatment of the hydrogen pipeline as a separate project does not constitute illegal "piecemealing." (See Berkeley Jets, supra, 91

Cal.App.4th at p. 1362, 111 Cal.Rptr.2d 598.) Accordingly, the trial court should have rejected respondents' piecemealing contention.

E. Unaddressed Issues

As noted, the City has also filed an appeal requesting only that this court "finally decide the outstanding issues in this case" that were left unaddressed by the trial court. Because we have

concluded that the EIR must be revised to provide critical information about the crude slate processed at the Refinery and greenhouse gas emissions, respondents' claim that the City, before approving the Project, was required to revise and recirculate the EIR in light of "significant new information" is undeniably moot. (See § 21092.1; see also Guidelines, § 15088.5, subd. (a)(1).)

We also follow the trial court's approach and decline to address respondents' contention that the "EIR provides only a superficial treatment of the cumulative impacts of the Project...." It is entirely foreseeable that the information developed on these important topics in the revised EIR will result in new or increased impacts being identified, which would require that the cumulative impacts analysis also be revised. Therefore, like the trial court, we are reluctant to address claims about the current EIR's cumulative impact analysis that may be rendered moot by any subsequent

CEQA review. (See Planning & Conservation League v. Department of Water Resources (2000) 83 Cal.App.4th 892, 920, 100 Cal.Rptr.2d 173 [§ 21005, subd. (c) does not require appellate court to address additional alleged deficiencies that may be addressed in a "completely different

and more comprehensive manner" upon *102 subsequent CEQA review following remand]; Berkeley Jets, supra, 91 Cal.App.4th at p. 1383, fn. 24, 111 Cal.Rptr.2d 598.)

IV.

DISPOSITION

The judgment is reversed. The trial court is instructed to enter, consistent with this opinion, a new and different judgment granting in part and denying in part the petition for writ of mandate. The parties shall bear their own costs on appeal. (Cal. Rules of Court, rule 8.278(a).)

We concur: REARDON and SEPULVEDA, JJ.

All Citations

184 Cal.App.4th 70, 108 Cal.Rptr.3d 478, 10 Cal. Daily Op. Serv. 5156, 2010 Daily Journal D.A.R. 6136

Footnotes

- 1 All unspecified statutory references are to the Public Resources Code.
- As might be expected, an environmental challenge to a project of this magnitude has created a voluminous record; numerous briefs raising complex technical issues; and input from amici curiae. In order to organize this opinion in a comprehensive and logical manner, we will first present a general overview of the Project and CEQA's requirements, and then focus on alleged deficiencies in the EIR that are before us on appeal.
- On the court's own motion, the entire six-volume EIR prepared for the Project was transmitted to this court on December 7, 2009. (Cal. Rules of Court, rule 8.155(a)(1)(A).)
- All future references to Guidelines are to the CEQA Guidelines (Cal.Code Regs., tit. 14, § 15000 et seq.) developed by the Governor's Office of Planning and Research and adopted by the California Resources Agency. (§ 21083.) "[C]ourts should afford great weight to the Guidelines except when a provision is clearly unauthorized or erroneous under CEQA. [Citation.]" (Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 391, fn. 2, 253 Cal.Rptr. 426, 764 P.2d 278, (Laurel Heights I).)
- It is unnecessary to recount all the facts included in Karras's analysis. Briefly, the Project makes no changes to the SDA, and it is not mentioned in the EIR as being part of the Project. However, the Project does envision making changes that would expand the processing capacity of the Taylor Kinetic Cracker (TKC) from a current average of 42,700 barrels per day to a post-Project likely average of 80,000 barrels per day, "thus enabling the Refinery to import and process additional gas oils with higher sulfur content." Karras explained

that by increasing the capacity of the TKC unit into which the SDA feeds, the Project will in fact "debottleneck" the SDA, by allowing increased flow through both units. He believed this increased flow would enable the Refinery to handle a wider range of crude slates—i.e., a heavier mix containing not only more sulfur, but also more heavy metals and other contaminants.

- The Center for Biological Diversity, the Environmental Defense Center, and the Planning and Conservation League requested and were granted permission to file an amicus curiae brief in support of the trial court's ruling on this issue. (Cal. Rules of Court, rules 8.200(c)(1), 8.520(f)(1); Order, Ruvolo, P.J. (Sept. 28, 2009).)
- While the City obviously did the calculations necessary to determine how much extra carbon dioxide would be emitted as a result of the Project, the EIR completely fails to discuss in any detail how these calculations came about. As consulting engineer and refinery expert Dr. Phyllis Fox pointed out in her comment letter, the EIR's numerical estimates of greenhouse gas emissions does not "disclose any of the underlying calculations, e.g., unit throughputs and capacities, emission factors, fuels, and citations to source data. Thus, it is not possible to evaluate their accuracy."
- Amici substantiate this proposition by pointing out that the United States Environmental Protection Agency (EPA) estimates that a typical passenger car generates 5.48 tons of CO₂eq emission per year. (See EPA, Emission Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle (2005) < http://www.epa.gov/otag/climate/420f05004.htm> as of April 22, 2010.)
- 9 On August 31, 2009, this court took judicial notice, without a determination of relevance, of the draft EIR that was issued for the pipeline project.

End of Document

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Attachment F



April 24, 2024

VIA ELECTRONIC MAIL

Chair Bass & Members of the Board Los Angeles County Metropolitan Transportation Authority One Gateway Plaza, 3rd Floor Board Room Los Angeles, CA 90012

Clerk of the Board

Email: BoardClerk@metro.net

Re: Item #11- Long Beach- East LA Corridor Mobility Investment Plan

Dear Chair Bass and Members of the Board:

On behalf of the Coalition for Environmental Health & Justice (CEHAJ), we submit this letter expressing our concerns and recommendations regarding the Long Beach-East Los Angeles Corridor Mobility Investment Plan (CMIP) scheduled to come before the Board on April 25, 2024. For over two years, our coalition has participated in the taskforce process with Metro staff and a diverse group of stakeholders, including impacted residents living along the I-710 corridor, government officials, regional planning agencies, industry groups, port authority representatives, and utility providers. We were encouraged by Metro's commitment to equity and sustainability principles that aimed to repair past harm done to communities along the corridor.

Throughout the two-year-long process, we shared Metro's goal of ensuring that the CMIP "achieve[s] a multidimensional, multimodal investment strategy to improve regional and local mobility and air quality." We continue to share that goal but emphasize the need to center equity, public health, and sustainability while providing direct benefits to communities that have borne

the brunt of freight pollution along the corridor. We firmly believe that Metro has an opportunity to address the racist and environmentally harmful legacy of freeway expansions by further refining this investment plan to directly benefit residents in communities hardest hit by the creation of the I-710.

CEHAJ supports several good aspects of the CMIP that carry some direct benefit to corridor communities. These include: 1) specific freeway-related projects like the Willow Interchange Improvements, traffic controls, and particulate matter reduction pilots, as long as there are assurances that none will lead to displacement; 2) arterial roadway improvements along Atlantic Boulevard and Florence and Slauson Avenues; 3) transit investments that improve headways, rider experience, and install quality bus shelters and pedestrian and bicyclist protection along key routes; 4) active transportation that will improve quality of life for residents; 5) improved traffic control systems, as long as they include analysis for localized emissions and do not lead to traffic diversion onto residential streets; 6) community programs that aim to strengthen communities through housing stabilization, homelessness assistance, urban greening initiatives, zero-emissions infrastructure, bus electrification, targeted hire, and improved air quality monitoring; and 7) zero-emissions transportation and infrastructure that will lead to the elimination of diesel trucks, prioritize direct electrification of freight transportation and develop infrastructure planning through robust community engagement.

At the same time, we lament that community programs receive only 5% of the initial committed funds through the CMIP. We also continue to see several deficiencies in the CMIP and remain deeply concerned about the following aspects of the plan:

- The CMIP prioritizes projects that elevate industry-led priorities near freight hubs and projects in the corridor's southern end, which outnumber those that may serve the northern corridor and East Los Angeles/Commerce communities.
- The CMIP must utilize a robust public health analysis to vet proposed projects before committing limited public funds.
- The CMIP does not unequivocally prohibit funded projects from displacing residents or small businesses.

Without additional guardrails, implementation of the CMIP risks veering away from the promised equity principles that would guide the process and further erode the public trust Metro has earned after two years of public engagement on the plan.

The plan, however, can still be improved with the inclusion of several key measures to ensure that impacted communities have decision-making power through the proposed working group process in the following specific ways:

- Ensure that each established working group comprises a diverse group of residents and corridor cities and that well-resourced, industry-focused groups do not hijack the process.
- Include community veto power over projects later found to result in high community impacts such as displacement, air pollution, and health disparities.
- Ensure that final decisions to move a project forward require majority approval from corridor residents in the working groups.

Finally, we were encouraged last month by Supervisor Hahn's motion calling on Metro to commit to a no-displacement policy. While we appreciate Metro staff pre-screening projects on the initial CMIP project list for potential displacement, these early actions do not assure communities that Metro will prevent projects later determined to trigger displacement from moving forward once included in the investment plan. We urge the full Board to adopt a resolution making it unmistakable that no investment from this plan, designed to remedy past harms, will lead to the displacement of Corridor residents or small businesses.

We look forward to continuing to engage with Metro staff and the board to ensure that Metro's first-of-its-kind investment plan leads to equitable outcomes and achieves the goals of making I-710 Corridor communities whole.

Thank you,

On behalf of the Coalition for Environmental Health and Justice

Fernando Gaytan

Earthjustice

Sylvia Betancourt Marlin Dawoodjee Vargas Long Beach Alliance for Children with Asthma

Janeth Preciado Vargas Communities for a Better Environment

Kimberly E. Leefatt Natural Resources Defense Council











March 28, 2024

via electronic mail

Michael Cano, Executive Officer
LA Metro
1 Gateway Plaza
Los Angeles, CA 90012
CanoM@metro.net and 710Corridor@metro.net

Re: Long Beach-East Los Angeles Corridor Mobility Investment Plan

Dear Michael Cano and Project Team Staff,

On behalf of the undersigned organizations, members of the Coalition for Environmental Health and Justice ("CEHAJ"), and Long Beach Residents Empowered (LiBRE), we submit this letter to raise aspects of the Draft Long Beach-East Los Angeles Corridor Mobility Investment Plan ("Draft CMIP") we support in concept, as well as specific concerns that threaten an extensive public process that Metro and Caltrans went through when devising priorities along the I-710 South corridor ("Corridor").

I. Introduction.

The communities along the Corridor have experienced heightened pollution burdens, health impacts, unemployment, and housing instability since the creation of the I-710. For over two decades, the major Corridor study on I-710 loomed over our communities with the threat of increased negative impacts on our already overburdened neighborhoods. Despite consistent and

voiced opposition from impacted stakeholders, on March 1, 2018, the Metro Board accepted Caltrans' proposal to favor Alternative 5C, which called for Caltrans to expand the I-710 freeway, ignoring community concerns that it would increase dangerous pollution levels in what is known as a "diesel death zone."

When the United States Environmental Protection Agency ("EPA") expressed concern that the original I-710 South Project would fail to meet air quality conformity, Metro and Caltrans suspended Alternative 5C's advancement. We were encouraged whenMetro came to terms with the fact that Alternative 5C stood in stark contrast to a sustainable and equitable future and initiated the I-710 South Corridor Task Force ("Task Force") as the focal point to advance a vision that centers on equity and sustainability. Over the past two years, our good-faith engagement hinged on Metro's steadfast commitment to equity, as defined by the Corridor communities, and sustainability principles to repair past harm done to communities. As Metro itself admits, "Given the high percentage of BIPOC populations in the Corridor," the issues identified during the planning process "reinforc[ed] racial inequities and demonstrate[d] how structural racism persists in urban communities."

CEHAJ has consistently called for change along the I-710, including meeting the community's demands for greater protection of public health for impacted residents and community-centered decision-making with affected communities as co-designers of a plan to help repair past harms. While this Draft CMIP aims "to achieve a multidimensional, multimodal investment strategy to improve regional and local mobility and air quality," the Task Force emphasized the need to promote equity at every step. For this to occur, the process must not only create greater transparency and provide a meaningful seat at the table for "stakeholders who live and work along the LB-ELA Corridor" but also "identify opportunity areas for the Investment Plan's projects and programs to support meaningful improvements, and identify the desired community results (equitable future states of well-being) to which these improvements of the Investment Plan will contribute." Thus, repairing past harms should remain central to the prioritization process under the Task Force and CLC's Vision, Goals, and Guiding Principles.

Metro has an opportunity to address the racist and harmful legacy of freeway expansions by using Measure R and M investments to directly benefit residents in communities hardest hit by the creation of the I-710. The Draft CMIP is supposed to "elevate and engrain…equity across all goals, objectives, strategies, and actions." Meaningful community input and engagement are essential, and we believe that the Task Force's re-engagement of community stakeholders serves as a critical starting point.

¹ LB-ELA Draft Corridor Mobility Investment Plan, p. 4-3.

² LB-ELA Draft Corridor Mobility Investment Plan, p. 2-12.

³ LB-ELA Draft Corridor Mobility Investment Plan, p. xxvi.

The Draft CMIP, however, currently falls short of delivering on equity in several ways.

- First, the Draft CMIP fails to promise communities that no one will be displaced by the implementation of any of the projects it proposes to endorse. CEHAJ has consistently called for Metro to end both residential and small business displacement along the Corridor. In late February, Supervisor Janice Hahn voiced her unambiguous call for Metro to "commit itself to zero residential property takes" and to have as "one of its top priorities ensuring that [its] projects do not result in kicking people out of their homes." We applaud Supervisor Hahn for making this commitment a part of her approach to the Draft CMIP and invite the entire Metro Board to join a resolution opposing all displacement. The final CMIP must make an unequivocal statement of zero displacement as an outcome of its investment.
- Second, two weeks before the Draft CMIP was released, Metro announced several
 material changes to the prioritization of projects, shifting which projects would receive
 priority funding. This change arbitrarily elevated individual industry-led projects and
 deprioritized and bundled community-facing projects with the potential to deliver
 substantial benefits to beleaguered residents.
- Third, the inclusion of Community Programs, while laudable, appears to be the lowest priority in the Draft CMIP when considering the lack of firm commitment to full implementation. We are pleased to see the County of Los Angeles stepping in to offer resource support to Metro to help actualize Community Programs, but we need to see more solid commitments to their full and independent implementation in the CMIP itself. Metro must use the County's commitment to these programs as an opportunity to redouble its commitment to ensuring the benefits come to fruition and are further codesigned and implemented in partnership with impacted communities.

With these principles in mind, our comments focus on the following: 1) projects must help address air pollution and protect public health; 2) Metro should stay true to its commitment to equity and allow the community to define community benefits; 3) industry special interests should not be allowed to derail an equitable investment plan by artificially elevating pet projects while undermining the time and resources that Metro, the Community Leadership Committee ("CLC"), community-based organizations ("CBOs") and community stakeholders who have invested in democratizing the CMIP creation and approval process.

⁴ Supervisor Janice Hahn, Letter to LA County Metropolitan Transportation Authority CEO, Stephanie Wiggins, (February 27, 2024); https://twitter.com/SupJaniceHahn/status/1762635137454600240.

II. Summary of Comments.

The following section summarizes CEHAJ's positions on several projects presented in the Draft CMIP.

- A. Projects CEHAJ Supports in Concept.
- Freeway, so long as they do not result in displacement or the addition of lanes and adhere to Clean Air Act conformity analysis requirements.
 - o LB-ELA 0028: I-710/Willow Interchange Improvements
 - o LB-ELA_0156: Traffic Controls at I-710 Freeway Ramps
 - o LB-ELA 0157: I-710 Particulate Matter (PM) Reduction Pilot Project
- Arterial Roadway, so long as they do not result in displacement or the addition of lanes and adhere to Clean Air Act conformity analysis requirements.
 - o LB-ELA 0057: Atlantic Complete Street Corridor
 - o LB-ELA_0058: Florence Complete Street Corridor
 - o LB-ELA 0061: Slauson Complete Street Corridor
 - o LB-ELA 0062: Long Beach Complete Street Corridor
- Transit. We support improving transit service times, rider experience, and bus shelters along key routes in the corridor. We urge staff to consider expanding the availability of bus shelters for residents. CEHAJ plans to work with Metro to improve these programs with robust community outreach and engagement. For these reasons, we support investment in the following projects:
 - LB-ELA_0175: Install Quad Safety Gates at all A Line [Blue Line] Crossings, as long as these projects include community consultation to ensure gates are properly positioned and do not reduce pedestrian access points or create additional barriers to mobility.
 - LB-ELA 0179: Metro Bus Priority Lane Corridor along Line 66 (Olympic Blvd)
- We urge Metro to consider the following projects as part of a transit safety package included on the Initial Investments Lists:
 - o LB-ELA 0189: Transit System Cleanliness and Maintenance
 - o LB-ELA 0177: Second Elevator to Firestone and Slauson A Line Station
- Active Transportation.
 - o LB-ELA 0008-Blue Line First Last Mile Plan
 - o LB-ELA 0158: Del Amo Pedestrian Gap Closure Project
 - o LB-ELA 0170: Huntington Park Safe Routes for Seniors
 - o LB-ELA 0201: Pedestrian/Bicycle Enhancements and Safety Features
 - o LB-ELA 0208: Salt Lake Avenue Pedestrian Accessibility Project in Cudahy
- We support the following projects if they include analysis for localized emissions.
 - o LB-ELA 0072: Traffic Signal Coordination Projects
 - o LB-ELA 0099: Traffic Signal Synchronization Projects
 - o LB-ELA 0112: Signal Coordination/ITS Projects

- o LB-ELA 0167: I-710 Arterial Signal Performance Measurement
- o LB-ELA_0215: I-710 Arterial Traffic Signal Control Communication Upgrades
- Community Programs. The CMIP needs to include critical investments that serve to repair the harmful legacy of racist land use decisions and freeway design that created the inequality that persists today. The community programs offer an opportunity to bring investments directly to communities in the Corridor and start the work of improving conditions for residents and course correcting. CEHAJ fully supports improving these programs and working with Metro to ensure they succeed and are designed and led by Corridor communities.
 - LB-ELA 0135: Housing Stabilization Policies
 - o LB-ELA 0187: LB-ELA Corridor "Urban Greening" Initiative
 - o LB-ELA 0191: Zero Emission Infrastructure for Autos
 - o LB-ELA 0192: Bus Electrification Projects
 - o LB-ELA 0194: Homeless Programs
 - o LB-ELA 0195: Targeted Hire Programs
 - LB-ELA_0218: Air Quality Monitoring Stations
- Zero-emissions Transportation and Infrastructure. CEHAJ continues to support the elimination of diesel trucks from the Corridor with prioritization for direct electrification for freight transportation and continued robust community engagement during the planning and deployment of these strategies and supporting infrastructure. For these reasons, we support investment in the following projects if they commit to using limited public funds to advance only zero emissions solutions.
 - o LB-ELA 0023: Clean Truck Infrastructure
 - o LB-ELA 0004: Long Beach-East Los Angeles Corridor Clean Truck Program

B. Projects CEHAJ Does Not Support.

- We caution against programs framed as "community benefits" while embedding harmful hyper-surveillance of residents through cameras and other technologies that undermine civil liberties and invade privacy. For these reasons, we do not support:
 - o LB-ELA 0075: Video Camera installation
 - o LB-ELA 0084: Video Detection Upgrades
- We oppose the prioritization of industry-led projects over community projects. Several
 projects artificially elevate pet projects while undermining the time and resources that
 Metro, the CLC, community organizations, and stakeholders have invested to
 democratize the investment plan.
 - LB-ELA_0151: Freight Rail Study (to the extent it fails to study the breadth of potential impacts on communities)
 - o LB-ELA_0217: Freight Rail Electrification Pilot Project, to the extent the project serves only private industries that should fund electrification directly.
- We do not support the inclusion of the following projects in the modal programs:

- o LB-ELA 0153: Congestion Pricing
- o LB-ELA_0182: Express Lanes Strategic Initiative
- o LB-ELA_0043: 710 Commerce/Vernon Hobart Rail Yard Overhead
- LB-ELA_0049: Increased Security at Metro's Existing and Planned Light Rail Stations
- LB-ELA_0091: I-710/Anaheim Interchange Improvement
- LB-ELA 0093: I-710/Wardow Interchange Improvement

C. Deficiencies in the Draft CMIP that Require Clarification and Disclaimers.

- The CMIP should clarify that community consultation is intended throughout the development of these projects. A similar reference should be made in the Clean Truck Infrastructure [LB-ELA_0023] and Zero Emissions Truck Program [LB-ELA_0004].
- The CMIP needs to articulate the expected implications of individual projects to public health and air quality before being endorsed. Advancing projects without further scrutiny contradicts the Task Force and CLC's Vision, Goals, and Guiding Principles. Metro should provide a better evaluation, even preliminary, of the potentially toxic air impacts of the initial list of proposals, especially if these projects are derivative of prior proposals for the freeway.
- The CMIP must make an unequivocal statement ensuring the implementation of any proposed projects will not lead to the displacement of current residents or small businesses.
- Equity points were improperly given to Freeway and Arterial projects for reasons that do not align with the Corridor communities' demand of the Task Force's definition of equity.
- The lack of specificity in the CMIP's treatment of Community Programs raises questions about the plan's commitment to uplifting the community's needs and shows a potential disconnect between the planners and the communities they seek to serve. Additionally, Community Programs should not be used as "mitigation" for potentially harmful projects, and their advancement should not depend on the implementation of potentially harmful projects through "bundling" or mechanisms that would otherwise tie them to projects not serving the community directly.
- Freeway, Arterial, and Transit Projects have not been evaluated to ensure they do not fail for the same reason Alternative 5C failed.
- We urge Metro to prioritize Class VI bike lanes over other options and avoid the unintended consequence of increasing impervious cover in areas already marked by increased flood risks and urban heat island effects.
- Metro lacks a definition of zero emissions that eliminates the harms associated with combustion and nitrogen oxide (NOx) emissions.
- Equity flags should be given to the following projects.
 - LB-ELA_0031: I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors

- o LB-ELA 0034: I-710/Florence Interchange Improvements
- o LB-ELA_0037: I-710/I-105 Connector Project Improvements
- o LB-ELA_0092: I-710/PCH Interchange Improvement
- o LB-ELA 0028: I-710/Willow Interchange Improvements
- Language should be included for the following projects to prioritize pedestrian and bicycle safety and not just facilitate vehicle throughput.
 - o LB-ELA 0057: Atlantic Complete Street Corridor
 - o LB-ELA 0058: Florence Complete Street Corridor
 - LB-ELA_0061: Slauson Complete Street Corridor
 - o LB-ELA 0062: Long Beach Complete Street Corridor
- Request confirmation that the Bus Stop Improvement project will absorb Bus Stop
 Improvements in the City of Commerce [LB-ELA_0077], Maywood [LB-ELA_0103],
 and City of Signal Hill [LB-ELA_0118].

III. Prioritze Public Health and Eliminate Projects that May Cause More Harm than Good.

A. Metro has the Opportunity to Course Correct and Address Systematic Harms Through the CMIP.

The Draft CMIP lacks specificity on what communities should expect regarding possible implications on their health, air quality, and climate. The purpose of the two-year process to develop the Draft CMIP was to change a historic pattern of development that continues to fail to prioritize the health and well-being of Corridor residents and communities most impacted. The Draft CMIP does a great job of framing the complex history of the nation's "diesel death zone" — demonstrating the moral imperative to improve public health and air quality in the Corridor. Yet, there is a dearth of details on what health impacts the public can expect from recommended projects. We acknowledge that many projects are far from being fully developed or environmentally reviewed; however, we are left questioning how the Draft CMIP prioritizes transformative change if it does not meaningfully analyze those impacts in concept to ensure future investment does not continue harming Corridor communities.

We learn almost nothing about how each recommended project will directly impact health and air quality locally and reverse past harms in the region. The Draft CMIP includes an "Evaluation and Prioritization" section that is more than 20 pages long and factsheets for each project and program recommended for initial funding. However, for most of the proposed projects, the possible health and air quality implications are marked as "N/A" in many cases; we are left feeling like our continuous calls for prioritizing community health remain unheard.

B. Current and Future Investment in the Nation's "Diesel Death Zone" Must, at Minimum, Improve Air Quality.

EPA's recent changes to the nation's ambient air quality standards reinforce the need to create more stringent, ambitious, and comprehensive strategies to protect more lives and improve air quality in the Corridor, even in the early stages of project development,. As of early February 2024, the EPA strengthened the Clean Air Act standard for fine particulate matter by lowering the annual air standard for PM2.5 pollution from 12 micrograms per cubic meter to 9 micrograms per cubic meter. Currently, most, if not all, of the communities in the Corridor live in areas with concentrations of PM2.5 above 10 μg/m3. CEHAJ and community members have continuously requested that Metro foster local and regional clean air quality by clarifying how proposed recommendations will comprehensively affect the health of those working and living in the Corridor. The environmental justice implications of not addressing pollution-induced health disparities in the region are impossible to ignore. Approximately 73 percent of residents live in an Equity Focus Community area, meaning an estimated 876,000 residents. It is not enough to say these impacts will be analyzed later while at the same time acknowledging the 710 Task Force was created to address community concerns earlier in the project planning process.

C. Metro Must Provide a More Comprehensive Evaluation of the Toxic Air Impacts of Initial List Proposals.

Metro's suggested use of health proxies, such as shifting emissions, increased local emissions, bicycle and pedestrian safety, increased vehicle miles traveled, expansion of impervious cover, noise pollution, and physical transportation barriers, are all important to track but need to result in a comprehensive approach to assessing these impacts in each proposal as an evaluation criterion, not just as proxies. Of the twenty-seven criteria used to evaluate health-related project outcomes (see Table A), only four criteria (AQ1, CH1, CON5, CON9) directly advance transparency on the implications to air quality and health. Furthermore, data on these four criteria is extremely limited, if at all available, for the vast majority of the projects and programs recommended for initial investment, with many receiving N/A simply because there is no data currently available (see Table B).

⁵ EPA, "EPA finalizes stronger standards for harmful soot pollution, significantly increasing health and clean air protections for families, workers, and communities," February 7, 2024, available at https://www.epa.gov/newsreleases/epa-finalizes-stronger-standards-harmful-soot-pollution-significantly-increasing.

⁶ LB-ELA Draft Corridor Mobility Investment Plan, p. 3-17.

⁷ LB-ELA Draft Corridor Mobility Investment Plan, p. 3-4.

Table A. Project Health Outcomes and Relevant Criteria

Project		
Health Outcomes	Criteria	Criteria Description
Outcomes		
	AQ1, EQ-AQ1	Reduce Emissions (NOx, PM2.5)
	CH1, EQ-CH1	Reduce Emissions (Health Effects metrics: Diesel Particulate Matter, PM2.5)
	CH2, EQ-CH2	Reduce exposure at receptors (HVAC/HEPA, near-roadway vegetation)
	CH3, EQ-CH3	Mode Shift to active transportation, transit
	CH5, EQ-CH5	Bike/Ped Access to parks, recreational areas, or open spaces
• •	SF1, EQ-SF1	Protections for Bike / Users (bike class)
• •	SF2	Traffic Protections (bike/ped)
0	SF4	Includes Safety Features
0	SF6	Traffic Calming Features
•	EN6, EQ-EN6	Reduce Heat Island Effect; Provide Cooling Features for Users
•	OP1, EQ-OP1	Access to jobs
	OP4	Work Force Development
•	OP5	Potential Targeted Hire, New Construction Jobs
•	OP6, EQ-OP6	Access to Quality of Life amenities (grocery stores, healthcare services, schools)
	OP7, EQ-OP7	Access to open space, recreation and parks, LA river, etc.
	SA1	Reduces reliance on polluting and energy-intensive modes of travel and goods movement
	SA2	Promotes physical activity and health through active transportation and recreation
	SA3	Improves climate resilience through mitigation of flooding and extreme heat impacts
•	SA4	Supports job creation in, and workforce transitions to green technology and infrastructure sectors
	SA5	Improves cargo efficiencies to minimize trip volumes and emissions from goods movement activity
	CON4	Potential for Traffic Diversion
	CON5	Potential to increase Localized Emissions / Emissions Shifting
	CON6	Potential for Bike/ped safety impacts
	CON9	Potential for VMT Increases
	CON11	Potential to increase impervious cover
	CON13	Potential to increase noise pollution
	CON15	Potential for new barriers/decreased access

Table B. Current Air Quality Evaluation for Projects and Programs Recommended for Initial Investment

Project Type	Project ID	Project Name	AQ1	CH1	CON5	CON9
Active Transportation	LB-ELA_0006	Rail to River Active Transportation Corridor Segment B	NA	NA	NA	NA
Active Transportation	LB-ELA_0008	Blue Line First Last Mile Plan Improvements		NA	NA	NA
Active Transportation	LB-ELA_0017	Regionally significant bike projects from the Metro Active Transportation Plan	NA	NA	NA	NA
Active Transportation	LB-ELA_0111	West Santa Ana Branch Bike & Pedestrian Trail		NA	NA	NA
Active Transportation	LB-ELA_0139	Humphreys Avenue Pedestrian/Bicycle Overcrossing		NA	NA	NA
Active Transportation	LB-ELA_0165	Compton Creek Bike Underpasses		NA	NA	NA
Arterial Roadway	LB-ELA_0010	Shoemaker Bridge/Shoreline Drive	1	0.0	1	0
Arterial Roadway	LB-ELA_0057	Atlantic Complete Street Corridor	NA	NA	NA	0
Arterial Roadway	LB-ELA_0058	Florence Complete Street Corridor	NA	NA	NA	0
Arterial Roadway	LB-ELA_0060	Alondra Complete Street Corridor		NA	NA	0
Arterial Roadway	LB-ELA_0061	Slauson Complete Street Corridor	NA	NA	NA	0
Arterial Roadway	LB-ELA_0062	Long Beach Complete Street Corridor	NA	NA	NA	0
Freeway	LB-ELA_0028	I-710/Willow Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0029	I-710/Del Amo Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0030	I-710/Long Beach Blvd. Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0031	I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors	1	2.0	1	0
Freeway	LB-ELA_0032	I-710/Imperial Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0033	I-710/Firestone Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0034	I-710/Florence Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0035	I-710 Auxiliary Lanes (Willow to Wardlow)	1	2.0	1	1
Freeway	LB-ELA_0036	I-710 / I-405 Connector Project Improvements	1	2.0	1	0
Freeway	LB-ELA_0037	I-710/I-105 Connector Project Improvements	1	2.0	1	0
Freeway	LB-ELA_0038	I-710 Auxiliary Lanes (Del Amo Boulevard to Long Beach Boulevard)	1	2.0	1	1
Freeway	LB-ELA_0091	I-710/Anaheim Interchange Improvement	NA	NA	NA	0
Freeway	LB-ELA_0092	I-710/PCH Interchange Improvement	1	2.0	1	0
Freeway	LB-ELA_0093	I-710/Wardlow Interchange Improvement	1	2.0	1	0
Freeway	LB-ELA_0156	Traffic Controls at I-710 Freeway Ramps	NA	NA	NA	0
Freeway	LB-ELA_0157	I-710 Particulate Matter (PM) Reduction Pilot Project	NA	NA	NA	NA
Freeway	LB-ELA_0181	Freeway Lids, Caps, and Widened Bridge Decks	NA	NA	NA	0
Goods Movement	LB-ELA_0004	Long Beach-East Los Angeles Corridor Clean Truck Program	NA	NA	NA	0
Goods Movement	LB-ELA_0023	Clean Truck Infrastructure	NA	NA	NA	0
Goods Movement	LB-ELA_0151	Goods Movement Freight Rail Study	NA	NA	NA	NA
Goods Movement	LB-ELA_0217	Freight Rail Electrification Pilot Project	NA	NA	NA	NA
Transit	LB-ELA_0141	Metro Bus Priority Lane Corridor along Line 60 (Long Beach Blvd.)	1	2.0	0	NA
Transit	LB-ELA_0142	Metro Bus Priority Lane Corridor along Line 108 (Slauson)	1	2.0	0	NA
Transit	LB-ELA_0144	Metro Bus Priority Lane Corridor along Line 111 (Florence)	1	2.0	0	NA
Transit	LB-ELA_0146	Metro Bus Priority Lane Corridor along Line 260 (Atlantic Blvd.)	1	2.0	0	NA
Transit	LB-ELA_0168	Compton Transit Management Operations Center Enhancements	NA	NA	NA	NA
Transit	LB-ELA_0175	Install Quad Safety Gates at all A Line [Blue Line] Crossings	NA	NA	NA	NA
Transit	LB-ELA_0203	Bus Stop Improvements	NA	NA	NA	NA

The Draft CMIP ultimately prioritized projects without air impact scores, masking the fact that these projects do indeed have air quality impacts. For example, Goods Movement projects' implications on air quality and health were measured using qualitative criteria AQ2, which

focuses on a project's potential to facilitate the deployment of zero-emission vehicles and equipment. Most of the Goods Movements projects, including those in the Modal Programs, received scores of N/A for criteria used to evaluate health-related project outcomes because they lack sufficient information or methodologies to provide any insight on how they might lead to increased levels of diesel particulate matter, nitrogen oxides, fine particulate matter, localized emissions or emission shifting, and increases in vehicle miles traveled (i.e., the Draft CMIP cannot calculate impacts for criteria AQ1, CH1, CON5, and CON9). According to staff presentations, this N/A score means there might be an emissions increase, but Metro is currently unable to calculate or estimate the level of impact. The lack of comprehensive scoring criteria to account for health means that there are projects Metro may fund without complete or even conceptual information on the potential harm they will cause to our communities.

For similar reasons, the data on Freeway projects is not entirely trustworthy, as the methodology and calculations are also very limited. Of the 17 freeway projects recommended for initial investment, 13 received "Low Concern," and four received "N/A" for their potential to increase emissions. When we consider their potential to increase vehicle miles traveled, 14 freeway projects received a "No Impact" score, two projects scored "Low Concern," and one "N/A." It is highly doubtful that no freeway project, including interchange projects, should not have received a score higher than 1 (Low Concern) for emissions increases (CON5) when historical data tell us that freeway traffic, particularly along the 710, is a large contributor to the region's air pollution woes. The Draft CMIP evaluations are highly untrustworthy and defy common sense. For example, it is unclear why project I-710/Anaheim Interchange Improvement [LB-ELA_0091], a known traffic area for freight transportation, received N/A for emissions increase. Similarly, arterial projects lack sufficient information to determine whether the methodologies are accurate. It is equally unlikely that every arterial project recommended for initial investment should have received either an N/A or a 1.

D. The Lives of Workers and Residents in the Corridor Should be Prioritized, and Projects Likely to Cause Public Health Harm Should be Omitted.

Projects with the potential to create emissions and pollution in Corridor communities have no place in the CMIP. We strongly recommend Metro prioritize a thorough analysis of health implications before further investing in specific projects and programs. A viable solution for projects with no readily available data would be to qualitatively analyze health impacts based on what we currently know about freeway-related emissions instead of simply assigning N/A to projects generally known or expected to have implications. It is entirely possible that Metro does

⁸ Appendix 6-A Rubrics for Benefit and Concern Criteria.

⁹ South Coast Air Quality Management District, Final 2022 Air Quality Management Plan, p.2-32 through 2-34; available at: https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

not have sufficient data for all projects across all criteria. The lack of data justifies conducting further study and analysis to vet specific projects instead of the current method of advancing projects with "unknown or not applicable" health implications. Metro should more clearly identify which projects stem from past proposals related to the flawed and abandoned Environmental Impact Report (EIR) for Alternative 5C. In the absence of data for recommended projects, it could be helpful for Metro to include previous estimates and analyses on health implications for similar projects as examples of what communities could expect. Metro will be more transparent and help build trust if the CMIP acknowledges the potential to harm and provides any available estimates. Advancing projects that may cause harm to public health without a thorough study proving otherwise will only erode community trust in Metro and potentially derail the progress made during the past two years. Furthermore, given the limited funding pool, advancing projects unvetted for health impacts, even at a preliminary stage, means that other more health-protective projects may be excluded from this plan.

IV. Metro Should Prioritize Community Benefits.

The Draft CMIP represents a crucial opportunity to address long-standing inequities in transportation planning, particularly in communities of color disproportionately affected in the Corridor. While the Draft CMIP outlines various investments and improvements, there is a glaring lack of emphasis on community benefits, which should be a top priority. The Draft CMIP identified 15 Community Programs as priorities for Metro. We urge Metro not to use any of these Community Programs as forms of mitigation for potentially harmful projects in a "bundled" model. The advancement of Community Programs needs to be independent of the implementation outcomes of potentially harmful projects.

Community benefits must include proactive measures that deliver tangible outcomes that directly address the harm caused by past infrastructure projects. Describing the reduction of air pollution as a community "benefit" does a disservice to efforts to meaningfully rectify environmental injustices. Clean air is not a luxury or an added bonus for communities; it is a fundamental right and a vital necessity for health and well-being. Yet, far too many communities, particularly those burdened by pollution from industrial and transportation sources, bear the brunt of poor air quality. In these areas, respiratory illnesses and other health complications run rampant and highlight the immediate need to reduce pollution levels. Far too often, communities in the Corridor have been sidelined — their voices drowned out by decision-makers who do not understand or value their concerns. Community benefits programs must be co-designed by the affected communities themselves.

While initial funds are allocated for Community Programs, the Draft CMIP fails to provide detailed plans or descriptions for their implementation, which raises significant concerns about the feasibility and effectiveness of the proposed Community Programs. The absence of detailed

plans and descriptions for Community Programs is concerning for several reasons. Firstly, it deprioritizes these essential programs in the planning and implementation process. Without clear plans in place, there is a risk that the allocated funds may not be used effectively or that the intended goals of the programs may not be achieved. The lack of specificity in the Draft CMIP's treatment of Community Programs raises questions about the plan's commitment to uplifting the needs of the community and shows a potential disconnect between the planners and the communities they seek to serve. In order to address these concerns, we propose that Metro revise the Draft CMIP to include a more refined description of Community Programs with concrete strategies for continued implementation and funding, especially since Metro only provided details for "Community Programs" until early this year. These plans should be developed in consultation with community members to ensure they are responsive to community needs and priorities. The recent motion introduced by Supervisor Janice Hahn and unanimously passed by the Los Angeles County Board of Supervisors offers Metro additional support to ensure the implementation of these programs becomes feasible. We urge Metro to incorporate more concrete strategies, utilizing the County as a resource, to fully implement Community Programs.

Moreover, Metro's stated commitment to equity and multimodal transportation is not fully reflected in the allocation of resources within the Draft CMIP. A mere nine percent of initial investments are allocated to Community Programs. In contrast, a significant portion of funding is directed towards further developing "modal programs," such as freeway, transit, and goods movement infrastructure. This disproportionate allocation fails to prioritize more holistic and comprehensive initiatives directly supported by the affected communities and risks neglecting the root causes of transportation challenges. The imbalance not only undermines Metro's equity and sustainability goals but also risks deepening existing disparities and marginalizing the voices of communities most impacted by transportation projects. This requires a reevaluation of funding priorities within the CMIP to reflect the importance of community-led initiatives in achieving equitable and resilient transportation infrastructure. Ultimately, investing in community benefits is not just about meeting regulatory requirements or appeasing stakeholders; it is about recognizing the intrinsic value of community well-being and empowerment.

The lack of funding commitment could result in Community Programs being underfunded or abandoned altogether, further undermining the Draft CMIP's positive impact in the Corridor. It is imperative to ensure that Community Programs receive not only initial funding but also ongoing support for successful implementation. While the Draft CMIP includes initial funding for Community Programs, there is no discussion of how these programs will be sustained in the long term or any discussion of potential allocation from the \$248 million to further "modal programs." It is essential to ensure that Community Programs are not just funded for planning without a commitment to realize them. The Draft CMIP's funding allocation raises concerns about its

¹⁰ Motion by Supervisor Janice Hahn and Hilda L. Solis, March 19, 2024, available at https://file.lacounty.gov/SDSInter/bos/supdocs/8ce66ebe-50be-4858-a810-afe1e8608900.pdf.

commitment to community benefits and leaves Community Programs vulnerable to future underfunding, further undermining the plan's long-term impact in the Corridor.

A. Greenspace has Positive Health Outcomes.

There is a critical need to prioritize greenspace commitments in the CMIP, particularly for lowincome communities of color in the Corridor. By focusing on community-supported programs and ensuring better greenspace commitments, the CMIP can directly benefit these marginalized communities. Greenspaces offer a wide range of benefits that complement and enhance the effectiveness of other transportation modes, making them essential components of any comprehensive investment plan. They play a vital role in improving air quality, absorbing pollutants, and releasing oxygen, which is especially beneficial for these communities burdened by pollution from industrial and transportation sources. Additionally, greenspaces provide valuable opportunities for active transportation, such as walking and cycling, encouraging sustainable modes of transportation and reducing congestion and greenhouse gas emissions. Furthermore, green spaces can help mitigate the urban heat island effect, reducing temperatures in urban areas. This is crucial as temperatures rise due to climate change, contributing to the creation of more resilient and adaptable communities in the Corridor. It is important to note that greenspace and increased greenery should be consulted with local Indigenous peoples, tribes, and organizations to honor and restore local plant life. We strongly favor a commitment to greenspace improvements as part of the CMIP.

The LB-ELA Corridor "Urban Greening" Initiative [LB-ELA_0187] offers the promise of delivering much needed greenspace to the region. We encourage Metro to prioritize areas right outside of schools for greenspace improvements, including the development of new parks and the upgrade of existing ones. A few non-exhaustive examples of areas where improvements can be targeted include the following: Washington Boulevard between Atlantic and Indiana Street; park areas between Darwell Avenue in Bell Gardens and Ira Street in Lynwood; areas on California Street between Tweedy and Southern in Southgate; Firestone Boulevard between Otis and California. The listed examples were all identified by Corridor residents, members of CEHAJ organizations, as places where existing park space could be improved or expanded. Residents have also voiced a desire for additional space allocated to community gardening to safely grow edible vegetation. We strongly encourage Metro to further consult with residents in deploying these strategies and look forward to participating in future discussions that include members of impacted communities.

B. Housing and Homelessness.

California is in the midst of an unprecedented housing crisis. The cost of housing is skyrocketing with a growing number of households, especially in already under-resourced communities like many in the Corridor, experiencing severe rent burdens and paying more than half of their

income just to stay housed.¹¹ Developing stronger housing protections for low-income renters and homeowners in the Corridor gets at the heart of the investment plan's equity principles by serving to repair the legacy of harm freeways have caused. Anti-displacement housing protections can also serve climate and air pollution goals by avoiding the pressures that force residents to seek more affordable housing options elsewhere and requiring them to commute longer distances to access jobs and resources, thus increasing vehicle miles traveled and harmful emissions.

We strongly believe Metro and the County can play a role in stabilizing housing by working with residents to develop programs that prevent unnecessary evictions, curb unlawful tenant harassment, ease gentrification pressures, and preserve existing affordable units while also spurring the development of sustainable, deeply affordable units that meet current environmental review and protections. To that end, we support the inclusion of the Housing Stabilization/ Land Use [LB-ELA 0135] in the Community Programs and hope to work with Metro and the County to further develop these programs and ensure maximum protection and benefits flow to Corridor residents. We believe there is a strong path forward for these programs through robust community engagement and consultation with tenant rights advocates, community land trusts, and mission-driven non-profit affordable housing experts. We also believe there is a strong benefit to developing new affordable housing options, especially along transit-rich areas. However, we remain skeptical of transit-oriented development initiatives that lack the necessary guardrails to ensure they do not lead to gentrification and other displacement pressures on existing Corridor residents. We, therefore, also urge Metro to consult with mission-driven affordable housing providers and tenant advocates in designing Transit Oriented Development initiatives [LB-ELA 0193].

Additionally, we believe homelessness support initiatives offer an opportunity to bolster local efforts to generate permanent housing options and services for the unhoused. Connecting unhoused riders of Metro to permanent housing and services, like those mentioned under Homelessness Programs [LB-ELA_0194], is a laudable goal. We urge Metro to consult with local CBOs serving the unhoused in developing these programs and caution against having these programs devolve into policing mechanisms that fail to address the root causes of homelessness.

C. Economic Stabilization and Local Hire.

CEHAJ is committed to supporting community programs that directly enhance and support economic stabilization, as well as empower residents through local hire commitments, job training, apprenticeships, and workforce development opportunities – including educational

¹¹ Jenesse Miller, Even before the pandemic, struggling L.A.renters cut back on food, clothes and transportation, USC Sol Price Center for Social Innovation, (December 15, 2020), https://today.usc.edu/los-angeles-rent-burdened-households-basic-needs-usc-research/.

opportunities for non-English speakers. These programs can aim to build sustainable, long-term, high-paying jobs that will ensure residents can stay in their communities and benefit directly from investments made to improve them.

We appreciate the inclusion of Community Programs that prioritize a more comprehensive approach to improving the economic well-being of Corridor residents harmed by the racist legacy of the I-710 development. We are pleased to see projects like the Economic Stabilization Policies[LB-ELA_0186] having the potential to achieve some of the equity goals aimed at correcting past harm and helping to uplift impacted communities. These programs may also be used to help stabilize and support culturally significant small businesses that have become the lifeblood of these communities for generations and will help strengthen community resilience and stave off displacement. Additionally, Targeted and Local Hire Commitments [LB-ELA_0195] have the potential to further strengthen communities and ensure that investments flowing to the Corridor directly benefit impacted residents. We strongly encourage the full implementation of these programs and suggest that local hire and training opportunities be a priority to the extent that infrastructure build-out and maintenance for zero emissions charging is also being funded and sited in impacted communities.

It's important to note that these programs are essential to correcting past harms. They should stand alone as independent projects that merit initial investment and ongoing support to ensure their implementation, not just in the planning phase. Moreover, they should not be bundled or made contingent on funding for projects that will not directly serve communities or run the risk of adding environmental and air pollution burdens, as this would undermine the equity principles developed through this process.

D. Air Quality Monitoring and Filtration.

Health-promoting programs, such as the LB-ELA Corridor Community Health Benefit Program [LB-ELA_0133], have the potential to bring about significant, equitable change in communities that are most affected by freeways, provided they are implemented correctly, co-designed with community, and with community input. We support Metro in including these programs as part of the Community Programs package and encourage their further development to maximize their effectiveness during the implementation phase. We are also encouraged by the County Board of Supervisors' recent commitment to supporting these programs by linking support from County departments with the technical expertise in developing health promotion, education, screening, and related services.

We suggest that Metro consider expanding support for households affected by freight pollution and offering assistance for whole-home retrofit programs. This could include improving weatherization and abating toxic substances such as lead, mold, and asbestos. It could be done in partnership with other programs and departments to improve indoor air quality, promote greater

energy efficiency, and prepare homes to transition to all-electric zero-emissions appliances for heating and cooling, such as heat pumps, to enhance climate resilience.

However, it's important to note that investments in air quality improvements cannot serve as mitigation for other harmful projects being proposed. Instead, they must aim to repair historical and ongoing harm from existing transportation infrastructure and not serve as a justification to usher in a new set of air quality problems.

We urge Metro to expand the services offered through this program, such as air filtration and monitoring systems, to help improve indoor air quality for homes, libraries, and community centers, in addition to schools in neighborhoods impacted most by freight traffic, noise, and other toxic air pollution in the Corridor. We also suggest that Metro explore using this program to develop climate and air pollution and climate resilience centers with air filtration, temperature regulation, and proper sealing for use during emergencies, such as days when the South Coast Air Quality Management District (SCAQMD) declares extremely unhealthful air for the region, and implement a text message alert system that notifies the public of high air pollution days (similar to the air pollution alerts implemented by Long Beach Alliance for Children with Asthma (LBACA).

Similarly, we support the expansion of Air Monitoring Stations [LB-ELA_0218] for the Corridor but urge Metro to expand these stations beyond the four currently being proposed. In addition to consultations with SCAQMD, Metro should confer with CBOs and residents familiar with the areas of highest concern to incorporate a broader network of monitoring stations that will help document progress in reducing emissions through the various initiatives funded by the CMIP.

E. Zero Emissions and Transportation Electrification.

Communities have advocated for zero-emission solutions along the I-710 for many years. CEHAJ has held this as a priority since the onset, and we continue to urge Metro to prioritize zero-emission solutions to protect the lives of our communities. We support the inclusion of Zero Emission Infrastructure for Autos [LB-ELA_0191] as long as Metro confirms that community members and organizations will be partners alongside local jurisdictions, public agencies, and private partners. While the project's factsheet qualifies the partner list as nonexclusive, community groups are not referenced as partners. ¹² If auto charging infrastructure is considered a "Community Program," community groups should be required to be present at the table. We suggest including organizations and active residents from the Southeast communities and Long Beach, including members of CEHAJ. We also support Bus Electrification Projects [LB-ELA_0192] in concept. Similar to our argument for [LB-ELA_0191], community members and organizations must be meaningful partners in the project's development if this is considered a

¹² LB-ELA Draft Corridor Mobility Investment Plan, p. 8-46.

Community Program. Currently, the project factsheet lists NA for any potential partners. ¹³ For a more detailed description of our stance and suggestions for zero-emission strategies, see Section VIII.

F. Projects that Increase Policing and Surveillance Should not be Prioritized.

Governments and law enforcement have a long history of advocating for increased surveillance, often justifying the resulting loss of privacy in the name of security, or in this case, alleviating congestion for the goods movement and, as Metro's metrics suggest, under the guise of 'Personal Safety.' 14 Arguing that additional surveillance is a community and safety benefit is not only atrocious but has proven to be disingenuous, harmful, and biased. Increasing surveillance policies and technology not only pose threats to civil rights and liberties, disproportionately affecting communities of color, non-English speakers, and low-income communities but also contribute to broader distrust and skepticism of law enforcement. Investing in projects that expand police and surveillance can result in undesirable consequences and unnecessary risks.

a. Camera Surveillance is Unreliable and Harmful to Communities.

The Draft CMIP includes several projects involving Close Circuit Television Cameras (CCTV), security cameras, and "video camera installations," which are scored with some safety benefits per Metro's evaluation metrics. ¹⁵ However, video surveillance can be ineffective in deterring crime or reducing accidents, often leading to fear and distrust of public agencies and law enforcement. ¹⁶ These surveillance patterns can reflect existing societal biases, resulting in misinformed decisions around arrest and detainment that disproportionately impact communities of color. Additionally, video surveillance can be technologically flawed and vulnerable to hacking or data theft. There is also a risk of data being centralized for more extensive surveillance programs beyond Metro's jurisdiction or being sold to government agencies by private companies. ¹⁷ Law enforcement agencies often use the perceived effectiveness of video surveillance to justify securing larger budgets, resulting in funds that are catered to surveillance technologies at the expense of localized community needs. Based on this knowledge, we urge Metro to provide additional information on the ownership of CCTVs, the location of stored data,

¹³ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-47.

¹⁴ LB-ELA Draft Corridor Mobility Investment Plan, p. 6-5 and 6-6.

¹⁵ Id.

¹⁶ Vania Ceccato et al., *Crime and Fear in Public Places: Towards Safe, Inclusive and Sustainable Cities*, p. 40, Routledge (2020), available at

https://www.researchgate.net/publication/342987504 Crime and Fear in Public Places Towar ds Safe Inclusive and Sustainable Cities.

¹⁷ Kevin Collier, *U.S. government buys data on Americans with little oversight*, report finds, NBC News (June 2023), available at https://www.nbcnews.com/tech/security/us-government-buys-data-americans-little-oversight-report-finds-rcna89035.

access policies, the definition of "security purposes," and the intention of "video camera installations." ¹⁸

b. Excessive Policing and Surveillance have Negative Health Impacts on Communities.

Research indicates that excessive policing and surveillance are correlated to adverse health outcomes and health inequities. ¹⁹ Surveillance of communities, regardless of direct or indirect contact with law enforcement, leads to significant mental and physical health disparities compared to affluent communities. ²⁰ Hypervigilance, high blood pressure, anxiety, and PTSD are common in Black and Brown neighborhoods that have historically been targeted by law enforcement agencies, and the increase in police and surveillance could potentially worsen communities' mental and physical health. ²¹ Metro's evaluation of projects with increased policing and surveillance fails to consider equity and health concerns, instead focusing on benefits such as job creation, congestion reduction, and improved goods movement reliability. ²² Metro should not prioritize economic well-being at the expense of community health. Instead of relying on reactive surveillance policies, Metro should consider implementing preventative structural changes by redirecting funds to community-centered programs and equitable policies, such as those outlined in the CMIP's Community Programs. ²³

c. Prioritize Funding for Community Programs Over Surveillance Technologies.

Excessive policing and surveillance create an environment of fear and suspicion that is incompatible with democratic values and principles. Prioritizing funding back into the community through infrastructure, maintenance and accessibility improvements will help eliminate the need for additional surveillance. Currently, the law has not kept pace with surveillance technological advancements such as smart technology or Artificial Intelligence

¹⁸ Long Beach-East Los Angeles: Corridor Mobility Investment Plan, p. 5-8, 8-71&72, Metro (Jan 2024), available at https://www.metro.net/projects/lb-ela-corridor-plan/.

¹⁹ Michael Esposito, Savannah Larimore, and Hedwig Lee, *Aggressive Policing, Health, And Health Equity*, Health Affairs (April 2021), available at https://www.healthaffairs.org/do/10.1377/hpb20210412.997570/.

²¹ Nichole A. Smith et al., *Keeping Your Guard Up: Hypervigilance Among Urban Residents Affected by Community And Police Violence*, Health Affairs (Oct 2019).

²²Draft Combined Evaluation Results, *Active Transportation Concerns*, Metro (Oct 2023).

²³ LB-ELA Draft Corridor Mobility Investment Plan, p. 5-8.

(AI),²⁴ which some CMIP programs propose to use to alleviate traffic.²⁵ How do we know communities' privacy will be protected? How do we know communities' daily activities and behavior will not be sold to private companies or other law enforcement agencies? But most importantly, how will Metro ensure that our existing societal biases are not guiding an evolving surveillance technology without any safeguards for historically marginalized communities? We demand Metro develop an agency-wide policy prioritizing investments in Community Programs over additional police and surveillance. Furthermore, we oppose the reliance on AI as an industry cost-cutting strategy that would replace community jobs.²⁶

V. Freeway and Arterial Projects Should Serve Impacted Communities and Deliver Direct Benefits.

A. Freeway Projects.

CEHAJ has repeatedly stated through this process that freeway projects should not receive equity metric points. Because they have, the freeway projects prioritized for investment are misleadingly depicted as promoting equity in a way not intended by the guiding equity principles established through the Task Force process. During the Task Force process, equity was defined as "a commitment to (1) strive to rectify past harms; (2) provide fair and just access to opportunities; and (3) eliminate disparities in project processes, outcomes, and community results." Accordingly, equity criteria were designed to evaluate whether projects would likely provide benefits related to existing Corridor disparities and, if so, whether those benefits would be directed to geographies and populations of highest need. As expected, the majority of the freeway projects received Concern scores related to their potential to contribute toward displacement and impact the safety of bicyclists and pedestrians. However, Metro gave most freeway projects equity credit simply for moving goods through impacted communities more efficiently. For example, I-710/Anaheim Interchange Improvement [LB-ELA_0091] received equity points for basic functions of improved transportation. These are not the "benefits" the community called

²⁴ Queenie Wong, *California wants to reduce traffic. The Newsom administration thinks AI can help*, Los Angeles Times (Jan 2024), available at https://www.latimes.com/california/story/2024-01-08/california-traffic-roads-safer-generative-ai-help.

²⁵ LB-ELA Draft Corridor Mobility Investment Plan, p. 5-7.

²⁶ Jeff Farrah, *California Gov. Newsom is right. Truck drivers and autonomous trucks can thrive together—not just coexist*, Fortune (Oct 2023), available at https://fortune.com/2023/10/26/california-gov-newsom-truck-drivers-autonomous-trucks-thrive-together-supply-chains-tech-politics-jeff-farrah/.

²⁷ LB-ELA Draft Corridor Mobility Investment Plan, p. xxvi.

²⁸ This was taken from the Draft Combined Evaluation Results provided on the 710 Task Force Drop Box EQ-MB2 (Increases roadway speeds (or reduces travel times) for people and goods movement; EQ-MB3: (Reduces hours of delay for persons and goods); EQ-OP1 (Increases the

for because they do not directly undo the past prioritization of "industry over the health and livelihoods of Corridor residents."²⁹ The Corridor communities want improved health and air quality, not more vehicle trips through their neighborhoods. ³⁰ Increased access facilitated by new general-purpose travel lanes to create greater capacity for growing traffic and population was not the specific equity outcome that the community asked for with respect to freeway infrastructure projects. This benefits everyone who utilizes freeways in the Corridor.

From the beginning of this process, the community prioritized limiting displacement and health concerns from freeway development. The community was more concerned with "bear[ing] the project's adverse impacts" that are more localized in nature and would quash any general benefits the projects offered as a whole. In other words, equity points should only be given to a project if it improves the unique burdens that communities living within the project's impacted area have to bear, including displacement and safety concerns caused by freeway development. Presenting these freeway projects as equitable without accounting for localized equity priorities related to health and safety is misleading and presents these projects as more beneficial than they deserve. Furthermore, Metro has not explained how "bundl[ing] all the proposed Investment Plan freeway infrastructure projects into one set of candidate projects for an Alternatives

Analysis/Prioritization study" will not set it along a path mirroring the failed Alternative 5C project. Metro must ensure that all proposed freeway projects adhere to Clean Air Act conformity analysis requirements.

That said, CEHAJ appreciates that these bundled projects come with equity flags identifying the displacement concerns generally for projects I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors [LB-ELA_0031], I-710/Florence Interchange Improvements [LB-ELA_0034], I-710/I-105 Connector Project Improvements [LB-ELA_0037], and I-710/PCH Interchange Improvement [LB-ELA_0092]. CEHAJ supports projects I-710/Willow Interchange Improvements [LB-ELA_0028], Traffic Controls at I-710 Freeway Ramps [LB-ELA_0156], and I-710 Particulate Matter (PM) Reduction Pilot Project [LB-ELA_0157]. However, the project descriptions are so vague it is unclear whether these projects will be accomplished through the addition of lanes, no matter how modest. Therefore, equity

average number of jobs accessible within a 30-minute time period by transit or a 45-minute time period by automobile); EQ-OP8 (Provides new job opportunities for underemployed and low-income individuals in the workforce).

²⁹ LB-ELA Draft Corridor Mobility Investment Plan, p. 4-9.

³⁰ This would be represented by receiving equity points in EQ-AQ1, EQ-AQ2, EQ-CH1, EQ-CH2, EQ-CH3, EQ-EN3, EQ-EN6. Only Projects LB-ELA_0031, LB-ELA_0034, LB-ELA_0037, and LB-ELA_0092 received equity points for EQ-AQ1, EQ-AQ2, EQ-CH1 or EQ-CH3.

³¹ LB-ELA Draft Corridor Mobility Investment Plan, p. 4-2.

³² LB-ELA Draft Corridor Mobility Investment Plan, p. 4-9.

³³ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-28.

flags should also be added to these three projects for displacement concerns. CEHAJ is against investing in I-710/Anaheim Interchange Improvement [LB-ELA_0091] and I-710/Wardlow Interchange Improvement [LB-ELA_0093] and suggests they receive equity flags for displacement and safety. Projects [LB-ELA_0043], Congestion Pricing [LB-ELA_0153], and Express Lanes Strategic Initiative [LB-ELA_0182] should not be included in the modal program because they threaten displacement as well.

B. Arterial Roadway.

CEHAJ generally supports the arterial roadway projects identified for investment, as long as Metro ensures that all proposed arterial roadway projects adhere to Clean Air Act conformity analysis requirements. Appropriately, these projects have equity flags and corresponding Implementation Requirements/Guidance narratives. The Implementation Requirements/Guidance should also include the following details so that pedestrian and bicycle safety concerns are also prioritized in future design and analyses:

- Atlantic Complete Street Corridor [LB-ELA_0057], Florence Complete Street Corridor [LB-ELA_0058], Slauson Complete Street Corridor [LB-ELA_0061], and Long Beach Complete Street Corridor [LB-ELA_0062], which are projects meant to complete the street corridor, must prioritize pedestrian and bicycle safety, and not just facilitate vehicle throughput. CEHAJ emphasizes the importance of including native landscaping as well as allergy-friendly greenery. Continued maintenance must be a part of the project as well because overgrowth creates blind spots and obstacles on the sidewalks, which poses a safety hazard for pedestrians and commuters.
- Projects that anticipate bicycle lanes should only promote Class IV bicycle lanes.
- Avoid negatively impacting pedestrian and bicycle safety and prevent the expansion of impervious surfaces that could increase stormwater runoff, environmental heat gain, or worsen water quality—all of which negatively impact ecosystems and human health.

Additionally, community members are concerned that some areas, including East Los Angeles and Commerce, do not have projects, although they have identified and raised multiple areas of concern and proposed possible solutions.

CEHAJ does not support the inclusion of any surveillance projects in the Arterial Roadways Modal Program. As described in the Draft CMIP, the following projects do not explain how they serve the local communities and increase safety. Accordingly, the following projects should not be included in the Arterial Roads Modal Programs:

- Video Camera Installation [LB-ELA 0075]
- Video Detection Upgrades [LB-ELA_0084]

The following traffic signalization projects identified for the Arterial Roadways Modal Program should also include equity flags related to their potential concerns for increased localized emissions. Should those projects move forward during the project planning and approval phase, localized air pollution (such as particulate matter) must be a part of the analyses:

- Traffic Signal Coordination Projects [LB-ELA 0072]
- Traffic Signal Synchronization Projects [LB-ELA_0099]
- Signal Coordination/ITS Projects [LB-ELA 0112]
- I-710 Arterial Signal Performance Measurement [LB-ELA 0167]
- I-710 Arterial Traffic Signal Control Communication Upgrades [LB-ELA_0215]

VI. Transit Projects.

The Draft CMIP cites Community Alternative 7 as a source for many programs listed in the initial investment plan and the modal programs.³⁴ With a framework centered on protecting community health and the environment while achieving traffic safety, enhancing goods movement, and reducing congestion, Community Alternative 7 proposed a comprehensive public transit plan for the Corridor that would usher in an aggressive strategy to improve public transportation via rail and bus for residents.³⁵ Community Alternative 7 also called into question the wisdom of assuming only the maximization of the then "Blue Line" (A Line) and increasing existing bus service over building additional light rail capacity and expanding routes and service to the surrounding communities.³⁶

With this renewed opportunity to invest in the Corridor, we call on Metro to prioritize safe, reliable, extensive, and zero-emissions public transit. Our call for a comprehensive and aggressive public transit strategy remains. The Draft CMIP has an opportunity to refocus on Metro's core commitments to residents of LA County and, in doing so, help alleviate air pollution burdens by reducing traffic and promoting equity by enhancing opportunities for resident mobility. It is well established that the population in the Corridor are public transit users and that the general area includes some of the most heavily utilized rail and bus lines in the entire Los Angeles Metro Area (see Figure A). This is evident in Metro's pre-pandemic ridership data, showing large clusters of high-volume bus and rail transit boardings occurring throughout the Corridor, especially in under-resourced communities.

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³⁴ LB-ELA Draft Corridor Mobility Investment Plan, p. 5-2.

³⁵ Community Alternative 7, p. 3.

³⁶ *Id*, p. 4.

Figure A. Transit Use



This is why an investment plan put forth by the region's public transit authority should prioritize accessible and comprehensive public transit for the region's residents over projects serving only private industry interests. CEHAJ has consistently supported the removal of trucks, locomotives, and other freight equipment with health-harming tailpipe emissions. CEHAJ members, for example, have pushed for programs to electrify operations at ports and railyards. However, to the extent Metro's limited funds can support zero-emissions infrastructure, the CMIP should focus on projects that deliver the most direct investment in impacted communities.

In general, we support transit projects that will improve conditions for riders of public transit along bus routes. This includes expanding quality bus stop shelters with ample shade, accurate signage, accessibility, and pedestrian safety, as well as improving route schedules for enhanced reliability and ridership experience. Regarding signage, community members we have spoken to have stressed the importance of accurate and clear signage, with electronic message boards at more heavily used stops showing headways for buses. It's worth noting that none of the current

transit projects include this vital element. These improvements should be planned and codesigned with input from impacted communities.

As mentioned in other parts of our comments, we are opposed to projects that pose the danger of increasing surveillance, policing, and tracking of residents, such as cameras and other recording devices, as well as the use of artificial intelligence and algorithms that rely on data tracking that could invade the privacy rights of unknowing riders (for more see Section IV). While riders' safety is and should be a top priority, Metro's efforts are better spent ensuring that bus stops and transit stations are clean, have adequate lighting, are generally free of exposure to toxic hazards, and protect pedestrians and bicyclists from truck and car traffic.

We also urge Metro to prioritize expanding bus routes and services to the Corridor through robust community consultation and vetting to ensure more significant transit equity. Maximizing ridership in impacted communities will serve all elements of the equity guiding principle (procedural, distributive, restorative, and structural) and the sustainability guiding principle to enhance community and environmental well-being. Residents of Corridor communities are highly transit-dependent compared to other county regions. Expanding bus service, especially through electrified zero-emissions fleets, would improve air quality and mobility, increase opportunities by providing greater community access to quality jobs, and enhance residents' quality of life, safety, and health.³⁷ Furthermore, if a goal of the CMIP is to increase ridership and benefit impacted communities in the Corridor, Metro should consider utilizing this funding opportunity to offer fare-free transit to the communities in the Corridor. Fare-free transit will be particularly important during the construction of some of the proposed projects, given that multiyear construction creates barriers and increased traffic throughout the Corridor.

Funding for freeway safety and interchange improvement projects is nearly double what it is for transit when considering estimated investment leveraging for Measure R/M funding and the Measure R/M Funding recommendations the Draft CMIP is making (see Table C). For projects recommended for initial funding, transit receives just six percent of the recommended R/M funding compared to goods movement projects that will receive more than double that amount in initial funding, above active transportation and Community Programs.³⁸

³⁷ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-74.

³⁸ LB-ELA Draft Corridor Mobility Investment Plan, p.7-4.

Table C. Estimated Project Costs and Recommended Programming of Measure R/M Funds

	A. Estimated	B. Measure R/M Funding Recommendation (\$m)			
Mode	Investment Leveraging Measure R/M Funding (\$m)	B.1. Projects for Initial Funding	B.2. Modal Programs	B.3. Total (B.1 + B.2)	Estimated Grant Funding Required (\$m) (A – B.3)
Freeway Safety and Interchange Improvements	\$1,100	\$171	\$49	\$220	\$880
Arterial Roadways/Complete Streets	\$940	\$116	\$72	\$188	\$752
Transit	\$625	\$29	\$96	\$125	\$500
Goods Movement	\$320	\$61	\$19	\$80	\$240
Active Transportation/TDM	\$180	\$33	\$57	\$90	\$90
Community Programs	TBD	\$40	\$0	\$40	TBD
Total	\$3,205*	\$449	\$294	\$743	\$2,462*

There is also more opportunity to fix the harm Corridor communities have experienced by prioritizing the acceleration of public transit direct electrification projects to improve air quality and promote greater opportunities for the region— an element that could be more fully developed in the Draft CMIP. We encourage Metro to seek more ways to electrify existing fleets by deploying catenary and battery electric buses and rail.

CEHAJ is generally supportive of efforts to maximize service and access at existing rail lines and bus routes, increase bus service, improve conditions and remove or minimize safety hazards at stations, and enhance bus shelters to provide ample shade, seating, and potentially other amenities like public restrooms and drinking fountains. We are encouraged to see many projects aiming to improve public transit make it into the Draft CMIP and modal programs. However, not all projects are alike, and given the lack of detail, some projects may pose additional concerns and consequences that should raise flags and require further study prior to committing to investing in them. Below is a breakdown of transit projects CEHAJ supports in concept and projects that raise concerns.

A. Improving Transit Service Times and Rider Experience.

Improving transit service and enhancing the rider experience are priorities CEHAJ supports, especially if these efforts directly serve residents in communities most impacted by the I-710. Projects like the Blue Line First/Last Mile Plan Improvements [LB-ELA 0008], although listed

under Active Transportation,offer greater connectivity by extending safer access to Blue Line stations in surrounding communities through enhanced bicycling infrastructure, sidewalks, and access points. This project would likely improve rider experience by offering better options to access rail when necessary while improving passenger safety and reducing risks to pedestrians and bicyclists. For this project, however, we suggest Metro define protected bike lanes as "Class IV" — a more effective way to protect bicyclists and reduce fatalities.

Other projects on the Draft CMIP seemingly offer improved transit service times, but we are concerned that without more details, the projects selected may not deliver improved transit rider experience and instead lead to traffic diversion and congestion onto adjacent residential streets. Projects aimed at creating priority bus lanes, for example, triggered equity flags and signaled high levels of concern without guaranteeing that bus times would improve. These include the Priority Bus Lane Corridor along Line 60 [LB-ELA_0141], Metro Bus Priority Lane Corridor along Line 111 [LB-ELA_0144], Metro Bus Priority Lane Corridor along Line 108 [LB-ELA_0142], and Metro Bus Priority Lane Corridor along Line 260 [LB-ELA_0146]. A priority lane alone may not decrease headways unless coupled with more buses operating on the route, especially during peak hours. While CEHAJ supports build-outs that will improve boarding and accessibility as well as improvements to bus stops, residential members of our organizations have specifically identified improved bus shelters with ample shading as a priority. We hope these specific projects might be further developed to offer greater assurances that service times and rider experiences are improved.

B. Bus Shelter Improvements

We are pleased to see that bus shelter improvements have made it onto the Draft CMIP and fully support the broader approach to improving bus shelters throughout the Corridor, but we urge Metro to increase the target number from 100 to 400 bus shelters as part of this investment strategy. Bus stop shelters are essential to improving bus rider experience and safety throughout the system. A recent report, for example, showed that roughly 75 percent of bus stops in Los Angeles lacked shelter. Bus Stop Improvements [LB-ELA_0203] offers the prospect of improving transit ridership by providing additional safety and enhancing the rider experience. We strongly recommend that Metro incorporate ample shading to the CMIP for bus shelters and encourage the inclusion of public restrooms in addition to the other planned amenities. We also request confirmation that the Bus Stop Improvement project will absorb Bus Stop Improvements in the City of Commerce [LB-ELA_0077], Maywood [LB-ELA_0103], and City of Signal Hill [LB-ELA_0118], which were each previously listed separately.

³⁹ Maylin Tu, *More than 75% of Bus Stops in the City of Los Angeles Have no Shelter, What now?*, Los Angeles Public Press (September 26, 2023); https://lapublicpress.org/2023/09/more-than-75-of-bus-stops-in-the-city-of-los-angeles-have-no-shelter-what-now/.

C. Transit Safety.

The CMIP Initial Investments should prioritize transit safety over policing and monitoring transit riders. We support efforts to create additional protection for pedestrians accessing train stations and bus stops, such as the project to Install Quad Safety Gates at all A Line [Blue Line] Crossings [LB-ELA_0175], as long as these projects include community consultation to ensure gates are properly positioned and do not reduce pedestrian access points or create additional barriers to mobility. Not on the Initial Investment list are a series of projects that have a high benefit score, offer safety improvements to enhance the rider experience, and offer better protection. We urge Metro to consider these as part of a transit safety package included on the Initial Investments Lists. They include the following:

- Transit System Cleanliness and Maintenance [LB-ELA_0189]. Metro should prioritize strengthening its commitment to regular cleaning and maintenance on all transit vehicles and at bus and rail stations, including providing high-efficiency air filters on bus and rail transit vehicles. The COVID-19 pandemic taught us that the most under-resourced communities are also the most vulnerable to airborne illnesses. Improved cleaning also helps mitigate public health concerns like spikes in transmissible diseases.
- Add a Second Elevator to Firestone and Slauson A Line Stations [LB-ELA_0177].
 Adding more elevator access will improve accessibility for the mobility-impaired, improve opportunities for increased ridership, and limit overcrowding at entry points and platforms.

D. Other Transit Projects Recommended for Initial Investment Require Greater Clarity and Definition.

The Compton Transit Management Operations Center Enhancements [LB-ELA_0168] represents an outlier as it is unclear whether this project is oriented towards the community or management and staff at the Metro organization. The site appears to house offices for the City of Compton and the Los Angeles County Sheriff. This project seems out of step with the goals and objectives of the CMIP and provides little, if any, direct benefit to impacted communities. More specificity about the project may shed light on the intended benefits to the community.

VII. Active Transportation.

Active transportation (AT) has proven to have major health benefits. When AT initiatives are driven by community visioning, they promote trust and address existing inequities, contributing to the long-term success and sustainability of such initiatives.⁴⁰ Unfortunately, the equitable

⁴⁰ Meera Sreedhara, et al., *Stepping Up Active Transportation in Community Health Improvement Plans: Findings From a National Probability Survey of Local Health Departments*, Journal of Physical Activity and Health, (Sept 23, 2019), https://journals.humankinetics.com/view/journals/jpah/16/9/article-p772.xml?content=fulltext.

impacts on pedestrians and cyclists are frequently ignored, resulting in an uneven distribution of AT initiatives. This leaves communities with unsafe bike and walking paths, limited green space and shade, and a history of neglecting local knowledge and lived experiences. This oversight becomes evident when funding prioritizes car-centric initiatives. ⁴¹ The Metro Board should reevaluate funding policies to prioritize pedestrian and cycling safety, accessibility, climate-resilient features, and alignment with community vision and agency goals.

A. Active Transportation Programs Should Prioritize Community Safety and Mobility.

We welcome AT programs that align with communities' vision and lived experience, given that most communities of color and low-income communities suffer from inadequate or poor AT infrastructure. 42 Centering communities in the AT planning process provides valuable perspectives and ensures that programs are tailored to community preferences. Communities have long advocated for increased pedestrian safety, including high visibility intersections, flashing signs, traffic calming features, and green and accessible infrastructure. Huntington Park Safe Routes for Seniors and Students[LB-ELA 0170] incorporates features that address deficiencies in pedestrian safety and less on vehicle convenience. 43 Pedestrian/Bicycle Enhancements and Safety Features [LB-ELA 0201] includes measures that address green infrastructure, protection barriers, and repositioning of utility boxes for accessibility improvements. 44 Del Amo Pedestrian Gap Closure Project [LB-ELA 0158] is heavily supported by community members for its improvement of accessibility, mobility, and safety in an area that has constant truck traffic and has historically lacked any safety measures for pedestrians and cyclists. Lastly, Salt Lake Avenue Pedestrian Accessibility Project [LB-ELA 0208] in Cudahy is another initiative that underscores community preferences, focusing on enhancements like expanded sidewalks and the installation of additional ADA-compliant wheelchair ramps. 45 It is discouraging to see programs with similar initiatives not included in the recommended list for initial investment or only partially funded. 46 Metro can and should prioritize programs that reflect community input, especially those addressing equity concerns, safety upgrades, and promoting sustainability.

⁴¹ Joe Linton, *Metro Measure M Local Return Funds Go Predominantly To Driving*, Streets Blog LA (1 March 2023), available at https://la.streetsblog.org/2023/03/01/metro-measure-m-local-return-funds-go-predominantly-to-driving.

⁴² Riley O'Brien, *Disparities in Active Transportation Safety in the SCAG Region*, UCLA Institute of Transportation Studies (2018), available at https://escholarship.org/uc/item/3zw829zm.

 ⁴³ LB-ELA Draft Corridor Mobility Investment Plan, p.8-66.
 ⁴⁴ Id.

⁴⁵ ADA Standards for Accessible Design, US Dept of Justice and Civil Rights Division, available at https://www.ada.gov/law-and-regs/design-standards/.

⁴⁶ LB-ELA Draft Corridor Mobility Investment Plan, p.8-65.

B. Increased Impervious Cover Have Negative Health Impacts.

While AT programs offer many health and equitable benefits, some projects can harm communities. This includes AT programs that risk displacement and increased impervious cover and flood risks, like Randolph Street Bike and Pedestrian Facilities Project [LB-ELA_0128]. 47 Increased impervious cover, such as concrete and asphalt surfaces, negatively impact pedestrian health and the overall urban environment. Impermeable surfaces contribute to urban heat islands and high surface temperatures due to their high heat capacity, thermal conductivity, low reflectance of solar radiation, and reduced evapotranspiration cooling. 48 As for flood risks, existing impervious surfaces already prevent rainwater from infiltrating the ground 49 and projects that increase impervious pavements will only worsen storm runoff and flooding. 50 Impervious surfaces collect soot, rubber particles, and dozens of other pollutants, which can significantly impact environmental and human health and communities' mobility. 51 Additionally, studies have shown a correlation between higher proportions of impervious surfaces in communities of color and low-income communities, a policy gap that Metro can address to reduce the legacy and harm of redlining policies.

C. Active Transportation Programs Should Not Cause Displacement.

For decades, communities have advocated against the displacement of homes and businesses. Despite this, several AT programs have the potential for displacement and demolition.⁵² Metro's evaluation rubric scores displacement of "1" as "Low Impact," meaning that a total of less than three businesses or residences are likely to be displaced.⁵³ AT programs should not result in the displacement of people as AT programs are fundamentally designed to encourage non-motor

(https://www.dropbox.com/scl/fo/tfmcaehnpk36kzja2vne9/h?e=1&preview=LB-ELA+Combined+Evaluation+Rubric+-

⁵³ Id.

⁴⁷ Includes projects LB-ELA_0128 Randolph Street Bike and Pedestrian Facilities Project, LB-ELA_0017 Regionally significant bicycle projects from the Metro Active Transportation Strategic Plan.

⁴⁸ Bill Jesdale et al., *The Racial/Ethnic Distribution of Heat Risk–Related Land Cover in Relation to Residential Segregation*, Environmental Health Perspectives, National Library of Medicine (July 2013), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3701995/.

⁴⁹ Rong-Gong Lin II, *L.A. staved off disaster this time. But our luck is running out as extreme weather worsens*, Los Angeles Times (Feb 11, 2024), available at https://www.latimes.com/california/story/2024-02-11/l-a-staved-off-disaster-with-this-storm-extreme-weather-is-testing-our-luck.

⁵⁰ Lance Frazer, *Paving Paradise: The Peril of Impervious Surface*, Environmental Health Perspectives (July 2005), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1257665/. ⁵¹ Id.

⁵² LB-ELA Multimodal Corridor Investment Plan: Project and Program Performance Evaluation Methodology, Metro (Oct 2023),

⁺English.pdf&rlkey=6yw2jw7gitng0omslzn743r82&dl=0, p. 85-86.

mobility, promote physical activity, and create more sustainable and accessible communities. Also, AT programs take up less space and require less impervious surfaces and resources compared to car-centric infrastructure.⁵⁴

D. Class IV Bike Lanes Should be Prioritized.

Metro promotes AT initiatives as an accessible and more appealing environment for communities but falls short in providing safer amenities for cyclists, such as Class IV Protected Bike Lanes or "Separated Bikeways." ⁵⁵ Class IV bike lanes are exclusively for bicycles and require physical separation between the separated bikeway and vehicular traffic, including inflexible barriers, raised curbs, fences, grade separations, or vegetation buffers. ⁵⁶ Currently, the Draft CMIP has zero projects that prioritize Class IV bike lanes, promoting only Classes I-III, which lack any protective barriers and promote "sharing the road" policies with motorized vehicles. 57 However, Class IV bike lanes not only protect cyclists but are also shown to significantly reduce fatalities for all street users. 58 Protected bike lanes provide an enhanced level of safety that encourages more people to embrace cycling while creating sustainable urban environments. It is concerning that 31 projects, like West Santa Ana Branch [WSAB] Light Rail Station First-Last Mile Bikeway Safety and Access Project [LB-ELA 0213], which is in the implementation stage, offer only Class II and III bike lanes in an area with high truck traffic. ⁵⁹ If Metro is committed to rectifying past harms and fostering a safe environment, then it should develop an organization-wide policy that prioritizes Class IV bike lanes as the golden standard for bicycling programs.

⁵⁴ Thomas Gotschi et al., *Active Transportation for America: The Case for Increased Federal Investment in Bicycling and Walking*, Rails to Trails Conservancy (2008), https://www.railstotrails.org/resourcehandler.ashx?id=2948, p. 37-38.

⁵⁵ Chapter 1000: Bicycle Transportation Design, Highway Design Manual (July 1, 2020), available at https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1000-a11y.pdf/1000, pg. 1004.

⁵⁶ Michael D. Garber et al., *Have paved trails and protected bike lanes led to more bicycling in Atlanta? A generalized synthetic-control analysis*, National Library of Medicine (April 12, 2022) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9211442/.

⁵⁷ LB-ELA Draft Corridor Mobility Investment Plan, p. xxii.

⁵⁸ Wesley E. Marshall et al., *Cycling lanes reduce fatalities for all road users, study shows*, University of Colorado Denver (May 29, 2019) https://www.sciencedaily.com/releases/2019/05/190529113036.htm.

⁵⁹ LB-ELA Draft Corridor Mobility Investment Plan, p.8-38.

VIII. Zero-Emissions and Public Safety Strategies Without Displacement, Exposure to Additional Harm, and Co-designed with the Community.

From the start of the LB-ELA Corridor Task Force process, CEHAJ has consistently called on Metro to reaffirm its commitment to only exploring zero-emissions solutions for the Corridor—a commitment this coalition and several other community groups have demanded for decades. In approving the initial \$50 million seed money for a new Clean Trucks Program, the Metro Board gave a clear directive for a program that would no longer entertain half-measures like "near zero" technology but instead commit to using limited public funds to advance only zero emissions solutions. For those reasons, we generally support the proposal to include a Clean Truck Infrastructure Program [LB-ELA_0023] and the Zero-Emissions Truck Program [LB-ELA_0004] in the CMIP.

We use this opportunity, however, to reiterate our request that: 1) community health and wellbeing remain at the center of zero-emission technology deployment in the Corridor by ensuring that funded projects do not result in displacement, do not bring new health and safety risks through the production, storage, transportation, and fueling with hydrogen, and protect against air pollution and health impacts from any construction and operation of zero-emissions infrastructure; 2) investments in zero emissions result in co-benefits such as high road jobs and training for residents, and; 3) limited funds intended for the Corridor support projects aligned with community needs and tailored to provide tangible and measurable benefits to the communities most impacted by freight.

A. Zero-Emissions Infrastructure Planning and Deployment Must Include Robust Community Engagement.

We are pleased that the Draft CMIP incorporates CEHAJ requests for robust community engagement "that centers Corridor residents and stakeholders throughout the development process." ⁶⁰ We strongly believe that placing community health and wellbeing at the center of these investments requires the community to co-design the charging infrastructure and zero emissions truck program that will undoubtedly change the landscape in their communities for decades. The models for the type of engagement required are already available—one need look no further than the successful approach taken in a collaboration between CEHAJ and the Los Angeles Cleantech Incubator.

Through that project, we learned that the expertise and wisdom residents bring regarding the built environment in their neighborhoods is invaluable to this process. We urge Metro to include funding for this level of engagement moving forward as the Zero Emissions Infrastructure and Truck programs are implemented. We further urge Metro to make the commitment to community engagement in both the Zero Emissions Truck and Infrastructure programs unequivocal. For

⁶⁰ LB-ELA Draft Corridor Mobility Investment Plan, p.2-15.

example, the factsheets in the Draft CMIP provide cursory information about each project plan. Some, like the Zero-Emissions Infrastructure for Autos [LB-ELA_0191] listed under Community Programs, cite some potential partners while others do not. We suggest Metro includes clear language stating that organizations and community members of the Corridor will be meaningful partners in developing the proposals. The Draft CMIP should clarify that community consultation is intended throughout the development of these projects. A similar reference should be made in the descriptions of the Clean Truck Infrastructure [LB-ELA_0023] and Zero Emissions Truck Program [LB-ELA_0004].

B. Invest in Zero Emissions that Serve Communities First.

Throughout this process, Metro staff have reminded us that funds are limited—a fact not lost on members of CEHAJ as the state faces a steep budget deficit this year. The available funding, however, presents an opportunity to invest in programs that can vastly improve conditions in Corridor communities and repair the harmful legacy that racist redlining practices have left and polluting industries continue to perpetuate. To the extent zero emissions programs are being funded, whether for charging infrastructure or a zero-emission truck program, those projects should maximize the air quality benefits to local communities. That means that if zero-emission trucks are being routed through Corridor neighborhoods, it corresponds with eliminating a combustion alternative that would have continued producing the harmful emissions that residents currently breathe in. Additionally, there should be alternative roadways identified to reroute truck traffic away from residential areas.

While we support electrification in other areas like the Ports and at Railyards throughout our region, the zero-emissions bundle of investments coming out of the Draft CMIP should prioritize community-facing projects when it comes to delivering the benefits of transitioning to zero-emissions. To the extent projects solely benefit industry needs and are likely already getting funding elsewhere, they should be less of a priority for CMIP limited funds. Many of those projects, while laudable, are backed by highly lucrative and well-resourced industries that are eligible for, and are seeking funding from, other sources. When ranking these projects by order of equity criteria, the zero-emissions programs prioritizing direct benefits to the community, including local hire commitments and opportunities to expand zero-emissions cars, trucks, and transit in Corridor communities, should rise to the top of the list.

There is precedent for prioritizing investments for less-resourced parties as part of the Zero Emission initiatives. As the Draft CMIP points out, the Zero-Emissions Truck (ZET) Working Group decided to allocate \$45 million to invest in zero emission infrastructure development while leveraging the remaining \$5 million of the total \$50 million allocated as a strategic set-

⁶¹ LB-ELA Draft Corridor Mobility Investment Plan, p.8-20 and p.8-40.

aside to support small fleet owners in the transition to zero emissions. ⁶² This commitment to equity should pervade zero-emissions investments.

However, the allocation that the working group committed to is not made clear throughout the Draft CMIP. For example, the fact sheet concerning the zero-emissions truck program fails to mention the \$45 million/\$5 million allocation between infrastructure and the set aside for small fleets. The Draft CMIP is also inconsistent in describing the \$5 million set aside for small fleet operators. On one hand, the Draft CMIP describes the working group approving the entire \$5 million as part of the set-aside. It later references interviews where the suggestion was for "leveraging a *portion* of the \$5 million set aside to assist small fleet owners in transitioning to ZE trucks." We recommend that Metro clarify this point by making the CMIP consistent with the working group's recommendations.

C. The CMIP Should Focus on Deploying Strategies that Provide Direct Transportation Electrification as the Viable Zero-Emissions Solution, not Hydrogen.

In this letter, CEHAJ outlines serious concerns with directing CMIP funding to hydrogen production, transportation, storage, and fueling as the current technology fails to offer the most effective solution for the Corridor communities' health, safety, air quality, and climate risks. By contrast, direct electrification options for zero-emissions transportation are widely available, more efficient, and pose lower risks and costs to impacted communities. We urge Metro to stay focused on its promise to deliver on community stakeholders' vision for mobility that advances equity and sustainability. This can be accomplished by prioritizing funding for battery-electric and catenary zero-emissions transportation wherever feasible and allocating resources to projects that advance the deployment of these efficient, clean, and safe transportation modes along the Corridor. In most cases, hydrogen is more costly and carries more risk compared with direct electrification alternatives and should, therefore, not be included within the scope of the CMIP at this stage. Our concerns with directing limited public funding to hydrogen technologies include the following:

• Safety Risks. If not handled properly, hydrogen deployment presents potential safety risks to surrounding communities. Metro has not ruled out the use of combustible hydrogen in projects the CMIP may support, so little is known about what those projects may entail. Depending on the circumstances, the transportation, storage, and production of hydrogen have the potential to present substantial safety risks, especially if near residential areas. For already pollution-burdened Corridor neighborhoods, these risks

⁶² LB-ELA Draft Corridor Mobility Investment Plan, p.2-15.

⁶³ LB-ELA Draft Corridor Mobility Investment Plan, p.8-40.

⁶⁴ LB-ELA Draft Corridor Mobility Investment Plan, p.2-15.

⁶⁵ LB-ELA Draft Corridor Mobility Investment Plan, p.2-17.

- would be too much to bear. They would only add to the immense burdens they already shoulder due to freight movement and other industrial activity in the region.
- Air Pollution Risks. It is unclear whether the funding would support hydrogen combustion engines. If so, hydrogen combustion carries air pollution risks, as it may result in hazardous amounts of Nitrogen Oxide (NOx), a pollutant known to trigger ozone, which in turn disproportionately impacts health in communities near freight routes, refineries, ports, railyards, and other industrial activities. ⁶⁶ Among the known health risks of increased exposure to pollution caused by NOx include respiratory illnesses and asthma.
- Climate and Health Risks. The latest Intergovernmental Panel on Climate Change (IPCC) report finds that the use of fossil fuels must be phased out to avoid catastrophic warming past the 1.5°C threshold, which is long understood to be the point at which our current climate change trajectory will be irreversible. Current hydrogen production is almost entirely from fossil fuel-based processes that generate significant NOx emissions resulting in nearly 830 million tons of CO2 per year. Currently, there are no regulations in California to ensure clean hydrogen production. Additionally, it is far more efficient to use precious renewable energy resources directly as electricity than to convert them into hydrogen and then use them as fuel approximately three times more renewable energy is needed for a hydrogen fuel cell truck to travel the same distance as a battery electric truck. Hydrogen leakage is an additional climate risk; hydrogen is an indirect greenhouse gas approximately 12 times more potent than carbon dioxide on a 100-year timescale and 35-40 times more potent on a 20-year timescale, which is highly relevant to our current climate crisis.

⁶⁶ Sara Gersen and Sasan Saadat, *Reclaiming Hydrogen for a Renewable Future: Distinguishing Oil & Gas Industry Spin from Zero-Emissions Solutions*, Earthjustice Report (August 2021), p.10, https://earthjustice.org/feature/green-hydrogen-renewable-zero-emission; See also, Alissa B. Cook and Steven P. Hamburg, *Climate consequences of hydrogen emissions, Atmospheric Chemistry and Physics* (July 20, 2022), https://acp.copernicus.org/articles/22/9349/2022/acp-22-9349-2022.pdf.

https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC AR6 SYR SPM.pdf.

⁶⁹ Sam Wilson, Hydrogen-Powered Heavy-Duty Trucks, November 2023, https://www.ucsusa.org/sites/default/files/2023-12/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/default/files/2023-12/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/default/files/2023-12/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/default/files/2023-12/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/default/files/2023-12/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/default/files/2023-12/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/hydrogen-powered-heavy-duty-trucks.pdf. https://www.ucsusa.org/sites/hydrogen-powered-heavy-duty-trucks.pdf. <a href="https://www.ucsusa.org/sites/hydrogen-powered-heavy-duty-trucks.pd

⁶⁷ Intergovernmental Panel on Climate Change, *Climate Change 2023 Synthesis Report: Summary for Policymakers* (2023), p. 21,

⁶⁸ Massachusetts Institute of Technology, *Hydrogen Explainer*, Climate Portal, https://climate.mit.edu/explainers/hydrogen.

⁷¹ Gersen & Sadaat, *supra*, at 19; *see also* Alissa B. Cook and Steven P. Hamburg, *Climate consequences of hydrogen emissions, Atmospheric Chemistry and Physics* (July 20, 2022), https://acp.copernicus.org/articles/22/9349/2022/acp-22-9349-2022.pdf.

More plainly put, investing in yet-to-be-defined hydrogen projects through the CMIP is not worthwhile when there are safer and more feasible methods to get to zero emissions through direct electrification. There are hydrogen applications, such as combustion, that are too risky to be included in infrastructure projects located in the very same communities that have already suffered from the freight industry's toxic legacy. Leveraging Metro's limited funding to support hydrogen projects without a clear understanding of the scope of hydrogen use and processing could rubber-stamp air pollution hazards and perpetuate the environmental injustices that have plagued communities and shortened life expectancy for individuals living in the Corridor for generations.

CEHAJ identified four potential plans that run the risk of endorsing the deployment of hydrogen projects into the very communities Metro is charged with protecting. They include the Corridor Zero-Emissions Truck Program [LB-ELA_0004], the Clean Truck Infrastructure investments [LB-ELA_0023], the Metrolink Regional Rail Line Between Union Station and Long Beach [LB-ELA_0219], and the Freight Rail Electrification Project [LB-ELA_0217], but there are potentially others. For this reason, we are calling on Metro to define the parameters around zero emissions further and include only direct electrification projects. We further reiterate our request to have a more comprehensive "health risk" score that takes a closer look at the potential for sponsored projects to exacerbate safety, air quality, and risk to climate initiatives.

D. We Do Not Want the ZET Program to be an Excuse to Further Erode Environmental Protections Such as CEQA.

We are troubled to see references in the Draft CMIP referencing some members of the Zero Emissions Truck Working Group pushing for Metro's support of efforts to erode the California Environmental Quality Act (CEQA) with a categorical exemption for ZE Charging Facilities. While we wholeheartedly support the transition to zero emissions in the Corridor and would like to see charging infrastructure developed, we cannot support such an initiative to weaken one of the few tools impacted communities have to demand greater transparency. Robust community engagement, not less, will make any Zero-Emissions charging infrastructure project successful, as has already been demonstrated.

Calls to expedite CEQA review and speed up permitting for charging infrastructure cynically ignore that this law is one of the few protections communities have to demand through analysis of impacts and proper mitigation often for health-harming consequences of projects. We ask you to rebuff these cynical efforts that would take away the most basic safety net at the worst time. As noted above, not all projects labeled "zero-emissions" are the same, and some have the potential to do more harm than good. Industry often provides anecdotes of the harms CEQA imposes but not hard evidence. If projects cannot be completed with robust public review and vetting, then they probably do not belong in communities already hard hit by pollution and

environmental burdens. While charging infrastructure will be key, we cannot bargain away the community's right to public review and transparency for the sake of expediency.

IX. Goods Movement.

The Goods Movement goal was crafted to achieve "streamlining and optimizing the efficient movement of goods and freight within and through the Corridor while simultaneously reducing air quality and health impacts to Corridor communities" caused by goods movement. There are four Goods Movement projects that are recommended for initial investment: Zero-Emission Truck Program [LB-ELA_0004], Clean Truck Infrastructure [LB-ELA_0023], Goods Movement Freight Rail Study [LB-ELA_0151], and Freight Rail Electrification Pilot Project [LB-ELA_0217]. While many of our member organizations generally support the electrification of rail, CEHAJ does not support the rail projects included in the Draft CMIP as currently described. The particular projects selected for initial investment stand in contrast to the Goods Movement goal by solely addressing industry stakeholder needs without simultaneously benefiting the communities that these rail projects will impact.

For example, CEHAJ expresses concern for the Freight Rail Study [LB-ELA 0151]. The Freight Rail Study seeks "an assessment to evaluate options for deriving greater utilization of the Alameda Corridor as a potential means for reducing truck trips in the Southern California subregion."⁷³ This assessment would include opportunities to increase on-dock freight rail mode share, implementation of short-haul, freight rail shuttle service to new inland rail facilities, and increased use/improved operational efficiencies of existing near-dock and off-dock intermodal facilities. Based on the prior analyses, this project only received concern scores for "noise" which, without more information, CEHAJ assumes is based solely on the impacts of the study itself. However, the potential future benefits of the improvements were counted toward the overall benefits score, and possible future negative impacts were ignored. Metro should have assessed the future negative impacts of the projects the study will evaluate (such as freight rail to inland ports and increased on-dock rail) to fairly account for the tradeoffs of this study. Without it, the Draft CMIP suggests that this project comes without future concerns and only future benefits (i.e., ways to move goods onto rail and off highways) and likely artificially inflates the score this project deserves. To ensure consistency with the visions set out by the Task Force, investment in this study must come with a strong commitment to study the impacts of the freight paths project recommends, which would include impacts on bike and pedestrian safety, concentrated congestion, construction impacts, increased impervious surface, and potential for new physical barrier – particularly for inland port andrailyards, all real tradeoffs for the efficiency this study is trying to promote. If the future benefits of a project were assessed, then

⁷² LB-ELA Draft Corridor Mobility Investment Plan, p. 5-12.

⁷³ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-25.

the future concerns should be as well, and if Metro staff did not do this, those projects should be clearly marked or a clear explanation for why future impacts and concerns were not assessed when future benefits were included.

As a general matter, CEHAJ does not support the infusion of community investment funds into private projects that can obtain funding via other mechanisms. For this reason, CEHAJ does not support investment in the Freight Rail Electrification Pilot Project [LB-ELA 0217]. This project envisions Metro working with the Union Pacific and Burlington Northern Santa Fe railroads to continue to develop and test various battery-electric locomotives for operation on the Pacific Harbor Line and in the Alameda Corridor, with an ultimate goal of advancing a zero emission technology capable of entering commercial, revenue service operation. CEHAJ understands that this project is receiving heavy funding, partially in response to draft CARB regulations on locomotive emissions that will come into effect in 2030, and electrification of the railways, especially if they will reduce congestion caused by diesel trucks, is a step toward compliance. The improved health benefits for this pilot remain entirely theoretical and fail to justify how the community will receive benefits now and in the interim in the way that the Task Force envisioned. Rather than funding pilots geared to benefit well-resourced private industry, the goods movement sector would better serve the principles of the Task Force by recommitting to electrifying the now underutilized Alameda Corridor. Yet Metro anticipates investing \$10 million in Measure R/M funds in a fully private project with no guaranteed return on investment. Furthermore, this project lists potential funding from other sources such as FRA pilot programs, RAISE, INFRA, TIRCP, LCTOP, and others. 74 The 10-million-dollar investment should be distributed to other projects that would contribute a real improvement to the neighborhoods that these goods would be moving through and not subsidizing the industry's exploration of future compliance needs.

X. Conclusion.

We firmly believe that this investment plan offers an opportunity for Metro to start the process of repairing the damage caused by past harmful policies in the Corridor. When it comes to the Draft CMIP, we believe that prioritizing investments in community benefits programs, improving transit, promoting safe active transportation, and bringing community-vetted zero emissions transportation and infrastructure is essential to creating a more equitable and sustainable future in the Corridor. However, we continue to have concerns regarding the skewed prioritization of industry-led projects, the risk of displacement, and the need to better protect residents from toxic air pollution and other harms. We remain committed to helping improve the CMIP and ensure that the final investment plan benefits all residents in the Corridor equally.

⁷⁴ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-24.

Respectfully,

The Coalition for Environmental Health and Justice (CEHAJ)

Laura Cortez

East Yard Communities for Environmental Justice

Fernando Gaytan Vanessa Rivas Villanueva

Earthjustice

Janeth Preciado Vargas
Ambar Rivera
Jay Parepally
Jennifer Ganata

Communities for a Better Environment

Alison Hahm

Natural Resources Defense Council

Marlin Dawoodjee Vargas Sylvia Betancourt **Long Beach Alliance for Children with Asthma (LBACA)**

Andre Donado

Long Beach Residents Empowered (LiBRE)

Attachment G



February 27, 2024

Stephanie Wiggins, CEO Los Angeles County Metropolitan Transportation Authority One Gateway Plaza Los Angeles, CA 90012-2952

Dear Ms. Wiggins,

As the Long Beach to East Los Angeles' Corridor Mobility Investment Plan moves forward, Metro needs to commit itself to zero residential property takes. This corridor includes some of our most pollution-burdened communities, with few resources available to them to relocate, and this agency should have as one of its top priorities ensuring that our projects do not result in kicking people out of their homes.

In 2021, the Agency made a commitment to build over 10,000 housing units on Metroowned property by 2031. As such, we should be investing in projects that preserve existing housing and ultimately increase the quality of life for our residents.

Sincerely,

JANICE HAHN

Supervisor, Fourth District County of Los Angeles

Attachment H

Re: CEHAJ and LiBRE Comment Letter re: the Draft CMIP

Cano, Michael < CanoM@metro.net >

Sat 4/6/2024 6:44 PM

To:Vanessa Rivas Villanueva <vrvillanueva@earthjustice.org>;Fernando Gaytan <fgaytan@earthjustice.org>;Laura Cortez <laurac.eycej@gmail.com>;Janeth Preciado Vargas <Janeth@cbecal.org>;ambar@cbecal.org <ambar@cbecal.org>;Jennifer Ganata <jganata@cbecal.org>;Sylvia Betancourt <SBetancourt@memorialcare.org>

Cc:Cylear-Dodds, KeAndra <cyleardoddsk@metro.net>;Laura Herrera <lherrera@arellanoassociates.com>;Ambrosini, Susan <susan.ambrosini@aecom.com>;Chaves, Ernesto <ChavesE@metro.net>;Medina, Jessica <MedinaJe@metro.net>;Delgadillo, Lucy <DelgadilloLu@metro.net>;Barnea, Avital <BarneaA@metro.net>

4 attachments (14 MB)

Response Letter to CEHAJ LiBRE.pdf; LB-ELA CMIP CEHAJ LiBRE Comment Log 4.6.24.pdf; LB-ELA CMIP- Updated Revised Redline Draft 4-5-2024 - English - export.pdf; 2024.3.28 CEHAJ and LiBRE Letter re Draft CMIP.pdf;

External Sender

Dear Vanessa and our partners at CEHAJ and LiBRE:

Attached please find my letter in response to your March 28th comment letter on the Draft Long Beach-East Los Angeles (LB-ELA) Corridor Mobility Investment Plan (CMIP). Please forward this note to Jay, Alison, Marlin, and Andre.

You will also find attached a comment log that summarizes concerns and requests captured in the letter, our response to them, and how we are approaching these topics in the CMIP. I am also attaching the redline version of the CMIP that includes the latest edits we made reflecting these changes. We look forward to our Task Force meeting on Monday to discuss and take a vote of support for the CMIP we have developed together over the past 2.5 years.

On behalf of my colleagues on the proejct team, I do want to thank you for your comments and your continued participation and leadership in helping us bring to our Board a transportation investment plan that supports and provides benefits for the communities that we and our transportation system serve.

We are proud of the many innovative, unique, equity-focused, and precedent-setting features of the CMIP that we hope will serve as a model for other planning efforts here and thorughout the country. Thank you for your long-term leadership in advocating for the needs of the LB-ELA Corridor communities, and your work to help us develop this investment plan to meet their needs.

With great appreciation,

Michael Cano
LA Metro
Executive Officer
Countywide Planning & Development
213.418.3010 W
213.305.0423 C
Metro.net | Facebook.com/LosAngelesMetro
Metro provides excellence in service and support

On Mar 28, 2024, at 5:09 PM, Vanessa Rivas Villanueva wrote:

Hello Metro Staff,

Thank you for the opportunity to provide comments on the Long Beach-East Los Angeles Corridor Mobility Investment Plan ("CMIP"). On behalf of members of the Coalition for Environmental Health and Justice (CEHAJ) and Long Beach Residents Empowered (LiBRE), I share our joint letter outlining our groups' positions and suggestions on the Draft CMIP.

Thank you for taking our comments into consideration. We look forward to continuing to work together to strengthen the CMIP.

Respectfully,

Vanessa Rivas Villanueva (she/her) Research and Policy Analyst California Regional Office 50 California Street, Suite 500 San Francisco, CA 94111

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T: 415-217-2059



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April 6, 2024

The Coalition for Environmental Health and Justice (CEHAJ) and Long Beach Residents Empowered (LiBRE)

RE: CEHAJ/LiBRE Comment Letter for the Draft LB-ELA Corridor Mobility Investment Plan

Dear Colleagues:

Thank you all for the comprehensive, thoughtful, and helpful letter sent to us on behalf of the members of CEHAJ and LiBRE on March 28, 2024, as official comment on the Draft Long Beach-East Los Angeles (LB-ELA) Corridor Mobility Investment Plan (CMIP). Thank you also for meeting with our project team on Wednesday, April 4, 2024, to discuss your letter, proposed changes, and outstanding issues to consider as we prepare to bring the revised CMIP back to the Task Force on Monday, April 8, 2024, for discussion and an opportunity to receive a consensus vote of support to bring the CMIP to the Metro Board for consideration this month.

While the process of creating the CMIP started 30 months ago, we recognize that you, your colleagues, and the community have been engaged in the process of determining how to invest in the I-710 Corridor for many years, from the early 2000s when planning and proposals for a project emerged, through the development of the prior I-710 South Corridor Project, to the tremendous cancellation and shift away from that proposal in 2021, to the creation of the LB-ELA CMIP today. You have consistently called for the public to have more than just input, but meaningful participation to help make the CMIP community-centered and beneficial for local residents, not just the region. As members of the Task Force, you have helped shape and guide every step of the process, from creating the Vision, Goals, and Guiding Principles to evaluating the revised Draft CMIP before us today. The equity-focused process of engaging the public, especially through the Community Leadership Committee, has proven essential for not just the process of creating the CMIP, but also the quality of its outcomes. Thank you for your consistent participation in all aspects of the CMIP process, your representation of community, your articulation of key process, policy, and project issues, and your constant effort to improve our planning process and outcomes. We look forward to continuing to work with you through the Working Groups to ensure that the promises and community benefits promised in the CMIP's recommendations that you will consider on Monday come to fruition.

Attached please find two documents: (1) a response to the key comments you raised in your letter, in the form of a comment log, and (2) a copy of the final redlined version of the CMIP that includes all edits made incorporating many items resulting from the letter and our meeting this past week.

On behalf of the Metro team, I hope you find our responses to your letter helpful to clarify and understanding how the CMIP addresses the many issues you raised, including changes made in response to your feedback.

I recall in our first meeting about five years ago when you made it clear that investment in the I-710 Corridor should include no displacement, zero-emission technology, and local/targeted hiring. We are pleased that the CMIP reflects those important goals, and so much more, as we set forth to invest \$743 million in transportation dollars for the Corridor to generate approximately \$4 billion of multimodal investment that is a down payment on addressing many of the needs for better transportation, investment in community programs and benefits, reparative technical assistance, better public health and cleaner air, safer routes for all modes of transportation, zero-emission technology, urban greening and an improved environment, and access to opportunity and shared prosperity.

The CMIP is a strategic, multimodal, transportation vision for the LB-ELA Corridor. Task Force support for the CMIP sets us on a path forward to begin much of the work to develop, define, and deliver the projects and programs recommended for funding through the Working Groups we will initiate following the adoption of the CMIP by the Metro Board. We invite members of the community, the CLC, and your organizations to participate in that process, continue to be our partner in this endeavor, and continue the work of improving the LB-ELA Corridor communities and transportation system in a way that follows the Vision, Goals, and Guiding Principles of the CMIP and provides meaningful benefits to the collective quality of life for residents.

If you have any questions or concerns, please reach out to me at canom@metro.net.

Sincerely,

Michael Cano

Michael Cano

Executive Officer, Multimodal Integrated Planning

Countywide Planning and Development

Section I - Community input and engagement are essential for meaningful outcomes and Task Force re-engagement is a critical starting point.	CMIP Ch. 9 discusses the potential structure of the Implementation Working Group engagement, which can include Task Force and CLC members, as well as semi-annual reengagement of the Task Force and CLC. These working groups will be very important for Metro to develop and implement projects and programs for the CMIP in alignment with the Vision, Goals, and Guiding Principles. Community participation and engagement is a priority.
Section II - Summary of Comments, Recommendations include prioritizing pedestrian and bicycle safety, confirming the absorption of specific bus stop improvement projects, and ensuring a comprehensive definition of zero emissions to eliminate harmful combustion and NOx emissions.	For CMIP Ch. 8 Complete Streets Fact Sheets design guidance text was updated. For bikeways, CMIP Ch. 8 Regionally Significant Bicycle Projects from the Metro Active Transportation Plan Fact Sheet was udpated to include text about prioritizing implementation of protected bikeways (Class 1 or Class 4) on these corridors. Metro supports providing safety for bicyclists and removing conflicts with trucks and vehicles, and recognizes the importance of protected bikepath facilities.
Section II - CEHAJ opposes projects that may undermine civil liberties or prioritize industry interests over community needs, such as Video Camera installation, Freight Rail Electrification Pilot Project, Congestion Pricing and Express lanes.	Updated CMIP Section 9.3 to demonstrate Metro's commitment to implementation with guidelines related to surveillance. Updated CMIP Ch. 8 Congestion Pricing Fact Sheet and Appendix 6c to show flag and deprioriziation. Updated CMIP Section 8.6 with the following note above modal program table: It should be noted that some projects, like Congestion Pricing, have garnered significant community opposition. Projects listed as Tier 1 will not necessarily move forward in the future.

Section III - Prioritize Public Health and Eliminate Projects that May Cause More Harm Than Good. The Draft CMIP lacks specificity regarding the health, air quality, and climate implications of proposed projects, raising concerns about its ability to prioritize community well-being. most of the proposed projects, the possible health and air quality implications are marked as "N/A" in many cases; we are left feeling like our continuous calls for prioritizing community health remain unheard. Recent EPA changes to air quality standards underscore the need for more stringent strategies to improve air quality, especially in areas like the Corridor with high levels of pollution.

It is not feasible to evaluate air quality or health impacts at the project level as part of the Investment Plan, which is a strategic planning document. Metro does not have the level of detail required to perform the analysis at this stage; projects will undergo and need to meet CEQA/NEPA requirements as they move towards implementation. CMIP Section 8.5 clarifies how social determinants of health inform the current recommendations and how community programs will continue to advance health equity. CMIP Section 9.3 clarifies that all projects will be screened to determine whether an Air Quality analysis would be required as part of the CEQA/NEPA process. As part of the CEQA/NEPA process, a project's potential health risk impacts would also be evaluated during construction and operation, which may include a quantitative Health Risk Assessment, depending on a project's location, construction duration, construction activities, potential sources of emissions and proximity to receptors.

Section III - Prioritize Public Health and Eliminate Projects that May Cause More Harm Than Good. Of the twenty-seven criteria used to evaluate health-related project outcomes (see Table A), only four criteria (AQ1, CH1, CON5, CON9) directly advance transparency on the implications to air quality and health. Furthermore, data on these four criteria is extremely limited, if at all available, for the vast majority of the projects and programs recommended for initial investment, with many receiving N/A simply because there is no data currently available (see Table B)

See the methodolgy rubric for why those projects have "NA" for emissions benefits and impacts - they were not modeled.

Section III - Prioritize Public Health and Eliminate Projects that May Cause More Harm Than Good. The lives of workers and residents in the Corridor should be prioritized, and projects likely to cause public health harm should be omitted from the CMIP. Section IV - Metro Should Prioritize Community Benefits.	Projects will continue to undergo assessment for negative impacts per CEQA/NEPA, and may be removed if found to have significant impact. Updated CMIP Section 9.3 to clarify that future projects will require a CEQA/NEPA clearance. Updated CMIP Ch. 8, MOSAIC Fact Sheet to read: This study will provide the more refined assessment needed to determine which of these projects are the most beneficial, without significant impacts, and should move to the next phase of their development. Updated CMIP Section 8.5 to clarify that Community Programs are not intended
There is a glaring lack of emphasis on community benefits. Community Programs should not be bundled and used for mitigation for harmful projects.	to be mitigations for harmful projects, and added additional information to describe intent of Community Programs to address equity issues in the corridor. The Equity Planning and Evaluation Tool (EPET), included in Appendix 4-A, also address the Investment Plan's emphasis on community benefits.
Section IV - Metro Should Prioritize Community Benefits. There are concerns about the disproportionate allocation of funding within the Draft CMIP, with a significant portion directed towards modal programs rather than community-led initiatives. This raises questions about the plan's commitment to equity and community well-being.	Measure R and M funding for investment in Community Programs is limited by the transportation nexus requirement, which is why Metro is investing \$40 million in a Community Programs Catalyst Fund to support the creation of successful Community Programs that will have access to other sources of funding more aligned with or eligible for the projects and programs to be developed by the Community Programs Working Groups. Recognizing the need for commitment to this outcome, Metro has set a target of \$300M in funding from outside grant sources as a means of signalling to partners that our expectation is that these programs yield revenue, projects and programs, and benefits for community. It will be the Working Group's task to clarify the potential for investment to meet this targetand hopefully exceed itin the implementation phase of the CMIP. Community members will be able to participate in and help design the programs. Updated Section 8.5 to include target.
Section IV - Metro Should Prioritize Community Benefits. There is a critical need to prioritize green spaces in the CMIP; Green spaces offer a wide range of benefits that complement and enhance the effectiveness of other transportation modes, making them essential components of any comprehensive investment plan.	Updated CMIP Ch. 8 Urban Greening Fact Sheet project description to underscore importance of greening and potential benefits. Added project guideline to Section 9.3 to emphasize need for permeable cover.

Section IV - Metro Should Prioritize Community Benefits.	Updated CMIP Ch. 8 Housing Stabilization Community Program Fact Sheet to
California is in the midst of an unprecedented housing crisis, Metro and County can play a role in stabilizing housing. Anti-displacement measures are needed to stabilize housing for low-income residents, as well as programs to prevent evictions, preserve affordable housing, and develop sustainable housing options.	underscore importance of housing stabilization program.
Section IV - Metro Should Prioritize Community Benefits. Re: Economic stabilization programs and local hire commitments, they should stand alone as independent projects that merit initial investment and ongoing support to ensure their implementation, not just in the planning phase.	Updated CMIP Section 8.5 to clarify that Community Programs are not intended to be mitigations for harmful projects, and added additional information to describe intent of Community Programs to address equity issues in the corridor.
Section IV - Metro Should Prioritize Community Benefits. Programs to improve air quality and mitigate pollution are critical but should not serve as mitigation for other harmful projects. Suggestions for expanding air quality monitoring stations and implementing measures to improve indoor air quality.	Updated CMIP Ch. 8 Air Quality and Community Health Program Fact Sheets to underscore important of these programs and add to list of potential project/program types based on CEHAJ suggestions.
Section IV - Metro Should Prioritize Community Benefits. The section supports zero-emission solutions and bus electrification but urges community involvement in project development. It emphasizes the importance of partnerships with community organizations and residents.	Updated CMIP Ch. 8 Fact Sheets for ZE Infrastructure for Autos and Bus Electrification Projects. Metro will engage in community-centered decision-making through the Community Programs Working Groups with impacted communities. Metro and the Working Groups may also consider community education on hydrogen fuel and related issues with regional and community partners.
Section IV - Metro Should Prioritize Community Benefits. There's strong opposition to projects involving increased policing and surveillance, citing concerns about privacy, civil rights, and the disproportionate impact on marginalized communities. Funding for community programs should be prioritized over surveillance technologies.	No projects in the initial investments include cameras. Modal programs will go through additional screening to review equity and CIC flags that indicate community concerns. Projects found to have significant negative impact through working group assessment will not move forward. Updated project list (Appendix 6c) with flags on projects with camera equipment.

Section IV - Metro Should Prioritize Community Benefits,	Equity is defined in the evaluation criteria as 'benefits or burdens place on
Community groups argue that freeway projects should not	disadvantaged communities'. If a freeway project provided safety benefits for
receive equity points as they primarily prioritize efficiency in	instance in an EFC, Equity points would be allocated.
moving goods through impacted communities rather than	Added the parenthical note to the CMIP Ch. 8 MOSAIC Fact Sheet under CIC
addressing past harms, providing fair access to opportunities,	flags:
or eliminating disparities.	CIC Flags: Congestion Pricing (LB-ELA_0153) and ExpressLanes Strategic Initiative (LB-ELA_0182)
The focus of freeway projects should be on rectifying past	General: Concerns about potential displacements (LB-ELA_0093 and LB-
prioritization of industry over community health and livelihoods,	ELA_0091 specifically, and others generally).
with an emphasis on improving health and air quality rather	
than increasing vehicle traffic.	
Section V - Freeway and Arterial Projects Should Serve	Updated CMIP Ch. 8 to state all applicable projects will adhere to Clean Air Act
Impacted Communities and Deliver Benefits.	conformity analysis
Community support exists for arterial roadway projects, but with	
a caveat that they must adhere to Clean Air Act conformity	
analysis requirements.	
Section VI - Transit Projects. The section emphasizes the	Raised funding for LB-ELA Corridor Bus Transit Priority Program from \$3M to
importance of prioritizing community health, environmental	\$31 to more comprehensively address transit needs.
protection, and traffic safety in transit planning. Highlights the	
need for a comprehensive public transit strategy focused	
on rail and bus improvements rather than solely	
maximizing existing infrastructure.	
Section VI - Transit Projects. Various transit improvement	Updated CMIP Ch. 8 Bus Stop Improvement Fact Sheet with additional detail
projects are discussed, including enhancing bus stop	and clarified the leveraging. Surveillance guidance was added to Section 9.3.
infrastructure, improving transit service times, and prioritizing	
transit safety over surveillance and policing measures.	
Recommendations include adding amenities like shade and	
seating to bus shelters and installing safety gates at rail	
crossings.	
	l .

Section VII - Active Transportation. Emphasis is placed on the need for AT programs to prioritize safety enhancements such as high visibility intersections, traffic calming features, and accessible infrastructure. Projects like Safe Routes for Seniors and Students and Pedestrian/Bicycle Enhancements and Safety Features are cited as examples. It is discouraging to see programs with similar initiatives not included in the recommended list for initial investment or only partially funded. Metro can and should prioritize programs that reflect community input, especially those addressing equity concerns, safety upgrades, and promoting sustainability.	Initial Investment funding raised from \$33M to \$44M. in CMIP Ch. 8 modal programs were updated - the Development of AT programs will occur through the Working Group for AT/Transit/ARCS projects, and will center communities in the AT Planning process.
Section VII - Active Transportation. While AT programs offer health and equitable benefits, there's recognition that some projects can have negative impacts, such as increased impervious cover leading to urban heat islands and flood risks. The section advocates for projects that minimize these impacts and address environmental justice concerns.	Added more detail to CMIP regarding impervious cover to community program implementation in Ch. 9. and included explicit language to incorporate urban greening in AT projects.
Section VIII - Zero Emissions and Public Safety Strategies Without Displacement. Request to prioritize zero-emissions projects that directly benefit impacted communities and provide co-benefits such as local job opportunities. The section advocates for a transparent allocation of funds that prioritizes projects addressing equity concerns and delivering measurable benefits to Corridor communities.	Metro's commitment to equity will guide zero-emission investments for the \$5 million dollars set aside for small fleet owners.

Section VIII - Zero Emissions and Public Safety Strategies Without Displacement. The section urges Metro to prioritize direct electrification over hydrogen technology, citing safety risks, air pollution concerns, and inefficiencies associated with hydrogen. It calls for a clear focus on projects that advance direct electrification solutions, emphasizing their safety, efficiency, and lower environmental impact.

Added to fact sheets and ZET section of CMIP:

Metro is committed to exploring all viable zero-emission technologies, including battery-electric and hydrogen, to meet regulatory mandates and sustainability goals without endorsing one solution. Metro is also committed to investing its CMIP funds in a manner that aligns with and advances the LB-ELA Corridor Task Force Vision, Goals, and Guiding Principles.

- •Addressing Community Concerns: Recognizes concerns regarding public health, emissions during hydrogen production, transportation safety, and potential leakage, affirming Metro's dedication to minimizing impacts and educating communities.
- •Compliance with Clean Fleets Rule: California's 2035 Zero-Emission (ZE) drayage truck mandate focused on tailpipe emissions, highlighting the need for comprehensive approaches to achieve ZE outcomes.
- •State and Federal Investments: Significant investments in hydrogen and battery-electric technologies, including up to \$1.2 billion Regional Clean Hydrogen Hub (H2Hubs) award, indicating strong governmental support for diverse ZE solutions.
- •Community Advocacy and Education: Metro aims to serve as a community advocate in ZE Truck (ZET) technology policy discussions, ensuring community concerns are addressed, supporting research, and facilitating educational initiatives on ZE technologies.
- •Expert Panel Discussions and Symposia: Plans to organize expert panels, symposia, and community education events to deepen understanding of hydrogen technology, its state of development, and its implications for the LB-ELA Corridor.
- •Collaborative Efforts for ZE Future: Continue collaboration with stakeholders to develop a ZE future that benefits the LB-ELA Corridor, emphasizing the importance of community input and guidance in educational and policy

Section VIII - Zero Emissions and Public Safety Strategies Without Displacement. There's a concern about potential efforts to weaken environmental regulations such as the California Environmental Quality Act (CEQA) for zero-emissions infrastructure projects. The section advocates for maintaining robust environmental protections and public transparency in project review and permitting processes, emphasizing the importance of community engagement and scrutiny.

Metro understands the concerns raised by CEHAJ and LiBRE that, in the desire to expedite the delivery of needed ZE infrastructure to support the transition of heavy-duty trucks from diesel to ZE technology, we do not also create new disparities caused by the reduction in environmental protections, public transparency, or community engagement. Metro is supportive of all parties involved with the planning and delivery of ZE Infrastructure to continue to work together to ensure this community concern is not overlooked. Metro's Working Groups, which will oversee the development of ZE technology investments, will include community members and advocates who will help provide accountability on this matter.

Sheet:

Environmental Review and Permit Streamlining Concerns: Metro supports robust public review and vetting for all projects, including those projects labeled zero-emission. Metro will engage in community-centered decision-making through the Working Groups with impacted communities and should avoid endorsements of potentially harmful applications without community input. Metro and the Working Groups may also choose to conduct community education on hydrogen fuel and related issues with regional and community partners.

Section VIII - Zero Emissions and Public Safety Strategies Without Displacement. The section emphasizes the long-standing demand for zero-emission solutions in the LB-ELA Corridor and calls for Metro to prioritize such solutions over partial measures like "near zero" technology. It supports the inclusion of Clean Truck Infrastructure and Zero-Emissions Truck Programs in the CMIP but urges a focus on community health and well-being in their deployment.

Metro is committed to exploring all viable zero-emission technologies, including battery-electric and hydrogen, to meet regulatory mandates and sustainability goals without endorsing one solution. Metro is also committed to investing its CMIP funds in a manner that aligns with and advances the LB-ELA Corridor Task Force Vision, Goals, and Guiding Principles. Community benefits and impacts—including health—will be a key component of planning studies, project development, and implementation regarding ZE infrastructure.

- •Addressing Community Concerns: Recognizes concerns regarding public health, emissions during hydrogen production, transportation safety, and potential leakage, affirming Metro's dedication to minimizing impacts and educating communities.
- •Compliance with Clean Fleets Rule: California's 2035 Zero-Emission (ZE) drayage truck mandate focused on tailpipe emissions, highlighting the need for comprehensive approaches to achieve ZE outcomes.
- •State and Federal Investments: Significant investments in hydrogen and battery-electric technologies, including up to \$1.2 billion Regional Clean Hydrogen Hub (H2Hubs) award, indicating strong governmental support for diverse ZE solutions.
- •Community Advocacy and Education: Metro aims to serve as a community advocate in ZE Truck (ZET) technology policy discussions, ensuring community concerns are addressed, supporting research, and facilitating educational initiatives on ZE technologies.
- •Expert Panel Discussions and Symposia: Plans to organize expert panels, symposia, and community education events to deepen understanding of hydrogen technology, its state of development, and its implications for the LB-ELA Corridor.
- •Collaborative Efforts for ZE Future: Continue collaboration with stakeholders to develop a ZE future that benefits the LB-ELA Corridor, emphasizing the

Section VIII - Zero Emissions and Public Safety Strategies Without Displacement. Strong emphasis is placed on robust community engagement in planning and implementing zero-emissions infrastructure projects. The section advocates for meaningful community involvement to ensure that projects align with community needs, address concerns, and provide tangible benefits.

Updated Ch. 9 to demonstrate Metro's commitment to implementation including goals for zero displacements.

Metro is committed to exploring all viable zero-emission technologies, including battery-electric and hydrogen, to meet regulatory mandates and sustainability goals without endorsing one solution. Metro is also committed to investing its CMIP funds in a manner that aligns with and advances the LB-ELA Corridor Task Force Vision, Goals, and Guiding Principles.

- •Addressing Community Concerns: Recognizes concerns regarding public health, emissions during hydrogen production, transportation safety, and potential leakage, affirming Metro's dedication to minimizing impacts and educating communities.
- •Compliance with Clean Fleets Rule: California's 2035 Zero-Emission (ZE) drayage truck mandate focused on tailpipe emissions, highlighting the need for comprehensive approaches to achieve ZE outcomes.
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- •Expert Panel Discussions and Symposia: Plans to organize expert panels, symposia, and community education events to deepen understanding of hydrogen technology, its state of development, and its implications for the LB-ELA Corridor.
- •Collaborative Efforts for ZE Future: Continue collaboration with stakeholders to develop a ZE future that benefits the LB-ELA Corridor, emphasizing the

Section IX - Goods Movement. The section outlines the goal	Updated CMIP Ch. 8 Goods Movement Freight Rail Study Fact Sheet with text
of optimizing goods movement in the LB-ELA Corridor while	about the study of the impacts of freight paths.
reducing air quality and health impacts on communities. It	
highlights four recommended projects for initial investment:	
Zero-Emission Truck Program, Clean Truck Infrastructure,	
Goods Movement Freight Rail Study, and Freight Rail	
Electrification Pilot Project.	

Section IX - Goods Movement. There is a concern that the selected rail projects primarily address industry needs without adequately benefiting impacted communities. Specifically, the Freight Rail Study is criticized for potentially neglecting future negative impacts on communities, such as increased impervious surface and congestion, while focusing only on potential benefits for industry stakeholders.

Metro's goal with the Freight Rail Electification study is to make the Alameda Corridor a ZE corridor in support of our shared goal to make the LB-ELA Corridor a ZE Corridor of the future. The community will receive benefits from an Alameda Corridor that carries ZE locomotive technology to move more cargo through the trench between the Ports and the Intermodal Railyards. The goal with this public funding is not to subsidize private industry or supplant private/other funding for the testing of ZE locomotives outright, but to work with all relevant partners, including the community, to determine how to convert the Alameda Corridor to ZE technology so that the movement of cargo from the docks at the southern end of the LB-ELA Corridor to the intermodal railyards at the northern end of the LB-ELA Corridor will feature ZE technology and support advancements at the Ports and at the Railyards to convert to ZE technology. The Freight Rail Electrification study will be developed with community participation in the Working Groups and will feature these community concerns as part of its scope of work. It is important to note that Metro is a member of the Alameda Corridor Transportation Authority and is advancing these goals at the policy level at that agency. The Goods Movement Freight Rail Study is intended to develop, with community and partner stakeholders, the strategies, policies, and levers needed to move more of the cargo in the LB-ELA Corridor by train instead of truck. The Alameda Corridor is currently underutilized with approximately only 30% of its capacity in use today. The concerns identified by community stakeholders in this letter and those raised during the development of the study in the Working Group, which will include community participation, will be included in the scope of work to ensure this concern is addressed. As the CMIP has a longer-term horizon than the immediate near-term, funding can be allocated for these purposes.

Rewrote the project factsheet [LB-ELA_0217] slightly: Work with the Alameda Corridor Transportation Authority (ACTA) along with the railroads (Union Pacific (UP) and Burlington Northern Santa Fe (BNSF)) to continue to develop and test

Section IX. Goods Movement. Preference for Electrification of Underutilized Infrastructure: Instead of funding private projects, CEHAJ advocates for prioritizing electrification of the Alameda Corridor, which is seen as underutilized. The section argues that such investments would provide more immediate and tangible benefits to communities compared to funding industry-led pilot projects.

Prioritization for ZE technology will be electrification, with an assessment of other technologies including potential community impacts and benefits as requested. The funding sources listed as alternate funding sources are meant to leverage the \$10 million allocation. Any funding that is not ultimately used for this effort will return to the Goods Movement modal program.

Freight/goods movement projects included in the Investment Plan are those that minimize negative environmental impacts, modernize technology, and upgrade infrastructure.

The List of Projects Recommended for Initial Investment includes ZE truck infrastructure and a study of freight rail electrification projects/programs.





LONG BEACH-EAST LOS ANGELES (LB-ELA)
CORRIDOR MOBILITY INVESTMENT PLAN
(INVESTMENT PLAN)

Draft to be Finalized 4/10/24



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FOREWORD

The Long Beach-East Los Angeles (LB-ELA) Corridor Mobility Investment Plan (Investment Plan) is a comprehensive strategic planning initiative focused on enhancing the transportation infrastructure and services in the LB-ELA Corridor, and serves as a qualifying Comprehensive Multimodal Corridor Plan for the California Transportation Commission's Solutions for Congested Corridors Program. The Investment Plan represents a significant milestone in regional transportation planning, embodying an innovative collaborative approach that integrates community insights, technical expertise, and a commitment to equity and sustainability.

The Investment Plan is not just a roadmap for infrastructure development; it reflects the collective vision and aspirations of the communities and stakeholders it serves. As a part of the process, the LB-ELA Corridor Task Force and Community Leadership Committee (CLC) members agreed to a shared Vision Statement for the Investment Plan.

"An equitable, shared LB-ELA Corridor transportation system that provides safe, quality multimodal options for moving people and goods that will foster clean air (zero emissions), healthy and sustainable communities, and economic empowerment for all residents, communities, and users in the Corridor."

The Investment Plan lays out the strategies, projects, and programs proposed, and highlights the key elements that make the Investment Plan a transformative project for the LB-ELA Corridor. It underscores the importance of multimodal transportation solutions and their benefits to the community, the environment, and the economy. The Investment Plan also looks to the future, identifying working groups to help develop and refine projects and programs identified for funding or as a modal program candidate. The Community Programs Catalyst Fund and technical assistance program created through this strategic vision will provide an important, targeted approach to meeting community needs and providing benefits that exceed and complement those found in a traditional transportation investment strategy, reflecting the great needs found in communities that have faced so many impacts over decades.

By presenting a detailed account of the development process, engagement strategies, and the diverse range of improvements planned, the Investment Plan aims to provide stakeholders, policymakers, and the public with a clear understanding of the objectives, scope, and expected outcomes.

The LB-ELA Corridor Mobility Investment Plan is more than just a transportation project; it is a testament to the power of collaborative planning in creating a more connected, accessible, and vibrant region. This Investment Plan closes the door on policy and investment decisions that have impacted local communities over many generations and marks the beginning of a new chapter – one focused on bringing together diverse voices and innovative solutions for a thriving LB-ELA Corridor that supports the generations of tomorrow.



DEDICATION





In Memoriam

Martha Fierro

Community Leadership Committee Member, City of Cudahy
January 6, 1965 – February 1, 2023

In heartfelt remembrance of Martha Fierro, a remarkable community member and passionate activist.

Martha's legacy is one of unwavering dedication to the well-being of her community of Cudahy. A proud member of Metro's LB-ELA Community Leadership Committee, she consistently championed public health and community-led initiatives. Her commitment was evident in her fierce advocacy for green spaces in park-poor communities profoundly impacted by the 710 freeway. Martha played a pivotal role in shaping a vision of multi-modal mobility options and community improvements along the corridor.

As a fierce Communities for a Better Environment (CBE) member and community leader, Martha's dedication extended beyond meetings and committees—she rallied her neighbors, leading transformational efforts to enhance parks and green spaces in the City of Cudahy. Martha's enduring legacy is etched in her dedication to projects that prioritize people and public health over goods and profit. She is an inspiring example for Southeast Los Angeles residents advocating for the right to environmental justice.

Written by her friends at Communities for a Better Environment (CBE)



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NOx

1 BACKGROUND

1.1 Purpose of the Investment Plan

The Long Beach-East LA (LB-ELA) Corridor is home to many vibrant, multicultural, and unique communities that together represent 12% of Los Angeles County's population. These historic communities include four of LA County's oldest incorporated cities—Compton (1888), Long Beach (1897), Vernon (1905), and Huntington Park (1906)—and feature a rich mosaic of ethnicities, culinary experiences, religious denominations, and cultural traditions that help make LA County a diverse and dynamic place to live and work.

The future opportunity for the LB-ELA Corridor communities to thrive and enjoy a high quality of life, from clean air and good health to safe and plentiful mobility options and access to opportunities, remains challenged and unclear due to the compounded, generational legacy of transportation infrastructure decisions, policies, and investment priorities that have served more to fracture and dim the LB-ELA Corridor mosaic than to unify and illuminate it.

Transportation infrastructure investment, at its best, uplifts and connects communities in need and, at its worst, disconnects and burdens vulnerable communities with consequences and concentrated localized impacts at the expense of dispersed regional benefits. The history of the planning, construction, and purpose of I-710, a 19-mile freeway completed in 1964, represents the latter outcome. With the decision to route this freeway alongside the LA River to connect the Ports of Long Beach and Los Angeles with the Central Manufacturing District and intermodal rail yards located near East LA, the I-710 tore through LB-ELA Corridor communities that pre-existed the freeway, displacing numerous residents, and adding to the shared harmful legacy of freeway construction intentionally routed through BIPOC (Black, Indigenous, and People of Color) communities to serve regional economic interests.

Decades later, I-710 serves as the nation's most important freight highway corridor, supporting the movement of goods that support the regional, state, and national economies. Tens of thousands of heavy-duty diesel trucks travel on the freeway daily, serving the nation's busiest seaport complex, intermodal railyards, warehouses, logistics centers, and transloading facilities. The LB-ELA Corridor's shared-use transportation system—anchored by I-710 and supported by five intersecting freeways (I-405, State Route [SR] 91, I-105, I-5, and SR-60), the Alameda Rail Corridor, and major arterial highways—is responsible for moving the growing volume of cargo handled by the nation's busiest seaport complex to the transcontinental rail terminals near Downtown Los Angeles and other national and local destinations.

I-710 is also the nation's most community-adverse freight highway corridor. As Southern California's population grew over the decades, so did the demand on I-710 to carry regional commuters and goods, straining the freeway's limited capacity, resulting in traffic congestion, safety concerns, and spillover traffic onto arterial roadways parallel to the freeway that serve the LB-ELA Corridor communities. As the nation, state, and regional economy prospered from the



increased movement of goods and international trade supported by I-710, the communities through which the freeway was constructed bore the burden of increased air pollution and freight traffic, deteriorated public health and mobility, displacement; they suffered an overall poorer quality of life. These negative community health impacts externalities have tragically earned the LB-ELA Corridor the apt moniker "Diesel Death Zone."

From the communities' perspective, the echoes of these open wounds reverberated when, after two decades of study and evaluation, the Los Angeles County Metropolitan Transportation Authority (Metro) and California Department of Transportation (Caltrans) proposed widening I-710 to expand the freeway's capacity to accommodate general-purpose travel lanes. These extra lanes were intended to absorb increased truck and vehicle travel to reduce traffic congestion and collisions, improve freight movement through the region, and support the region's economic needs. However, this widening would also cause even more displacement of people and jobs in communities already separated and harmed by the freeway, increased impacts to local air quality, public health, and the environment, and a continued focus on serving the region's economic needs at the expense of the LB-ELA Corridor communities' quality of life and health.

Following the United States Environmental Protection Agency's (EPA's) expression of concerns during this proposal's environmental review that the agency did not believe the project would meet air quality conformity, Metro and Caltrans suspended its advancement. This decision marked a watershed moment for Metro, recognizing that the proposed project developed years ago did not comply with updated federal, state, and regional policy frameworks, did not align with current approaches to transportation investment from a multimodal, air quality, climate, and community-supportive perspective, and did not address, repair, and overcome the long-standing impacts of I-710 on the LB-ELA Corridor communities.

Metro heard these concerns and envisioned a first-of-its-kind community-centered process to develop the LB-ELA Corridor Mobility Investment Plan (Investment Plan)¹, which would re-envision how to invest in the corridor's transportation infrastructure in a multimodal, locally-focused, yet regionally significant manner through a process that brought communities to the table with regional stakeholders to find common ground. To support this approach, Metro created a Task Force and Community Leadership Committee (CLC) to serve as advisory bodies that would determine the Vision, Goals, and Guiding Principles of the Investment Plan, help identify and evaluate proposed projects, develop strategies to leverage funding, conduct robust community engagement, find ways to reach consensus, and finalize funding recommendations for Metro Board consideration. Empowering the community and stakeholders to participate in this process helped Metro develop an Investment Plan that reflects the community's voice and the Metro Board's direction to ensure that regional planning for highway improvements "must include a renewed commitment to inclusive and meaningful engagement of communities as well as a steadfast commitment to addressing the equity, displacement, air quality, congestion and economic concerns that have plagued communities around major freeway corridors."²

One main concern raised consistently by Corridor residents was the need to produce an Investment Plan that would not re-introduce freeway widening or displacement of people from



their homes given the existing challenges to community cohesion, home ownership, and housing costs. This pervasive public input is reflected in several Metro policies. In June 2022, the Metro board adopted its Multimodal Highway Investment Objectives policy which includes the following objective: "Recognizing LA County's history of inequitable highway investment policies and construction, work with local communities to reduce disparities caused by the existing highway system and develop holistic, positive approaches to maintain and improve the integrity of and quality of life of those communities with minimal or no displacement during the implementation of highway projects." Additionally, the Metro Board adopted a policy that removed from Investment Plan consideration any "capacity enhancing freeway widening" projects. With this community input and Metro Board policy in mind, staff eliminated from consideration projects proposed for evaluation that had known displacement impacts and carefully evaluated every project and program recommended for funding in the Investment Plan. Metro is pleased to affirm that the Investment Plan, in contrast to the prior I-710 South Corridor Project, does not recommend any projects or programs with any known displacements for funding and remains committed to ensuring these Board policies remain intact through the implementation of the Investment Plan.

Metro developed the Investment Plan with the belief that equitable processes would result in equitable outcomes and with the intention of restoring trust with and centering Corridor communities that have been historically harmed and disproportionately impacted by I-710 over the years. The Investment Plan recommends funding a community-centered, balanced, and multimodal array of projects and programs, including support for zero-emission truck and locomotive technology, prioritized bus lanes for faster transit service, complete street treatments for more integrated mobility options on arterial roadways, safer pedestrian and bicycle pathways, active transportation corridor gap closures, bus shelters and first/last mile transit improvements to improve customer experience, reduced particulate matter from roadway sources to improve air quality and public health, and connecting communities to the LA River Bikeway.

The Investment plan also proposes an innovative approach to improving the I-710 freeway facility and bridges through the MOSAICI-710 MOSAIC (Multimodal, Operational, Safety, and Access Investments for the Community) Program, which will improve how community members access the freeway through safer on and off ramps and cross the freeway with safety and mobility improvements for bus, bicycle and pedestrian travel to reconnect communities separated by the freeway and LA River.

Equity is a hallmark of the Investment Plan. In addition to the community inclusive process and transportation projects and programs recommended for funding that will help address equity needs in the LB-ELA Corridor, the Investment Plan also creates and funds two innovative programs that Metro will implement to deliver holistic, equity-focused community benefits. One program is the START-UP (Strategic Technical Assistance for Reparative Transportation Uplifting People) Fund, which will provide support for lower-resourced communities to develop projects for implementation. The other program is the Community Programs Catalyst Fund, which supports the development of 15 Community Programs (not normally eligible for funding in a transportation



investment plan) to allow Metro to lead the region to convene communities and stakeholders to plan, develop priorities, and identify funding strategies to deliver projects and programs related to community health, air quality, zero-emission technology, urban greening, greenhouse gas reduction, workforce development and targeted hiring, economic and housing stabilization, transit oriented development and communities, and public art/aesthetics.

Finally, the Investment Plan is a living document that will be reviewed and updated every few years to ensure that projects and programs are advancing and delivering benefits as expected and that new priorities can be evaluated and developed over time to take advantage of funding reserved within the plan's Modal Programs.

This Investment Plan represents the consensus support of Metro stakeholders who live and work along the LB-ELA Corridor. This multidimensional, multimodal investment strategy enhances regional and local mobility and air quality while fostering economic vitality, social equity, environmental sustainability, improved public health, and access to opportunity. Through the development and implementation of the Investment Plan, Metro hopes to restore and illuminate the LB-ELA Corridor mosaic—comprising vibrant, resilient, and multicultural communities—with transportation investments complemented by community programs designed to uplift people in the Corridor and fulfill their hopes for a safer, cleaner, healthier, more mobile, and more prosperous future for generations to come.

This document fulfills the requirements of the California Transportation Commission for Metro to adopt a qualifying Comprehensive Multimodal Corridor Plan for the I-710/LB-ELA Corridor to allow projects in the Investment Plan to be eligible for funding from the Senate Bill 1 Solutions for Congested Corridors Program.

1.2 Brief History of the Corridor before the LB-ELA Corridor Project

The founding of the Ports of Los Angeles and Long Beach dates back to the turn of the 20th century, and the multiple global events that shaped the current day flow of goods and supply chain practices unfolded since. In 1897, the federal government selected San Pedro Bay over Santa Monica Bay for harbor development, paving the way for the Ports of Los Angeles and Long Beach. Shortly after that decision, the City of Los Angeles created the Board of Harbor Commissioners in 1907, and the City of Long Beach followed in 1917 to oversee the operations of their respective ports. Fast forward to 1956, an innovative shipping concept called containerization started in the U.S. East Coast, and the Sea-Land Services (now A.P. Moller - Maersk) made the first container ship call at the Port of Long Beach in 1962. Containerization has since revolutionized the way goods are moved across the world. Indeed, the container volume at Port of Long Beach grew at an average annual growth rate of nearly 40 percent between 1969 and 1980.

1980s was the beginning of China's ascendance as a global manufacturing superpower. China's success was a result of a combination of centrally-owned manufacturing plants, innovations in manufacturing practices, low labor costs, and its strong business ecosystem, but also attributed to a lack of regulatory compliance and low taxes and duties. Many U.S. manufacturers offshored their



production activities to China to take advantage of China's low-cost production and high productivity.

The areas near the Ports historically attracted various industries, including fishing, canneries, oil drilling and shipbuilding in the early days of the 20th century, and logistics infrastructure investments including rail and roadway transportation networks and warehouse and goods handling facilities since the latter half of the 20th century. Rapid population growth took place as waterfront businesses flourished. When China emerged as a global manufacturing powerhouse, many U.S. manufacturers and retailers favored San Pedro Bay as a strategic global trade node because of its proximity to China and shorter shipping time as compared to the East Coast ports, well-developed goods movement transportation infrastructure, and a large population base to support logistics activities. Since the first port call of the Sea-Land Services, the container volumes at the Ports of Los Angeles and Long Beach surged, making the Ports the largest container port complex in the Western Hemisphere.

The development of I-710 (formerly California Routes 15 and 7) in 1964 connected the Central Manufacturing District in Southeast LA to the expanded San Pedro Bay Port Complex, facilitating the burgeoning movement of goods and commerce. The economic pursuits of the region at the time, however, did not equitably consider the needs of all communities in the path of the I-710.

The LB-ELA Corridor comprises 18 incorporated cities and three unincorporated communities that are diverse, with unique development and growth histories. Though the Corridor overall is an important economic driver for the region, the benefits and burdens of that historical development have not always been equitably distributed. Some communities of color and low-income households suffer the impacts of inequitable planning and policy decisions made long before I-710 was built. The redlining, discriminatory lending practices and exclusionary zoning that solidified residential racial segregation in LA County in the middle of the 20th century split some neighborhoods apart, destroyed others, and forced some communities to bear the brunt of freight and commuter traffic that supports the region, the state, and a significant part of the country. The resulting inequities in community impacts have been exacerbated by the construction and changes to the I-710 to meet the increased volume of international trade in recent decades.

1.3 The Need for LB-ELA Corridor Improvements - Decades in the Making

By the 1990s, the I-710 South Corridor faced a convergence of challenges arising from increased traffic, local population expansion, growth in trade at the San Pedro Bay Port Complex, and deteriorating transportation infrastructure, giving rise to safety and mobility concerns that could not be ignored. Portions of the freeway were experiencing delays of 3 or more hours daily. The following timeline outlines efforts made over two decades to relieve congestion and improve safety along the LB-ELA Corridor:

¹ Case Study - California I-710 – Engaged Community Supports Corridor Study Partnership, https://onlinepubs.trb.org/onlinepubs/shrp2/SHRP2 CS C01 California-I-710.pdf.



2000: Initiation of a major study by Caltrans, Metro, SCAG, and GCCOG to draft a locally preferred strategy addressing safety, congestion, and quality-of-life along the I-710 Corridor.

2003: Community concerns about air quality and residential displacement led to the creation of the Community Advisory Committee by the Oversight Policy Committee to focus on key issues affecting communities along the I-710 Corridor.

2005: Completion of the Major Corridor Study, recommending separate truck lanes, an increase in general-purpose lanes, interchange improvements, and improvements to Corridor arterial streets.

2007: Metro and GCCOG launched the Air Quality Action Plan in response to the study's findings, aiming to improve health for residents and employees of the transportation corridor.

2008: Start of the I-710 Corridor Project EIR/EIS, addition of Subject Working Groups and Local Advisory Committees to the Community Advisory Framework, and identification of Measure R funding for the I-710 Corridor.

2011: A Health Impact Assessment conducted by Metro and GCCOG as part of the Air Quality Action Plan.

2012: Public release of the draft EIR/EIS, proposal of Community Alternative 7 by local environmental groups advocating for increased transit service and zero-emission trucks and separate Zero Emissions Truck Lanes, and release of the Air Quality Action Plan identifying strategies to reduce emissions.

2013: CALSTART prepared the I-710 Project Zero-Emission Truck Commercialization Study, contributing to the Technology Plan for Goods Movement undertaken by Metro and GCCOG.

Metro, Caltrans and GCCOG proceed to start the development of a revised Draft EIR/EIS based on community feedback and changes in freight cargo logistics transport. A revised set of alternatives was analyzed including the No Build, a freeway modernization combined with a Zero-Emission Truck Program, and a freeway modernization combined with separate truck-only lanes accessible only to zero emissions trucks.

2016:

Voters in LA County passed Measure M, providing additional funding for the LB-ELA Corridor. This measure aimed to alleviate traffic congestion, repair infrastructure, and expand public transit, while also subsidizing fares for vulnerable groups. Concurrently, Metro and the GCCOG completed a Strategic Transportation Plan, proposing a comprehensive set of projects to enhance regional transportation through advancements in technology and infrastructure to accommodate growing demands.



2017:

The revised draft EIR/supplemental draft EIS was released for public review, offering detailed analyses on the proposed improvements and their impacts within the corridor.

2018:

The Metro Board reviewed the three alternatives from the revised draft EIR/supplemental draft EIS: "No Build," Alternative 5C, and Alternative 7. Ultimately, Alternative 5C was approved as the Locally Preferred Alternative, which included the I-710 Zero-Emission Truck Program and aimed for a comprehensive modernization of the I-710. This decision also introduced an Early Action Program to deliver immediate benefits in safety, mobility, and air quality, prioritizing several projects before any mainline freeway work commenced.

The development of the Final EIR/EIS documenting the selection of Alternative 5C as the Preferred Alternative was initiated.

2020: EPA determined that an emissions hotspot analysis was required for the Locally Preferred Alternative (Alternative 5C) due to air quality concerns, which could jeopardize federal approval of the project. In addition, increased state concerns over climate change and greenhouse gas emissions led to the withdrawal of Caltrans support for Alternative 5C.

In response to these actions and continued community concerns, the Metro Board suspended work on the Final EIR/EIS for Alternative 5C.

2021:

The GCCOG formed the I-710 Ad Hoc Committee in July, aiming to integrate locally supported solutions after the halt of approval of Alternative 5C.

In September, the Metro Board and Caltrans launched a comprehensive approach to reengage communities and stakeholders, forming the I-710 South Corridor Task Force for a more multimodal, equitable, and sustainable approach to corridor challenges.

2022:

The project was renamed to the LB-ELA Corridor Mobility Investment Plan, reflecting a broader focus.



The Metro Board, responding to a request from Caltrans and state policy changes aimed at improving climate change effects, formally rescinded Alternative 5C as the Preferred Alternative in favor of the "No Build" alternative and directed development of the Final EIR/EIS to document that decision.

1.4 Goods Movement Strategic Plan and I-405 Comprehensive Multimodal Corridor Plan – Precursors and Framework for the I-710 South Corridor Task Force Process

As the world shut down in response to COVID-19, it was clear how vital the goods movement industry is to keeping people fed, businesses open, and hospitals fully stocked. The pandemic also shone a light on how pre-existing inequities and poor health caused by the movement of freight were further exacerbated by the health and economic impacts of this devastating global pandemic.

In response to these local and global challenges, Metro recognized the importance of creating transformative plans to make LA County more economically competitive, environmentally sustainable, and socially equitable. Metro's 2021 LA County Goods Movement Strategic Plan and Interstate 405 (I-405) Comprehensive Multimodal Corridor Plan (CMCP) meet this need and are transformative plans that serve as precursors to the framework for the Task Force process.

Metro initiated the LA County Goods Movement Strategic Plan in the wake of this heightened commitment. The plan sought from the onset to understand better the relationship between goods movement and equity and how best to acknowledge past impacts, mitigate existing issues, and identify future opportunities to improve the lives of county residents most affected by the movement of goods through the region —today and for generations to come.

Metro recognized that it was crucial to engage affected communities in the development, refinement, and implementation of the plan's programs and strategies to achieve the goals of the plan – namely, to support transportation and economic investments in the LA County goods movement system that will elevate well-being and improve environmental conditions of our most impacted communities. The plan and the sustainable freight competitiveness framework that emerged reflect the collective commitment



of Metro and goods movement stakeholders to establishing equity as the fundamental driver for shaping policies, initiatives, and projects intended to result in inclusive economic competitiveness.

From this framework emerged five near-term equity-conscious strategies to implement the plan's Vision:

- 1. creating a formal, recurring equity freight working group;
- deploying cleaner truck technology to displace diesel operations on freight-intense highway corridors;
- 3. forming a high-level freight rail partnership to drive investment into LA County;
- 4. leading a countywide discussion on the role of goods movement needs in curbside management planning and policies; and
- 5. partnering across the region to foster workforce development programs that support the freight labor needs of tomorrow.

Following the development of the LA County Goods Movement Strategic Plan in September 2022, Metro adopted the I-405 CMCP. The I-405 CMCP seeks to improve mobility along the entire length of the I-405, one of the most congested corridors in LA County and the nation. The goal of this planning effort was to understand the diverse users and communities relying on and impacted by the I-405 Corridor, solicit their feedback, and show how multimodal improvements could reduce congestion, move more people, increase accessibility for all users, and support and advance equitable outcomes for historically disadvantaged communities.

Both plans were developed within an evolved policy framework that prioritized stakeholder engagement and addressed quality-of-life issues when securing state and federal funding. This approach was codified in the creation of the Solutions for Congested Corridors Program, whose enabling statute indicates that "preference shall be given to corridor plans that demonstrate that the plans and the specific project improvements to be undertaken are the result of collaboration between the department and local or regional partners that reflect a comprehensive approach to addressing congestion and quality-of-life issues within the affected corridor through investment in transportation and related environmental solutions." ²

Through the development and approval of the LB-ELA Investment Plan. This Investment Plan also provides a qualifying I-710 CMCP to compete for and secure a portion of the \$250 million in state funding made available through the Senate Bill 1³ Solutions for Congested Corridors Program. This critical funding supports Metro's ability to deliver Measures R and M.

² 2022 California Code Streets and Highways Chapter 8.5 Congested Corridors, https://law.justia.com/codes/california/2022/code-shc/division-3/chapter-8-5/section-2392/.

³ The Road Repair and Accountability Act of 2017 (SB 1), https://www.metro.net/about/sb1/.



2 THE TASK FORCE AND TASK FORCE CHARTER PROCESS

In May 2021, the Metro Board suspended the environmental review of the I-710 South Corridor Project's Locally Preferred Alternative (LPA) 5C (herein referred to as Alternative 5C) due to significant concerns that the proposed project would not meet air quality conformity standards; would create untenable displacement in disadvantaged communities adjacent to the freeway; and would contradict updated local, state, and federal policies related to freeway widening or expansion projects.

At the same time, the Metro Board directed the Metro CEO to re-engage impacted communities along I-710 South, convene stakeholders, and develop a new, multimodal, community-focused, and regionally significant transportation investment plan for the Corridor, which is a corridor of national freight significance and regional mobility, with substantial impacts borne by residents adjacent to the I-710 freeway.⁴

To accomplish this directive, Metro established the Long Beach to East Los Angeles (LB-ELA) Corridor Task Force in September 2021 to serve as its advisory body to the Board to develop recommendations for the LB-ELA Corridor Mobility Improvement Plan (Investment Plan). The Metro Board was highly focused on ensuring that this new process, in contrast to the prior one, included people from impacted communities who would provide meaningful feedback toward a shared vision and promote an inclusive and representative decision-making process. The invitation to participate as part of the Task Force membership was deliberately formulated to ensure that members could fully engage, represent their communities and interests, commit their time, and support the goal of creating a community-supported Investment Plan.

2.1 Creation of the LB-ELA Corridor Task Force (Staff Response to Board Motions 47 and 48)

In May 2021, the Metro Board of Directors approved -Motions 47 and 48⁶ effectively clearing the path forward for the Task Force to provide a new set of projects, programs, and legislative recommendations in place of the suspended and ultimately terminated Alternative 5C proposal to widen the Interstate. The Task Force was also charged with developing an Investment Plan for Metro Board consideration to deliver much-needed investment for the communities directly impacted by the movement of people and goods through the I-710 South Corridor.

Metro also requested that the Task Force partner with the Gateway Cities Council of Governments (GCCOG). Through the LB-ELA Corridor Task Force process, this partnership created and delivered an Investment Plan that recommends funding for projects and programs designed to realize multimodal strategies that address the re-established purpose and need. Input from the GCCOG, particularly

⁴ Refer to Metro Planning and Programming Committee Report, May 18, 2022: Agenda Item 8.

⁵ The project name change from the I-710 Corridor to the Long Beach-East LA Corridor was a formal change made by action of the Metro Board in 2022.

⁶ Refer to Metro Board of Directors Meeting, September 23, 2021: Agenda Items 11 and 12.



through its I-710 Ad Hoc Committee recommendations⁷, was incorporated into the Investment Plan. Additionally, three city officials from the Ad Hoc Committee and representatives from Long Beach, the Port of Long Beach, and all three county supervisorial districts in the study area are voting members of the Task Force, with the GCCOG Executive Director serving as an *ex officio* member. For the Task Force to be effective, the members needed to represent a broad set of community and regional voices reflecting the many challenges facing the Corridor, and that would help this group re-evaluate the purpose and need of the Corridor project and develop multimodal and multipurpose strategies, projects and programs, and investment priorities accordingly. The broad and diverse Task Force membership was selected to explore and address the myriad challenges facing their respective LB-ELA communities and Corridor travelers—from traffic congestion and safety concerns, poor air quality and public health, and lack of opportunity and multimodal mobility options.

Task Force members also needed to represent viewpoints from community-based organizations to elected officials, from business to labor, and from environmental advocates to the goods movement industry. Bringing all these voices "to the table" in a collaborative effort proved to be a pivotal difference from prior efforts and will be beneficial for the development and ongoing implementation of future improvements, including strategies and funding advocacy.

The group comprised approximately 40 community and regional stakeholders from a vital cross-section of communities, industries, public entities, policy experts, businesses, and labor agencies. All these stakeholders represent people or interests that were directly impacted by or dependent on the movement of people and goods in, through, and around the LB-ELA Corridor (Appendix 2-A). From September 2021 through April 2024, the Task Force convened 34 times—typically in the evenings, to ensure optimal participation for members.

The Task Force:

- Reaffirmed the boundaries of the LB-ELA Corridor study area;
- Reviewed and reassessed the purpose and need for improvements to the LB-ELA Corridor between the Ports and State Route 60;
- Collaborated to define the Vision, Goals, and Guiding Principles which are outlined in Chapter 4 and align with the existing regional and state policy framework;
- Identified an array of strategies, projects, and programs, prioritized in the near-term to longterm, that will realize the goals to meet the needs of stakeholders and Corridor users;
- Created a multimodal, equity-focused, community-supportive, and regionally significant
 Investment Plan, in alignment with the Task Force's established Vision, Goals, and Guiding
 Principles, that will allow Metro and Caltrans—in partnership with Task Force members and
 local, regional, state, and federal agencies—to implement these projects and programs; and

⁷ I-710 Ad Hoc Committee Final Report the COG Board, June 2022, https://www.dropbox.com/sh/qwinsyur2i0o4q9/AADu1hgmROsU_SwfE9IfA57ua/710%20Task%20Force%20Meetings/Task%20Force%20Meetings/Task%20Force%20Meetings/20%2311%208.8.22?dl=0&preview=GCCOG+Ad-Hoc+Committee+Report.pdf&subfolder_nav_tracking=1



 Regularly reported the outcomes of the Task Force to the Metro Board and the State of California throughout the process through coordination meetings.

Furthermore, to meet the Metro Board's directive to re-engage impacted communities and their members and to implement Metro's Equity Platform, the project team, based on input from Task Force members, recommended creating a forum to bring together residents from the communities along the LB-ELA Corridor to help advise the Task Force. The goals of this forum were to help the Task Force and project team ground-truth ideas, establish a process for broader community input, review project information and recommendations, and bring forward priorities and concerns to be considered by the Task Force in developing its recommendations.

With this request, the project team established a new group named the Community Leadership Committee (CLC), which consisted of residents from the project area and aimed to include at least one member per LB-ELA Corridor jurisdiction or neighborhood, as defined by the Task Force study area. Applicants that lived close to the freeway or to heavy industrial uses were prioritized, and jurisdictions that had more people living within "Impacted Areas" (as defined by being located within 1/2 mile of Freeways, Ports, or Intermodal Yards), were allotted more than one CLC seat.-CLC selection criteria also included people who not only live but also work in the corridor, are engaged through social and community organizations, can represent youth or senior populations, are Black, Indigenous, or people of color, and non-native English speakers. The CLC's purpose was to advise the Task Force on proposals and recommendations throughout its process. The CLC began with 24 CLC members in March 2022. Over the course of two years, some CLC members were added, others resigned and some seats were replaced. By April 2024, there were 26 CLC Members. The creation of this group, with its central role in such a large-scale planning effort, has been unprecedented for Metro and the region. It has also been a significant step forward in contrast to previous planning efforts such as Alternative 5C, reflecting the Metro Board's leadership and recognition that its regional planning for highway improvements "must include a renewed commitment to inclusive and meaningful engagement of communities as well as a steadfast commitment to addressing the equity, displacement, air quality, congestion and economic concerns that have plagued communities around major freeway corridors."8 The CLC has proven pivotal in the Investment Plan process, providing critical recommendations to the Task Force on goals, proposals, and recommendations at key consensus checkpoints. Working groups were also added to the structure, as described in the following section. These groups, which were also attend by CLC members and provided key direction and input during the Investment Plan process, include the Coordinating Committee, the Community Engagement Strategy (CES) Working Group, the Equity Working Group, and the Zero-Emission (ZE) Truck Working Group.

By comprising these many working groups and integrating community members into the decision-making process, the LB-ELA Corridor Task Force development signified a tremendous commitment by the Metro Board and staff to incorporate equity fully into the Investment Plan as both a process and an outcome. The Investment Plan reflects this commitment through its recommendations for funding.

⁸ Metro CEO Letter to Board of Directors, Reimagining Highway Improvements, May 25, 2021.



2.2 Task Force Activities

The Task Force process was launched in 2021 and, with its establishment, superseded the previous project's environmental phase (Alternative 5C), which was suspended at first and ultimately terminated. This significant step initiated by the Metro Board acknowledged the need to consider what did not work in the prior process to address Corridor needs and understand the concerns and frustrations the community had historically voiced toward Metro and Caltrans related to the I-710 South Project. Metro created the Task Force as a forum to foster dialogue and repair and build trust among Metro, the community, and the Corridor stakeholders, many of whom had not worked together before, had differing or conflicting viewpoints, or had not been part of the prior project's decision-making process.

To center equity throughout the process, Task Force members helped pilot the Metro Equity Planning and Evaluation Tool (EPET), a tool that helps assess existing conditions and related data, engage the community, explore potential impacts of different projects and programs, and ultimately, determine an equitable outcome and path forward for a project. The EPET was used throughout the Task Force's process.

Throughout 2022, Task Force members learned about the Corridor Existing Conditions and discussed the future each member preferred to see for the Corridor while engaging in an extensive consensus-based process, checking the group's pulse, and voting at key checkpoints. This ultimately resulted in establishing an agreed upon Task Force and CLC-approved Vision, Goals, and Guiding Principles to provide a clear framework for the decision-making and priority setting described in Chapter 4.

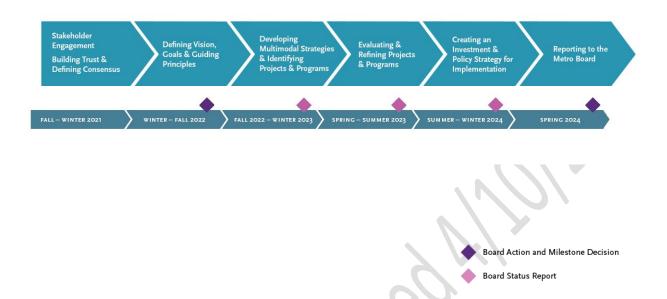
By the close of 2022 and into early 2023, the Task Force reached the significant milestone of confirming more than 200 Multimodal Strategies, Projects, and Programs (MSPPs) to advance into the evaluation phase. The Task Force sought as inclusive a set of MSPPs as possible, using a broad outreach and engagement approach to receive input from Corridor residents, community groups, interested stakeholders, partner agencies, and other parties. An extensive public engagement effort was developed to contribute to the list of candidate MSPPs, with a particular focus on engagement with impacted communities supplemented by partnerships with CBOs. The MSPP phase is outlined in Chapter 5.

In 2023, Task Force and CLC members voted to apply 73 evaluation criteria aligned with and advancing the Vision, Goals, and Guiding Principles to the list of over 200 projects. They also provided feedback on applying the approved evaluation criteria to the list of potential multimodal projects and programs. Three hybrid meetings were conducted to create opportunities for engagement between the Task Force and CLC members and the ability to discuss the proposed evaluation criteria. Five additional virtual and hybrid meetings were held for the CLC to provide additional opportunities to promote discussion and to provide detailed input on the proposed evaluation, prioritization criteria, and tiering analysis. To refine draft ranking scores of projects, Task Force Members met in Small Group Meetings with the project team, with open participation for CLC Members.

Figure 2-1 illustrates the major milestone phases leading up to the presentation of the Investment Plan to the Metro Board.



Figure 2-1. Task Force Process



In furtherance of Metro's Equity Platform, the project team sought to bridge the divide for impacted residents in the Corridor whose primary language is not English and to ensure all persons have access to available materials and information. The table below Table 2-1 shows a demographic analysis that considers the need for these languages as identified through community profiles for the Corridor cities and unincorporated communities.

Table 2-1. Demographic Analysis

City / Community	Tagalog	Khmer	Korean	Chinese	Spanish		
"X" indicates that ≥5% of population (5 years or older) of one or more census tracts within jurisdiction speak language indicated							
Long Beach	Х	х	_	_	Х		
Signal Hill	Х	х	_	-	Х		
Carson	Х	_	_	_	Х		
Lakewood	Х	_	_	_	Х		
Bellflower	Х	_	_	_	Х		
Paramount	_	_	_	_	Х		
Compton	Х	_	_	_	Х		



City / Community	Tagalog	Khmer	Korean	Chinese	Spanish	
Downey	_	_	_	_	Х	
Lynwood	_	_	_	_	Х	
South Gate	1		_	1	Х	
Huntington Park/ Cudahy/Bell/Bell Gardens	I	l	ı	I	X	
Commerce	_	_	_	_	Х	
Vernon/Maywood	_	_	_	- \	X	
East Los Angeles	_	_	_	Х	Х	
Boyle Heights	Х	_	Х	7-1	Х	
East Rancho Dominguez	_	_	_	_	Х	
Walnut Park	_	_	\-\-\	S	Х	
Wilmington	_	_	_	_	Х	
San Pedro	Х	\-\C	/ G,	_	Х	

Source: U.S. Census Data 2011-2015 American Community Survey (ACS) data for Limited English Proficiency; used these percentages as they applied to more than one city/community. Additionally, the project team offered services in any other language upon request.

It was determined that the top three limited English-proficent languages represented would be accounted for in the Task Force process. All Task Force meetings were conducted in English with simultaneous Spanish, Khmer, and Tagalog interpretation, and CLC Meetings were conducted in English with simultaneous Spanish interpretation. All presentation videos were made available to the public in English, Spanish, Khmer, and Tagalog for Task Force Meetings, and presentation videos for CLC Meetings were made available in Spanish. Meeting materials and handouts were also made available in English and Spanish, and in additional languages by request. For the most part, Task Force and CLC meetings were conducted in a virtual format, with select sessions offering the option of in-person attendance. All Task Force and CLC meetings were open to the public.

2.3 Task Force Charter

The Task Force created a Charter and Governance Structure Working Group to determine a clear set of guidelines, agreements, and structure for how the Task Force would function. Members of the working group examined various consensus-building and decision-making models employed in other relevant

⁹ All LB-ELA Corridor public meeting materials and resources can be found on the Project Hub at https://www.metro.net/projects/lb-ela-corridor%20plan/#documents.



project team planning efforts (I-710 EIR/EIS and Public Safety Advisory Committee). This group provided feedback on the draft LB-ELA Corridor Task Force Charter prepared by the project team, including a potential leadership structure, consensus and decision-making process, and roles and expectations of different groups.

The Charter and Governance Structure Working Group proposed a consensus-building model (**Figure 2-22-2**) in which individuals commit to supporting a decision, even in the absence of unanimous agreement. This approach involved the introduction of a discussion topic, followed by a proposal presented by the project team. Subsequently, members shared their perspectives on the proposal. Through an iterative process, the project team revised proposals to accommodate concerns until a majority actively "supported" the proposals or found it acceptable enough to "live with."

I SUPPORT the proposal I CAN LIVE WITH the proposal I WILL STAND ASIDE on this one

Figure 2-2. Consensus-Building Model

Subsequently, the Task Force and the CLC implemented the consensus-building model, employing it consistently throughout the process to assess the degree of agreement for the proposed recommendations. After this consensus-seeking approach ended, the Task Force and the CLC voted in their respective groups to finalize recommendations.

The Charter and Governance Structure Working Group met in November 2021, January 2022, and for a final meeting in February 2022, following the adoption of the Task Force Charter. All Charter and Governance Structure Working Group meetings were open to the Task Force and CLC Members. The meetings included Spanish interpretation.

The charter (Appendix 2-B) also established the CLC and other working groups to support the work of the Task Force. The working groups, which included Task Force and CLC members, as well as subject matter experts, met to research and have a deeper analysis and discussion of specific project-related issues and develop proposals for consideration by both the Task Force and the CLC. **Figure 2-32-3** provides a detailed overview of the various meeting types, frequency, purpose, membership, and format.



Figure 2-3. LB-ELA Corridor Task Force Meeting Descriptions



*The Coordinating Committee (previously called the Executive Steering Committee)

**The Community Leadership Committee (previously called the Community Advisory Committee)

***Examples of working groups include Zero-Emission Truck Working Group and Equity Working Group.

2.3 Compensation

Consistent with Metro's Advisory Body Compensation (ABC) Policy,¹⁰ eligible Task Force and CLC members were compensated at a rate of \$200 per meeting for regular advisory body members and \$50 for working group meetings. All eligible Task Force members decided not to accept compensation. From January 2022 to February 2024, Metro compensated 27 CLC members \$128,400 for their role in the Task

¹⁰ More information regarding Metro's ABC Policy can be found at: https://equity-lametro.hub.arcgis.com/pages/engagement-resources#ABCP



Force process. This was one of Metro's first applications of the ABC Policy on the advisory body of a project of this scale. In furtherance of the Equity Platform, the ABC Policy recognizes the expertise of community members and the value of their time, experience, and insights. Its initial use in the LB-ELA Investment Plan process yielded a high level of quality engagement and commitment from CLC members.

2.4 Working Groups

The committees and working group bodies played a crucial role in ensuring that the broader Task Force's efforts remained focused and incorporated the unique needs of the LB-ELA Corridor communities.

2.4.1 Coordinating Committee

The Coordinating Committee (CC)¹¹ worked with the project team to plan Task Force meetings and to provide input regarding content and approach to Task Force meetings.

The Coordinating Committee comprised five members, including two from the CLC and three from the Task Force. Among the three Task Force representatives, one representative was elected by the Task Force from each of the following membership categories: Community-Based Organizations (CBOs), Cities/Government agencies, and Goods Movement/Transportation Industry/Labor (Appendix 2-C)

Members of the Task Force and CLC were selected through a nomination process. Individuals either nominated themselves or were nominated by their respective members. The Task Force formally voted to approve the Coordinating Committee's final composition at its seventh meeting held in March 2022.

The Coordinating Committee played a crucial role in shaping the Task Force's operational framework. This included offering insights on various aspects such as meeting agendas, project timelines, and strategies for community engagement. Additionally, the Committee received regular project updates and discussed insights on key highlights from prior Task Force, committee, and working group meetings.

The Coordinating Committee met monthly, at least two weeks before each Task Force meeting, for 21 meetings from April 2022 through January 2024. Coordinating Committee meetings were held virtually and were closed meetings.

2.4.2 Community Leadership Committee

The Community Leadership Committee (CLC) comprised a group of committed corridor residents who advised the Task Force. The Metro Board made clear in its direction to the CEO in May 2022 that the voice of impacted communities and residents would need to underpin any new recommendations brought forth to replace Alternative 5C from the prior project's environmental process. In the Alternative 5C process, Local Advisory Committees were created in each of the LB-ELA Corridor Communities to ensure feedback from stakeholders from the "bottom-up". However, the Local Advisory

¹¹ The Coordinating Committee was formerly known as the Executive Steering Committee; this name change reflected the role of this group and was updated in early 2022.



Metro is working to improve its efforts to listen and learn from the communities that we serve. We recognize that to increase access to opportunities for all, we must understand how to increase access for those who face barriers. No matter our intent, we will not be successful unless we work to address their needs first. Metro can only serve those with the greatest needs by understanding their needs through intentional listening. Authentic listening and learning requires meaningful engagement.

Community-driven conversations are essential, but they require trust. In order for Metro to build trust, the agency must intentionally collaborate and listen to community experiences. Our engagement efforts must also work to ensure that community members are left feeling heard, reflected and respected. Hence, Metro must work to show how community input informs and shapes our decisions, actions, and investments.

Committees were either not established or not active in all the LB-ELA communities. In contrast, this Task Force process sought to integrate the full participation of each corridor community through a new local community representative body, the Community Leadership Committee. Although the LB-ELA Corridor Task Force initially consisted of a wide range of stakeholders and leaders, this group did not fully represent the diverse range of experiences, needs, and voices within the community. Including community residents directly in the decision-making process was necessary to ensure that the decisions made by the Task Force reflected the lived experiences and priorities of those directly impacted by living in the Corridor. The CLC reviewed and advised on Task Force goals, proposals, and recommendations every month. CLC members also participated in working groups, helped ground-truth data, and advised on community engagement efforts.

The CLC comprised diverse and committed community members living along the LB-ELA Corridor. At least one member represented each city or unincorporated community along the LB-ELA Corridor, while additional representatives were included from jurisdictions deemed to be highly impacted. These jurisdictions are characterized by a significant population living near the ports, intermodal yards, or the I-710 freeway. The most impacted jurisdictions had two additional members each (Long Beach -3), East Los Angeles -3), and the next highest impacted jurisdiction has one additional member (Lynwood -2). There was also one at-large representative for any communities not represented in the jurisdiction list but in the project area. In total, there were 29 available CLC seats.

To achieve the most equitable outcome, considerable attention was given to the selection criteria for CLC membership. The applicant(s) with the highest score was chosen in each jurisdiction. From December 2021 through January 2022, the Task Force and working groups provided input on a point system to select CLC members. These criteria included:^[2]

- Lives in the study area (required)
- Works in the Corridor (1 PT)
- Engaged community member (1 PT)
- Lives in a highly impacted area (1 PT)
- Lives in two or more highly impacted areas (2 PT)
- Black, Indigenous, and people of color (BIPOC) (1 PT)

^[2] Community Leadership Committee (CLC) Meeting 1, March 2022.



- Primary language is non-English (1 PT)
- Under the age of 25 (1 PT)
- Over the age of 64 (1 PT)

Table 2-2 showcases the membership demographics of the initial CLC membership. Two members were monolingual Spanish speakers.

Table 2-2. Initial Community Leadership Committee Membership Demographics

Category	Percentage	Demographic	
Race/Ethnicity ¹	75	Latino	
	13	Black/African-American	
	13	Asian/Pacific Islander	
	4	Prefer not to respond	
	8	Under 18	
	8	18 – 24	
Age ²	17	25 – 34	
Age-	25	35 – 49	
	33	50 – 64	
, 0	8	65+	

Notes:

Throughout the Task Force process, the composition of the CLC changed, and departing members were succeeded by applicants who represented the same or similar communities. These replacements were confirmed through a voting process conducted by the CLC and the Task Force.

To create an accessible and inclusive process, project team members provided additional support to ensure that CLC members were clear about their roles, the goals of each phase of the Investment Plan development process, and the goals of each meeting. Before the first CLC meeting, project team members met with CLC members for an in-person orientation on using the Zoom platform for virtual meetings to support effective participation. Project team members made regular check-in phone calls to answer questions about the process and remind members about upcoming meetings. The project team also implemented specialized outreach tactics to ensure that CLC members stayed informed during the process. They sent bilingual emails and videos explaining every step in the process before CLC meetings. Several CLC Members also attended "Office Hour" sessions, an opportunity to ask questions of and provide input directly to the project team in a small group setting.

¹ Rounded. Respondents could select more than one response, does not equal 100%

² Rounded.



The CLC convened for thirty-two meetings between December 2022 and April 2024, four of which were combined Task Force and CLC meetings. CLC meetings were conducted in English with simultaneous Spanish interpretation. In advance of all meetings, presentations and materials were also made available in English and Spanish. CLC members also frequently received printed, bilingual materials before meetings. All CLC meetings were held virtually, with select sessions offering an in-person attendance option. All CLC meetings were open to the public.

2.4.3 Community Engagement Strategy Working Group

The Community Engagement Strategy (CES) Working Group was established early in the Investment Plan development process to provide initial guidance on community engagement strategies. Members discussed lessons learned from previous community engagement and how the LB-ELA Corridor Task Force could take new approaches to conduct better community engagement. These efforts were aimed at fostering an environment where the community's voices are not only acknowledged but also genuinely respected throughout the information-gathering process and the subsequent formulation of recommendations made by the Task Force.

Four CES Working Group meetings were held in November 2021, January 2022, February 2022, and July 2022. The first three meeting topics included an overview of the Task Force process, and an opportunity for community members to provide input on the CLC and CC membership composition, the CLC application evaluation criteria, and strategies for promoting CLC membership.

At its February 2022 meeting, working group members finalized recommendations for the CLC membership composition and evaluation criteria and discussed effective outreach strategies and workshop formats to increase public awareness and involvement in establishing the Task Force's Vision, Goals, and Guiding Principles. At the July 2022 meeting, the CES Working Group received an update on the finalization of the Task Force consensus values, the CLC and Task Force nomination of three initiatives/projects that will seek state and federal funding opportunities through the Metro "Pre-Investment Plan Opportunity," and the opportunity to rename the project to be more inclusive of the impacted communities, priorities, and approaches that will be advanced in the future of the project; and participated in a robust discussion of how CBOs can support Task Force efforts in local communities.

CES Working Group meetings were conducted virtually and were accessible to the public. Spanish interpretation services were provided for all CES Working Group meetings. After July 2022, discussions on community engagement were brought to CLC, the Equity Working Group, and the Coordinating Committee, given the overlap in participation between the three and the importance of inclusive and effective engagement in advancing equity.

2.4.4 Equity Planning and Evaluation Tool

As noted above, the Investment Plan was developed using the Metro Equity Planning and Evaluation Tool (EPET); making this one of a handful of projects piloting the tool. The EPET was developed by Metro's Office of Equity and Race to support implementing projects and programs that eliminate racial and social disparities and give all people in LA County an enhanced quality of life. Metro recognizes that deep-rooted and pervasive racial and socioeconomic inequities exist that create disparate impacts, even



when the intention is to help all. We must understand the root causes of those inequities to develop solutions that help those faring the worst to improve access to opportunity for all.

The EPET, consisting of six categories of questions (referred to as sections), assisted the project team in 1) identifying disparities that impact how Metro's services, programs, and projects are experienced; 2) understanding the root causes of those disparities; and 3) developing and implementing projects, programs, plans, policies, and initiatives in a manner that provides more equitable outcomes. Because the scope of the Investment Plan does not include project/program implementation or post-implementation evaluation, the application of the EPET to date has focused primarily on the first four of the six sections listed below:

- Connect Community Results to Project Outcomes
- Analyze Data
- Engage the Community
- Plan for Equitable Outcomes
- Implement Proposal
- Evaluate, Communicate, and Stay Accountable

The EPET was applied as a guide throughout the LB-ELA Corridor Task Force Process and the development of the Investment Plan. Although it was primarily used in discussions within the Equity Working Group (composed of Task Force and CLC members), it was also useful in guiding discussions in the CLC and Task Force. The EPET informed the technical approach and decision-making process in all aspects of the Investment Plan, including the development of the Vision, Goals, and Guiding Principles; analysis of existing conditions data; selection of the initial list of multimodal strategies, projects, and programs; development and application of the project evaluation methodology; and the community engagement process and discussions during stakeholder meetings.

Section 1: Connecting Community Results to Project Outcomes helped the project team, Task Force, CLC, and working groups build a foundational understanding of the issues facing communities within and surrounding the LB-ELA Corridor, identify opportunity areas for the Investment Plan's projects and programs to support meaningful improvements, and identify the desired community results (equitable future states of well-being) to which these improvements of the Investment Plan will contribute. The outcomes of this process were distilled in the Investment Plan's Vision, Goals, and Guiding Principles adopted by the Task Force.

Section 2: Analyze Data supported extensive qualitative and quantitative data analysis to identify existing conditions, needs, and disparities among various communities in the Corridor, and in comparison, with Los Angeles County. The EPET's guidance helped to identify appropriate data sources and impacted areas, building on the issues and opportunity areas identified in Section 1. Data were primarily analyzed for socioeconomic conditions, environmental conditions, community health, and travel patterns related to mode share, emissions, throughput, and safety. Community survey data and anecdotal insights from CLC and Task Force members were used to supplement and validate quantitative data to gain a more comprehensive understanding of the LB-ELA Corridor communities.



Section 3: Engage the Community supported various efforts in developing the Task Force and Public Engagement process and informed an in-depth documentation of Community History in the LB-ELA area and the broader region. The EPET's guidance helped to identify groups historically and currently marginalized, particularly by transportation planning processes and decisions in the Corridor, and to examine the investments, decisions, events, developments, or disinvestment strategies that have contributed to current community conditions. The EPET helped guide and document the various engagement strategies employed throughout the Investment Plan process and use findings from the engagement to produce root cause analysis and identify groups most likely to be benefited or burdened by the Investment Plan's outcomes.

Section 4: Plan for Equitable Outcomes supported the development of a robust evaluation methodology to capture potential benefits and concerns related to the Investment Plan's various goals and guiding principles to apply across project modes, geographies, and scales. The EPET's guidance helped to connect the evaluation criteria to key equity issues, community input, and root cause analysis to determine which prioritized projects and programs are best equipped to ensure equitable outcomes and contribute to the desired community results.

A full summary of the EPET findings can be found in Appendix 2-E.

2.4.5 Equity Working Group

The Equity Working Group (EWG) was open to all Task Force and CLC members as an opportunity to engage more deeply with equity issues in the LB-ELA Corridor, support the implementation of the EPET pilot, provide equitable project planning input on all steps of the Task Force process, and support the Task Force in understanding equity-related issues and strategies. Members of the Equity Working Group brought extensive lived and professional experience advocating for environmental justice, health equity, and economic equity in their communities, the larger LB-ELA Corridor, and beyond.

Sixteen Equity Working Group meetings were convened between April 2022 and March 2024. Meetings were conducted in English, with live interpretation and translated meeting materials available in Spanish. Equity Working Group meetings typically consisted of a presentation and discussion relating to technical work phases in project selection and evaluation, development of EPET documentation, and the overall Task Force and Investment Plan process. Although the Equity Working Group is not a formal decision-making body, occasional votes were held to provide recommendations to the Task Force preceding formal votes.

Throughout 2022, the Equity Working Group contributed to developing project Goals and Guiding Principles (particularly the Equity Guiding Principle), existing conditions data analysis, community outreach processes, and the history of policy, infrastructure, and demographic change in the Corridor area. These discussions addressed questions posed in EPET sections 1 through 3: Connect Community Results to Project Outcomes, Analyze Data, and Engage the Community.

In 2023, the Equity Working Group provided feedback on the initial list of multimodal projects and programs, draft evaluation criteria, and evaluation results, prompting additional discussion, research, and coordination to integrate Health Equity more effectively in the project evaluation process and plan



implementation approach. These meetings significantly guided the overall technical process and addressed questions posed in EPET section 4: Planning for Equitable Outcomes. The Equity Working Group also provided review and feedback on draft EPET documentation, specifically for the community history timeline and narrative.

2.4.6 Zero-Emission Truck Working Group

As part of its commitment to improve air quality for communities along the Corridor, the Metro Board acted in October 2021 (Motion 16¹²) to commit \$50 million as seed funding for an I-710 South Zero-Emission Truck (ZET) Program that would become part of the work of the Task Force. In response, Metro initiated a Zero-Emission Truck (ZET) Working Group. The working group, which includes Task Force, CLC members, and industry representatives, was charged with developing the ZET Program under the guidance of the ZE technology parameters adopted by the Board.

Twenty regular ZET Working Group meetings were convened from November 2021 to February 2024. These meetings typically included presentations and discussions among ZET Working Group members across a variety of topics to determine priorities in advancing the deployment of ZE trucks and infrastructure throughout the LB-ELA Corridor. ZET Working Group members (made up by Task Force and CLC members) and key partners vetted the following topics in shaping the ZET Program:

- Goals and objectives for the ZET Program in the context of Motion 16 (Directors Hahn and Dutra);
- Industry perspectives and the role of stakeholders in the LB-ELA Corridor Task Force;
- Air quality and environmental justice challenges and opportunities for the LB-ELA Corridor, as presented by the EPA;
- Air quality context from the South Coast Air Quality Management District (SCAQMD) and the
 challenges in meeting upcoming federal air quality attainment deadlines due to the slow rollout
 and scaling of ZET technology and infrastructure to displace the large volume of diesel trucks
 moving goods in the region;
- State of clean truck technology and efforts to accelerate the commercialization of the ZE Class 8 heavy-duty trucks;
- Governor Newsom's fiscal year 2022 budget and the prospects for ZE trucks and infrastructure funding opportunities;
- Federal funding opportunities and collaboration with United States Department of Transportation representatives;
- Strategies to ensure proper community participation through engagement activities at key planning decision points regarding ZE Infrastructure siting;
- Strategies to best leverage Metro's \$50 million in seed funding with the state and federal governments' existing and future resources, while exploring partnerships with organizations

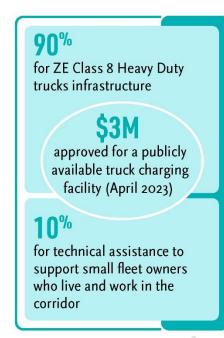
¹² Motion 16

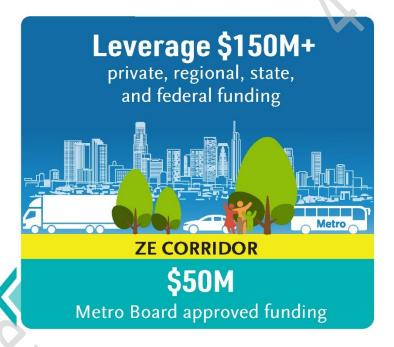


already funding incentives to deploy ZE truck technology and infrastructure, such as the Ports of Los Angeles and Long Beach, the California Air Resources Board, and SCAQMD.

From March to June 2022, the ZET Working Group sought to finalize the framework and principles to leverage the \$50 million in seed money allocated for this effort by the Metro Board to reach a \$200 million minimum funding target, as shown on **Figure 2-4**.

Figure 2-4. Zero-Emission Truck Metro Funding





The ZET working group met to address additional topics, including workforce development, investigating parcels of land for potential siting of publicly accessible ZE charging infrastructure, and developing effective community engagement strategies at the regional level for planning purposes and at the local level for site-specific proposals. As a result, the working group decided to dedicate \$45 million of its seed funding to invest in ZE infrastructure development and leverage the remaining \$5 million as a strategic set-aside to support small fleet owners in the transition. Metro's commitment to equity will guide zero-emission investments for the \$5 million dollars set aside for small fleet owners. In addition, the working group adopted the following principles to guide its efforts:



ET Program Principles



Ma imi e leverage of seed funding

by collaborating with regional partners and funding agencies.



E pedi ous Deployment of Resources

to maximize the buying power and benefit of investment while supporting community engagement and effective outreach.



Coordina on

with regional and funding partners, government agencies, and key stakeholders.



Community Engagement

that centers corridor residents and stakeholders throughout the development process.



Workforce Development

that ensures community benefits and access to opportunity through the pursuit and implementation of ZE Technology.



Corridor Community Bene ts

by creating economic opportunities, improving air quality, and reducing longstanding health impacts generated by diesel trucks.



E uitable Outcomes

ensured by performance metrics that evaluate sustainable outcomes.



Legisla ve Pla orm

designed to support the accelerated, equitable deployment of ZE technology by reducing barriers and increasing incentives to adoption.

12

Since adopting these principles, the ZET Working Group held focus group discussions with industry, infrastructure, and community stakeholders to identify needs in pursuit of Metro's vision for regionally significant ZE infrastructure facilities. These focus group discussions were critical in developing Metro's Vision for Regional ZE Infrastructure Facilities. Community-identified needs focused on impacts on safety, public health, reduced congestion, and avoiding sensitive receptors. Community members who participated in the focus group discussion also emphasized their desire for Metro's investment to result in benefits to the surrounding communities, including job opportunities and neighborhood beautification. Industry and Infrastructure needs focused on grid capacity and identifying locations that complement the needs of existing goods movement patterns.

In April 2023, the working group approved a request from the Los Angeles Cleantech Incubator to dedicate \$3 million in seed funding to support the development of a publicly available ZE charging facility in Wilmington, California. The estimated total cost of this facility is \$15 million. The working group agreed that this project aligned with the ZET Program Principles, offered appropriate leveraging of the \$50 million seed funding, and represented an opportunity to collaborate with regional partners to accelerate the deployment of ZE infrastructure in the LB-ELA Corridor.

The ZET Working Group received presentations and discussed opportunities for job training and workforce development. ¹³ These included guest presentations and discussions with the Center for International Trade and Transportation, South Bay Workforce Investment Board, and vocational programs to identify opportunities for regional coordination to advance the working group's principle of workforce development. Key outcomes from these discussions included the need to create a structured

¹³ All LB-ELA Corridor ZET Working Group meeting materials and resources can be found on the Project Hub at https://www.metro.net/projects/lb-ela-corridor%20plan/#documents.



outreach plan to target potentially interested individuals, collaborate with community colleges and LA County's Workforce Board to implement workforce development and training opportunities and engage with stakeholders directly to increase community readiness.

The ZET Working Group also received presentations on grant opportunities. These included guest presentations and discussions from the U.S. Department of Transportation, the California Air Resources Board, South Coast Air Quality Management District (SCAQMD),

In the summer of 2023, the work focused on convening a series of stakeholder interviews to discuss the development of a regionally coordinated legislative and governmental affairs platform to reduce barriers and increase incentives that will advance the adoption of zero-emission technology. The interviews coalesced around several key initial recommendations for the Metro Board:

- Creating a regional collaborative—including representatives from Caltrans, Metro, LA
 Department of Water and Power, Southern California Edison, SCAQMD, California Energy
 Commission, Southern California Association of Governments, and others—to improve
 coordination, sequencing, and efficiency in developing Corridor-specific ZE charging
 infrastructure;
- Leveraging a portion of the \$5 million set-aside to assist small fleet owners in transitioning to ZE trucks; and
- Exploring a strategy to dedicate more resources to publicizing ZE sector jobs by collaborating with regional partners on existing workforce efforts.

These interviews also identified several initiatives that require the need for additional research, including:

- Support for a California Environmental Quality Act categorical exemption and statutory permit approval deadlines for ZE charging facilities;
- Improved awareness of statutorily created streamlining opportunities for municipalities to improve the timing and sequencing of ZE infrastructure development;
- Allocation of additional funding for increased road maintenance because of the increased weight of battery electric trucks; and
- Support for small fleet owners burdened by high vehicle insurance costs.

Additionally, recent discussions with community members and advocacy groups have highlighted the need to understand the current and future state of hydrogen as an alternative clean transportation fuel. The ZET Program considers both battery-electric and hydrogen as viable zero-emission technologies. However, lack of familiarity and uncertainty surrounding hydrogen production, transportation, storage, and fueling within an urbanized context poses many concerns about hydrogen. The ZET Working Group will consult with the federal and state guidance on hydrogen, and closely coordinate with communities to explore ways to meet their expectations.



Unlike the ZE passenger vehicle space, which is already well-established after decades of research, development, and investment, ZE trucks are still in the development phase. This means that technologies are still rapidly changing, and both public and private stakeholders are racing to meet the growing demand while also delivering community, health, and climate benefits. Realizing a network of ZET infrastructure within the LB-ELA Corridor will require a strong commitment and close collaboration from all stakeholders. The ZET working group's upcoming priorities in 2024 are to advance the above-listed objectives by conducting ZE truck feasibility studies to identify site locations and coordinate with regional partners to streamline site identification and development that aligns with the ZET Program Principles and the Vision, Goals, and Guiding Principles of the LB-ELA Corridor Task Force.

2.5 Community Values and Agreements to Build Consensus

Consensus building serves as the cornerstone of the Task Force process, playing a pivotal role in effective decision-making and collaborative efforts. It encourages open dialogue and the inclusion of diverse perspectives, resulting in choices representative of the Task Force, CLC, and the communities they represent. By involving all stakeholders, consensus building not only improves the quality of decisions but also fosters a sense of ownership and commitment, which will be vital to implementing these priorities.

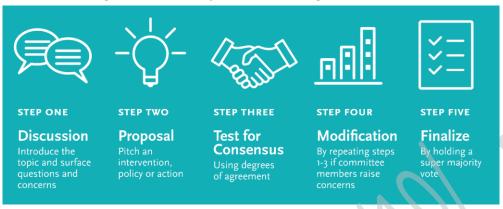
The following values, which were included in the Task Force Charter, demonstrate the decision-making approach used by all Task Force members, fostering commitment and active participation:

- Cooperation Between Equals All Task Force members are seen as equals in the process and as sharing power across different communities and stakeholder groups so there is a respectful and trusting atmosphere.
- **Exploration of Differences** The Task Force explores the different needs and perspectives of as many communities and stakeholders as possible before forming a proposal.
- Building Common Ground Space is created for open discussion and identification of information and ideas to be considered, enabling the Task Force to find commonalities.
- Identification of Inclusive and Actionable Win-Win Solutions Members of the Task Force
 work together to find solutions that everyone actively supports, or at least does not actively
 oppose, and that can be implemented through the process and/or integrated into the
 Investment Plan recommendations for consideration by the Metro Board and Caltrans.

The Task Force adopted a five-step consensus-based decision-making model (Figure 2-52-5).



Figure 2-5. Five-Step Decision-Making Model



In the initial step, a topic was introduced, and questions and concerns surfaced. Subsequently, a proposal was presented. In the third step, consensus was gauged using various degrees of agreement. (for example: "I support," "I can live with," "I have concerns," or "I will stand aside") amongst working group, CLC, or Task Force members.

If consensus was not reached, members were provided the opportunity to refine the proposal after exploring underlying issues. In cases where consensus was achieved, the pivotal fifth step involved a vote, resulting in a recommendation based on a supermajority (60% threshold) vote by the members. A successful supermajority vote allowed the decision or proposal to move to the next step or phase in the work plan process. For Task Force votes, members who strongly disagreed were given the chance to express their dissenting opinions along with the final recommendations to the Board.

The five-step decision-making model prioritized transparency throughout the process. During consensus tests and voting procedures, members and the project team collectively refined recommendations. Degrees of agreement and votes were determined through a roll call vote, with real-time documentation of input and outcomes prominently displayed during meetings. This information was then integrated into meeting summaries for reference.

2.6 Work Plan Process

To carry out the goals of the Task Force and deliver an Investment Plan to the Metro Board, the project team developed a Work Flow designed to support each stage of the Task Force's Work Plan.

Figure 2-6**2-6** illustrates the sequential stages guiding the progression toward milestone and consensus checkpoints. It visually represents the flow of information and collaborative efforts among the project team, the Task Force, the Coordinating Committee, the CLC, the working groups, the public, and the Metro Board.



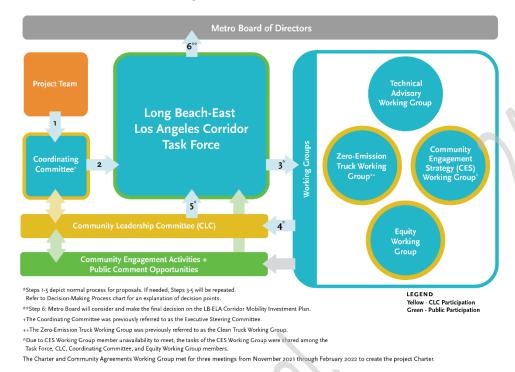


Figure 2-6. Work Flow Process

Work started with the project team, which included Metro, Caltrans, subject experts and professional services staff. The project team was responsible for preparing meeting materials, technical information, and other resources in support of the Task Force, the Coordinating Committee, the CLC, and working groups.

In Step 1, the project team provided meeting materials, technical information, and other resources in collaboration with the Coordinating Committee.

In Step 2, the agenda topics confirmed by the Coordinating Committee were introduced to the Task Force at its monthly meeting. Task Force members and the public discuss proposals and were notified of the specific topics to be discussed in the working groups.

The Coordinating Committee also recommended agenda items for the CLC that emanated from Task Force members and public discussion at the monthly Task Force meetings. The CLC was represented on the Coordinating Committee by two members selected by the CLC.

In Step 3, the Task Force requested specific working groups to clarify issues, surface questions, and concerns; and to develop proposals that aligned with the Task Force values.

The working groups were represented by a mix of Task Force members, CLC members, and additional stakeholders and experts as needed to advance the working group's objectives. Working groups were not open to the public.



In Step 4, after working groups prepared a proposal for consideration by the Task Force and CLC, the CLC met at least one week before the next Task Force meeting to review, discuss, and advise on the proposal for the Task Force. If there were concerns or further questions regarding the working group proposal, the CLC advised the working group to re-evaluate the proposal. The project team worked with the CLC to summarize community feedback that would be shared with the Task Force at its next monthly meeting.

The CLC also validated data and findings and advised on community engagement strategies and efforts.

In Step 5, the recommendations of the working groups were shared with and evaluated by the CLC. If the CLC agreed with the recommendations, they shared the recommendations with the Task Force. If there were pending concerns, the issue would go back to the working groups to re-evaluate the recommendations and address concerns.

In Step 6, the Task Force presented its final recommendations for the Investment Plan to the Metro Board for consideration. The Metro Board makes the final decision on the Investment Plan. The recommendations of the CLC and public input for each phase of the Task Force process were provided to the Metro Board as part of the final report. Note that Step 6 only occurs once in the work plan—following the final Task Force consensus checkpoint.

The Task Force worked through the various topics identified by the project team and membership and sought consensus on each phase of the Work Plan before advancing to the next phase. The Consensus Checkpoint included reaching internal consensus within the Task Force to proceed to the next phase, community outreach and discussion, and notification of the Metro Board regarding Task Force progress. The consensus checkpoint process (**Figure 2-72-7**) was developed by the Charter and Governance Structure Working Group and adopted by the Task Force.



Developing the Formation Presentation of Developing the & Working Developing the Multimodal Identifying the Creating the LB-ELA Corridor LB-ELA Corridor LB-ELA Corridor Strategies for Priority Projects Protocols of Program and of the LR-ELA & Programs the LB-ELA Vision & Goals Implementation Program Corridor Program Follow-through Corridor > Introduction and > Identifying > Identifying Multimodal > Identifying > Preliminary Develop overview Board Projects and Programs responsive to History of the LB-ELA Corridor Scope, Schedule, and Costs for of local, state, Presentation Preview Needs and the Regional Context private funding Projects and > Purpose of Task > Presentation to the Multimodal Analyzing Corridor Vision and Goals Programs opportunities Strategies > Equity Planning > Equity Planning Create cashflow > Communit > Follow up Task Engagement Strategy Conditions and and Evaluation > Assessment of and Evaluation Tool Checkpoin considerations Identifying Disparities Tool Checkpoint for priority projects to support Potential > Charter and > Development of > Create overview of legislative/policy opportunities for Developing a Corridor Visio Negative Impacts of Community of LB-ELA Agreement Program and challenges to and Goals Projects > Introduction to Metro Board will consider and make the final Prioritization of implementing > Equity Planning the Equity Programs Program Planning and Evaluation Tool and Evaluation Projects and > Equity Planning and Evaluation Tool Checkpoint Programs > Finalize Scope of Tool Checkpoint LB ELA Corrido LB-ELA Task lobility Create advocacy and Program program in support of implementing Program Finalize Inves Legislative and Advocacy Strategy nsus Checkpoint nsus Checkpaint nsus Checkpoint ensus Checkpoint Consensus Checkpoint

Figure 2-7. Charter Work Plan and Consensus Checkpoints

2.7 Public Engagement Process, Including CBO Partnering

Central to the success of the Task Force's work is a commitment to community outreach and public engagement. Involving the public in decision-making processes ensures more informed and inclusive outcomes. Throughout the Task Force process, the public has been integral, receiving project information and providing feedback through various avenues such as attending public meetings, providing comments, contributing to surveys, and engaging in community meetings, and events, and via partnerships with various local community-based, faith-based and community-development based organizations.

Between December 2021 and January 2022, the project team actively sought public engagement to gather recommendations regarding the formation of the Community Leadership and Coordinating Committees. Through this outreach effort, the project team also sought input on strategies for recruiting Community Leadership Community Members and solicited feedback on the decision-making process.

The project team implemented its initial Community-Based Organization (CBO) Partnering Strategy with 17 CBOs from the LB-ELA Corridor following the best practices outlined in Metro's CBO Partnering Strategy. The project team worked with the CBOs that serve the communities along the Corridor during the Multimodal, Strategies, Projects and Programs (MSPP) phase. The project team's goal was to engage these communities by gathering input from CBOs and the people they serve to identify multimodal strategies, projects, and programs that constitute needs and priorities for these impacted communities. From September to November 2022, CBOs helped gather one-on-one input from stakeholders and



residents in their networks through a survey and interactive mapping tool at CBO-hosted community workshops, virtual meetings, and event pop-ups.

Twenty-one community workshops were conducted along the Corridor to gather input from community members, the public, and other local stakeholders. Some of the workshops were coordinated directly with CBOs and local government agencies. As part of an equitable approach, the project team offered multilingual support at all community workshops and meetings by providing interpretation services and drafting collateral material in Spanish, Tagalog, and Khmer (languages determined based on community profile data derived from the U.S. Census ACS data). The workshops included a presentation of the project, followed by an activity that leveraged the Social Pinpoint survey and mapping tool. Most of the community workshops (76%) were conducted in person, while 24% were conducted virtually. The inperson workshops included staff support to complete the digital survey, particularly for events with seniors and communities with a "digital divide". Paper copies were also provided to make the survey more accessible. The virtual workshops included staff support to gather comments that were later entered into the survey and interactive mapping tool.

With the support from local CBOs, the public outreach team also hosted 18 events along the Corridor, including pop-up events to support notification and engagement efforts to gather input from different communities. During this phase of the efforts, \$69,820 in stipends were paid directly to CBOs as part of this Task Force effort.

The survey and interactive mapping tool were originally open from August 2, 2022, through September 8, 2022, with two extensions—to October 15, 2022, and once more to November 14, 2022—to accommodate more time for public feedback from community members. These extensions were supported by the engagement efforts that continued through early November. The extensions also allowed the Task Force and CLC members to provide additional input using the Social Pinpoint online tool. The project team collected 1,920 surveys and 985 mapping comments from the public during this phase.

The overall outreach efforts continued during this phase and generated public awareness and encouraged community input on the draft LB-ELA Corridor Mobility Investment Plan. A summary of these engagement activities, included:

- Community meetings;
- Virtual meetings;
- Meetings with cities, city officials, and their staff; and
- Informational booths at community events and pop-up events.

A wide variety of communication tools were also employed to ensure that key project updates and opportunities to elicit feedback were shared broadly throughout the Corridor, including:

- Social Media posts;
- E-blast messages;
- Project hotline;



- Project Emails;
- Project newsletters;
- Project fact sheets;
- Meeting flyers; and
- Corridor-wide mail distribution.

An equitable approach was employed to ensure that all jurisdictions with Equity Focus Communities had at least one activity. In addition to the 15 CBO partners engaged in the first phase of outreach to generate community input and awareness, the project team partnered with an additional 20 local CBOs to amplify outreach efforts across the Corridor during the release of the Investment Plan, culminating in 35 CBOs that have actively participated in engagement activities for this project. Over both rounds of engagement, \$128,000 in stipends were paid to CBOs for their partnership, averaging to about \$3,600 per CBO. The 35 CBO partners engaged throughout this process are:

ALL operating within Equity Focused Communities in the project area:

- > Avance Latino
- > Black Women Rally for Action
- Cal State University, Los Angeles/Pat Brown Institute
- > Calvary Chapel Compton
- > Cambodian-Scholar Long Beach
- Center for International Trade and Transportation (CITT)
- > COFEM (SELA Collaborative)
- > Communities for Better Environment (CBE)
- > Compton Advocates Coalition
- > Eastmont Community Center
- > East LA College (ELA)
- > East LA College (South Gate)
- > FoodCycle
- > Good Faith Missionary Baptist Church
- > Hoops 4 Justice
- > La Comadre (Somos Sureste)
- > Long Beach Gray Panthers
- > MAOF Downey

- > MAOF HQ Montebello
- > Mujeres Unidas Sirviendo Activamente
- > National Council of Negro Women (Long Beach Section)
- > Northwest Downey Little League
- > Para Los Niños
- > Promesa Boyle Heights/Proyecto Pastoral
- Rancho Los Amigos National Rehabilitation Center/Foundation
- > Regional Hispanic Institute
- > Streets Are for Everyone (SAFE)
- > Salvation Army Red Shield
- > South Gate Junior Athletics Association
- Southeast Los Angeles Collaborative (SELA Collaborative)
- > Tower of Faith Evangelic Church
- > Unearth and Empower Communities
- > YMCA Montebello/Commerce
- > YMCA Southeast Rio Vista (Maywood)
- > YMCA Weingart East LA

The levels of involvement for the CBOs included notification activities such as posting on their social media, e-blasts, newsletters, and public calendar on their website. Additional notification campaigns included text messages, phone banking, and placement of banners and lawn signs near meeting locations to draw in passersby. Engagement activities included hosting a location to convene and watch virtual community meetings; providing time on their agendas at their regularly scheduled meetings for the project team to provide project updates; providing staff to assist at informational booths, pop-up

events, and transit intercepts; and providing staff to canvass neighborhoods or events with flyers (**Figure 2-8**).

Including these key CBOs in the Investment Plan process proved to be an effective approach to reaching stakeholders who might not otherwise have participated in the important corridor-wide process for future investment in mobility projects, programs, and strategies.

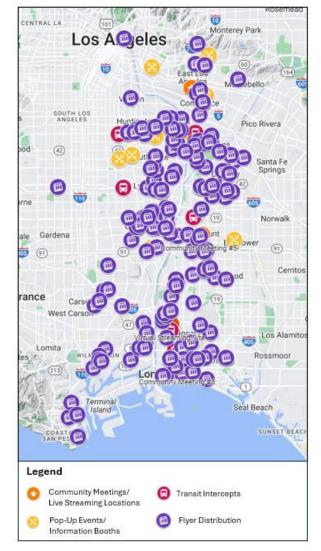


Figure 2-8. Geographic Coverage of Community Engagement Activities

Metro released the Draft Long Beach to East Los Angeles Corridor Mobility Investment Plan (Investment Plan) on January 31, 2024, including a 30-day review period for additional feedback and input. On February 28, 2024, Metro extended the review period for an additional 30 days to allow stakeholders and community members more time to review the document and for Metro to host supplemental community meetings. The comment period ended on April 1, 2024.

To enhance community awareness and involvement, Metro led a community engagement program that targeted all communities along the Long Beach to East Los Angeles corridor. Metro successfully onboarded 28 Community-Based Organizations (CBOs) as part of its CBO Partnership Program. This collaborative

initiative aimed to leverage the extensive networks and local insights of these organizations to effectively disseminate information regarding the project. The partnership facilitated a comprehensive series of notification and engagement activities designed to reach a broad audience. Notification efforts encompassed the distribution of flyers and posters, door-to-door notices, the sending of e-blasts/e-newsletters, placement of banners and lawn signs, creation of notification toolkits, as well as phone banking and SMS text campaigns. Furthermore, social media posts, website updates, and local announcements served to amplify the message.

On the engagement front, the initiative featured:

- Event information booths/pop-up outreach booths at key locations along the corridor (15).
- Transit-intercepts at heavily used bus stops and rail stations within the corridor (10).
- CBO co-hosted live streaming meeting locations (7)
 - Monterey Park, Maywood, Downey, Long Beach, South Gate, Bell
- Direct outreach to businesses and schools.

These efforts not only ensured widespread dissemination of project-related information but also fostered an inclusive environment where community members could engage, inquire, and provide feedback on the project, strengthening the bond between Metro and the communities it serves.

Additionally, the project team conducted a series of meetings along the corridor in mixed formats. These meetings aimed to engage community members and stakeholders to provide them with information about the Investment Plan and the projects included and solicit feedback. Over **4,000 community members** across the corridor have been engaged to date.

The project team collected feedback through various meeting modalities and question/comment collection avenues. These included:

- In-person Community Meetings (5)
 - o Commerce, Lynwood, Long Beach, Compton, Paramount
- Virtual Meetings (5)
- Community Leadership Committee Meetings (2)
- Small Group Meeting(s) (1)
- Task Force Meeting(s) (1)
- CBO-Led Meetings/Events (3)
- Project Dashboard and Email
- Project Hotline

Feedback collected throughout all the meetings mainly came from community members, Community Leadership Committee (CLC) members, Task Force members, and freight industry representatives.

Altogether, the project team received 279 questions and comments by March 20, 2024. **General themes of the comments and questions submitted by community members and stakeholders included:**

Freeway and Roadway Infrastructure:

Feedback received expressed concern about the impact of the 710 freeway on local communities, specifically concerns about freeway widening, truck traffic, pedestrian safety, congestion, and the Alameda corridor.

None of the proposed projects will lead to displacement or involve widening the freeway-.

Other concerns will be noted as projects continue being developed through their planning stages.

Public Transit Enhancements:

Feedback expressed interest in additional public transit options, requests for improvements to existing bus stop infrastructure, and requests for increased bus service frequency.

Community Involvement and Transparency:

Feedback expressed interest in seeing more community involvement in meetings.

Feedback also included questions about specific project details, methods of keeping the community informed, and the process of community participation.

Funding and Allocation:

The feedback received in this category included diverse perspectives on funding allocation, including the balance between investments in freeway projects and green initiatives. Additionally, the feedback emphasized the importance of financial transparency throughout the project.

Safety and Security:

There were some concerns about public transportation safety issues related to Metro's enforcement of its Code of Conduct and the general cleanliness of transit vehicles.

Health and Environmental Impact:

Feedback highlighted issues relating to air quality and health impacts and expressed interest in zeroemission initiatives and Vision Zero efforts for traffic safety.

Active Transportation and Green Spaces:

Feedback supported additional bike lanes, pedestrian pathways, green buffers, and general improvements to active transportation infrastructure.

Equity and Social Issues:

Some comments focused on equity initiatives, hiring practices, job opportunities created by the project, and ensuring that improvements benefit all population segments.

Project Implementation and Management:

Feedback requested clarity over the management of community programs, project timelines, funding kick-offs, and maintenance of completed projects.

Specific Projects and Areas of Focus:

Some responses highlighted a desire for enhanced links along the corridor, particularly advocating for a pathway joining Bristow Park with Bandini Park, the installation of facilities for electric vehicles, and a call for the creation of additional green spaces as well as programs that prioritize local employment opportunities.

Technological and Future Planning:

Responses indicated an interest in the comparative evaluation of technological choices, like hydrogen and electric, for transport solutions and forward-thinking strategies for initiatives like congestion pricing and the shift to electrified freight rail systems.

Incorporating Youth Perspectives and Inclusivity:

- Some feedback encouraged the future inclusion of youth perspectives in the planning process.
- There were some questions regarding the interpretation of equity and the identified community requirements and preferences in relation to the corridor.



3 EXISTING CONDITIONS AND FUTURE PROJECTIONS

This chapter presents existing characteristics, conditions, issues, and disparities in the Long Beach—East Los Angeles (LB-ELA) Corridor. First, this chapter defines the LB-ELA Corridor Study Area and provides an overview of who lives there through socioeconomic and demographic information. Next, the chapter highlights key community impacts related to the environment, health, safety, and access facing Corridor residents continuously elevated by community voices. Lastly, the chapter provides a more detailed set of data on existing conditions relating to the Corridor's land uses and multimodal transportation system, including infrastructure conditions and travel characteristics.

The project team presented an initial existing conditions video¹⁴ to the Task Force, Community Leadership Committee (CLC), and Working Groups in January 2022, inviting discussion of the data and input on additional metrics that should be added to the analysis, specifically from an equity perspective. The project team subsequently produced an equitable project planning existing conditions presentation¹⁵ in June 2022, which incorporated new metrics based on community and Task Force input, and applied Metro's Equity Focus Communities (EFC) as an overlay to identify patterns and disparities in conditions for EFC and non-EFC areas within the Corridor. This chapter compiles the findings from both sets of existing conditions, which were critical to developing the LB-ELA Corridor Mobility Investment Plan's Vision, Goals, and Guiding Principles; Multimodal Strategies, Projects and Programs List; Evaluation and Prioritization Criteria; and Funding Recommendations.

3.1 LB-ELA Corridor Study Area

As shown in **Figure 3-1Figure 3-1** and **3-2Figure 3-2.**, the LB-ELA Corridor Study Area (referred to throughout this chapter as "the Study Area" or "the Corridor") includes the 19-mile extent of Interstate 710 (I-710) from State Route (SR) 60 in East Los Angeles to its southern terminus in Long Beach, plus key parallel and intersecting arterial roadways, and all or part of nineteen cities and some portions of unincorporated Los Angeles County surrounding I-710. The Study Area's western boundary includes portions of Alameda Street, Central Avenue, Wilmington Avenue, and Interstate 110 (I-110). The Study Area's eastern boundary includes segments of Garfield Avenue, Interstate 5 (I-5), Lakewood Boulevard, and Cherry Avenue. The Task Force adopted the LB-ELA Corridor Study Area boundaries in early 2022. The Study Area breadth allows for it to contain major arterial roadway and freight rail infrastructure that complements the movement of people and goods along I-710.

¹⁴ Agenda Item #2 - I-710 South Corridor Existing Conditions.mov (dropbox.com)

¹⁵ Equity Working Group Meeting #4 Presentation- 6-30-22.pdf (dropbox.com)



Figure 3-1. LB-ELA Corridor Study Area (LA County Context)





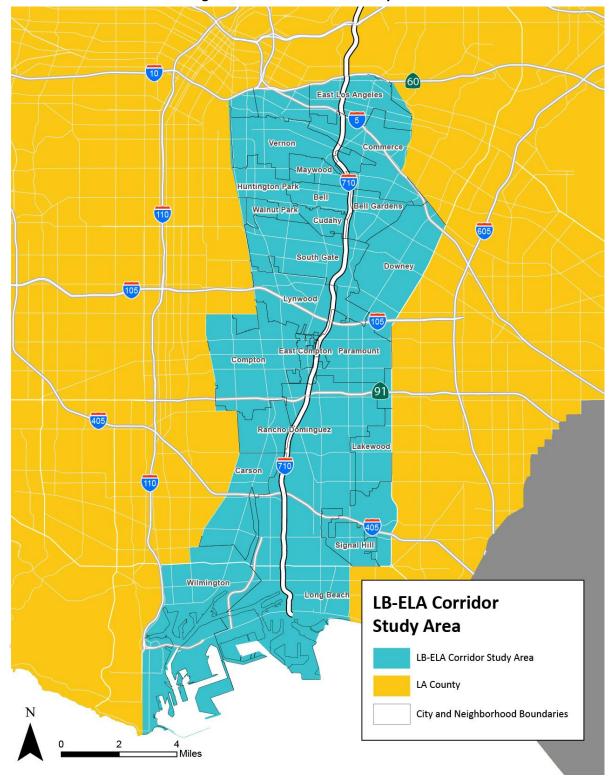


Figure 3-2. LB-ELA Corridor Study Area

Source: LA Metro, Caltrans, Los Angeles Times



3.2 Population Characteristics

Approximately 1.2 million residents (12% of LA County's population) live within the LB-ELA Corridor. The following sections provide an overview of Metro's Equity Focus Communities (EFC) designation, which applies to a substantial portion of the Study Area, followed by detailed socioeconomic and demographic characteristics of the Study Area's population.

3.2.1 Equity Focus Communities Overview

Metro defines EFCs¹⁶ as census tracts with greater transportation needs by considering the concentration of three criteria associated with mobility barriers: low-income households earning less than \$60,000 per year, residents who are Black, Indigenous, or People of Color (BIPOC), and households with no access to a car. The Metro Equity Need Index (MENI) ranks all census tracts in LA County by level of need in terms of equitable access to opportunity and places census tracts into quintiles, with the top 40% (High Need and Very High Need categories) categorized as EFCs. People in these census tracts face more mobility barriers than people in non-EFC census tracts. About 842,650 residents (73% of the LB-ELA Corridor population) live in an EFC area **Figure 3-3** shows the prevalence of EFCs throughout the LB-ELA Corridor Study Area. Areas with low populations are excluded from the MENI and EFC analysis, such as the Port of Long Beach and Port of Los Angeles, Long Beach Airport, intermodal rail yards in Vernon, and other heavily industrialized areas.

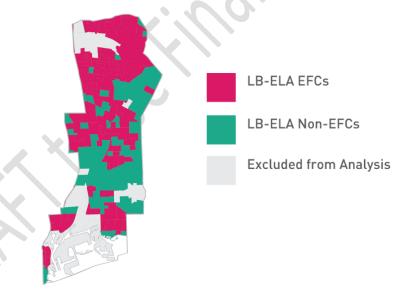


Figure 3-3. LA Metro Equity Focus Communities

Source: LA Metro

3.2.2 Socioeconomic and Demographic Characteristics

On their surface, socioeconomic characteristics such as unemployment rates, educational attainment, and housing cost burden may seem disconnected from transportation planning; however, major

¹⁶ equity-focus-communities-overview.pdf (dropbox.com)



infrastructure investments can have a substantial impact on employment and educational opportunities through the introduction of new jobs to pay for higher education, and increased access to educational institutions and job centers. New investments can also potentially impact housing stability and economic displacement pressure. For these reasons, it is important to understand the Corridor's existing conditions and disparities to plan for investment equitably. Some selected metrics are illustrated in charts with disparities summarized as ratios to compare the value for the County to the Corridor and the value for Corridor EFCs to Corridor non-EFCs.

3.2.2.1 Socioeconomic Characteristics

The Study Area's median household income of \$56,005 is 26.3% lower than the County's median of \$75,887. Compared to the County, the Study Area contains a higher proportion of households earning less than \$100,000 annually. The "Median Household Income" map in **Figure 3-4Figure 3-4** shows that the communities west of I-710 tend to have lower household income, and the northern portion of the Study Area has the lowest household income overall.

The "Poverty Level" map in **Figure 3-5** shows that there are concentrations of residents below the poverty level throughout the Study Area, including Long Beach, Wilmington, Lynwood, and much of the northern part of the Study Area. Overall, the Study Area has a poverty rate of 18.3% compared to the County's poverty rate of 15%. The Poverty Level is defined by the Census Bureau, which uses a set of income thresholds that vary by family size and composition to determine who is in poverty. If a family's income is below that threshold, that family and all its members are considered to be in poverty.

The "Age 65 and Over" map in **Figure 3-6** shows that areas with the most individuals older than 65 include Lakewood, Downey, and portions of Long Beach. Generally, communities to the west of I-710 tend to have a younger population than those to the east. As shown in Figure 3-9. , the Study Area also has a higher proportion of residents under 10 years old than LA County as a whole.

The "Percentage of Individuals with a Disability" map in **Figure 3-7** shows varied disability rates throughout the Study Area. that the Study Area contains a greater proportion of individuals with a disability than LA County as a whole. Overall, the Study Area has a disability rate of 8.5%, compared to the County's disability rate of 6%.

The "Auto Ownership" map in **Figure 3-43-8** shows the highest Zero Vehicle Households (ZVH) rates located in census tracts of Long Beach, East Los Angeles, Huntington Park, South Gate, Lynwood, and Compton. Overall, the Study Area has an average ZVH rate of 3.8%, compared to the County's ZVH rate of 2.9%.

Census data demonstrate existing disparities in outcomes among demographic groups in the Corridor, such as the average per capita income of \$33,870 for non-Hispanic white residents compared to \$18,297 for Hispanic or Latino residents.¹⁷ Due to the size of the study area and wide range of relevant data sets, it was not possible to disaggregate all data related to environmental conditions, infrastructure, or

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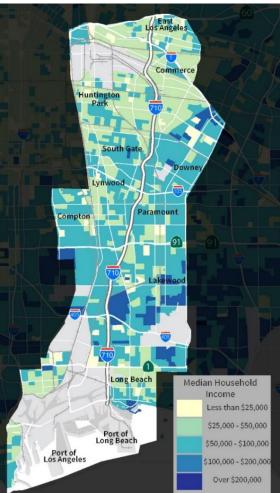
¹⁷ Data from the U.S. Census, Findings by race: NH White (\$33,870), Asian (\$29,904), Black/African American (\$25,120), Other (\$18,540), Latino/Hispanic (\$18,297).



services by race/ethnicity or income levels. However, Metro's EFCs were applied as an overlay and geoprocessing filter to document disparities for areas with the highest concentrations of low-income households, BIPOC residents, and share of households with no access to a vehicle.



Figure 3-4. Median Household Income



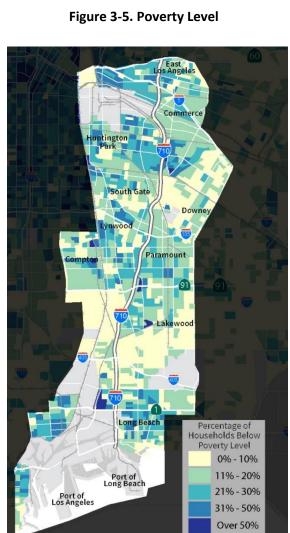


Figure 3-6. Age 65 and Over

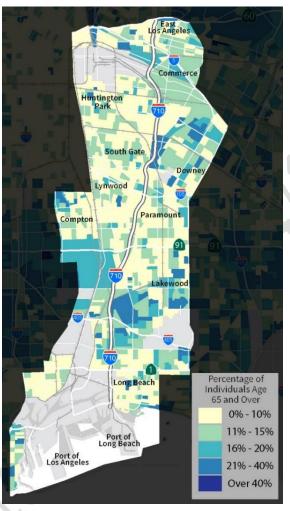
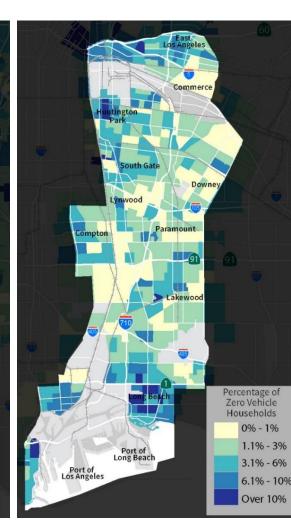


Figure 3-7.



Figure 3-8. Auto Ownership



Source: 2015-2019 American Community Survey





Source: LA Metro, 2015-2019 American Community Survey



3.2.2.2 Race and Ethnicity

Figures 3-10, 3-11, 3-12 and 3-13 show the breakdown of population by Race and Ethnicity in the Study Area. These maps use data and categories from the United States Census Bureau, so it is important to acknowledge that these categories do not capture the full range of identities represented in the Study Area, or the preferred terminology with which some communities and individuals identify. Residents who identify as Hispanic or Latino are the most prevalent population within the Study Area (77% of the Corridor population). Wilmington, Downtown Long Beach, and areas generally north of SR 91 include a higher density of residents who identify as Hispanic or Latino. Residents who identify as Asian are the least prevalent in the Study Area, with the highest concentrations of Asian residents located south of SR 91 and within West Long Beach. Residents who identify as white are generally concentrated in areas of Lakewood, Long Beach, and the northern portion of the Study Area near downtown Los Angeles. Residents who identify as Black or African American are generally concentrated south of Interstate 105 (I-105), specifically around areas of Compton and Lynwood. As indicated in Figure 3-14, the Study Area has a much higher percentage of Hispanic or Latino residents, and a lower percentage of white and Asian residents, than LA County as a whole. Most neighborhoods within the Study Area contain more than 80% of residents who identify with a race other than white.



Figure 3-10. Black or African American Alone, non-Hispanic

Huntington Park South Gate

Figure 3-11. Asian Alone, non-Hispanic



Figure 3-121. Hispanic or Latino

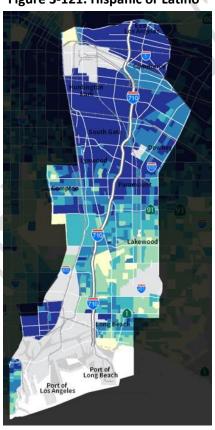
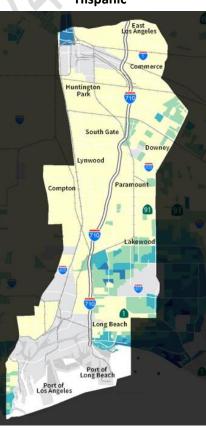


Figure 3-13. White Alone, non-Hispanic



0% -	21% -	41% -	61% -	Over
20%	40%	60%	80%	80%

Source: 2015-2019 American Community Survey



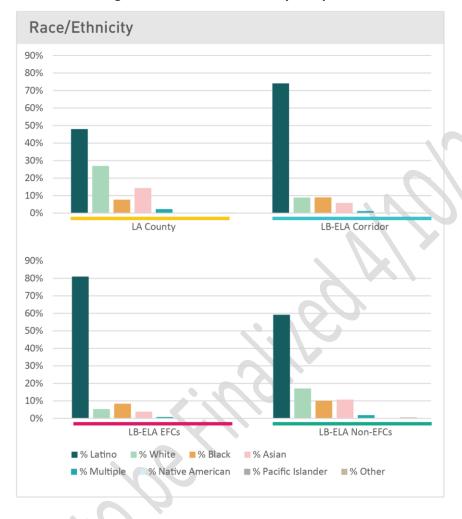


Figure 3-14. Race and Ethnicity Comparison

Source: LA Metro, 2015-2019 American Community Survey



3.2.2.3 Population and Employment Densities

As shown in **Figure 3-15 and 3-16**, the northern portion of the Study Area and downtown Long Beach have the highest population densities, with scattered high-density areas in locations such as Lynwood, Paramount, North Long Beach, and Wilmington. About 11% of jobs in Los Angeles County (0.5 million) are within those boundaries. In terms of employment density, pockets of higher employment density areas include downtown Long Beach, East Los Angeles, City of Commerce, Carson/Dominguez Hills, west of I-710 between SR 91 and Interstate 405 (I-405), and the Long Beach Airport vicinity.

Figure 3-15. Population Density

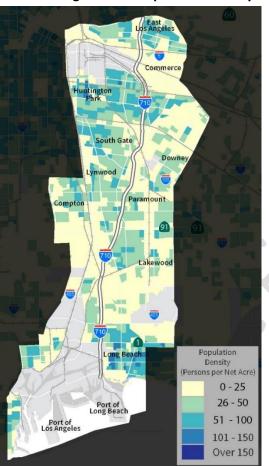
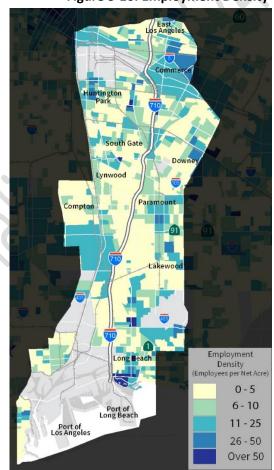


Figure 3-16. Employment Density



Source: 2015-2019 American Community Survey, 2019 Longitudinal Employer-Housing Dynamics (LEHD)



3.2.2.4 Occupation

The Corridor's manufacturing history and proximity to the ports have created a largely industrial and commercial economy, with nearly twice the share of industrial jobs in the Corridor (29%) as in the County as a whole (16%), and a lower share of service and professional jobs. Likewise, the study area has more industrial and residential land uses than the County as a whole, with proximity between residential and industrial land uses contributing to pollution impacts and associated health risks.

Figure 3-172 through **Figure 3-20** show the distribution of different job categories in the Study Area. The job categories are based on the North American Industry Classification System (NAICS) and include "Commercial," "Industrial," "Professional, Scientific, and Technical Services," and "Other Services." "Commercial Jobs" includes wholesale trade, retail trade, arts, entertainment and recreations, and accommodation and food service. "Industrial Jobs" include construction, manufacturing, transportation and warehousing, and utilities. "Professional, Scientific, and Technical Services" includes finance and insurance, real estate, educational services, and health care and social assistance jobs. "Other Services" includes repairs, religious activities, grantmaking, advocacy, laundry, personal care, death care, and other personal services.

The job distribution by industry is fairly even for the top two job categories. "Other Services" jobs have the highest percentage, at 30.2%, and "Industrial" jobs are 29.2% of the total jobs in the Study Area; "Professional Services" have 21.9%; and the remaining 18.7% are "Commercial" jobs. "Commercial" and "Professional, Scientific, and Technical Services" jobs are scattered throughout the Study Area, with larger clusters to the north close to downtown Los Angeles. "Industrial" jobs are clustered near the Port of Los Angeles and the Port of Long Beach (collectively, the Ports) and areas directly adjacent to the LB-ELA Corridor such as Wilmington, Carson, South Gate, and Vernon. High concentrations of the "Other Services" jobs that make up the greatest number of jobs overall, can be found in most parts of the Study Area other than the industrial areas. The Study Area has more "Industrial" and "Commercial" jobs and fewer "Professional, Scientific, and Technical Services" jobs than the county averages.

¹⁸ North American Industry Classification System, 2022



Figure 3-172. Commercial Jobs

Figure 3-18. Industrial Jobs

Figure 3-19. Professional, **Scientific, and Technical Services**

Figure 3-20. Other Services Jobs





3.2.2.5 Unemployment Rate

Despite its importance to the regional economy, the Corridor has a slightly lower average percentage of the workforce who are employed (71%) than LA County (74%), with a majority of the Corridor's lowest employment rates (as low as 49%) associated with EFCs. ¹⁹ As shown in **Figure 3-223 3-21**, high unemployment rates appear to reflect areas with lower educational attainment rates, such as Compton, Lynwood, Huntington Park, and East LA. In **Figure 3-213-22**, the ACS data indicates that people in the Corridor and EFCs experience moderate disparities in unemployment rates in comparison to the County and non-EFCs, respectively. The discrepancy between the Corridor's regional economic significance and its local employment outcomes is a primary concern raised by Corridor communities. Metro is committed to ensuring that Corridor residents are well-positioned to benefit from economic opportunities generated by the projects and programs within the Investment Plan. The Investment Plan has significant potential to create, expand, and increase access to employment opportunities for Corridor residents by catalyzing new infrastructure projects that provide high-quality jobs through construction and operation, improve travel options to connect residents to job centers, schools, and vocational institutions, and supporting policies and community programs that promote local economic and workforce development.

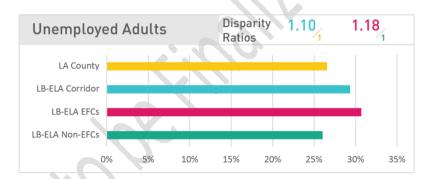


Figure 3-21. Unemployment Rates Comparison

Source: LA Metro, 2015-2019 American Community Survey

¹⁹ East Los Angeles, Commerce, Compton, East Compton, Long Beach, Wilmington, and San Pedro.



Figure 3-223. Unemployment Rate



Source: 2015-2019 American Community Survey

Figure 3-23. Individuals with No High School Degree or Above



3.2.2.6 Housing Burden Indicators

Housing burden for renters is defined as the percentage of renters within a census block group who spend more than 30% of their household income on rent each month. As shown in the map of Cost Burdened Renters in **Figure 3-24**, the Study Area has a relatively low rate of cost burdened renters. In certain areas, such as Downtown and Central Long Beach, the higher rates of cost burdened renters reflect the high cost of living and competitive rental markets in urbanized locations with high renter populations. In the LB-ELA Corridor Study Area, we can also see high renter burdens in commercial activity centers with greater constraints on rental housing stock. It is important to note that high renter cost burden rates in predominantly industrial areas likely reflect very small populations within those large census block areas.

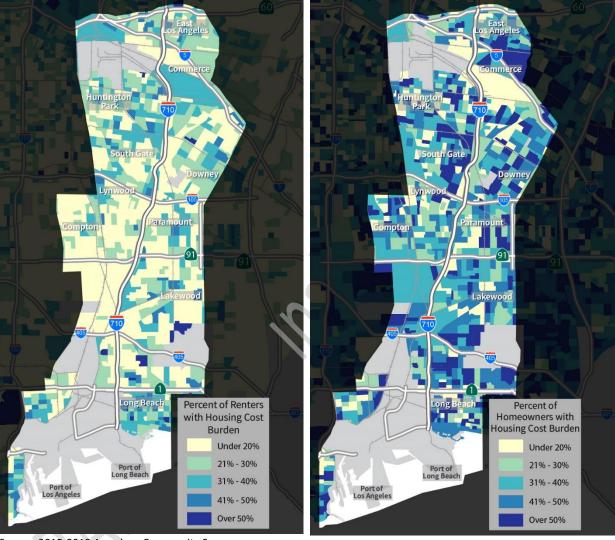
Housing burden for homeowners is defined similarly to that for renters but using mortgage payments instead of rent. As shown in the map of Cost Burdened Homeowners in **Figure 3-25**, a much higher share of Corridor homeowners are cost burdened compared to renters. High rates of cost burdened homeowners are distributed fairly evenly throughout the Study Area, but generally appear in low-density residential areas.



The Housing Burden Comparison chart in **Figure 3-26** indicates a notable disparity in the share of Housing Burdened Low-income Households in EFCs (27%) compared to non-EFCs in the Corridor (19%).²⁰

Figure 3-24. Cost Burdened Renters

Figure 3-25. Cost Burdened Homeowners



Source: 2015-2019 American Community Survey

²⁰ Data from the 2015-2019 American Community Survey 5-year estimates



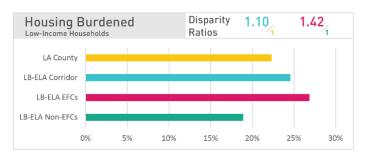


Figure 3-26. Housing Burden Comparison

Source: LA Metro, 2015-2019 American Community Survey

3.3 Community Impacts

This section highlights key data points related to the Corridor's equity issues identified and elevated in previous planning efforts and various stages of community input. These issues, referred to in this section as Community Impacts, relate to air quality and other environmental conditions, health outcomes, safety outcomes, and access to resources. Where County comparisons and EFC overlays are applied (to select metrics), a consistent pattern of disparity is revealed, with the LB-ELA Corridor generally facing greater burdens than the rest of the County, and EFCs facing greater burdens than the non-EFC areas within the Corridor.

Air Quality and Environmental Conditions

3.3.1.1 Particulate Matter

Particulate matter 2.5 (PM_{2.5}) and diesel particulate matter (DPM) are used as indicators to map out the air quality in the Study Area.

 $PM_{2.5}$ are small particulates that are less than 2.5 microns in diameter. Breathing in particle pollution can be harmful to health. Several studies have evaluated the relationship between $PM_{2.5}$ and the ensuing risk of lung cancer occurrence and fatality. Their findings have indicated that $PM_{2.5}$ may be a risk factor for lung cancer. A study based on prospective cohort data gathered by the American Cancer Society²¹ declared that prolonged exposure to $PM_{2.5}$ significantly affected survival, with each increase of 10 micrograms per cubic meter ($\mu g/m^3$) being associated with an approximately 8% increase in the risk of death from lung cancer. The level of $PM_{2.5}$ is measured in $\mu g/m^3$. Levels above 12 $\mu g/m^3$ exceed the federal standard for $PM_{2.5}$ (**Figure 3-27**). shows that the highest concentrations of $PM_{2.5}$ occur in the middle and northern portions of the Study Area.

DPM comes from exhaust from trucks, buses, trains, ships, and other equipment with diesel engines. The DPM map in (**Figure 3-28**) displays tons of DPM emitted per year by mobile and stationary sources in the nearby populated parts of each census tract. DPM concentrations occur throughout the Study

²¹ Pope CA 3rd, Burnett RT, Thun MJ, Calle EE, Krewski D, Ito K, Thurston GD. Lung cancer, cardiopulmonary mortality, and long-term exposure to fine particulate air pollution. JAMA. 2002;287(9):1132–41.



Area, including around the Ports, south Long Beach, near the I-710/SR 91 interchange, along I-710, and in the northern portion of the Study Area.

Figure 3-29 shows slight $PM_{2.5}$ disparities facing the Corridor and Corridor EFCs but suggests that major variations in $PM_{2.5}$ generally occur at a larger, regional scale.

Figure 3-30 shows that DPM pollution is a critical air quality disparity impacting the Corridor and Corridor EFCs.



South Gate

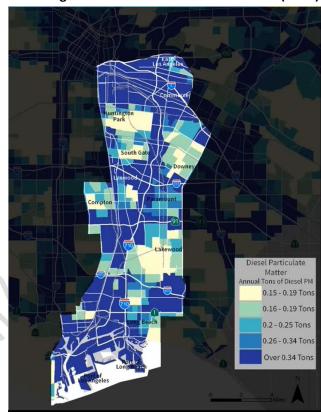
Downey

Lakewood

Particulate

Figure 3-274. Particulate Matter 2.5 (PM _{2.5})





Source: CalEnviroScreen 4.0

Figure 3-29. Particulate Matter 2.5 Comparison

Matter 2.5 Micrograms per Meter

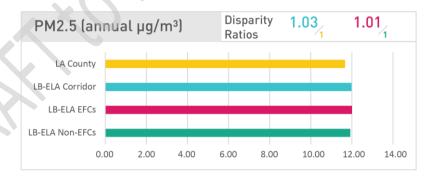
0 - 10.1

10.2 - 11.5

11.6-11.8

11.8 - 12

Over 12



Source: LA Metro, CalEnviroScreen 4.0





Figure 3-30. Diesel Particulate Matter Comparison

Source: LA Metro, CalEnviroScreen 4.0

3.3.1.2 Environmental Indicators

Analysis of other environmental indicators is shown in , including "Percentage of Population Covered by Tree Canopy," "Urban Heat Island Effect (UHIE)," and "Ground Toxic Cleanup Sites" throughout the Study Area.

"Tree canopy" refers to the layer of tree leaves, branches, and stems that provide tree coverage of the ground when viewed from above. A robust tree canopy can help reduce temperatures and air pollution, provide shade, improve neighborhood aesthetics, enhance property values, and attract residents/ businesses. The map shows the population-weighted percentage of the census tract area with tree canopy (the percentage of land covered by tree canopy, weighted by people per acre). The LB-ELA Corridor has many areas that lack tree canopy. Areas with less than 3% of the population covered by tree canopy are scattered throughout, including Commerce, Vernon, and portions of Compton, Paramount, and Long Beach. Areas with a higher percentage of the population covered by tree canopy (7 to 10%) are also scattered throughout, including neighborhoods in and around Lakewood, South Gate, and Long Beach. As shown in **Figure 3-31**, the Corridor and EFCs face disparities in tree canopy coverage. The average tree canopy in LA County is 5.5%, compared to 4.2% in the Corridor. In EFC areas within the study area, tree canopy is slightly lower at 4.1%, compared to non-EFCs at 4.6%. 22

Heat islands are created by a combination of heat-absorptive surfaces, heat-generating activities, and the absence of vegetation, typically associated with highly urbanized areas. The index score measures the UHIE by calculating the difference in temperature for urban areas relative to rural areas. The UHIE increases health risks from both heat exposure and the enhanced formation of air pollutants, especially ozone. It also contributes to significant energy consumption due to additional air conditioning needs.

Figure 3-32 shows that the northeastern section of our Study Area experiences the greatest heat increase from the UHIE. This condition reflects that the heat generated by urban heat islands in coastal areas tends to move inland, where mountains trap warmer air. On a more localized scale, a lack of tree canopy and vegetative ground cover can also contribute to the UHIE.

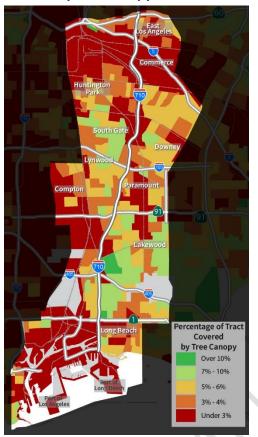
²² CDPH/National Land Cover Database, accessed via the California Healthy Places Index



Contaminated sites indicate degradation to the natural environment, pose health risks to surrounding communities, and contribute to an overall lack of land area available for community-serving land uses due to the presence of hazardous substances. Contaminated sites are aggregated into CalEnviroScreen's "Cleanup Sites" indicator, which applies weighting to sites based on the nature and magnitude of threat and burden posed, and proximity to populated areas. The Cleanup Site database of points contains information on numerous types of cleanup sites, including Federal Superfund, State Response, Corrective Action, School Cleanup, Voluntary Cleanup, Tiered Permit, Evaluation, Historical, and Military Evaluation sites. Figure 3-33 shows that substantial concentrations of Cleanup Sites are located throughout the northern and western portions of the Study Area, within and surrounding the Ports, and in areas of Paramount, Long Beach, and Signal Hill.



Figure 3-31. Percentage of Population Covered by Tree Canopy



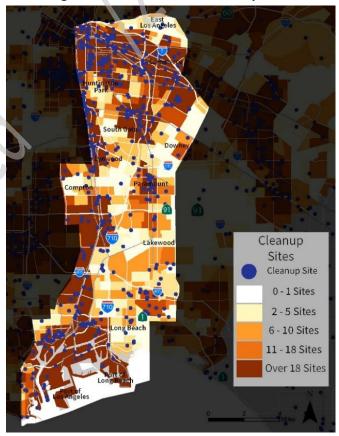
Source: Healthy Places Index 3.0, CDPH/National Land Cover Database

Figure 3-32. Urban Heat Island Effect



Source: CalEPA

Figure 3-33. Ground Toxic Cleanup Sites



Source: EnviroStor Cleanup Sites Database



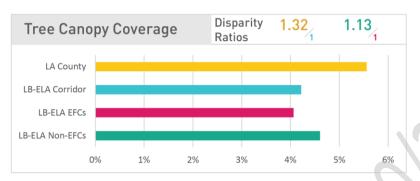


Figure 3-34. Tree Canopy Coverage Comparison

Source: LA Metro, Healthy Places Index 3.0, CDPH/National Land Cover Database

Health Outcomes

Communities within the LB-ELA Corridor face significant health disparities, which have been consistently elevated by Task Force, Working Group, CLC, and community members throughout the Task Force's planning process, and are documented by health and environmental justice screening tools such as CalEnviroScreen, CA Healthy Places Index, the Center for Disease Control and Prevention Environmental Justice Index Explorer, and a number of studies related to vehicular pollution and health outcomes surrounding I-710 and throughout the region. ^{23,24,25,26} The analysis in this section highlights how key indicators impact communities throughout the Corridor and examines disparities facing Corridor and EFCs.

3.3.1.3 Health Indicators

"Asthma Rate" can be measured by estimating the number of emergency department visits for asthma per 10,000 people. **Figure 3 3-35** shows that high rates of asthma incidents can be found throughout the Study Area, particularly south of I-105, and in Vernon and East LA to the north. **Figure 3 3-36** shows that a substantial disparity exists in asthma hospitalization rates when comparing the Corridor with LA County.

"Cancer Risk" is expressed as the number of extra cancer cases occurring over a 70-year lifetime per 1 million people exposed to toxic air contaminants. **Figure 3-37** shows the highest Cancer risk in the POLB and Downtown Long Beach areas and the lowest risk in the central-eastern portion of the Study Area.

²³ https://humanimpact.org/wp-content/uploads/2017/09/HIA-I710-Air-Quality-Plan.pdf

²⁴ https://la.myneighborhooddata.org/2019/09/community-health-in-the-710-corridor/

²⁵ https://www.metrans.org/assets/research/psr-20-19_boeing_final-report_v2.pdf

²⁶ https://www.metrans.org/assets/research/psr-18-sp91_giuliano_final-report.pdf



Figure 3-35. Asthma Comparison



Source: LA Metro, CalEnviroScreen 4.0

Figure 3-36. Asthma Rate

Commerce

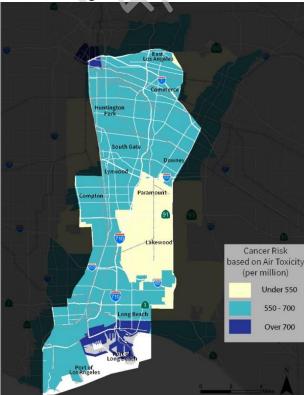
Huntington
Park

Compton
Park

Com

Source: CalEnviroScreen 4.0

Figure 3-37.Cancer Risk



Source: Multiple Air Toxics Exposure Study V



Safety

3.3.1.4 Bike and Pedestrian Crashes

The "Bicycle or Pedestrian Crashes Location and Severity" map in **Figure 3-38** shows that downtown Long Beach has a high concentration of bicyclist or pedestrian-involved crashes. Other areas with concentrations of bicycle and pedestrian crashes include parts of Lakewood/North Long Beach, Carson, Compton, East Los Angeles, Wilmington, and the northwestern portion of the Study Area.

The "Bicycle or Pedestrian Crashes Fatality and Serious Injury" map in **Figure 3-39**. Error! Reference source not found. shows the locations of only serious injuries and fatalities in the Study Area. Similar to total bicycle and pedestrian crashes, higher concentrations of crashes with a fatality or serious injury occur in downtown Long Beach, Carson, Compton, Lakewood, the northwest part of the Study Area, and East Los Angeles.

Concentrations of bicycle and pedestrian crashes are predominantly located in EFCs in the Study Area, highlighting the importance of safe active transportation infrastructure as a key equity issue for Corridor communities.

Figure 3-38. Bicycle or Pedestrian Crashes Location and Severity



Figure 3-39. Bicycle or Pedestrian Crashes
Fatality and Serious Injury



Source: Transportation Injury Mapping System (TIMS), 2017-2019



3.3.1.5 Truck Crashes

Error! Reference source not found. shows the location and severity of the truck crashes. Truck crashes predominantly occur along truck routes—including all freeway and arterial roadways that allow truck movements, such as Alameda Street and Pacific Coast Highway. Concentrations of truck crashes also occur in the areas with more industrial and warehousing land uses, such as the northern portion of the Study Area, the Ports, and the Rancho Dominguez area west of I-710 and south of SR 91.

Fatalities and serious injuries are small in volume, but they occur throughout the Study Area. The I-710 freeway has a high level of truck crashes. Hot spots include the northwestern portion of the Study Area and along several Countywide Strategic Truck Arterial Network (CSTAN) routes: Del Amo Boulevard, Anaheim Street, Pacific Coast Highway, Alameda Street, and Long Beach Boulevard.

3.3.1.6 All Crashes

Figure 3-40, 3-41 and **3-42** shows the locations and severity of all crashes in the Study Area, including those on I-710. Looking at all crashes—including vehicle, bicyclist-involved, and pedestrian-involved crashes—the northern portion of the Study Area and downtown Long Beach have the highest concentration of crashes.

Finally, along I-710 itself, more fatalities and serious injuries occur at the I-710/SR 91 interchange, near the Pacific Coast Highway, south of I-105, and at other isolated locations along I-710. These crash data indicated a critical need for safety improvements specifically at I-710 interchanges, which is reflected in the types of freeway improvement concepts that performed well in the evaluation of potential safety benefits.



Figure 3-40. Truck Crash Location and Severity

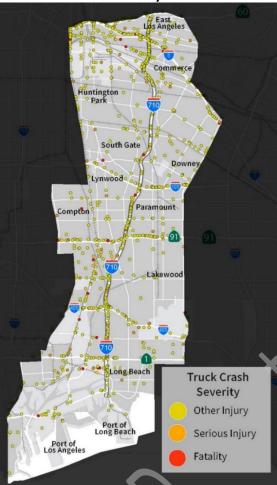


Figure 3-41. Truck Crashes Concentrations



Figure 3-42. Truck Crashes with CSTAN



Source: Transportation Injury Mapping System (TIMS), 2017-2019

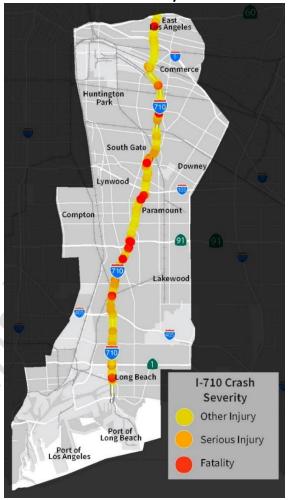


Figure 3-43. All Crashes



Source: Transportation Injury Mapping System (TIMS), 2017-2019

Figure 3-44. I-710 Crashes – Locations and Severity



Source: Transportation Injury Mapping System (TIMS), 2017-2019

Access to Resources

Access to resources is measured by five indicators in this section: "Lack of Park Access," "Lack of Supermarket Access," "High-Quality Transit Area (HQTA)," "LA River Access," and "Public School Access" (see Figure-45 through Figure 3-49).

3.3.1.7 Lack of Park Access

Park access is defined as the percentage of the population living within walkable distance (½ mile) of a park, beach, or open space of 1 acre or more. Having parks nearby can encourage physical activity, reduce chronic diseases, improve mental health, and foster community connection. Areas with the lowest percentage of the population with park access include neighborhoods in and around Huntington



Park, South Gate, Downey, Paramount, Compton, and Long Beach. Large portions of the remainder of the Study Areas have a higher percentage of the population with park access, including neighborhoods like Commerce, Compton, Lakewood, and Long Beach.

3.3.1.8 Lack of Supermarket Access

Supermarket access is defined as the percentage of the population in urban areas who live less than ½ mile from a supermarket/large grocery store. Having access to a nearby supermarket can encourage better diet and eating behaviors; lower the costs of obtaining food; reduce chronic diseases; and lower the risk of food insecurity, which is the lack of consistent access to enough food for an active, healthy life. Areas with the lowest percentage of the population with supermarket access include the neighborhood of Commerce; portions of Long Beach and Paramount; and the neighborhoods directly south of Compton and SR 91, west of I-710. Some of these are industrial areas with no grocery stores and low population. Areas with a higher percentage of the population with grocery store access include neighborhoods like South Gate, Compton, Downey, Lakewood, and Long Beach.

3.3.1.9 High-Quality Transit Area (2045)

HQTAs are defined by the Southern California Association of Governments (SCAG) as an area within ½ mile of a well-serviced transit stop or a transit corridor with a service frequency of 15 minutes or less during peak commute hours. SCAG's 2045 HQTAs are based on the planned transit system according to the SCAG 2020-2045 Regional Transportation Plan. Frequently, convenient transit service is a key driver in creating viable nonmotorized transportation options for traveling to work, school, home, or other destinations, especially for those without a car who rely on the service as the primary mode of travel. Fortunately, transit access is not an area of disparity for the Corridor or EFCs. A substantial portion of the study area (78%) is located within an HQTA. An even higher proportion of study area EFCs are located in 2045 HQTAs (85%), but only 60% of LA County falls within a 2045 HQTA.

3.3.1.10 LA River Access

The LA River is a regional amenity that provides walking paths, bicycle paths, access to river adjacent parks, and other activities. Specifically, the Study Area contains the LA River Bikeway, 29.1 miles of continuous bikeway between Vernon and Long Beach. The Lower LA River Revitalization Plan identifies proposed multi-use path enhancements, complete streets, river channel enhancements, and bridge crossing improvements. About 23% of residents in the LB-ELA Corridor reside within ½ mile of the LA River Bikeway.

3.3.1.11 School Access

School access is defined as the distance less than $\frac{1}{2}$ mile from a school. The industrial areas in the Study Area do not include school locations. Nearly all of residents in the Study Area reside within $\frac{1}{2}$ mile of a public school.

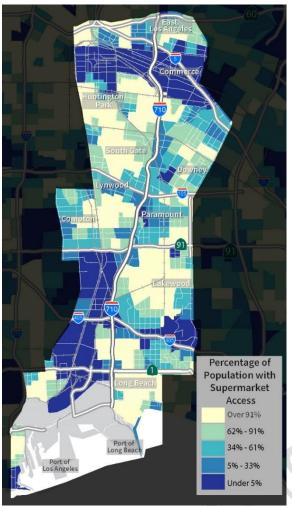


Figure 3-45. Lack of Park Access

Percentage of Population with Park Access Over 90% 71% - 90% 46% - 70% 18% - 45% Under 18%

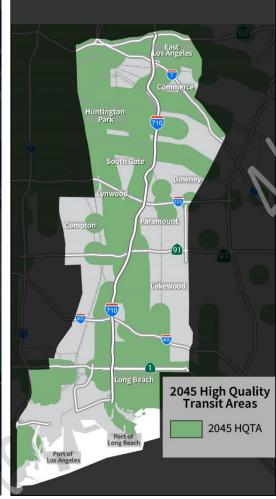
Source: LA County Park Needs Assessment

Figure 3-46. Lack of Supermarket Access



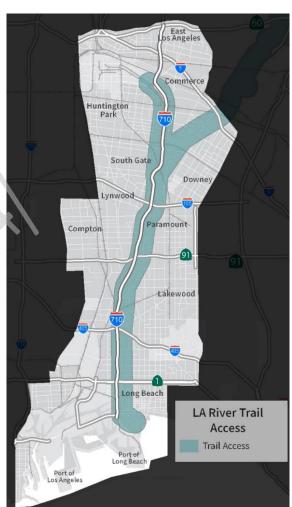
Source: Healthy Places Index 3.0, USDA Food Access Research Atlas (2017)

Figure 3-47. High-Quality Transit Areas (HQTA) (2045)



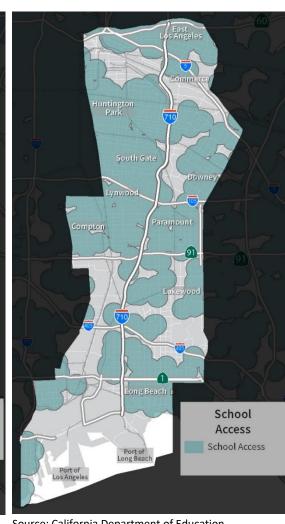
Source: Southern California Association of Governments (SCAG)

Figure 3-48. LA River Access



Source: LA Metro

Figure 3-49. Public School Access



Source: California Department of Education



3.4 Land Use Characteristics

The Study Area land uses are primarily industrial and residential, with less commercial and office uses, unlike much of LA County. In several locations residential and industrial uses are close to, or adjacent to one another, for example the Ports which is associated with larger pollution impacts and for those residents. **Figure 3-50** shows the land uses of the Study Area and highlights the industrial concentrations.

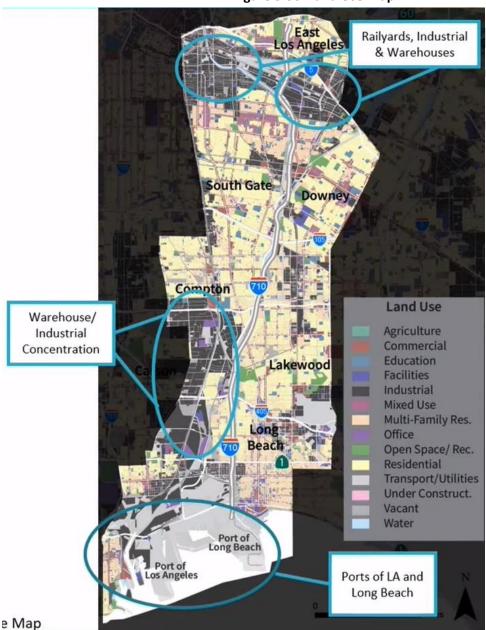


Figure 3-50. Land Use Map

Source: SCAG



3.5 Transportation Conditions

3.5.1 Goods Movement

In the LB-ELA Corridor, I-710 serves as the principal transportation connection for goods movement between the Ports, both at the southern terminus of I-710 and the Burlington Northern Santa Fe/Union Pacific Railroad rail yards in the cities of Commerce and Vernon, along with warehouses and freight trans-shipment facilities within and beyond the Corridor.

3.5.1.1 Goods Movement Infrastructure

The CSTAN, as indicated in **Figure 3-51** identifies the primary truck arterial network in LA County and prioritizes truck related improvements. CSTAN helps to create the inter-jurisdictional truck route system and supports the Federal Primary Freight Network.

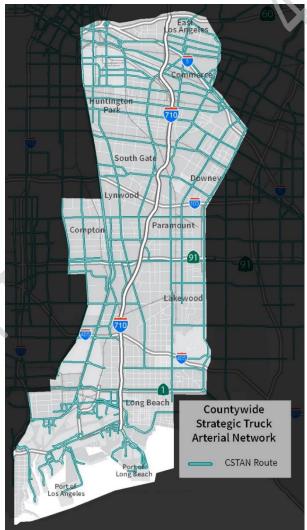


Figure 3-51. Countywide Strategic Truck Arterial Network

Source: LA Metro



3.5.1.2 Goods Movement Travel

Figure 3-52Error! Reference source not found. maps the daily truck trips along I-710. Clearly, heavier truck volumes occur at the southern end of the Corridor, near the Ports, with nearly 40,000 daily heavyduty trucks. In addition, the goods movement activities can be segmented by the east-west freeways that intersect with I-710. The truck volumes and the truck percentage are extremely high south of SR 91 when compared with typical freeways. However, truck trips decrease substantially north of I-105. Most of the heavy-duty trucks south of I-405 are oriented toward Port activities.

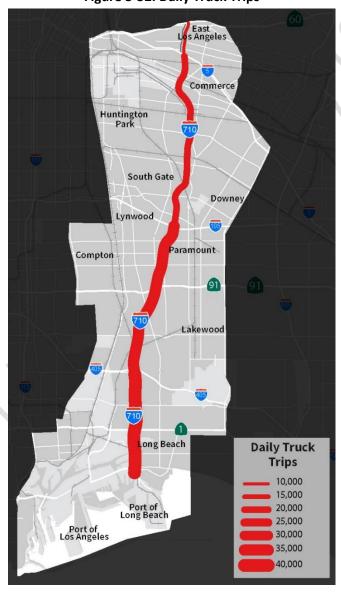


Figure 3-52. Daily Truck Trips

Source: PorTAM



Travel to Work Mode Share

This section discusses how people travel to work through the Study Area, reflecting the availability and quality of multimodal infrastructure and user preferences. Note that the analysis in this section uses 2019 data.

Figure 3-53 shows that driving alone and carpooling are the predominant modes for people to get to work, indicating a strong dependency on the private automobile in the Study Area. The existing mode split means that I-710 carries high volumes of vehicles and suffers from the resulting congested conditions and traffic-related impacts. These impacts include truck traffic diversion from the freeway to parallel arterials such as Atlantic Boulevard and Long Beach Boulevard. These conditions affect the quality of life of those traveling through and living in the Corridor and region.

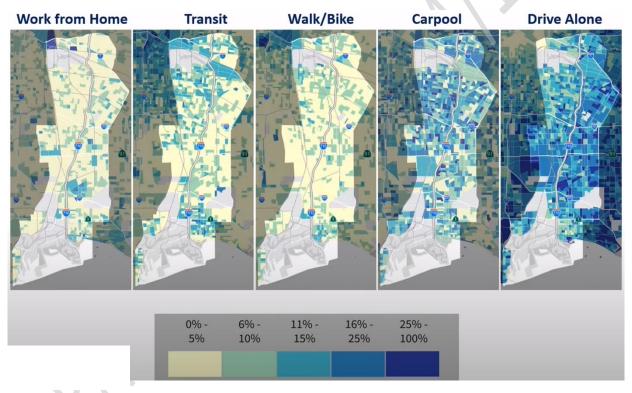


Figure 3-53. Travel to Work Mode Share

Source: 2015-2019 American Community Survey

Figure 3-54. displays the share of work trip travel each travel mode: work from home, transit, walk/bicycle, carpool, and drive alone. As indicated in **Figure 3-54**, the work trip mode share in the Study Area is similar to that of the County as a whole, with a higher percentage of carpooling and less work from home but double the use of transit.



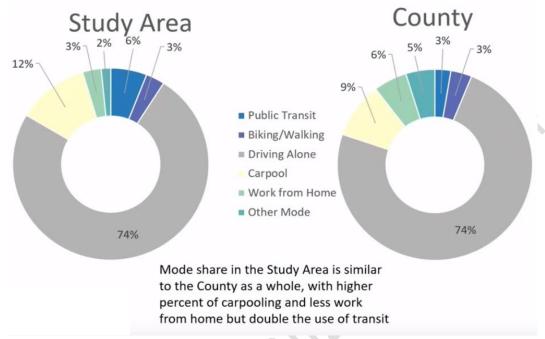


Figure 3-54. Mode Share Comparison

Source: 2015-2019 American Community Survey

Active Transportation

3.5.1.3 Active Transportation Infrastructure

Active transportation infrastructure is lacking throughout the Corridor, particularly throughout much of the northern Corridor cities. Much of the existing active transportation network suffers from fragmentation and maintenance issues, with few safe active transportation connections across I-710 and LA River.²⁷ **Figure 3-55** shows the active transportation deficiencies which include pedestrian and bicycle crossing gaps along I-710 and the bicycle lane network in the Study Area. A major north-south protected multiuse path for bicycles and pedestrians along the LA River provides continuous north-south access for active transportation travelers. However, there are many issues related to active transportation infrastructure, such as a lack of sidewalks, crosswalks, designated bicycle routes in much of the Study Area, a lack of designated bicycle lanes at many of I-710 and LA River east/west crossings, and difficulty in crossing both the freeway and the river due to the lack of bicycle lanes or missing/unpaved/narrow sidewalks. As also shown in **Figure 3-56**, many of I-710 and LA River east/west crossings do not have designated bicycle lanes or other bicycle facilities. Some crossings have missing, unpaved, or narrow sidewalks, which creates gaps in the active transportation network. In addition to high volumes of private vehicles entering and exiting the freeway, these gaps make crossing the freeway and river safely difficult for bicyclists and pedestrians.

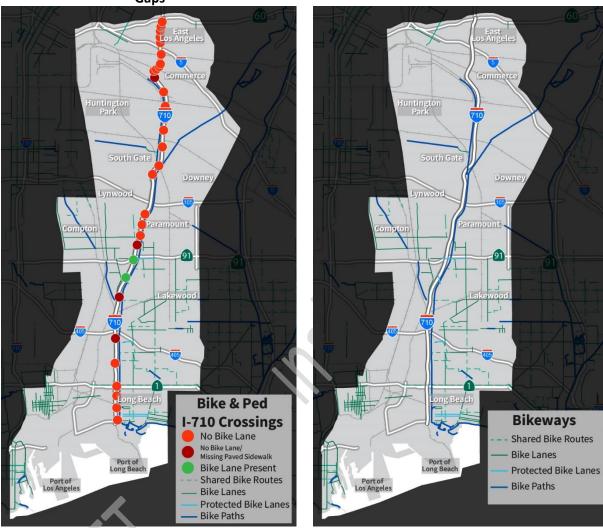
²⁷ Bikeways Data from Southern California Association of Governments and LA County



Active Transportation Infrastructure

Figure 3-55. I-710 Active Transportation Crossing Gaps

Figure 3-56. Bicycle Lane Network



Source: SCAG, LA County Bikeways Data

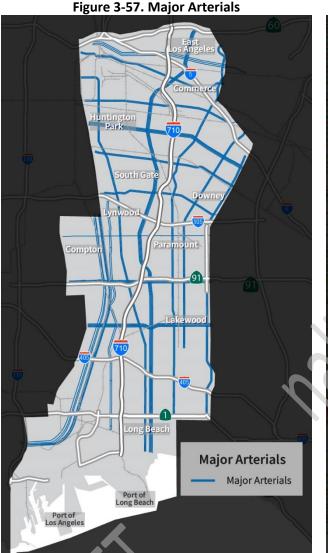
Arterial Roadway

3.5.1.4 Study Area Arterial Roadway Network

As shown in **Figure 3-57**, I-710 extends 19.2 miles in the Study Area. There are four freeway interchanges with east/west freeways, including I-5, I-105, SR 91, and I-405. No high-occupancy vehicle lanes nor truck lanes were constructed as part of I-710. In addition, many key arterials are paralleling I-710.

Figure 3-58Error! Reference source not found. also shows that I-710's pavement condition is considered "Good," as are most of the local streets in the Corridor. Generally, the roadway conditions of the streets in the southern portion of the Study Area are better than those in the north.







3.5.1.5 Study Area Bridges and Pavement

As indicated in Table 3-1 below, the LB-ELA Corridor Study Area features higher percentages of bridges in poor and fair condition than LA County as a whole. Several bridges along I-710 are in "Poor" condition, as the map on the left in Error! Reference source not found. indicates.



LA County 70% 63% 60% Study Area 52% 50% 41% 34% 40% 30% 20% 7% 10% 0% Good Fair Poor

Table 3-1: Bridge Condition Comparison

Pavement condition is classified for local and arterial roads using four levels: "Poor," "Fair," and "Good." As shown in Table 3-2 and **Figure 3-59** and **3-60**, no jurisdictions in the Study Area have their roads classified as "Poor"; however, more than half of the area is classified as "Fair."



Table 3-2: Pavement Condition Comparison





Figure 3-60. Pavement Condition South Gate **Pavement** Condition Poor At Higher Risk At Lower Risk Good



3.5.1.6 Arterial Roadway Travel Characteristics

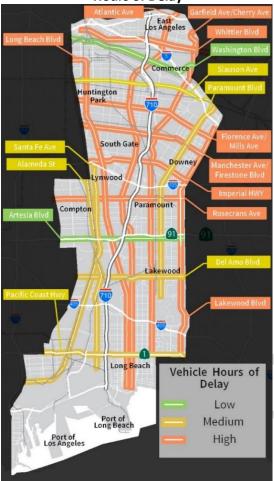
Figure 3-61 through **Figure 3-63** illustrates the infrastructure characteristics for vehicles in the Study Area through congestion and travel speeds, specifically "Arterial Roadway Daily Vehicle Hours of Delay," "Morning Arterial Roadway Speeds," and "Evening Arterial Roadway Speeds."

The Study Area contains many arterials with high levels of delay and significant congestion. Routes with higher delay include Long Beach Boulevard, Atlantic Avenue, Cherry Avenue/Garfield Boulevard, Lakewood Boulevard, and several other east/west routes.

Vehicle speeds during the morning hours tend to remain greater than 18 miles per hour, and there seems to be greater morning congestion in the northbound direction. The arterials with the lowest speed during the morning hours include Long Beach Boulevard, Atlantic Avenue, westbound Whittier Boulevard, Slauson Avenue, Florence Avenue/Mills Avenue, Alameda Street northbound, and Manchester Avenue eastbound/Firestone Boulevard. Four additional corridors contain vehicle speeds less than 18 miles per hour in the evening peak hours compared to the morning peak hours. They include Whittier Boulevard eastbound, Slauson Avenue, Atlantic Avenue southbound, and Santa Fe Boulevard southbound.



Figure 3-61. Arterial Roadway Daily Vehicle Hours of Delay



Source: Metro Arterial Performance Measurement (Measure Up)

Figure 3-62. Morning Arterial Roadway Speeds



Source: Metro Arterial Performance Measurement (Measure Up)

Figure 3-63. Evening Arterial Roadway Speeds



Source: Metro Arterial Performance Measurement (Measure Up)



"Daily Vehicle Miles Traveled (VMT)" was chosen to quantify and visualize the number of trips taken on arterials roadways in the Study Area. The VMT in the Study Area is about 12% of LA County's VMT. As shown in **Figure 3-64**, the Study Area contains many arterials with high levels of VMT and they generally match the arterials with high daily vehicle hours of delay. This is because more vehicles are filling up the freeway space, creating congestion; that is, the more miles people are driving their vehicles, the more vehicles there are on the roadway at any given time. The routes with higher VMTs include Santa Fe Avenue, Cherry Avenue/Garfield Boulevard, Lakewood Boulevard, Paramount Boulevard, and several other east/west routes.



Figure 3-64. Study Area Arterial Roadway Daily Vehicle Miles Traveled

Source: SCAG Regional Travel Demand Model

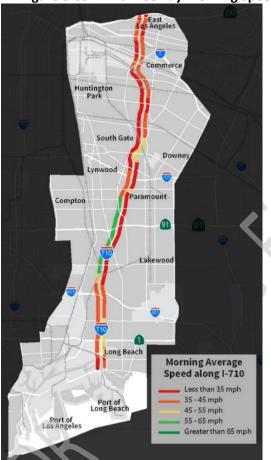


Freeway

3.5.1.7 Freeway Travel Characteristics

Figure 3-65 and **Figure 3-66** shows that driving on I-710 itself features speeds under 45 miles per hour, with a substantial portion of the Corridor under 35 miles per hour. The highest speeds in the morning are in the mid-Corridor area southbound between I-405 and I-105. In the evening, the northbound has one segment with higher speeds in the Commerce area, and the southbound has one segment of higher speeds from north of I-105 to SR 91.

Figure 3-65. I-710 Freeway Morning Speed



Source: National Performance Management Research Data Set



Source: National Performance Management Research Data Set

"Daily Vehicle and Person Trips" was chosen to quantify and visualize the number of trips taken along I-710 in the Study Area. **Figure 3-67** indicates that daily vehicle trips range from 144,000 trips per day south of I-405 to more than 300,000 between SR 91 and I-105. Daily person trips range from 224,000 south of I-405 to more than 500,000 between SR 91 and I-105. The segment between SR 91 and I-105 has the highest number of vehicle and person trips. The southern segment contains the lowest number of vehicles and person trips.



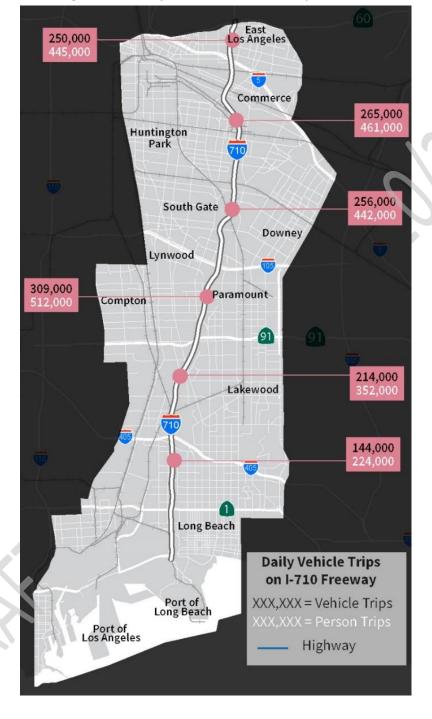


Figure 3-67. Daily Vehicle and Person Trips on I-710

Source: Caltrans



3.5.1.8 Freeway Bottlenecks

Congestion and slow speeds cause bottlenecks in the roadway system; bottlenecks are locations that experience specific increases in delay. As shown in **Figure 3-68** and Figure **3-69**, bottlenecks occur throughout the LB-ELA Corridor along I-710. The worst northbound bottlenecks occur at Willow Street, Long Beach Boulevard, Imperial Highway, and Atlantic Avenue. The worst southbound bottlenecks occur at Florence Avenue and the vicinity where I-405 meets I-710.



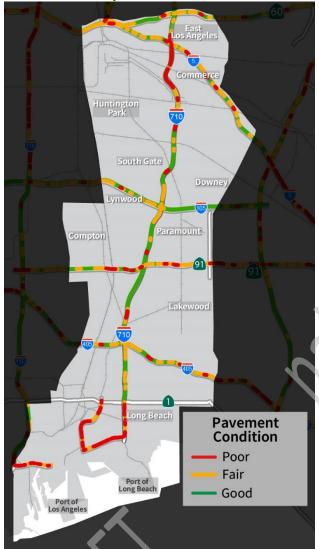
Figure 3-69. Southbound Bottlenecks Along I-710 East os Angeles Eastern Ave Atlantic Ave Commerce Huntington Park South Gate Lynwood Compton Blvd Paramount Compton 91 outh of I - 405 Long Beach **SB Traffic Bottlenecks** (Vehicle Hours of Delay) Less than 100 100 - 250 Hours 250 - 500 Hours Port of Los Angeles 500 - 750 Hours Over 750 Hours

Source: Caltrans Performance Measurement System (PeMS)



3.5.1.9 Freeway Pavement Conditions

Freeway Pavement Conditions



Source: Caltrans High Performance Monitoring System (HPMS)

Transit

3.5.1.10 Transit Infrastructure

In terms of infrastructure for transit, multiple transit services are in or touch the Study Area as shown in **Figure 3-70**. These transit services including LA Metro rail and bus, Metrolink, Long Beach Transit, Amtrak, Los Angeles Department of Transportation Dash, and local community bus circulators.



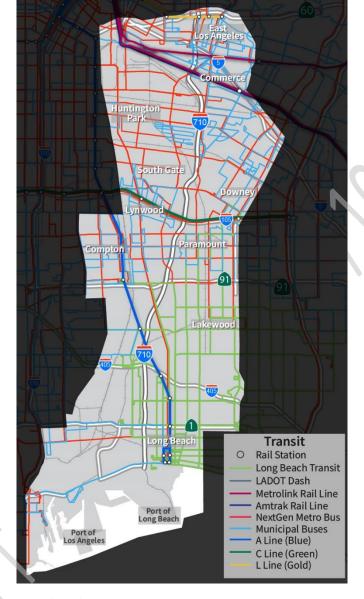


Figure 3-70. Transit Infrastructure

Source: LA Metro, Amtrak, Long Beach, and LADOT DASH Route Lines

Figure 3-72. Transit Bus Boarding



3.5.1.11 Transit Usage

Currently, there are about 111,000 total Metro bus and rail boardings and nearly 50,000 Long Beach Transit boardings on a daily basis in the Study Area (**Figure 3-71** and **Figure 3-72**). Metro rail boardings in the Study Area constitute 8.5% of all Metro Rail boardings. The highest ridership stations are at transfer stations, and many rail passengers board at the end of the A Line in Long Beach. The pandemic that began in 2020 imposed a significant negative impact on ridership, and ridership is still slowly recovering.

Figure 3-71. Transit Rail Boarding Downe Comptor Rail **Boardings** Under 700 701 - 1400 1401 - 2200 2201 - 3000 Over 3000 Port of os Angeles **Bus Routes**

Los Angeles

Los Angeles

Compton

Park

Paramount

Lakewood

Bus

Boardings

Long Beach

100

500

750

1,000

Long LA Metro Beach Transit

Source: 2019 LA Metro Ridership Data



4 CORRIDOR VISION, GOALS, AND GUIDING PRINCIPLES

The Long Beach-East Los Angeles (LB-ELA) Corridor Mobility Investment Plan (Investment Plan) expresses and advances myriad investment priorities identified by the Corridor's residents and stakeholders to support their Vision for the LB-ELA Corridor. The Vision is supported by seven Goals and two Guiding Principles, which are informed by Metro's policy priorities while also responding to the many specific and interconnected challenges facing the LB-ELA Corridor today within the historical context of Interstate 710 (I-710) and its generational impacts on surrounding communities.

The Plan's b Vision, Goals, and Guiding Principles further Metro's Equity Platform, respond to the communities' needs and priorities along and within the corridor. The Plan builds on California's ambitious transportation decarbonization goal set by Executive Order N-79-20, and support the principles outlined in the State of California's Climate Action Plan for Transportation Infrastructure, the framework and goals in the California Transportation Plan 2050, the California State Transportation Agency's Core Four Priorities, and California's Climate Change Scoping Plan. The Plan's commitment to a zero-emission future for the LB-ELA Corridor also reflects the current national and state policies and guidance set forth by the National Zero-Emission Freight Corridor Strategy, designation of the National Highway Freight Network as the National Electric Vehicle Corridors, and the state's SB671 Clean Freight Corridor Efficiency Assessment. This plan is a qualifying CMCP under CTC SCCP guidelines.

The Investment Plan's Vision, Goals, and Guiding Principles also closely align with the Southern California Association of Governments' Regional Transportation Plan/Sustainable Communities Strategy, the 2020 Metro Long Range Transportation Plan, Los Angeles County and City ballot measures, and the Metro Board approved plans, policies, and initiatives providing the foundation for the evaluation framework to assess projects against multiple criteria. This chapter introduces the LB-ELA Corridor Vision, Goals, and Guiding Principles and describes the process through which these statements were inspired, drafted, refined, and adopted.

Vision

A concise statement that captures the collective aspirations, desires, and outcomes of the project

An equitable, shared LB-ELA Corridor transportation system that provides safe, quality multimodal options for moving people and goods that will foster clean air (zero emissions), healthy and sustainable communities, and economic empowerment for all residents, communities, and users in the Corridor.

Guiding Principles

Values that guide all processes and outcomes through a cohesive and intentional framework

Equity

A commitment to (1) strive to rectify past harms; (2) provide fair and just access to opportunities; and (3) eliminate disparities in project processes, outcomes, and community results. The plan seeks to elevate and engrain the principle of Equity across all goals, objectives, strategies, and actions through a framework of Procedural, Distributive, Structural, and Restorative Equity, and by prioritizing an accessible and representative participation process for communities most impacted by the I-710.

Sustainability

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. A commitment to sustainability to satisfy and improve basic social, health, and economic needs/conditions, both present and future, and the responsible use and stewardship of the environment, all while maintaining or improving the well-being of the environment on which life depends.



Goals

Desired outcomes for general areas of concern to support and realize the overall Vision

Air Quality

Foster local and regional clean air quality.

Community

Support thriving communities by enhancing the health and quality of life of residents.

Environment

Enhance the natural and built environment.

Mobility

Improve the mobility of people and goods.

Opportunity

Increase community access to quality jobs, workforce development, and economic opportunities.

Prosperity

Strengthen LA County's economic competitiveness and increase access to quality jobs, workforce development, and economic opportunities for all communities, with a focus on strengthening the LB-ELA Corridor communities, which have been and continue to be harmed by economic activity and development.

Safety

Make all modes of travel safer.

4.1 Identification of Issues

The issues Metro intended to address through the LB-ELA Corridor Task Force process and Investment Plan are wide-ranging, reflecting the geographic scale of and the depth of unmet investment need in the Corridor. These issues are compounded by the many challenges associated with serving the nation's busiest seaport complex, a highly populated region, and the residual effects of the project history from which the renewed LB-ELA Corridor planning process emerged. In addition to the travel characteristics and infrastructure conditions typically assessed for transportation planning efforts, issues identified in this process encompass the last century of racial, economic, and environmental injustice that was reinforced by public policy and infrastructure decisions and continues to impact the Corridor's communities today.

To identify the Corridor's key issues and opportunity areas, the project team initially reviewed planning studies and community responses from the past two decades of planning and community advocacy around the LB-ELA Corridor to establish context and lessons learned for the new LB-ELA Corridor visioning process. This initial research was followed by community listening sessions, a vision and goals public survey, a public meeting, and a robust analysis of existing conditions, all of which were discussed across a series of meetings with Task Force and Community Leadership Committee (CLC) members. Applying a shared understanding of the Corridor's issues, the Task Force, CLC, and Equity Working Group collaborated to envision a future that balances the diverse needs of the Corridor's stakeholders. Over several months, as described below, these groups thoughtfully composed and refined the Vision, Goals, and Guiding Principles as a framework to guide and focus the Investment Plan's development process and outcomes.



December 2021: February – March March 2022: Vision **Listening Sessions** 2022: Vision and Goals and Goals **Development Public** Survey Meeting In December 2021, the From February to The project team held project team held two a Vision and Goals March 2022, the LB-ELA Corridor Project project team Development public **Listening Sessions** administered a Vision meeting (virtually) in intended to engage March of 2022. It was and Goals survey, members of the through which the attended by 83 Corridor communities public identified their participants, including in developing a plan priorities for potential 11 Task Force members and investment improvements in the or alternates and 50 strategy centered on Corridor, selecting up members of the public. local needs. The to three of the The meeting included project team shared following: Air Quality, an interactive information regarding Community Health, discussion and poll, in the process for creating Environment, Street which participants a new plan for the Safety for all identified their Corridor and provided Transportation Users, priorities for potential updates on the Travel Options, Jobs improvements in the function and work of and Economic Corridor. The top the LB-ELA Corridor Opportunities, and priority areas included Task Force. Community Housing. More than Air Quality (selected by members expressed 3,000 stakeholders 73% of participants as pride in the community one of their top three received the survey, outcry that resulted in and the 451 responses areas of concern), the halting of the comprised 427 Travel Options (50%), freeway widening members of the public and Community Health project and shared a and 24 Task Force (50%). Other areas of desire to move forward members. 53% of concern included with a transparent respondents selected Street Safety (43%), process led by the air quality as one of Environment (40%), community. their top three Jobs and Economic Participants identified priorities for Opportunity (13%), and community priorities, improvements in the Other (13%). including reduced Corridor, 51% selected Participants shared traffic and emissions, travel options, and 50% specific selected street safety improved public health recommendations for for all transportation and green space, goals related to the expanded bike and users. various areas of pedestrian concern in the infrastructure, and no interactive discussion. displacement of homes Air Quality and businesses as



proposed in the recommendations original I-710 South included a requirement Corridor project that projects meet the (Alternative 5C). Environmental Protection Agency's Clean Air Standards and that the **Investment Plan** support adding more trees and plants along the Corridor to promote clean air and reduce the heat island effect and air pollution. Mobility recommendations included establishing access to high-quality, multimodal mobility options and considering Americans with Disabilities Act (ADA) compliance. Safety recommendations included safer paths for pedestrians and bicyclists and the incorporation of guidelines prioritizing safety policies. Economy recommendations included the creation of good-paying jobs with local hiring as a priority and support for commercial land uses.

Winter 2021 - Spring 2022: Existing Conditions Analysis

As detailed in Chapter 3, the LB-ELA Corridor planning process was informed by extensive qualitative and quantitative data analysis to identify existing conditions, needs, and disparities among various communities within the Corridor and compare them with LA County. Based on the issues and



opportunity areas identified through public input and prior studies, data were primarily analyzed for socioeconomic conditions, environmental conditions, community health, and travel patterns related to mode share, emissions, throughput, and safety. Community survey data and anecdotal insights from CLC and Task Force members were used to supplement and ground-truth quantitative data to gain a more comprehensive understanding of the LB-ELA Corridor communities.

A subsequent existing conditions analysis produced for discussion with the Equity Working Group incorporated new metrics based on community and Task Force input and applied Metro's Equity Focus Communities (EFCs) as an overlay to identify patterns and disparities in conditions for EFC and non-EFC areas within the Corridor. This project planning analysis further helped identify that people along the LB-ELA Corridor are overburdened in many ways compared with other parts of the region. Given the high percentage of BIPOC populations in the Corridor, these issues were identified as reinforcing racial inequities and demonstrating how structural racism persists in urban communities.

Summary of Key Issues

Key issues highlighted by initial research and engagement, which informed the development of the LB-ELA Corridor Vision, Goals, and Guiding Principles, are summarized below:²⁸

- high freeway emissions and poor air quality;
- cumulative community health burdens;
- unsafe and hostile streets for pedestrians and bicyclists;
- poor transit service reliability;
- slow travel times;
- lack of green space and shade;
- goods movement capacity and impacts;
- disconnected communities;
- historic disinvestment and disenfranchisement;
- lack of trust from the previous I-710 project and process; and
- disparities in municipal capacity and resources within the LB-ELA Corridor.

4.2 Task Force, CLC, and Working Group Input and Approval

Between April and September 2022, the Task Force, CLC, and Equity Working Group each spent several meetings crafting the Vision, Goals, and Guiding Principles to balance the various stakeholder priorities represented carefully and to develop language that provides accurate and actionable statements of the Task Force and CLC's shared values. The Task Force served as the formal voting body to approve the Vision, Goals, and Guiding Principles, with the CLC and Equity Working Group providing multiple rounds of input and voting on recommendations for the Task Force.²⁹ The following timeline summarizes key points of Task Force, CLC, and Equity Working Group Input and Approval:

²⁸ For additional equitable project planning discussion of LB-ELA Corridor issues, see Appendix 4-A – EPET Section 1: Connecting Community Results to Project Outcomes

²⁹ For detailed documentation of input see Appendix X – CLC Meeting Summaries.



- April 2022: Preliminary Vision and Goals statements were presented to CLC, Task Force, and Equity Working Group for review and discussion. The Equity Working Group made a recommendation to consider elevating Equity as a Guiding Principle.
- May 2022: The CLC discussed and provided input on the language of the Vision and Goals. The
 Task Force voted to approve the proposed Equity Guiding Principle and continued discussing the
 Vision and Goals. The project team proposed elevating Sustainability as the second Guiding
 Principle.
- June 2022: The CLC and Task Force continued to discuss refinements to the Vision and Goals. The CLC voted to recommend a version of the Vision statement to the Task Force. The Task Force voted to approve the proposed Sustainability Guiding Principle.
- July 2022: The Vision statement was formally approved at the July 2022 Task Force meeting, along with the Goals of Air Quality, Mobility, Community, and Environment.
- August 2022: The Safety goal and the Opportunity Goal were formally approved at the August 2022
 Task Force meeting, with the contingency with that a new Prosperity goal with a regional focus
 would be developed with input from the CLC. The CLC discussed the proposed Prosperity goal.
- **September 2022:** The Prosperity goal was refined and formally approved at the September 2022 Task Force Meeting. The Metro Board adopted the Vision, Goals, and Guiding Principles at its September 2022 meeting as official policy.

4.3 Overview of Adopted Vision, Goals, and Guiding Principles

4.3.1 Vision

Vision Statement

An equitable, shared LB-ELA Corridor transportation system that provides safe, quality multimodal options for moving people and goods that will foster clean air (zero emission), healthy and sustainable communities, and economic empowerment for all residents, communities, and users in the corridor.³⁰

The Vision statement reflects the collective input of the public between December 2021 and March 2022, and four months of thoughtful deliberation and refinement in the Task Force, CLC, and Equity Working Group meetings between April and July 2022. The central themes of the Vision statement were consistent throughout these discussions, with consensus that the Vision should expand beyond the operation of the freeway and support a multimodal transportation system that improves the quality of life for people living and working in communities throughout the LB-ELA Corridor. The approved Vision Statement reflects the CLC's desire to include several key terms and concepts in the statement:

³⁰ The Vision Statement was adopted with reference to the "An equitable, shared I-710 South Corridor transportation system...". However, since then, the project name has been formally changed to the "Long Beach-East LA Corridor," which is reflected in this document.



- including mention of both the "community" and "residents" in the statement;
- using the term "fosters" versus the previously used "support," to make the Vision Statement more action-oriented;
- including the phrase "economic empowerment" versus "economic resilience" to lift up Corridor community members; and
- including direct reference to zero emissions to set the goal for how to achieve "clean air."

Members of the Task Force and CLC did not always agree on the use of specific words in the Vision statement, demonstrating the importance of the language used to express the Task Force's values and aspirations for the Corridor. Debate within these meetings primarily focused on whether to incorporate a direct reference to goods movement in the Vision statement. Members in favor highlighted that goods movement is a significant function of the Corridor, contributing to the regional economy and the needs of community residents and small businesses. Additionally, the project team reminded the Task Force and CLC that goods movement is included in the mission statement of Metro's enabling legislation. However, many CLC and Task Force members expressed concern over the explicit inclusion of "goods" and "users" in the Vision statement, emphasizing that planning efforts in the Corridor have historically prioritized goods movement at the expense of Corridor residents and that this focus contributed to the ongoing environmental and health burdens impacting these communities. These members argued that reference to a "multimodal" transportation system sufficiently captured goods movement among other modes of transportation and that omission of language specific to goods movement would reflect a commitment to prioritizing Corridor residents. In an unsuccessful motion to remove the language "goods" and "users," the following alternative Vision statement was raised to a vote: "An equitable, shared I-710 South Corridor transportation system that provides safe, quality multimodal options that will foster clean air (zero emissions), healthy and sustainable communities, and economic empowerment for all residents, communities in the Corridor." Ultimately, the Task Force voted to adopt the Vision statement that contained direct references to goods movement and all users of the Corridor.

4.3.2 Goals

Air Quality: Foster local and regional clean air quality

Air quality was the number one area of concern for respondents to the Vision and Goals survey, and air quality issues in the Corridor were documented extensively in prior research and existing conditions analysis for the project. The LB-ELA Corridor accounts for 20% of all particulate emissions in Southern California. The high levels of diesel pollutants affecting communities within a quarter mile of the freeway have earned the Corridor the name "diesel death zone," referring to the linkage between diesel pollution and respiratory and cardiovascular health conditions. Task Force discussion around the Air Quality goal highlighted that the Investment Plan has an opportunity to impact air quality at both local and regional scales, which is reflected in the adopted Goal statement.

³¹ South Coast Air Quality Management District

³² Nelson, Laura J. "710 Freeway is a 'diesel death zone' to neighbors," Los Angeles Times, March 1, 2018.



Community: Support thriving communities by enhancing the health and quality of life of residents.

The Task Force, CLC, and members of the public have consistently advocated for prioritizing public health issues throughout the planning process. The health and quality of life of LB-ELA Corridor communities is deeply connected to the transportation system, land uses, and quality of other public facilities and infrastructure in the Corridor. The Corridor communities' respiratory and cardiovascular health burdens from freeway emissions and other polluting land uses are compounded by long-standing health disparities and healthcare access. ³³ Limited access to safe and comfortable active transportation and outdoor recreational infrastructure, ³⁴ and exposure to heat through a lack of shade and greening ³⁵ also contribute to health burdens in the Corridor.

Environment: Enhance the natural and built environment.

The Environment Goal as an area of concern captures a range of issues related to the natural and built environment, from biodiversity, water quality, and extreme heat to noise pollution and the visual quality of infrastructure and development. The presence or lack of tree canopy and green space is a major equity issue aligned with patterns of racial and economic segregation in the Corridor, with wide-ranging impacts on the urban heat island effect, air quality, stormwater runoff, pedestrian sun exposure, and overall streetscape quality. The lack of publicly accessible green space also limits access to opportunities for outdoor recreation, which impacts community health and quality of life. Initially considered as a combined Goal of "Sustainability and Environment," the adopted Goal title was simplified to "Environment," and Sustainability was elevated to a Guiding Principle applying broadly across all Goals.

Mobility: Improve the mobility of people and goods.

A reliable and efficient system of multimodal travel options for people and goods is a top priority for Corridor stakeholders. For individuals traveling throughout the Corridor, the quality of a multimodal transportation system contributes both to the user experience and to the systemwide mode share, with individuals' decisions to use transit or active transportation over a personal vehicle having broader impacts on air quality, congestion, and street safety.³⁷ Vehicle congestion results in impacts to travel times for drivers, bus riders, and goods movement vehicles, who all rely on major freeway and arterial routes. Travel times are also an issue for pedestrians and active transportation users in the Corridor, who are often forced onto indirect routes given a lack of safe and connected infrastructure. Reliable transit service directly impacts access to resources and opportunities, particularly for the Corridor's transit-dependent residents and workers.

³³ OEHHA CalEnviroScreen 4.0

³⁴ SCAG Regional Bikeways Data,

³⁵ Tree People, LA County Tree Canopy Map, CA Healthy Places Index

³⁶ Tree People, LA County Tree Canopy Map, Los Angeles County Park Needs Assessment

³⁷ LA Metro NextGen Bus Plan, Southeast LA (SELA) Transportation Study (Giuliano et al., 2018)



Opportunity: Increase community access to quality jobs, workforce development, and economic opportunities.

Expanding access to economic opportunities is another top priority for the LB-ELA Corridor, both in terms of the quantity and quality of jobs, workforce development opportunities, and other quality-of-life needs and amenities, and the accessibility and reliability of transportation options to get to those jobs, opportunities, and amenities. High congestion levels on the freeway and significant arterials, combined with the lack of safe, accessible, timely, and reliable active transportation and transit options, all impact community members' ability to reach these destinations. The I-710 as a facility reinforces and expands the division between communities on either side of the LA River, and other freeways and rail infrastructure in the Corridor also impede connections between neighboring communities and opportunities, creating a major need to "reconnect communities" divided by this infrastructure. In response to CLC and Task Force input, an initially considered "Economy" Goal was separated into two Goals – "Opportunity" and "Prosperity" – to account for the distinction between and the need for both access to economic opportunities for Corridor residents, and regional economic growth and competitiveness. The CLC felt strongly that this goal must ensure that project outcomes first and foremost benefit the communities in the Corridor rather than focusing on the larger "region."

Prosperity: Strengthen LA County's economic competitiveness and increase access to quality jobs, workforce development, and economic opportunities for all communities, with a focus on strengthening the LB-ELA Corridor communities, which have been and continue to be harmed by economic activity and development.

The LB-ELA Corridor plays a nationally significant role in transporting goods to and from the nation's busiest seaport complex comprising the Ports of Long Beach and Los Angeles, contributing to LA County's global stature, economic strength, and workforce opportunities. However, tens of thousands of daily truck trips along the I-710 contribute to air quality, noise, congestion, and other environmental impacts on the surrounding communities.³⁸ Additionally, the past century of planning and policy decisions in the Corridor, including the development and construction of I-710 in the 1960s, have created and reinforced patterns of segregation and disinvestment, leaving many communities vulnerable to adverse impacts of regional and national commerce without the resources and opportunities to participate fully in economic development. A subset of CLC and Task Force members felt that a Goal relating to regional prosperity may reinforce an extractive condition under which LB-ELA Corridor communities have historically been exploited and subjected to environmental harm for the region's benefit. Responding to these concerns, the adopted language of the Prosperity Goal indicates that the Investment Plan has an opportunity to strengthen the LB-ELA Corridor's role in regional prosperity while recognizing past harms and intentionally prioritizing LB-ELA Corridor communities as the beneficiaries of future economic growth.

Safety: Make all modes of travel safer.

³⁸ LA Metro, LA County Goods Movement Strategic Plan, 2021



Safety for all modes of travel is a primary area of concern in the Corridor. Streets within the Corridor are generally designed for high volumes of vehicular traffic with limited or poorly maintained active transportation and pedestrian infrastructure. Additionally, the heavy presence of trucks in the Corridor contributes to a higher-than-usual prevalence of conflict points between trucks and cars, bicycles, and pedestrians. Due to the increased severity of truck-involved collisions, safety improvements to the I-710 and surrounding roadways are critical to reducing traffic injuries and fatalities for all users. Although some jurisdictions have introduced dedicated infrastructure and safer street design in recent years, a cohesive network of safe bicycle and pedestrian infrastructure is lacking throughout the Corridor. The I-710 freeway has also yet to be modernized since it was constructed 60 years ago, and existing conditions have led to safety issues that spill over into neighboring communities. Given high volumes of vehicles entering and exiting the freeway, bicycle and pedestrian safety is of particular concern surrounding freeway on/off-ramps and overcrossings.³⁹

4.3.3 Guiding Principles

During the discussion and refinement of the preliminary Goal statements, the Equity Working Group recommended elevating the concern areas of Equity and Sustainability to serve as overarching Guiding Principles rather than individual Goals, given their broader applicability to each of the other Goal areas and the overall Task Force process. This approach provides a clear commitment by the Investment Plan to speak to these vital issues, unlike the prior I-710 South Corridor project and process.

Guiding Principle: Equity

A commitment to (1) strive to rectify past harms; (2) provide fair and just access to opportunities; and (3) eliminate disparities in project processes, outcomes, and community results. The plan seeks to elevate and engrain the principle of Equity across all goals, objectives, strategies, and actions through a framework of Procedural, Distributive, Structural, and Restorative Equity, and by prioritizing an accessible and representative participation process for communities most impacted by the I-710.

Equity is at the core of the LB-ELA Corridor's renewed Vision and planning process. The Guiding Principle of Equity reflects Metro's expanding agency-wide commitment to equity, as demonstrated by the establishment of Metro's Office of Equity and Race, the adoption of the Metro Equity Platform, and the piloting of the Equity Planning and Evaluation Tool (EPET) to guide the LB-ELA Corridor Task Force process. In discussions of equity—initially considered as a Goal—the Equity Working Group determined that a standalone goal of Equity would not capture its broader application to each Goal area and the planning process.

Beyond addressing inequities in the distribution of benefits and impacts of public infrastructure and services, the LB-ELA Corridor planning process was grounded in repairing broken trust and building new trust between Metro and the communities it serves within the LB-ELA Corridor. The previous I-710 South Freeway project featured the expansion of the freeway right-of-way into adjacent

³⁹ SCAG Regional Bikeways Data, LA County Bikeways Open Data, <u>Transportation Injury Mapping System (TIMS)</u>, 2017-2019



communities to accommodate new general-purpose travel lanes to create greater capacity for growing traffic and population. This project's scope was widely perceived as a continuation of harmful 20th-century transportation planning practices, prioritizing industry over the health and livelihoods of Corridor residents. Despite emerging from an extensive public engagement and environmental review process, the board-approved Alternative 5C failed to address the needs and concerns of communities that would bear the project's adverse impacts, thus eroding trust in Metro and Caltrans among many Corridor residents and environmental stakeholders.⁴⁰

The definitions of Procedural, Distributive, Restorative, and Structural equity were introduced in the Equity Working Group to support focused discussions of equity throughout this planning process. Note that these detailed definitions are not part of Metro's official definition of Equity.⁴¹

Procedural	 Proactive and accessible community engagement bridges linguistic, technology, and ability gaps to meet communities where they are and enable participatory and representative decision-making processes. Ongoing systems of accountability and communication to build and maintain trust.
Distributive Equity	 Allocation of benefits and amenities proportionate to levels of need and historic investment and based on self-identified community priorities rather than 'one-size-fits-all' solutions. Policies and resource management to ensure benefits reach intended recipients.
Restorative Equity	 Acknowledgement of, and atonement for historic and ongoing systemic harms resulting from planning practice and policy. Commensurate actions, resources, and investments dedicated to remediation and prevention of further systemic harms.
Structural Equity	 Evolution of decision-making bodies to reflect the communities they serve. Restructuring of organizational systems and hierarchies to empower historically marginalized groups.

Guiding Principle: Sustainability

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. A commitment to sustainability to satisfy and improve basic social, health, and economic needs/conditions, both present and future, and the responsible use and stewardship of the environment, all while maintaining or improving the well-being of the environment on which life depends.

⁴⁰ East Yard Communities for Environmental Justice, I-710 Corridor

⁴¹ Metro defines equity as "both an outcome and a process to address racial, socioeconomic, and gender disparities, to ensure fair and just access with respect to where you begin and your capacity to improve from that starting point to opportunities, including jobs, housing, education, mobility options, and healthier communities. It is achieved when one's outcomes in life are not predetermined, in a statistical or experiential sense, on their racial, economic, or social identities. It requires community informed and needs based provision, implementation, and impact of services, programs, and policies that reduce and ultimately prevent disparities. Equity means that Metro's service delivery, project delivery, policymaking, and distribution of resources account for the different histories, challenges, and needs of communities across Los Angeles County; it is what we are striving toward."



Sustainability is at the core of the renewed vision and planning process for the LB-ELA Corridor. The Guiding Principle of Sustainability reflects Metro's expanding agency-wide commitment to sustainability, as demonstrated by the establishment of Metro's Sustainability Council, adoption of numerous sustainability plans and policies, and development of sustainability toolkits and regional collaboration efforts. Sustainability was initially considered as part of a combined "Sustainability and Environment" Goal, however, further discussions of Sustainability in the Task Force touched upon the overlap between Sustainability and each of the other Goals. Sustainability addresses the potential of projects to integrate benefits across goal areas to advance positive systems change and innovate to protect and enhance community and environmental well-being. Following the precedent set by the Equity Guiding Principle, the project team proposed elevating Sustainability to serve as a second Guiding Principle and introduced the proposed language to the Task Force for discussion and refinement.

4.4 Board Adoption

The Vision, Goals, and Guiding Principles were recommended to the Metro Board of Directors at the regular Board Meeting on September 22, 2022, along with the Pre-Investment Plan Opportunity and the Project Name change from the I-710 South Corridor Mobility Investment Plan to the Long Beach-East LA Corridor Mobility Investment Plan. ⁴² The Metro Board formally adopted the recommended Vision, Goals, and Guiding Principles, the Pre-Investment Plan Opportunity, and the new Project Name as policy. The Board's adoption of the LB-ELA Corridor Vision, Goals, and Guiding Principles was a significant milestone in the development of the Investment Plan, representing the first formal success of the Task Force, CLC, and Working Groups' collaborative decision-making process. The six-month decision-making process was an immense and challenging effort, informed by previous planning efforts and decades of lived experience in the Corridor, which required participants to confront differing perspectives and work through tension to reach consensus on shared aspirations for the Corridor.

⁴² https://metro.legistar.com/LegislationDetail.aspx?ID=5844793&GUID=BEDCE3EF-A791-4ACD-AA1D-DB2C13CD61BB



A Vision for a 7ero-Fmissions Corridor

From the start of the Long Beach-East LA (LB-ELA) Corridor Mobility Investment Plan development, Metro consistently heard from community stakeholders that air quality impacts on public health were a top concern for remediation. During the development of the Vision, Goals, and Guiding Principles, community members made clear their desire for zero-emission (ZE) technology to be the goal for local, state, and federal investment in the Corridor.

Metro shares the vision of transforming the LB-ELA corridor into a ZE corridor with the communities adjacent to I-710. This goal was articulated in the Vision Statement approved by the CLC and Task Force and speaks to the community's desire to invest strategically in the LB-ELA Corridor to promote ZE technology across all modes of transportation – from the freight sector to public transit.

This vision is supported by the federal and state governments, which have sent strong policy signals toward transportation decarbonization and the transition to ZE technology as a vehicle to achieve this goal. At the federal level, the Joint Office of Energy and Transportation was formed through the Bipartisan Infrastructure Law, with a series of funding programs made available through the U.S. Department of Transportation, the U.S. Department of Energy, and the U.S. Environmental Protection Agency. At the state level, the California Air Resources Board has adopted the Advanced Clean Truck (ACT) Rule, which requires manufacturers to sell ZE trucks, and the Advanced Clean Fleet (ACF) Rule, which requires a phased-in use of ZE vehicles for targeted fleets and that manufacturers only manufacture ZE trucks starting in the 2036 model year. The ACT Rule has been adopted by 11 other states across the country. In December 2023, the California Transportation Commission approved the SB671 Clean Freight Corridor Efficiency Assessment, identifying priority freight corridors across the state to accelerate the transition to ZE goods movement. The Assessment includes the LB-ELA Corridor as part of its Priority Clean Freight Corridors.

The Investment Plan supports this ZE vision through several significant investments, as follows:

- Heavy-duty freight trucks: \$50 million in seed funding will support the delivery of \$200 million in ZE infrastructure designed to support the accelerated deployment of ZE heavy-duty freight trucks in the LB-ELA Corridor. (LB-ELA_0004 / LB-ELA_0023)
- Freight locomotives: \$10 million to support a multi-partner effort to advance the development and use of ZE locomotives in the Corridor with the goal of converting the Alameda Corridor into a ZE-only locomotive facility.
- Community Program Zero-Emission Infrastructure for Automobiles: Catalyzed with \$40 million for Community Programs Catalyst Fund, this program would work with local jurisdictions, public agencies, and private-public partners to develop and site additional charging stations for ZE vehicles in the LB-ELA Corridor.
- Community Program Bus electrification projects: Catalyzed with \$40 million for Community Programs Catalyst Fund, this program would seek incentives to accelerate the deployment of ZE transit and vanpool vehicles in the LB-ELA Corridor. Projects could include bus electrification (public transit buses and school buses) and ZE charging infrastructure.



These investments complement existing policies and programs adopted by Metro intended to support decarbonizing transportation and sustainability throughout the region, including Metro's Climate Action Plan, Zero-Emission Electric Bus and Infrastructure Program, and the Electric Vehicle Parking Strategic Plan. The Investment Plan takes the ZE and sustainability approach and includes a zero-emission freight rail pilot program to evaluate the feasibility and potential of transitioning freight rail locomotives to ZE.

Transforming the LB-ELA Corridor into a ZE corridor will require unprecedented coordination with many stakeholders in many policy areas to deliver a comprehensive approach to eliminating tailpipe emissions, improving public health, and providing community benefits in the Corridor. The Investment Plan will serve as the foundation to realize the LB-ELA Corridor's vision to be transformed into a ZE Corridor in a way that reflects and advances the Vision, Goals, and Guiding Principles set forth by the Corridor's residents and stakeholders.

5 DEVELOPMENT OF MULTIMODAL STRATEGIES, PROJECTS, AND PROGRAMS

This chapter describes the technical, Task Force, Community Leadership Committee (CLC), and public engagement efforts that led to the development of the initial list of Multimodal Strategies, Projects, and Programs (MSPPs) to be evaluated for inclusion in the projects recommended for implementation in the Investment Plan. This list is based directly on input from community members, Corridor jurisdictions, partner agencies, and planning work previously conducted in the Corridor. The input of local and regional partners and jurisdictions in compiling these MSPPs has helped align the Investment Plan with local land use planning frameworks. Ultimately, a meticulous evaluation and prioritization process was conducted that was integral in identifying which Multimodal Strategies, Projects, and Programs (MSPPs) would be included in the Investment Plan, considering the alignment with the Corridor's Vision, Goals, and Guiding Principles that the Task Force and subsequently, the Metro Board, adopted. (see Chapter 6 -Evaluation and Prioritization).

This chapter presents a summary of the MSPPs by mode, project type, and subtype as adopted by the Task Force and its committees. It includes a discussion of how the list was developed based on relevant input from community involvement efforts, including community-based organizations (CBOs) and public meetings. This chapter also includes a discussion of the projects and programs included from other planning efforts that have been conducted in the Corridor and address the Vision, Goals, and Guiding Principles. The current complete list of MSPPs is included in Appendix 5-A, organized by mode, project type, and subtype for each project and program.

5.1 Development Process of Initial List of Multimodal Strategies, Projects, and Programs

Following the Board's adoption of the Task Force's recommended Vision, Goals, and Guiding Principles, the project team initiated the next phase of the work plan: Developing Multimodal Strategies and Identifying Projects and Programs. The Task Force sought as inclusive a set of MSPPs as possible, using a broad outreach and engagement approach to receive input from Corridor residents, community groups, interested stakeholders, partner agencies, and other parties. An extensive public engagement effort was conducted to contribute to the list of candidate



MSPPs, with a particular focus on engagement with impacted communities supplemented by partnerships with CBOs. Involving more than seven months of public engagement, this effort included an online survey and interactive map that provided an opportunity for residents, community leaders, and other stakeholders to give direct input into the process. Metro's outreach campaign engaged approximately 5,400 community members and stakeholders through 46 events hosted by 18 CBOs and 18 pop-up events. Additionally, the project team hosted four workshops in Spanish (with English translation) and two workshops in English (with Spanish translation). As a result, almost 3,000 responses to the survey and interactive mapping tool were submitted, generating new approaches to making improvements within the Corridor by those residents most impacted within the Corridor.

Figure 5-15. Phase 3 Overview of the LB-ELA Investment Plan



Initial List of Projects & Prograi

In addition to receiving input from the community and public, the project team also reviewed a wide range of current and prior

programs and initiatives from local, subregional, and regional agencies related to the Long Beach-East Los Angeles (LB-ELA) Corridor. The project team included select elements of the original Interstate 710 (I-710) South Corridor project, including envisioned "I-710 early action projects," defined by the Metro Board in Motions 5.1 and 5.2. The project team screened these candidate early action projects to exclude project concepts that would intrinsically result in displacements of residences or businesses in local communities or could not be feasibly redesigned to avoid significant displacement. A set of recommendations created by the Gateway Cities Council of Governments' (GCCOG's) I-710 Ad Hoc Committee and the "Community Alternative 7" proposed by community activists in 2014 before the I-710 South Corridor Project were also included (Appendix 5-B). The project team also included planned projects from Corridor cities and LA County, the Ports, Caltrans, Metro's Measure R/M expenditure plans, the Metro Long-Range Transportation Plan, the Metro 2028 Mobility Concept Plan, the Metro Active Transportation Strategic Plan, and the Southern California Association of Governments' Regional Transportation Plan/Sustainable Communities Strategy. Projects and programs from these sources that met the Task Force Vision, Goals, and Guiding Principles and other Metro policies, such as the Metro Multimodal Highway Investment Objectives⁴³ were included in developing the initial MSPP list. In addition, projects and programs from partner agencies such as the San Pedro Bay Ports, Long Beach Transit (LBT), California Air Quality Resources Board (CARB), South Coast Air Quality Management District (SCAQMD), and California Transportation Committee (CTC), to name a

⁴³ METRO OBJECTIVES FOR MULTIMODAL HIGHWAY INVESTMENT approved by the Metro **Board on 6/23/22**



few, were also considered in developing the MSPP list.

Overall, the MSPP was informed by:

- previous studies and initiatives;
- social pinpoint interactive map and public surveys;
- public workshop meetings/CBO engagement; and
- working group, CLC, and LB-ELA Corridor Task Force meetings.

At first, more than three hundred strategies, projects, and programs were identified through all these various efforts; however, over the 18 months it has taken to develop the Investment Plan, this list has evolved due to changes in project development status or scope and advancements in project implementation, including the fact that some projects have been funded for implementation or have initiated construction during that timeframe.

Similar MSPPs are grouped into modal categories for two purposes in the Investment Plan: general organization and supporting their readiness for the evaluation phase. However, the project team recognized that most projects or programs will advance multiple goals and that the full set of MSPPs work together from a multimodal transportation system perspective.

The MSPPs were sorted into the following six categories, listed in alphabetical order:

- Active Transportation/Traffic Demand Management
- Arterial Roadways/Complete Streets
- Community Programs⁴⁴

- Freeway Safety and Interchange Improvements
- Goods Movement
- Transit

Figure 5-1Figure 5- displays an example of how an initial list of the MSPPs aligned with modal categories and the Goals and Guiding Principles of the Investment Plan.

The Multimodal Groupings of Strategies, Projects, and Programs represent the transportation modes and community programs and align well with the Task Force's adopted Vision, Goals, and Guiding Principles. Each category comprises four sub-categories that help classify and group the broad range of projects and programs that compose the Initial List of MSPPs into similar projects that can be evaluated in the next phase of the plan's development. The project team also presented information on the Initial List of MSPPs to the CLC at seven meetings and the Equity Working Group at five meetings between August 2022 and February 2023. Input received from these groups was used to refine the Initial List and provide feedback to the Task Force for consideration at its meetings reviewing the MSPPs. Some key questions and concerns centered on ensuring impacts on local communities, particularly safety and air quality, were drawn from the assessment process.

5.1.1 Pre-Investment Plan Opportunity (PIPO)

Recognizing the unprecedented amount of discretionary grant funding made available at the State (through programs administered by California's Transportation Commission and State Transportation

⁴⁴ All Community Programs are all in the "Initial Investment" category as described in chapter 8 Recommendations.



Agency) and Federal levels (through existing, augmented, and new programs funded through the Infrastructure Investment and Jobs Act/Bipartisan Infrastructure Law) in 2022, the Board directed staff via Motion 9 to return with a "minimum of three initiatives that will apply for available State and Federal funding opportunities in Calendar Year 2022," in advance of the 710 Task Force Investment Plan being finalized in 2023.

To fulfill this directive, Task Force membership, the CLC, cities, local agencies, and organizations to provided nominations for projects it had or could submit for State or Federal grant funding in 2022 - with the understanding that these projects must be located within the LB-ELA study area and would not draw down on the remaining Measures R and M funding for the I-710 South Corridor Project to be leveraged by the Task Force's Investment Plan. 45 This outreach generated 22 project nominations and Metro identified an additional 13 projects. After analyzing the projects, understanding the concerns raised and input provided by the CLC, EWG, Task Force and other stakeholders, and identifying projects for which a grant application had not yet been submitted, Metro identified a full PIPO for Board review and a set of early initiative projects (Table 5-1) for Board consideration.

These projects comprise pedestrian and bicycle safety, active transportation, transit enhancement, goods movement, corridor mobility, intelligent transportation system,

and Zero-Emission technology project components. Collectively these projects represent an approach to investment in the LB-ELA Corridor that advances Metro's Multimodal Highway Investment Objectives policy and aligns with the Goals recommended by the Task Force. All four PIPO projects were awarded grants from state and federal programs prior to the adoption of the Investment Plan, signaling the strength of these projects, which represent various modes of transportation, in leveraging significant funding as envisioned by the Investment Plan.

Table 5-1: PIPO Early Initiative Candidate Projects⁴⁶

Project	Funding Program(s)	Appl Deac
Humphreys Avenue Bike/Pedestrian Crossing over I- 710 in East LA	LPP-C Other Federal	Nove 2022
Huntington Park Safe Routes for Students and Seniors	State ATP	June
I-710 Integrated Corridor Management Project	State TCEP	Nove 2022
Southeast LA Transit Improvement Program	State LPP-C	Nove 2022

LPP-C = Local Partnership Program - Competitive TCEP = Trade Corridor Enhancement Program

Other Federal = USDOT's Reconnecting Communities Pilot Program, Rebuilding American Infrastructure with Sustainability and Equity, and Neighborhood Access and Equity Grant Program

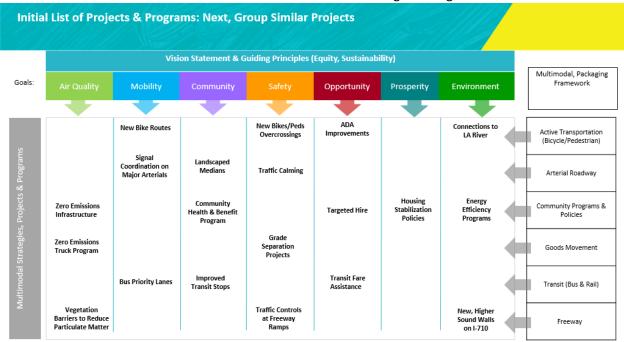
⁴⁵ The latter criterion assuaged concerns raised by Task Force members that the local funding available as the foundation for the Investment Plan (approximately \$743 million) could be siphoned away in support of projects neither vetted nor recommended by the Task Force.

⁴⁶ ATP = Active Transportation Program



Figure 5-2. Example Formation of Multimodal Groupings of Strategies, Projects, and Programs

Concepts. Collaborative efforts across municipalities and jurisdictions are essential to addressing challenges such as traffic



The Task Force concluded the Developing Multimodal Strategies and Identifying Projects and Programs phase of the work plan at its February 2023 meeting and supported moving the Initial List of MSPPs into the Evaluating and Refining Projects and Programs Phase (Figure 5-2 provides an example).

5.1.2 Previous Studies and Initiatives

Previous studies and initiatives relevant to the scope of Investment Plan that were referenced include the Metro Long Range Transportation Plan, SCAG's Regional Transportation Plan/ Sustainable Communities Strategy, the Metro 2028 Mobility Concept Plan, Metro's Active Transportation Strategic Plan, City Bicycle Master Plan(s), GCCOG I-710 Ad Hoc Committee recommendations, CEHAJ proposed Community Alternative 7, Caltrans State Highway Operations and Protection Program, and Metro Board Motions 5.1/5.2 I-710 Early Action

congestion, environmental sustainability, and equitable transportation access, and developing effective and sustainable solutions that meet the diverse needs of the entire region. The wealth of insights, data, and lessons learned from these past efforts can be leveraged to improve the future development of the LB-ELA Corridor.

5.1.3 Public and Community Input to the MSPP

As briefly described above, Metro's LB-ELA Corridor Mapping Tool and Survey served as another channel for collecting input on potential MSPPs. This interactive mapping tool allowed respondents to express concerns and provide Metro staff and the LB-ELA Corridor Task Force with geographic-specific recommendations regarding the mobility requirements of communities along the Corridor.



Metro understands that many needs for Equity-Focus Communities may not have been captured adequately due to their historical lack of technical assistance, resources, and outreach that could have prepared projects for development and readiness as near-term investments. Consequently, Metro has identified equity planning gaps to overcome and to ensure the needs of all communities are fully understood and addressed throughout the life of the Investment Plan through Modal Programs (See Chapter 8 Recommendations). Metro undertook an extensive community outreach and consultation effort to "ground truth" the proposed strategies, projects, and programs included in the MSPP.

Responses from stakeholders to surveys, that were in digital and paper formats, were another layer of input leveraged to select the MSPPs that enhance future mobility for individuals and the efficient movement of goods by identifying mobility improvements. The survey sought input from respondents regarding their experiences and their community's needs. Specifically, it inquired about the projects, programs, and strategies respondents would most like to see implemented in their local community and the Corridor.

5.1.4 Initial and Revised Multimodal Strategies, Projects, and Programs Lists

The Initial MSPP List includes more than 200 projects and programs organized into six "Improvement Categories." Outreach yielded the full MSPP list. Each MSPP aligns with multiple elements of the Investment Plan's Vision, Goals, and Guiding Principles that aim to create an equitable and sustainable future for the Corridor. The improvement categories have been thoughtfully crafted to encompass a wide range of transportation modes, exemplifying Metro's dedication to offering diverse and inclusive transportation choices that align with each of the seven overarching Goals. These subcategories are described in greater detail later in the following sections. The improvement categories (in alphabetical order) are as follows:

- Active Transportation
- Arterial Roadways/Complete Streets
- Community Programs
- Freeway Safety and Interchange Improvements
- Goods Movement
- Transit (Bus or Rail)

5.1.5 Active Transportation

Active Transportation improvements include infrastructure enhancements that promote a variety of walking and cycling needs. These improvements aim to foster safer, more accessible, and more appealing environments for pedestrians and cyclists, ultimately inducing a larger number of individuals to opt for active transportation options instead of relying on motorized ones. The sub-categories for active transportation improvements are:

- pedestrian and first/last-mile improvements;
- bicycle routes and facilities;
- safety and amenities; and
- travel demand management

Table 5- showcases specific project types by sub-category for active transportation improvements.



Table 5-2. Active Transportation Project Types by Sub-Category

Sub Category	Project Types
	New pedestrian/bicycle overcrossings
	New pedestrian/bicycle pathways
Pedestrian and first/last-mile improvements	New pedestrian/bicycle connections to rail, transit, LA River
	New crosswalks, sidewalks
	New bicycle paths/trails
Discussion and facilities	New buffer/barrier-protected bicycle routes
Bicycle routes and facilities	New bicycle lanes
	New, signed bicycle routes
	High-visibility crosswalks
	Wider sidewalks
	Pedestrian/bicycle crossing enhancements
	Bicycle parking, lighting, repair stations
Safety and amenities	Bicycle share programs
106,	Traffic controls for pedestrians/bicycles
	Americans with Disabilities Act (ADA) improvements
, <i>XO</i> .	Shade structures, trees, landscaping
	Security and lighting
	Vanpools/carpool programs
Travel demand management	Telecommuting programs
	Promotional campaigns to encourage alternative modes of travel

Notes:

Source: LB-ELA Corridor Task Force Meeting #16, January 2023.

5.1.6 Arterial Roadways/Complete Streets

Arterial Roadways/Complete Streets improvements encompass enhancements and updates made to major roads, referred to as arterial roads, to improve their traffic flow, safety, efficiency, and overall



effectiveness. These arterial roads serve as vital transportation arteries, managing substantial traffic volumes and connecting diverse neighborhoods within a city or linking cities together. These enhancements aim to increase transportation efficiency, alleviate traffic congestion, enhance safety for all road users, and foster improved connectivity among the LB-EA Corridor communities.

The sub-categories for arterial roadways/complete streets improvements are:

- complete streets;
- · traffic calming;
- general local/regional roadway; and
- signal coordination/transportation systems management (TSM)/intelligent transportation systems (ITS).

Table 5- showcases specific project types by sub-category for arterial roadways/complete streets improvements.

Table 5-3. Arterial Roadways/Complete Streets Project Types by Sub-Category

Sub Category	Project Types
	New green spaces, trees, bioswales
	Bicycle and pedestrian improvements
	Public art
	Signage
Complete streets	Transit stop amenities (furniture, shelters)
	Operational/safety improvements
	ADA upgrades
	LED street lighting
	Stormwater retention
-01,	Speed reductions
	Speed bumps
Traffic calcains	Truck restrictions in neighborhoods
Traffic calming	Roundabouts
	Road diets
	Stop signs, traffic signals



Sub Category	Project Types
	Speed enforcement cameras
	Flashing crosswalks
	School zone warning devices
	Stormwater treatment
	Upgrade traffic signals, crosswalks, sidewalks, driveways, curb ramps, etc.
	New/improved bridges
	ADA upgrades
General local/regional roadway	Intersection improvements
	Pedestrian circulation and safety
	Streetscape improvements
	Bicycle and pedestrian improvements
	Roadway widening/realignment
	Traffic/pedestrian signal upgrades
	Video camera installation
	Equipment upgrades
Signal coordination/ Transportation Systems Management (TSM)/ Intelligent Transportation Systems (ITS)	Emergency vehicle priority
	Signage
	Signal synchronization
	Advanced technologies to manage traffic and to inform the traveling public

Source: LB-ELA Corridor Task Force Meeting #16, January 2023.

5.1.7 Community Programs

Community Programs are improvements that involve enhancing existing programs or creating new ones that directly benefit the local communities more comprehensively than typical transportation investment. These enhancements address specific needs, issues, or interests within the community and foster inclusivity and participation. Several of these programs are not eligible to use Metro funding for implementation; however, because they are very important to the communities within the Corridor and support the Investment Plan's Vision, Goals, and Guiding Principles, the project team recommends



Metro commits to identifying and partnering with other agencies and entities that are responsible for those issues—for example, the LA County Department of Health—to help develop, support, fund, and lead these programs. The sub-categories for community program improvements are:

- job creation/work opportunities;
- · health/air quality/environment; and
- housing stabilization/land use

Table 5-41 showcases specific project types by sub-category for community program improvements.

Table 5-41. Community Programs Project Types by Sub-Category

Sub Category	Project Types
	Targeted local hire
	Employment recruitment initiatives
	Vocational educational programs
Job creation/work opportunities	Economic stabilization policies
	Workforce education and development
	Partnerships with employers
	Partnerships with academic institutions
. 0	GHG emissions reduction
	Renewable energy/solar power project
"U b	Urban greening, tree canopy, green space
	Greenbelts, drought-tolerant planting parklets
	Habitat restoration and connectivity
Health/Air Quality/Environment	Public art/aesthetics
nealth/Air Quality/Environment	Zero-emission infrastructure for automobiles
	Bus electrification
	Community health benefit program
	Air filters for schools and community facilities
	Environmental building improvements
	Health education/outreach



	Community health screening
	Vegetation barriers/buffer landscaping
	Housing/rent stabilization policies
	Anti-displacement programs
	Rental assistance programs
	Inclusionary housing
Housing stabilization /land use	Transit-oriented communities
Housing stabilization/land use	Homeless programs
	Partnership with community organizations
	Density bonus programs
	Community land trusts
	Grant writing assistance

Source: LB-ELA Corridor Task Force Meeting 16, January 2023.

5.1.8 Freeway Safety and Interchange Improvements

Freeway Safety and Interchange Improvements involve redesigning and modernizing select interchanges and auxiliary lanes on I-710 to improve freeway mainline traffic safety and operations, reduce freeway congestion, and therefore reduce traffic diversion through the arterial interchanges onto the arterials and adjacent community streets. These improvements will help reconnect communities separated by I-710 by reducing transit delays and enhancing the safety of bicyclists and pedestrians crossing the I-710 and, at some locations, the LA River arterial crossing. Freeway Safety and Interchange Improvements projects included in the plan must show alignment with the project's Vision, Goals, and Guiding Principles for the Corridor and other related policies, such as Metro's Multimodal Highway Investment Objectives policy. That is why the interchange improvement projects are being renamed as MOSAICI-710 MOSAIC: Multimodal, Operational, Safety and Access Improvements for the Community.

The sub-categories for freeway safety and interchange improvements are congestion pricing, freeway improvements, freeway amenities/ITS, and zero-emission lanes on the I-710. These are described in **Table 5-**.

⁴⁷ Arterial Roadways/Complete Streets funding can also be used for reconnecting communities.



Table 5-5. Freeway Safety and Interchange Improvements Project Types by Sub-Category

Sub Category	Project Types
Congestion pricing	Congestion Pricing concepts to charge single-occupant vehicles; carpools, buses, zero-emission trucks, and zero-emission automobiles would travel free
	Interchange improvements
	Ramp safety and redesign
	Auxiliary and operational lanes
Freeway improvements	Traffic controls to protect bicycles/ pedestrians at freeway ramps
	Truck bypass lanes
	Freeway lids, caps, and widened bridge decks to provide "greenbelt" connections over I-710/LA River
	Particulate matter reduction pilot project
Freeway amenities/ITS	Freeway repair and safety projects
	Soundwalls
	Drought-tolerant landscaping
Zero-emission lanes on I-710	Zero-emission truck travel zone restrictions
	Zero-emission truck lanes

Source: LB-ELA Corridor Task Force Meeting 16, January 2023.

5.1.9 Goods Movement

Goods Movement improvements encompass the implementation of various enhancements to policies, transportation infrastructure, and logistics practices, with the goal of optimizing the efficient movement of goods and freight within and through the Corridor, and supporting economic benefits.

The zero-emission rail and truck programs, and related zero-emission infrastructure are specifically intended to reduce harmful emissions and health impacts to Corridor communities—and improving quality of life.

The sub-categories for Goods Movement improvements are:

- freight rail/goods movement travel demand management;
- ports; and



truck programs/intelligent transportation systems.

Table 5- showcases specific project types by sub-category for goods movement improvements.

Table 5-6. Goods Movement Project Types by Sub-Category

Sub Category	Project Types
	On-dock rail expansion
Freight rail/goods movement travel demand	New inland port, greater use of freight rail
management	Port railyard expansion and modernization
	Freight rail grade separations
	Zero-emission freight rail pilot
	Interchange improvements
	Grade separations
Ports	Roadway realignments, safety, and landscape improvements
	Wharf expansions and vessel emission reductions
	Cargo operational efficiencies
	Zero-emission truck programs
, ', '	Zero-emission infrastructure
Truck programs/intelligent transportation systems	Empty container management
1/8/	Use of advanced technologies to optimize sequencing of container delivery and pick-ups to reduce congestion near railyards and ports

Source: LB-ELA Corridor Task Force Meeting 16, January 2023.

5.1.10 Transit

Transit (Bus or Rail) improvements encompass the implementation of various service and infrastructure projects and in the public transportation systems in a region or city. The objectives of these enhancements are to improve service quality, expand accessibility, and boost overall mobility for commuters and other travelers. By making public transit more attractive, convenient, and rapid, these improvements are intended to improve travel for existing transit users and promote a shift toward public transportation as a viable and sustainable alternative to using private vehicles.

The sub-categories for Transit improvements are:

- high-capacity transit (rail/bus rapid transit [BRT]);
- transit amenities;
- bus transit; and



• rail line/station improvements,

Table 5- showcases specific project types by sub-category for transit improvements.

Table 5-7. Transit Project Types by Sub-Category

Sub Category	Project Types
	New light-rail stations/lines
High-capacity transit (rail/BRT)	Rail line extensions
	BRT projects
	Bus shelters and lighting
	Transit security features
	Web app for transit times
	Transit discounts/free passes
	Transit education program
Transit amenities	Customer experience program
	Real time displays
	Transit cleaning and maintenance
	Station furniture and shade
	ADA improvements
	Traffic control for pedestrians and bicycles
	Express service
. × O	Shuttles
	Electric bus charging
Bus transit	On-demand bus (micro-transit)
Bus transit	Improve bus speeds
	Increased bus frequencies
	Bus priority lanes
	Bus electrification projects
	Station improvements
Rail line/station improvements	Signal prioritization for trains
Mail line/ station improvements	Station maintenance
	Pedestrian safety improvements at stations



Sub Category	Project Types
	Improved bicycle-pedestrian connections
	Train reliability improvements
	Grade separations for trains

Source: LB-ELA Corridor Task Force Meeting 16, January 2023.

5.2 Other/Additional Projects for Consideration

This MSPP is defined at the time of this document's release, which can be viewed as a "living" Investment Plan. These have either been 1) projects included in prior lists based on prior policy guidance or funding available for their development, 2) projects directly suggested by the community, 3) concepts that need to be developed to be assessed for future implementation. Going forward, the Investment Plan will use the Modal Programs to refine and complement the MSPP to continue implementing the Corridor's Vision, Goals, and Guiding Principles.

After integrating feedback from the LB-ELA Corridor Task Force, the CLC, and working groups in early 2023, the Revised Initial MSPP was created with newly added projects, programs, features, and improvements. Revisions to project and program descriptions were also developed based on the feedback received. Meanwhile, the corresponding agencies and project sponsors clarified how the Revised Initial MSPPs were developed.

 $^{^{\}rm 48}$ I-710 South Corridor Task Force Meeting 17, February 2023.



6 EVALUATION AND PRIORITIZATION

This chapter describes the Long Beach – East Los Angeles (LB-ELA) Task Force and Community Leadership Committee's (CLC) evaluation and prioritization process to review more than 200 LB-ELA Corridor Multimodal Strategies, Projects, and Programs (MSPPs). It describes each step of evaluation and prioritization, including:

- the evaluation process, criteria, and results;
- the tiering process and initial results within each mode;
- the role and use of equity flags and community input consideration (CIC) flags; and
- how the evaluation results and additional prioritization criteria are used for the investment recommendations.

The MSPPs (see Chapter 5) for the LB-ELA Corridor Mobility Investment Plan (Investment Plan) yielded more projects and programs than the Investment Plan could fund through the use and leveraging of available Measure R and M funds. To develop investment recommendations, the Goals and Guiding Principles were translated into specific metrics. Each project was ranked against these metrics on a scale of 0 to 3 or "not applicable" (N/A). Metric scores were summarized, including consideration of N/A scorings, which resulted in the first stage of project ranking. Projects received individual metric rankings as whole numbers (0, 1, 2, 3, or N/A) while goals category averages had decimal points when these numbers are averaged together. The evaluation process resulted in the ranking of projects within each travel mode: Active Transportation, Arterial Roadways/Complete Streets, Freeway Safety and Interchange Improvements, Goods Movement, Transit, and Community Programs. The ranked project scores were combined with a project readiness assessment in the Tiering analysis and an implementation assessment. Community programs went through the same evaluation as other projects, but the project team determined after evaluation that all the community programs should be prioritized on a separate track (i.e., they wouldn't be ranked and tiered) given the importance of advancing equity in the corridor. The evaluation process was followed by a prioritization process that assessed the potential leveraging of Measure R and M investment with regional, state, and federal funding and the impediments to implementation. The outcome of these processes was the identification of:

- MSPPs well-suited to receive Measure R and M funding through inclusion in the Initial Investment Recommendations in the Investment Plan due to their higher level of alignment with the Vision, Goals and Guiding Principles and more advanced project readiness;
- MSPPs that needed planning or development—to be better defined and/or aligned with the Vision, Goals, and Guiding Principles—through the Modal Programs that complement the Investment Plan implementation to then be considered for funding in future years.



6.1 Process

6.1.1 Evaluation

The LB-ELA Corridor Vision, Goals and Guiding Principles, as outlined in Chapter 4, provided the foundation for the evaluation process, resulting in 82 metrics⁴⁹—in Benefit (66) and Concern (16) form—by which each project or program was assessed to determine its potential benefits. Projects were also assessed to identify whether there were additional considerations or potential Concerns tied to a project but not yet identified in the 82 metrics. Summary findings for each MSPP were presented to the Task Force, CLC, and Corridor communities to better understand how well each project and program meets and advances the LB-ELA Corridor Vision, Goals and Guiding Principles. This process resulted in the draft evaluation scoring results and project rankings by mode, which were used to organize projects and programs into two tiers.

As outlined in Chapter 2, the Task Force, CLC, Equity Working Group, and other stakeholders and community members provided input to the project team at each step of the evaluation phase from March 2023 to December 2023. Similarly, the list of MSPPs was compiled through existing plans, programs, and community inputs. This list included a wide range of concepts at all development stages, from merely a concept to being "shovel-ready," as outlined in Chapter 5. More than 200 MSPPs were identified for evaluation, ranging from concepts to actual projects ready for implementation. This disparity in project readiness reflected equity gaps for lower-resource communities in the LB-ELA Corridor and resulted in inconsistent information for each project or program under review. Considering this challenge, the project team used all available information for each project and program to determine scores for each metric in this evaluation process.

Scoring methodology rubrics were developed for each of the 66 Benefit and 16 Concern metrics to define how they would be applied to assess the potential performance of each MSPP in addressing that metric. The project team assigned experienced technical project team members to develop each rubric based on their area of expertise and knowledge of evaluation methods and tools. Quantitative and qualitative evaluation metrics were applied, depending on the criterion's nature and the data available to assess each of the 82 metrics. Specifically, quantitative assessments were based on data available from the Southern California Association of Governments Travel Demand Forecasting Model, which was tailored to the LB-ELA Corridor, Air-Quality Modeling, and Geographic Information Systems analyses. Qualitative assessments were based on professional expertise from experience with similar projects, literature on expected benefits and potential adverse impacts related to project types, and stated features of the project or program based on the information available from project sponsors.

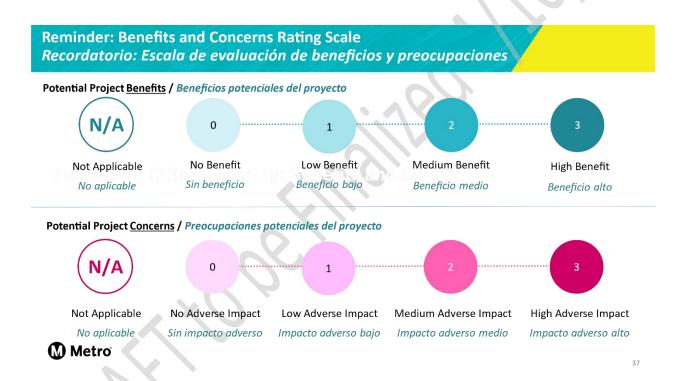
Each evaluation rubric included assumptions, data sources, and any additional literature or information used. It established thresholds for projects and programs to receive a score, as listed below and illustrated in **Figure** 6-1:

⁴⁹ The draft metric list included 73 metrics. Through the development of the plan, nine additional concern criteria were added to the evaluation process for a total of 82 metrics.



- 0 (No Benefit or No Adverse Impact),
- 1 (Low Benefit or Low Adverse Impact),
- 2 (Medium Benefit or Medium Adverse Impact),
- 3 (High Benefit or High Adverse Impact), or
- Not Applicable (N/A) typically where a project or program could not realistically be planned or
 designed to provide the benefit associated with a given criterion or any impact on it. Likewise,
 projects or programs that do not have any impact on the specific Concern metric.

Figure 6-1. Project Benefit and Concern Rating Scale



The detailed rubrics for each Benefit and Concern criterion are shown in Appendix 6-A, which documents the evaluation methodology, with individual scoring rubrics for each evaluation criterion. The results of the evaluation process, including individual and summary Benefits and Concern scoring for each project, are shown in Appendix 6-B. The following section provides a more detailed explanation of each evaluation category.

6.1.1.1 Air Quality

Three Benefit metrics were used to measure project effectiveness to improve air quality in the Corridor, as shown in



Table 6-1.

Table 6-1. Air Quality (AQ) Benefit Metrics

Metric Number	Metric Name	Description
AQ1	Reduces Emissions (Oxides of Nitrogen [NOxNOx], Fine Particulate Matter [PM _{2.5}])	Reduces NOx and PM2.5 emissions from on- road vehicles or offroad mobile equipment
AQ2	Facilitates Clean Technologies and Lower Emissions Vehicles	Facilitates the deployment of ZE vehicles/ equipment; examples include but are not limited to funding clean vehicle/equipment technology purchase and ZE fueling infrastructure
AQ3	Mode Shift to Cleaner Modes	Increases the share of trips made by transit, walking, and bicycling

Notes:

NOx = oxides of nitrogen

 $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter

ZE = zero-emission

6.1.1.2 Community Health

Five Benefit metrics were used to measure project effectiveness to improve community health in the Corridor, as shown in **Table 6-2**.

Table 6-2. Community Health (CH) Benefit Metrics

Metric Number	Metric Name	Description
CH1:	Reduces Emissions (Health Effects Metrics: DPM, PM _{2.5})	Reduces DPM and PM2.5 emissions from on- road vehicles, which in turn can generate health benefits
CH2	Reduces Exposure at Receptors (HVAC/HEPA, Near-Roadway Vegetation)	Reduces exposure at sensitive receptors (e.g., schools and day care centers, hospitals and healthcare clinics, senior centers, and residences) by installing filtration systems at these receptors and/or installing near-roadway vegetation between major roadways and these receptors
СНЗ	Mode Shift to Active Transportation, Transit	Increases the share of trips made by transit, walking, and bicycling
CH4	Improves the User Experience (May Be Different Metrics for Different Modes)	Provides intuitive roadway network for all users; gap closures; exclusive pathways for active transportation; wayfinding; access to information regarding directions or transportation options; and technological solutions that make travel information,



Metric Number	Metric Name	
		including directions and modal options, more available to the user
CH5	Bicycle/Pedestrian Access to Parks, Recreational Areas, or Open Spaces	Provides new or upgraded bicycle/pedestrian facilities that connect with parks, recreational areas, or open spaces; for the purposes of this analysis, this is defined as within ¼ mile of a recreational space

Notes:

DPM = diesel particulate matter

HEPA = high-efficiency particulate air

HVAC = heating, ventilation, and air conditioning

 $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter

6.1.1.3 Mobility

Seven Benefit metrics were used to measure project effectiveness to improve mobility in the Corridor, as shown in **Table 6-3**.

Table 6-3. Mobility (MB) Benefit Metrics

Metric Number	Metric Name	Description
MB1	Ridership	Increases transit ridership by shifting trips to transit from other modes
MB2	Speeds/Travel Times (People, Goods)	Increases roadway speeds (or reduces travel times) for people and goods
MB3	Reduces Congestion (Hours of Delay for People and Goods)	Reduces hours of delay for people and goods
MB4	Modal Accessibility (by Zone)	Improves access to new transportation facilities for residents; quantifies the population benefiting from the improvement based on a ¼ mile distance from the new transportation facility
MB5	Reliability (Transit, Roadway, Goods Movement)	Improves transportation travel time reliability, providing consistent range of predictable travel times across all modes; reliability is improved by optimizing existing transportation systems and expanding travel capacity and reducing travel delay; examples of things that improve reliability include improving safety (reducing crashes/ unexpected delay), signal timing, transit signal priority, dedicated transit lanes, separate facilities for active modes, transportation



Metric Number	Metric Name	Description
		demand management, and dynamic road user charges
MB6	Gap Closures	Addresses a gap in the transportation network, or removes a transportation barrier, by providing a new service or new transportation facility
МВ7	Increases Travel Options	Makes a range of (sustainable, non-SOV) transportation options more realistic for likely user trips

Note:

SOV = single-occupancy vehicle

6.1.1.4 Safety

Seven Benefit metrics were used to measure project effectiveness to improve safety in the Corridor, as shown in **Table 6-4**.

Table 6-4. Safety (SF) Benefit Metrics

Metric Number	Metric Name	Description
SF1	Protections for Bicycles/Users (Bike Class)	Provides exclusive and separated pathways for bicycles
SF2	Traffic Protections (Bicycle/Pedestrian)	Provides new or upgraded separation between bicycles/pedestrians and automobile traffic
SF3	Personal Security	Provides features and/or services to protect individual users from crime and personal harm
SF4	Includes Safety Features	Provides safety from automobile collisions, primarily for other modes using the roadway; includes roadway safety for truck use, but not Metro rail safety unless it is interacting with roadway users in the project
SF5	Reduces Conflict Points (Vehicle Safety)	Reduces the number and severity of conflict points between vehicles traveling on highways and roadways to improve vehicle safety; this metric focuses on vehicle versus vehicle safety and does not address any interactions of vehicles with active transportation modes such as bicycles or pedestrians
SF6	Traffic-Calming Features	Has the effect of slowing down automobile traffic
SF7	Preserves /Rehabilitates Existing Infrastructure	Contains elements specifically targeting state of good repair or makes tangible



Metric Number	Metric Name	Description
		improvements to existing transportation infrastructure

6.1.1.5 Environment

Eight Benefit metrics were used to measure project effectiveness to improve the environment in the Corridor, as shown in **Table 6-5**.

Table 6-5. Environment (EN) Benefit Metrics

Metric Number and Name	Metric Number and Name	Description
EN1	Improves Environment from Mode Shifts	Considers the impact of the mode shift resulting from the project on the surrounding community and environment; takes into consideration the likelihood of mode shift from the project and the benefit of that mode shift on others in the community ⁵⁰
EN2	GHG Reduction Potential	Reduces tailpipe GHG emissions from on-road and off-road vehicles
EN3	Protects Natural Habitat (Greening Features)	Supports improved health outcomes associated with clean air and water by protecting or enhancing natural habitats through green infrastructure investments, primarily through the provision of trees, parks, and vegetation
EN4	Water Quality, Drainage, and Flood Management Features	Improves water quality and/or drainage and flood management
EN5	Reduces Energy Use	Measurably reduces overall energy use in the Corridor (BTUs per passenger-mile and/or BTUs per ton-mile)
EN6	Reduces Heat Island Effect; Provide Cooling Features for Users	Reduces heat island effect by deploying cooling features like planting urban shade trees, installing reflective roofs, and using light-colored or high-albedo pavements and surfaces
EN7	Potential for Noise Reduction	Reduces transportation noise pollution or includes noise reduction features, such as sound barriers or low-noise technologies
EN8	Supports Transportation-Efficient Land Use Principles	Benefits, and benefits from, surrounding land uses that foster connectivity with public transit, multimodal trips, and high-density and mixeduse land development

⁵⁰ The opposite of this metric is induced demand for automobile trips which are measured in Con9: Potential for VMT Increases.



Notes:

BTU = British thermal unit GHG = Greenhouse gas

6.1.1.6 Opportunity and Prosperity

Seven Benefit metrics were used to measure project effectiveness for the combined Goal of improved opportunity and prosperity in the Corridor, as shown in **Table 6-6**.

Table 6-6. Opportunity and Prosperity (OP) Benefit Metrics

Metric Number	Metric Name	Description
OP1	Access to Jobs	Average number of jobs accessible within a 30-minute time-period by transit or a 45-minute time-period by automobile
OP2	Accessibility (Improving Mobility Challenges for All Ages and Abilities)	Provides new or improved transportation options, or removes barriers, for users of all abilities, including serving people with disabilities, very young and very old travelers; projects include ADA accessibility, protected active transportation facilities, and other programs that make the transportation network more available to its most vulnerable users
ОР3	Increases Regional Competitiveness	Increase the region's competitive economic advantage compared to other locations in the U.S.; generates jobs throughout the five-county Greater LA region and stimulates regional economic activity
OP4	Work Force Development	Project/program includes a workforce development component
OP5	Potential Targeted Hire, New Construction Jobs	The responsible agency/city has a targeted hiring policy, and scale of construction/infrastructure project
OP6	Access to Quality-of-Life Amenities (Grocery Stores, Healthcare Services, Schools)	Provides new transportation facilities near quality-of-life amenities; quantifies the number of quality-of-life amenities within ¼ mile of new transportation facility
OP7	Access to Open Space, Recreation and Parks, LA River, etc.	Provides new transportation facilities near parks and open spaces; quantifies the acreage of parks within ¼ mile of new transportation facility

Note:

ADA = Americans with Disabilities Act



6.1.1.7 Equity

Equity criteria were designed to evaluate whether projects were likely to provide benefits related to existing LB-ELA Corridor disparities and, if so, whether those benefits would be directed to geographies and populations of highest need. Most equity metrics were adapted from other goal-related evaluation criteria ("base criteria") to reinforce that the Guiding Principle of Equity applies holistically across all Goal areas. This process involved the application of an overlay evaluation to the corresponding rubric for the base criterion. In most cases, the overlay was Metro's Equity Focus Communities (EFCs) (see call out box). In this "EFC-Lens" approach, the equity criterion score was calculated as the base criterion score, with points added or subtracted based on the share of the project area within EFCs. Other data overlays used to evaluate equity criteria included High Asthma and Cardiovascular Disease Rates (CalEnviroScreen 4.0); Priority Areas for Increasing Access to Regional Recreation (LA County

Metro Equity Platform Pillar 1: Define and Measure:

Metro created a community designation called Equity Focus Communities (EFCs) to help us identify where transportation needs are greatest. EFCs consider where there are higher concentrations of resident and household demographics associated with mobility barriers (low-income households earning less than \$60,000 per year; Black, Indigenous, or People of Color (BIPOC) populations; and households that do not have a car). Although the EFC category designation identifies the highest equity need communities at a macro level, Metro will work to measure and understand community conditions and priorities at the service, program and project level throughout our work. Visit metro.net/2022efcmap for an interactive map.

Park Needs Assessment PNA+); and Low Tree Canopy areas (California Healthy Places Index). As with all of the evaluation metrics, the equity metrics underwent extensive review with the EWG, Task Force and CLC.

The purpose of these overlay-style equity criteria was to give additional credit to projects that were not only providing benefits but were providing benefits specific to the needs of a specific area or population. For example, if two projects provided the same features related to shade and cooling, they would receive the same score for the EN6 base criterion. However, if one of those projects was located in a well-shaded neighborhood and the other was located along a busy arterial with few existing street trees, the EQ-EN6 criterion score would raise the overall equity score for the second project located in a low tree canopy area.

Twenty-four Benefit metrics were used to measure potential project effectiveness in advancing equity throughout the Corridor, as shown in **Table 6-7**. All twenty-four equity criteria were summarized into one average equity score per project or program (on a scale of 0-3 or N/A), which contributed to the sum of the total project score. Therefore, while many equity criteria closely reflect their corresponding base criteria, the scores were not double counted in the total project score.



Table 6-7. Equity (EQ) Benefit Metrics

Metric Number	Metric Name	Description
EQ-AQ1	Reduces Emissions (NOx, PM2.5) in EFC Areas	Reduces NOx and PM2.5 emissions from on-road vehicles or offroad mobile equipment in EFC areas
EQ-AQ3	Mode Shift to Cleaner Modes in EFC Areas	Increases the share of trips made by transit, walking, and bicycling
EQ-CH1	Reduces Emissions (Health Effects Metrics: DPM, PM2.5) in EFC Areas	Reduces DPM and PM2.5 emissions from on-road vehicles, which in turn can generate health benefits
EQ-CH2	Reduces Exposure to Air Pollution in Communities Facing High Pollution Burden and Asthma Rates	Reduces exposure at sensitive receptors (e.g., schools and day care centers, hospitals and healthcare clinics, senior centers, and residences) by installing filtration systems at these receptors and/or installing near-roadway vegetation between major roadways and these receptors
EQ-CH3	Mode Shift to Active Transportation, Transit in EFC Areas	Increases the share of trips made by transit, walking, and bicycling
EQ-CH5	Increases Access to High-Quality Recreational Facilities in Areas Lacking Active Transportation Infrastructure and Parks	Supports improved health outcomes associated with physical activity and recreation by providing direct linkages to parks and recreation facilities and providing active transportation infrastructure, particularly in areas lacking access to these facilities and infrastructure elements
EQ-MB1	Ridership in EFC Areas	Increases transit ridership by shifting trips to transit from other modes
EQ-MB2:	Speeds/Travel Times (People, Goods) in EFC Areas	Increases roadway speeds (or reduces travel times) for people and goods movement
EQ-MB3	Reduces Congestion (Hours of Delay for People and Goods) in EFC Areas	Reduces hours of delay for persons and goods
EQ-MB4	Modal Accessibility in EFC Areas	Improves access to new transportation facilities for residents; quantifies the population benefiting from the improvement based on a ¼ mile distance from the new transportation facility



Metric Number	Metric Name	Description
EQ-MB5	Reliability (Transit, Roadway, Goods Movement) in EFC Areas	Improves transportation travel time reliability, providing a consistent range of predictable travel times across all modes
EQ-MB6	Gap Closures in EFC Areas	Addresses a gap in the transportation network, or removes a transportation barrier, by providing a new service or new transportation facility
EQ-MB7	Increases Reliable and Accessible Transportation Options for Those Who Cannot or Prefer Not to Drive	Provides reliability and accessibility improvements to support the viability of non-driving travel modes such as active transportation and transit for populations currently marginalized by auto-centric infrastructure, including zero-vehicle households; children; seniors; individuals with disabilities; and those who choose not to drive for environmental, health-related, or other reasons
EQ-SF1	Improves Physical Safety for People Walking, Bicycling, and Rolling	Supports health outcomes associated with physical injuries and fatalities by improving safety from automobile collisions or modal conflicts, primarily through the provision of protected and separated pathways and ADA features
EQ-SF3	Improves Perceptions of Personal Security for People Walking, Bicycling, Rolling, and Taking Transit	Provides features and/or services that may increase the sense of safety for pedestrians, bicyclists, transit riders, and particularly for those from marginalized groups, from crime and personal harm
EQ-EN3	Contributes to Remediation of Environmental Damage or Loss of Natural Features	Supports health outcomes associated with clean soil, air, and water; contributes to remediation or restoration of natural features such as vegetation, soil, or bodies of water that have been lost or damaged due to previous infrastructure, development, and land use decisions
EQ-EN6	Includes Urban Greening and Cooling for Areas of Low Tree Canopy and High Heat Island Burden	This equity metric builds off EN6, either adding a +1 Benefit if a project is in an area with low tree canopy and/or a +1 if it is in an area with high heat island temperatures (>= 40 degrees) to the original score in EN6 (added Benefit). (EN6 scores were used as the basis for calculating EQ-EN6.)



Metric Number	Metric Name	Description
EQ-EN7	Potential for Noise Reduction in EFC Areas	Reduces transportation noise pollution or includes noise reduction features, such as sound barriers or low-noise technologies
EQ-OP1	Access to Jobs for Persons in EFC Areas	Increases the average number of jobs accessible within a 30-minute time period by transit or a 45-minute time period by automobile
EQ-OP6	Access to Quality-of-Life Amenities (Grocery Stores, Healthcare Services, Schools) in EFC Areas	Provides new transportation facilities near quality-of-life amenities (grocery stores, health care, and schools)
EQ-OP7	Access to Open Space, Recreation and Parks for Persons in EFC Areas	Provides new transportation facilities near parks and open spaces
EQ-OP8	Increases Quantity and Quality of Employment Opportunities for Underemployed and Low-Income Workforce	Provides new job opportunities for underemployed and low-income individuals in the workforce
EQ-OP9	Reduces Housing or Transportation Costs for Low-Income Households	Has the potential to reduce housing or transportation costs through improvements in transit frequency, rail lines, pedestrian projects, bicycle projects
EQ-OP10	Reduces Residential or Commercial Displacement Risk	Reduces risk of economic (as opposed to physical) displacement as an adverse effect of infrastructure investment, which may result in new development interest, increasing land prices, property values, and ultimately housing/business costs

Notes:

ADA = Americans with Disabilities Act DPM = diesel particulate matter

EFC = Equity Focus Community

NOx = oxides of nitrogen

 $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter

6.1.1.8 Sustainability

Five Benefit metrics were used to measure potential project effectiveness in advancing sustainability throughout the Corridor, as shown in **Table 6-8**. In contrast to the equity criteria, which applied an "overlay" evaluation to measure benefits relative to need and existing conditions, sustainability criteria were designed to measure how well projects integrate benefits across goal areas to advance positive systems change and innovate to protect and enhance community well-being. Although the distinction between equity and sustainability led to different evaluation approaches, the sustainability criteria were also summarized into one average sustainability score per project or program (on a scale of 0-3, or N/A), which contributed to the sum of the total project score. Therefore, a project or program's average equity and sustainability score contributed equally to the project's total score.



Table 6-8. Sustainability (SA) Benefit Metrics

Metric Number	Metric Name	Description
SA1	Reduces Reliance on Polluting and Energy- Intensive Modes of Travel and Goods Movement	Supports health outcomes associated with clean air by reducing consumption of fossil fuels in mobility through projects or programs that support electrification, cleaner fuels, or travel behavior that reduces per capita VMT
SA2	Promotes Physical Activity and Health through Active Transportation and Recreation	Supports physical and mental health outcomes associated with activity by providing or enhancing access to infrastructure or services that promotes physical activity
SA3	Improves Climate Resilience through Mitigation of Flooding and Extreme Heat Impacts	Supports improved health outcomes associated with reducing exposure to hazards; improves community and infrastructure resilience by mitigating the risks and impacts of flooding or extreme heat
SA4	Supports Job Creation in and Workforce Transitions to Green Technology and Infrastructure Sectors	Provides workforce development opportunities and job training in green sectors or supports the transition to green jobs
SA5	Improves Cargo Efficiencies to Minimize Trip Volumes and Emissions from Goods Movement Activity	Improves cargo efficiencies to minimize trip volumes and emissions from goods movement activity

Note:

VMT = vehicle miles traveled

6.1.1.9 Concerns

Sixteen Concern criteria were identified through consultation with the CLC and Task Force and a thorough review of each Benefit criterion to ensure that any associated potential adverse impacts were captured with the Concern criteria. For example, if a project could get credit for adding new green space, there may also be potential disbenefits if it removes green space. The full Concerns rubric document, including the process for identifying new Concern criteria, is included in Appendix 6-A.

Concern scores contributed to the adjustment of overall Benefit score, assignment of equity flags, and prioritization. For instance, Outcome Concerns, which are less easy to mitigate during the project's development, were used to adjust the project's evaluation results during the project tiering process described below. The implication of Concern scores varied depending on the type of Concern and other project-specific factors, such as the share of project area within EFCs. Concerns were classified into three categories based on the type of impact and how much the potential impact depended on project



design: Outcome Concerns, Design Concerns, and Construction Concerns. The 16 total Concern criteria included eight Outcome Concerns, seven Design Concerns, and one Construction Concern.

Outcome Concerns refer to unintended impacts that are typically experienced on a system-wide or regional scale rather than confined to the project area. These are difficult to avoid through project planning and design.

Design Concerns refer to direct physical impacts to the project area that can typically be avoided or minimized through project design.

Construction Concerns refer to temporary disruptions to the project area related to project construction activities.

Table 6-9. Outcome, Design, and Construction Concerns (Con)

Concern Number	Concern Name	Description	
		Outcome Concerns	
Con3	Potential for Increased Commute Times	Evaluates potential for increased commute times	
Con4	Potential for Traffic Diversion	Evaluates potential for traffic diversion/emission shifting	
Con5	Potential to Increase Localized Emissions/Emiss ions Shifting	Evaluates increases in localized DPM and PM2.5 emissions from on-road vehicles that may be related to Health Concerns	
Con7	Potential for Concentrated Congestion Impacts	Evaluates potential for concentrated congestion impacts	
Con9	Potential for VMT Increases	Evaluates whether a project or program has the potential to increase VMT ⁵¹	
Con10:	Potential to Increase User Costs	Evaluates whether a project or program has the potential to increase user costs, either directly or indirectly	

 $^{^{\}rm 51}\,\mbox{This}$ would occur through induced demand for car trips.



Concern			
Number	Concern Name	Description	
Con12	Potential to Increase Economic Displacement	Captures potential for increased vulnerability to economic (as opposed to physical) displacement of residents or businesses as an adverse effect of infrastructure investment, which may result in new development interest, increasing land prices, property values, and ultimately housing/business costs	
Con14	Potential for Reduced Transit Ridership	Evaluates whether a project or program has the potential to decrease transit ridership	
		Design Concerns	
Con1	Potential for Displacements	Captures the potential displacements of residences or businesses caused by the construction of a project	
Con2	Potential for Physical Impacts (ROW)	Captures the potential physical impacts to adjacent ROW caused by the construction of a project	
Con6:	Potential for Bicycle/Pedestri an Safety Impact	Captures the potential of the project/program to introduce new safety hazards or modal conflicts for pedestrians, bicyclists, or other active transportation users	
Con11	Potential to Increase Impervious Cover	Captures the potential negative impacts related to the addition of impervious surfaces that could increase stormwater runoff, environmental heat gain, or worsen water quality—all of which have negative impacts on ecosystems and human health	
Con13	Potential to Increase Noise Pollution	Evaluates whether a project or program has the potential to increase noise pollution	
Con15	Potential for New Barriers/Decrea sed Access	the addition of a new physical barrier	
Con16	Potential for Increased Stormwater Runoff and/or Increased Flood Risk	Captures the potential negative impacts related to the addition of infrastructure that does not include specific features that address stormwater runoff or flood management (the risk of flooding is increased when water cannot soak into the ground and instead runs off of impervious surfaces; when rain is heavy, this can lead to flooding, erosion and damage to surrounding infrastructure; these risks increase with weather changes associated with global warming)	
		Construction Concern	
Con8	Potential Construction Impacts	Captures the potential for construction impacts to communities and travelers caused by the construction of a project	

Notes:

DPM = diesel particulate matter

 $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter



ROW = right-of-way VMT = vehicle mile traveled

6.1.1.10 Health Considerations in Evaluation

The project team, with input from the Task Force, CLC, and Corridor communities, identified public health as a priority consideration and outcome in developing the Investment Plan for the LB-ELA Corridor. Several communities in the project area have historically faced significant health disparities (such as high asthma and cardiovascular disease rates) and experienced disproportionate pollution burdens (such as PM_{2.5} and Diesel PM emissions) compared with other communities in Los Angeles County. These health impacts were documented through health and environmental justice screening tools such as CalEnviroScreen, CA Healthy Places Index, the Center for Disease Control and Prevention (CDC) Environmental Justice Index Explorer, and several studies related to vehicular pollution and health outcomes surrounding the I-710 freeway and throughout the region. ^{52,53,54,55} In addition to the high overall health burdens facing the LB-ELA Corridor communities relative to the county and state as a whole, health burdens within the Corridor disproportionately impact people of color and low-income populations.

In developing the evaluation criteria, the project team carefully considered the most effective way to evaluate Project Outcomes that would support the Task Force's desired Community Results as identified in the Vision, Goals, and Guiding Principles. A **Project Outcome** is "a clearly defined future state of being at the program, local, or agency level resulting from the proposed action that ultimately supports the community result." A **Community Result**, as defined in the project team's Pilot Equity Planning and Evaluation Tool (EPET), is "the community level condition of well-being we would like to achieve. It lacks disparities based on race, income, ability, or other social demographic."

The evaluation criteria were primarily categorized under the Task Force's adopted Goals and Guiding Principles. However, to consider health more comprehensively in the evaluation process, several criteria related to each Goal were also presented to the Task Force, CLC, Equity Working Group, and Corridor communities through a framework of Social Determinants of Health to demonstrate how the Investment Plan may support the improvement of health equity in the corridor. As illustrated in Table 6-5, this approach related 27 criteria to one or more health-related project outcomes ("Project Health Outcomes"), which can contribute to various health-related community results in the long-term, as discussed in literature from the CDC, U.S. Department of Transportation, and South Coast Air Quality Management District. The Project Health Outcomes are listed in Figure 6-2 with example community results.

⁵² https://humanimpact.org/wp-content/uploads/2017/09/HIA-I710-Air-Quality-Plan.pdf

⁵³ https://la.myneighborhooddata.org/2019/09/community-health-in-the-710-corridor/

⁵⁴ https://www.metrans.org/assets/research/psr-20-19 boeing final-report v2.pdf

⁵⁵ https://www.metrans.org/assets/research/psr-18-sp91_giuliano_final-report.pdf



Figure 6-2. Project Health Outcomes and Example Community Results

Project He	ealth Outcomes	Example Community Results
	Exposure to Health Impact Pollutants	Chronic Disease Rates (Asthma, Cardiovascular Disease, Cancer)
$\frac{*\hat{\phi}}{6}$	Conditions for Physical Activity	Chronic Disease Rates, Mental Health, Strength and Coordination
1 Property of the second of th	Conditions for Roadway Safety	Collision-Related Injury, Disability, and Death Rates
	Exposure to Extreme Heat	Heat-Related Illness Rates (Heatstroke, Heat Exhaustion, Dehydration)
→ (a) (b) (c) (c) (c) (c) (d)	Access to Healthcare, Healthy Food, & Opportunities	Preventative Care, Food Security and Nutrition, Social Determinants of Health



Project Health		
Outcomes	Criteria	Criteria Description
	AQ1, EQ-AQ1	Reduce Emissions (NOx, PM2.5)
	CH1, EQ-CH1	Reduce Emissions (Health Effects metrics: Diesel Particulate Matter, PM2.5)
	CH2, EQ-CH2	Reduce exposure at receptors (HVAC/HEPA, near-roadway vegetation)
	CH3, EQ-CH3	Mode Shift to active transportation, transit
	CH5, EQ-CH5	Bike/Ped Access to parks, recreational areas, or open spaces
	SF1, EQ-SF1	Protections for Bike / Users (bike class)
	SF2	Traffic Protections (bike/ped)
	SF4	Includes Safety Features
	SF6	Traffic Calming Features
	EN6, EQ-EN6	Reduce Heat Island Effect; Provide Cooling Features for Users
	OP1, EQ-OP1	Access to jobs
	OP4	Work Force Development
	OP5	Potential Targeted Hire, New Construction Jobs
	OP6, EQ-OP6	Access to Quality of Life amenities (grocery stores, healthcare services, schools)
	OP7, EQ-OP7	Access to open space, recreation and parks, LA river, etc.
	SA1	Reduces reliance on polluting and energy-intensive modes of travel and goods movement
	SA2	Promotes physical activity and health through active transportation and recreation
	SA3	Improves climate resilience through mitigation of flooding and extreme heat impacts
	SA4	Supports job creation in, and workforce transitions to green technology and infrastructure sectors
	SA5	$Improves\ cargo\ efficiencies\ to\ minimize\ trip\ volumes\ and\ emissions\ from\ goods\ movement\ activity$
	CON4	Potential for Traffic Diversion
	CON5	Potential to increase Localized Emissions / Emissions Shifting
	CON6	Potential for Bike/ped safety impacts
	CON9	Potential for VMT Increases
	CON11	Potential to increase impervious cover
	CON13	Potential to increase noise pollution
	CON15	Potential for new barriers/decreased access

6.2 Prioritization

The evaluation process resulted in the ranking of projects within each travel mode: Active Transportation, Arterial Roadways/Complete Streets, Freeway Safety and Interchange Improvements, Goods Movement, and Transit. The rankings were based on the total summary scores across each Benefit criteria and adjusted for the number of Outcome Concerns (Appendix 6-C). These rankings did not automatically represent funding recommendations but rather the first step in identifying which projects were most in alignment with the LB-ELA Vision, Goals and Guiding Principles. Appendix 6-B displays the list of projects and programs by ranking, mode, and evaluation results. The evaluation results were only one part of the prioritization process. The ranked project scores were combined with a project readiness assessment in the Tiering analysis and an implementation assessment described in the following sections to provide the project team with important information in developing recommendations for the Investment Plan.



6.2.1 Tiering

Tiering describes the project team's process of grouping projects and programs into two categories based on their evaluation results (Vision, Goals, and Guiding Principles alignment) and readiness for future implementation (readiness category, described below). The LB-ELA Corridor Vision, Goals, and Guiding Principles supported the evaluation process described earlier in this chapter; this resulted in each project being categorized, with its mode type, as Tier 1 (higher alignment) or Tier 2 (lower alignment) as an outcome of their evaluation results. Tier 1 projects generally scored well across many evaluation criteria; Tier 2 projects generally received lower scores across the evaluation criteria, or only scored well for a limited number of Goals or Guiding Principles. Projects were categorized into tiers based on their percentile rank within their respective mode, meaning projects with different modes were not compared across modes for placement in Tier 1. Different thresholds were established for each mode based on the number of projects within the mode and the natural breaks in the scoring results (Appendix 6-C).

Projects were also organized into readiness categories of "Implementation," "Pre-Implementation," or "Development" to identify the right pathway for each project and program. For instance, some projects were conceptual and would need feasibility studies to refine the best solutions, while other projects, such as freeway improvements, would require the time and resources for developing scope, design and environmental clearance (subject to CEQA/NEPA). Thus, the "Implementation" category indicated projects or programs that were ready for construction or launch of the program, and likely eligible to compete for discretionary grant funding in the next few years. The "Pre-Implementation" category indicated well-defined projects or programs that required funding and support for pre-construction activities such as planning, design, community engagement, and environmental review. The "Development" category indicated project or program concepts that required substantial work to define scope, agency roles, and agency responsibilities and may require technical assistance to define them better through the proposed Investment Plan fund, called the START-UP (Strategic Technical Assistance for Reparative Transportation Uplifting People) Fund.

The assignment of projects into tiers and readiness categories helped determine suitability for Investment Plan prioritization as an investment priority for the Metro Board. The Tier 1-Implementation and Tier 1-Pre-Implementation categories included projects and planning efforts that will be competitive for near-term or mid-term discretionary grant opportunities. Tier 1-Development projects may receive project development funding to support seeking future discretionary grant opportunities and implementation. Tier 2-Implementation projects had two possible pathways for selection: to provide complementary benefits as part of a package with other Tier 1 or Tier 2 projects; or to be eligible and competitive for a specific, available grant opportunity tailored to such a project. Tier 2-Development projects would not be considered for investment at that time but could be reconsidered as part of the Modal Program development process in future years.

⁵⁶ California Environmental Quality Act: https://opr.ca.gov/ceqa/ // National Environmental Policy Act: https://www.epa.gov/nepa



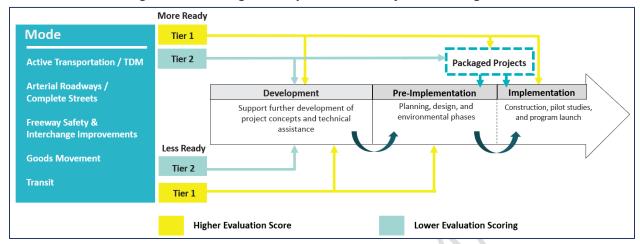


Figure 6-3. Funding Pathways for Tiered Projects and Programs

Once the proposed project tiering was determined, findings were presented for feedback from Task Force, CLC, Metro Board, and other stakeholders in November 2023. Based on feedback received and further analysis, a revised set of tiered results was released in January 2024 displayed in Appendix 6-C. Figure 6-3 displays this process graphically.

6.2.1.1 Implementation Assessment

In addition to project alignment and readiness, the project list was further refined against several strategic implementation factors to determine whether the projects should be considered for initial funding or assigned to a Modal Program for future funding consideration. These factors helped the project team and the LB-ELA Corridor Task Force to prioritize projects and make final recommendations for funding.

The additional prioritization factors included:

Identified Roles and Responsibilities: Metro was not considered the lead agency for implementing many of the projects under consideration, particularly those on local roads. For a project to be prioritized for Metro funding and to successfully secure discretionary funds, the roles and responsibilities for implementing the project must be understood and agreed upon. For projects under consideration, Metro is expected to play one or more of the following roles: Lead, Partner, Fund, Support, or Collaborate (Appendix 6-C).

Discretionary Grant Strategy: This factor examined how well candidate projects and programs aligned with and competed for funding from regional, state, federal, and other discretionary grant programs to leverage local funding. Chapter 7 (funding) describes the methodology used to review the alignment between candidate Investment Plan projects and prospective grant opportunities.

Project Cost/Local Match Required: Combined with the discretionary grant strategy assessment, the review also considered project cost and how much local match would be needed to deliver the project,



considering the amount of funding available—and when it would be available—to serve as a local match. This factor was important to ensure that the recommendations included a full program of projects, considering limitations on Measure R and M funding available (Chapter 7) and potential project costs for larger, more complex projects.

Political/Institutional/Jurisdictional Support: The review considered any existing or expected legitimate concerns to be raised by relevant institutions or political jurisdictions that could undermine the project's potential for implementation.

Equity Considerations: The projects for initial funding align with the Investment Plan's Guiding Principle of Equity, deliver benefits to EFCs and under-resourced jurisdictions, and consider equity-based concerns in the design, construction, and outcomes phases of Investment Plan implementation. This factor assessed the equitable geographic distribution of funds, considered opportunities to provide technical assistance (START-UP Fund) to jurisdictions with fewer shovel-ready projects, and identified a path forward for concerns to be addressed after approval of the Investment Plan.

Practical Feasibility/Constructability: Projects and programs were assessed for any potential limitations to their construction or implementation.

Design Concerns: Projects that were more ready for implementation and had a high number of Design Concerns were scrutinized more carefully before finalizing recommendations.

These prioritization factors were presented to the LB-ELA Corridor Task Force and CLC for review and input. The project team used these factors, the evaluation scores, the tiering analysis, and the flags discussed below to develop a set of projects to receive Initial Investment under this Investment Plan.

6.2.2 Flags

"Flags" are additional outputs of the evaluation and community engagement process and serve as supplementary considerations for prioritization and future project development and implementation processes. Appendix 6-C displays the full list of Community Input Consideration (CIC) and Equity Flags by project or program.

6.2.2.1 Equity Flags

Equity flags were derived from the Concerns evaluation, highlighting projects that had the potential to negatively impact equity focus communities (EFCs) and that required specific, additional guidance to minimize those impacts. An equity flag was raised when a project was located or partially located in EFC areas (at least 1/3 or 33% of project area) and had at least one total Concern (see Appendix 6-C). Projects were assigned Low, Moderate, and High Flags based on their total number of Concerns. For Metro-led projects, flags specify strategies to address the Concerns and minimize impacts. For some projects led by other agencies or jurisdictions, equity flags informed specific requirements for project sponsors to address Concerns as part of funding eligibility. Moderate and High Equity flags were also applied as a factor in prioritization. All projects recommended for initial funding do not have a high



equity flag. In Modal Programs and future project development, flags may be used to prioritize investments or ensure potential disbenefits are addressed during project planning.

6.2.2.2 Community Input Consideration Flags

Community Input Consideration (CIC) flags captured community input that would not be reflected in the technical project evaluation results. CIC flags included project-specific Implementation Concerns and recommendations for improvement of project concept or design, and indications of general community support. CIC flags were synthesized from meeting notes and discussions with the Task Force, CLC, and other community members and stakeholders. However, it is important to note that a detailed public engagement campaign was not carried out for each project. The CIC flags should not be considered an exhaustive list of potential community concerns, and additional outreach is recommended as projects move toward implementation.



7 FUNDING STRATEGY

The success of the Long Beach – East Los Angeles (LB-ELA) Corridor Mobility Investment Plan (Investment Plan) in implementing projects and programs that advance the Task Force's Vision, Goals, and Guiding Principles relies upon leveraging limited local sales tax dollars allocated to the Corridor through Measure R and Measure M with a robust level of regional, state, and federal funding. This chapter describes the processes, information, and constraints to developing the overarching funding strategy for the Investment Plan Programs, Community Programs Catalyst Fund and StartSTART-UP-Up Fund Program and projects identified for the Initial Investment of Measure R/M funding in the LB-ELA Corridor Mobility Investment Plan.

The funding strategy presents the considerations and criteria used to allocate available Measure R/M funds to these programs and projects over the next decade and beyond, including an assessment of how these funds can be leveraged to maximize access to regional, state, and federal discretionary dollars. An overview of relevant regional, state, and federal discretionary funding programs, their sought-after project outcomes, and their eligibility requirements is provided. A full listing of the Investment Plan projects and the funding programs for which they are potentially eligible is included in Appendix 7-A.

7.1 Approach

Developing the Investment Plan funding strategy was a multi-step process that required a targeted approach. The following stages of analysis have helped develop the funding strategy: develop the funding strategy:

LB-ELA Corridor project and program evaluation : This analysis involves developing a holistic understanding of candidate projects and their attributes to determine their suitability for Measure R/M funding and eligibility for discretionary grant opportunities.

Identification of projects and programs for use of Measure R/M funding (ongoing): Based on the analysis conducted, subsets of Modal Programs and projects were identified as suitable candidates for receipt of Measure R/M funds. These funds may be used as preliminary seed funding to progress phases of project development or, for projects at a more advanced level of project readiness, may be used as a local match to meet the requirements for regional/state/federal implementation and construction funding programs.

Assessment of regional, state, and federal funding programs, including eligibility and match requirements (ongoing): This analysis element includes identifying and evaluating suitable regional, state, and federal discretionary programs across various modes of transportation and community programs. The attributes and sought-after outcomes of these relevant funding programs were matched with the attributes and forecast impacts and benefits of the Investment Plan.—

Continued development of project readiness, positioning, and partnership opportunities (ongoing and planned): Throughout the process, non-construction development activities and other actions will be undertaken to progress and position projects to improve their competitiveness and to provide a greater



chance for successfully accessing discretionary funding in future cycles—including conducting design, initiating technical studies, and establishing partnership opportunities.

An overview of the funding strategy development process is shown in Figure 7-1.

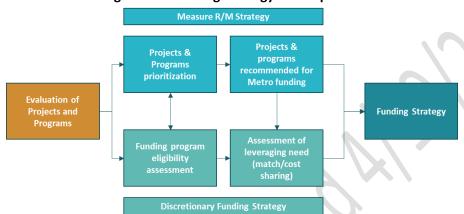


Figure 7-1. Funding Strategy Development

7.2 Measure R and Measure M

Los Angeles County voters have approved four separate, non-sunsetting transportation sales tax initiatives since 1980 that assess a combined two-percent county sales tax to be dedicated to various transportation uses, from the construction, operation, and maintenance of bus and rail transit systems to the implementation of local roadway and multimodal programs and projects. Each sales tax will generate approximately \$1.2 billion in revenues for LA County transportation uses in fiscal year (FY) 2024.⁵⁷

The first two sales tax initiatives, Proposition A (1980) and Proposition C (1990), created general categories of projects, recipients, and uses to which revenues were programmed. In addition to identifying funding commitments to various categories of uses, Measure R (2008) and Measure M (2016) also included an expenditure plan that outlined exactly how much and in what year funding would go to vital projects across modes, purposes, and regions of LA County. Thanks to this specificity on how these initiatives would expend taxpayer dollars, voters overwhelmingly approved Measure R (67%) and Measure M (71%), surpassing the required two-thirds vote threshold for new sales taxes.

The Measure R and M expenditure plans each identified the Interstate 710 (I-710) South Corridor (now the LB-ELA Corridor) as a priority for investment, allocating \$590 million and \$500 million, respectively, to the Corridor. Of the \$1.09 billion total allocated to the Corridor, \$743 million originally purposed for the I-710 South Corridor Project remains and will be reprogrammed through the Investment Plan, as follows:

⁵⁷ LA Metro Board Report: https://boardagendas.metro.net/board-report/2023-0044/



- \$243 million of remaining Measure R I-710 South highway funds are available for Investment Plan projects, including \$50 million programmed by the Metro Board to be used as seed funding for the \$200 million LB-ELA Corridor Zero Emission Truck program.⁵⁸
 - The Measure R expenditure plan makes these funds available immediately to implement projects in the Corridor. The Investment Plan recommends using these funds to invest in eligible projects and programs demonstrating high project readiness, aligning highly with the LB-ELA Corridor Vision, Goals, and Guiding Principles, and needing implementation funding before FY 2026.
 - \$500 million of Measure M funds will become available for implementation purposes in FY 2026 (\$250 million) and FY 2032 (\$250 million). These funds are available earlier than the fiscal year stated in the expenditure plans for planning, development, and pre-implementation purposes.
 - The Investment Plan recommends using these funds to provide near-term investment in pre-implementation activities to support the future implementation of longer-term prioritized projects and to help fund the Investment Plan's Modal Programs and future implementation commitments.

LA County voters expect Metro to leverage local sales tax funding with regional, state, and federal funding to increase possible investment in vital transportation projects and programs.

⁵⁸ Please refer to the Investment Plan fact sheet for further details on this program. Project ID: LB-ELA_0004



Table 7-1 demonstrates that the total amount of available Measure R/M funding would only be sufficient to address a modest number of the most highly ranked Investment Plan projects. Metro and its partners will need to apply for other sources of external funding (regional/state/federal funding programs); in many cases, Measure R and/or Measure M funds will be leveraged to meet the various minimum local match requirements required by those funding programs.

Table 7-1. Estimated Project Costs and Recommended Programming of Measure R/M Funds

	A. Estimated	B. Measure R/M Funding Recommendation (\$m)				
Mode	Investment Leveraging Measure R/M Funding (\$m)	B.1. Projects for Initial Funding	B.2. Modal Programs	B.3. Total (B.1 + B.2)	Estimated Grant Funding Required (\$m) (A – B.3)	
I-710 MOSAIC	\$1,100	\$171	\$49	\$220	\$88	10
Active Transportation/TDM	<u>\$195</u>	<u>\$44</u>	<u>\$56</u>	<u>\$100</u>	\$9	<u>95</u>
Arterial Roadways/Complete Streets	\$ 940 <u>1767</u>	\$116	\$72	\$188	\$1,579 \$752	
Freeway Safety and Interchange Improvements	\$894	\$171	<u>\$39</u>	<u>\$210</u>	\$61	<u>.0</u>
Goods Movement	\$332	<u>\$62</u>	<u>\$18</u>	<u>\$80</u>	<u>\$25</u>	<u>2</u>
Transit	<u>\$478</u> \$ 625	<u>\$57</u> \$29	\$ <u>68</u> \$96	\$125 \$125	<u>\$353</u> \$500	
Goods Movement	<u>\$340</u> \$320	<u>\$40</u> \$ 61	<u>\$0</u> \$19	<u>\$40</u> \$80	\$300 <mark>-\$24</mark>	Ю
Active Transportation/TDM	\$478 <mark>\$180</mark>	<u>\$57</u> \$33	<u>\$68</u> \$ 57	<u>\$125</u> \$90	\$353 \$9	10
Community Programs	\$340 _{TBD}	<u>\$40</u> \$40	<u>\$0</u> \$0	<u>\$40</u> \$40	\$300 TBD ⁵⁹	
Total	\$4,005 -\$3,205 *	\$490 <mark>-\$449</mark>	\$253 -\$294	<u>\$743</u> \$743	\$3,262 <mark>.\$2,462*</mark>	

Notes:

Rounding may affect totals.

*Total will increase after potential grant funding for Community Programs is determined.

TDM = travel demand management

The following section outlines the discretionary funding programs identified and evaluated for suitability and applicability to the Investment Plan's Initial Investment projects and Modal Programs. Taking these into account, along with the availability of Measure R/M funding, Chapter 6 discusses the evaluation and prioritization of Investment Plan projects and the regional/state/federal funding opportunities identified as suitable for those specific projects.

⁵⁹-Estimated grant funding and leveraging of Community Program catalyst funding to be determined by the Community Programs' working groups.

7.3 Suitable Discretionary Grant Programs

A variety of regional, state, and federal grant programs may be suitable and applicable for the various projects and programs encompassed within the Investment Plan. With the signing of the Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) into law in 2022, an unprecedented number of funding programs and discretionary dollars are available to fund transportation projects. IIJA enables approximately 380 formulaic and discretionary funding programs across all infrastructure types, with approximately 120 of these programs addressing surface transportation projects and programs. IRA will provide hundreds of billions of additional federal dollars for infrastructure development, with its programs largely targeting sustainability outcomes. These new federal programs complement ongoing state discretionary grant programs funded through Senate Bill 1 in 2017, established programs like the Transit and Intercity Rail Capital Program, and programs dedicated to reducing air pollution and advancing zero-emission technologies at the state and regional levels. As new funding programs emerge or existing funding programs change, expand, or conclude, the Investment Plan will adapt to these changing conditions and identify new approaches to funding priority projects and programs.

Although the breadth of available funding programs represents a significant opportunity for transportation agencies, the augmented number of funding programs and levels of available discretionary dollars can also potentially be daunting if the funding strategy is not clear and targeted. Applying to every possible program for every Investment Plan priority project will not yield an effective outcome. To ensure a focused approach, the project team first conducted an Investment Plan programs' assessment followed by project-level assessments to determine each project's suitability for accessing the various funding programs. This analysis aimed to identify discretionary funding programs that could be accessed over the short-to-medium term to leverage available local measure funds. For this assessment, formulaic funding programs were not considered because the inclusion of projects and programs in the State Transportation Improvement Program and other state transportation programs largely determines the use of these funds.

7.3.1 Funding Program Eligibility Assessment

The assessment of funding programs and their suitability for Investment Plan Modal Programs and Initial Investment projects were evaluated using a "crosswalk" analysis. In the crosswalk analysis, the full suite of available federal and state funding programs was evaluated against Investment Plan programs and projects, with suitability determined based on the following factors:

- Alignment of likely candidate program and project outcomes (safety improvements, travel
 efficiencies, improvements to sustainability and equity) with merit criteria and/or stated
 objectives of the specific funding programs;
- Attributes of candidate programs and projects and alignment with the typologies of
 infrastructure (e.g., freeways, active transportation, ports, transit, and complete streets) that
 specific funding programs target;



- Program and project cost estimates evaluated against forecast discretionary funding pools, maximum grant award amounts, and typical award sizes noted by the funding program;
- Availability of local (or nonfederal, nonstate) funding that can be leveraged and minimum match (cost sharing) requirements for the relevant funding programs; and
- General project readiness and status of planning and development of candidate projects.

7.3.2 Federal Discretionary Funding Programs

Table 7-2 provides a summary of federal discretionary grant programs that were identified for Investment Plan projects and programs. Further details on these programs are provided in Appendix 7-B.

Table 7-2. Federal Discretionary Grant Programs to Target for Investment Plan Projects

Issuing Agency	Grant Program	Abbreviation
FEMA	Building Resilient Infrastructure and Communities	BRIC
FHWA	Bridge Investment Program	BIP
FRA	Consolidated Rail Infrastructure and Safety Improvements Program	CRISI
FRA	Railroad Crossing Elimination Grant Program	RCE
FTA	Transit-Oriented Development Planning Grants	TOD
FTA	Capital Investment Grants Program (NSmall Small Starts)	CIG
MARAD	Port Infrastructure Development Program	PIDP
USDOT	Rebuilding American Infrastructure with Sustainability and Equity	RAISE
USDOT	Reconnecting Communities and Neighborhoods	RCN
USDOT	Safe Streets and Roads for All	SS4A
USDOT	Infrastructure for Rebuilding America	INFRA
USDOT	Strengthening Mobility and Revolutionizing Transportation	SMART
USDOT	Reduction of Truck Emissions at Port Facilities	RTEPF
USDOT	Charging and Fueling Infrastructure Grant Program	CFI

Notes:

FEMA = Federal Emergency Management Agency

FHWA = Federal Highway Administration

FRA = Federal Railroad Administration

FTA = Federal Transit Administration

MARAD = Maritime Administration

USDOT = United States Department of Transportation

7.3.3 State Discretionary Funding Programs

Table 7-3 provides a summary of state discretionary grant programs that were identified for Investment Plan projects and programs. As shown in Appendix 7-B, the funding pools and typical grant award sizes associated with these programs are generally lower than most federal discretionary programs. However,

given a smaller pool of applicants, many of these state programs may generally offer a higher probability of award.

Table 7-3. State Discretionary Grant Programs to Target for Investment Plan Projects

Issuing Agency	Grant Program	Abbreviation
CalSTA	Transit and Intercity Rail Capital Program	TIRCP
Caltrans	Low-Carbon Transit Operations Program	LCTOP
CARB	Community Air Protection Program (AB617)	AB617
CNRA	Urban Greening Grant Program	UGG
CSGC	Transformative Climate Communities	TCC
CSGC	Affordable Housing and Sustainable Communities Program	AHSC
СТС	SB-1 – Solutions for Congested Corridors Program	SCCP
СТС	State Active Transportation Program	State ATP
СТС	SB-1 – Local Partnership Program – Competitive	LPP-C
СТС	SB-1 – Trade Corridor Enhancement Program	TCEP

Notes:

AB = Assembly Bill

CalSTA = California State Transportation Agency
Caltrans = California Department of Transportation

CARB = California Air Resources Board

CNRA = California Natural Resources Agency

CSGC = California Strategic Growth Council

CTC = California Transportation Commission

SB = Senate Bill

7.3.4 Regional Discretionary Funding Programs

Table 7-4 provides a summary of regional discretionary grant programs that were identified for Investment Plan projects and programs. These regional funding opportunities typically have a more focused objective and smaller funding pools. However, the projects and programs in the Investment Plan will likely be strong candidates given their expected impact on local communities and stakeholders and alignment with the regional programs' sought-after outcomes. The list of potential regional and local discretionary grant programs will continue to be reviewed and augmented following discussions with local partners.

Table 7-4. Regional Discretionary Grant Programs to Target for Investment Plan Projects

Issuing Agency	Grant Program	Abbreviation
AQMD	Community Air Protection Program (Incentives)	CAPP
AQMD	Volkswagen Environmental Mitigation Trust	VEMT
MSRC	Clean Transportation Funding	CTF
MSRC	Transformative Transportation Strategies and Mobility Solutions Program	TTSMS

Note:

AQMD = South Coast Air Quality Management District

MSRC = Mobile Source Air Pollution Reduction Review Committee

7.3.5 Local Match Requirements

An important aspect to consider when seeking access to federal and state discretionary programs is that most have local cost share requirements. Also known as the local match, this cost share represents the minimum contribution of nonfederal or nonstate funding an applicant must commit toward delivering a candidate project if it were to be awarded federal or state funding. Most funding programs require a local match of at least 20%, though this minimum threshold can vary from program to program—and may differ within a program, depending on whether the applicant is seeking funding for planning or construction activities. Additionally, the location of a candidate project can factor into local match requirements, with the minimum threshold lowered, or even waived, for projects in state and federally designated areas of economic, social, and/or environmental disadvantage.

Table 7-5 provides the range of local match requirements for the funding programs outlined above.

Table 7-5. Local Match Requirements by Funding Program

Fodoval/		l	,
Federal/ State	Grant Bragram	Abbr.	Minimum Match Requirement
	Grant Program	BIP	
Federal	Bridge Investment Program	BIP	Planning: 10% Construction: 20%/50%
			(<\$100 million/>\$100 million Categories)
Federal	Building Positiont Infrastructure and	BRIC	25%
rederai	Building Resilient Infrastructure and Communities	BRIC	25%
Federal	Charging and Fueling Infrastructure Grant Program	CFI	20%
Federal	Capital Investment Grants Program (Small Starts)	CIG	20%
Federal	Consolidated Rail Infrastructure and	CRISI	20%
Fadaval	Safety Improvements Program	INIEDA	400/
Federal	Infrastructure for Rebuilding America	INFRA	40%
Federal	Port Infrastructure Development Program	PIDP	20%
Federal	Rebuilding American Infrastructure with Sustainability and Equity	RAISE	20% (Urban Areas), 0% (Rural, HDC, or APP)
Federal	Railroad Crossing Elimination Grant Program	RCE	20%
Federal	Reconnecting Communities and	RCN	20% (RCP Planning and NAE
	Neighborhoods		Capital/Planning), 50% (RCP Capital)
Federal	Reduction of Truck Emissions at Port Facilities	RTEPF	20%
Federal	Strengthening Mobility and	SMART	No match requirement for planning grants
	Revolutionizing Transportation		20% for capital projects
Federal	Safe Streets and Roads for All	SS4A	20%
Federal	Transit-Oriented Development Planning Grants	TOD	20%
State	Affordable Housing and Sustainable Communities Program	AHSC	10%
State	State Active Transportation Program	State ATP	No match required
State	Low-Carbon Transit Operations Program	LCTOP	No match required
State	Local Partnership Program-Competitive	LPP-C	50%
State	SB-1 Solutions for Congested Corridors Program	SCCP	No match required
State	Transformative Climate Communities	TCC	50%

Federal/ State	Grant Program	Abbr.	Minimum Match Requirement
State	SB1 – Trade Corridor Enhancement Program	TCEP	No match required if nominated by Caltrans. 30% local match required if nominated by regions.
State	Transit and Intercity Rail Capital Program	TIRCP	No minimum match requirement, but funding leverage is desirable and will be considered in the evaluation
State	Urban Greening Grant Program	UGG	No match required
Regional	Transformative Transportation Strategies and Mobility Solutions Program	TTSMS	No match required

Notes:

APP = Areas of Persistent Poverty
Caltrans = California Department of Transportation
HDC = Historically Disadvantaged Communities
NAE = Neighborhood Access and Equity
RCP = Reconnecting Communities Pilot

Suitable funding programs which address community program projects will be added to the Investment Plan following development by each community program's working group.

7.4 Summary and Considerations

The estimated funding needed for Investment Plan projects and programs recommended for funding is shown in Table 7-6 and is estimated to exceed \$3 billion. Metro and partners will need to leverage available and forecast Measure R/M funding to develop and deliver the Investment Plan programs and projects. These funds must be used judiciously as seed money for project development and local cost share to leverage the maximum funding from suitable regional, state, and federal discretionary programs.

Table 7-6. Funding Need and Discretionary Grant Programs to Target

		B Mea	sure R/M Fui	nding	Estimated	
		Recommendation (\$m)		Grant		
Mode	A. Estimated Investment Leveraged from Measure R/M (\$m)	B.1. Projects for Initial Funding	B.2. Modal Program	B.3. Total (B.1 + B.2)	Funding Required (\$m) (A B.3)	Examples of Suitable Funding Programs
I-710 MOSAIC	\$1,100	\$171	\$49	\$220	\$880	RAISE, SMART, BIP, INFRA, RCN, SCCP, TCEP, CFI
Active Transportation/ TDM	<u>\$195</u>	<u>\$44</u>	<u>\$56</u>	<u>\$100</u>	<u>\$95</u>	RCN, SS4A, ATP, TCC, UGG, SCCP
Arterial Roadways/ Complete Streets	<u>\$1767</u> \$940	<u>\$116</u> \$ 116	<u>\$72</u> \$72	\$188 \$188		RAISE, SS4A, ATP, BIP, SCCP, TCEP, SMART
Freeway Safety and Interchange Improvements	<u>\$894</u>	<u>\$171</u>	\$39	\$210	<u>\$610</u>	RAISE, SMART, BIP, INFRA, RCN, SCCP, TCEP, CFI
Transit	<u>\$332</u> \$625	<u>\$62</u> \$ 29	<u>\$18</u> \$96	\$80 <mark>\$125</mark>	<u>\$252</u> \$500	RAISE, SCCP, TIRCP, CRISI, RCE, TOD
Goods Movement	<u>\$332</u> - \$320	<u>\$62</u> \$ 61	<u>\$18</u> \$19	<u>\$80</u> \$ 80	<u>\$252</u> \$240	TCEP, PIDP, RAISE, INFRA
Active Transportation/ TDM	<u>\$478</u> \$ 180	<u>\$57</u> \$ 33	<u>\$68</u> \$ 57	<u>\$125</u> \$90	<u>\$353</u> \$90	RCN, SS4A, ATP, TCC, UGG, SCCP
Transit	\$478	\$ <u>\$57</u>	<u>\$68</u>	<u>\$125</u>	\$353	RAISE, SCCP, TIRCP, CRISI, RCE, TOD
Community Programs	<u>\$340</u> TBD	<u>\$40</u> \$40	<u>\$0</u> \$ 0	<u>\$40</u> \$40	\$300 TBD ⁶⁰	UGG, AHSC, AB617, CAPP
Total	\$4,005 \$3,205 *	\$490 <mark>-\$449</mark>	\$253 <mark>.\$293</mark>	\$743 <mark>-\$743-</mark>	\$3,262 \$2,462 *	

Notes:

* Total will increase after potential grant funding for Community Programs is determined.

TDM = travel demand management

The project team must consider a wide range of additional funding sources to address the significant gaps between Measure R/M funding and the capital levels required to deliver the prioritized Investment

60 Ibid.

Plan projects and Modal Programs. This chapter has highlighted a range of federal, state, and regional grant opportunities that align with the array of different Investment Plan projects and Modal Programs, building off a detailed crosswalk analysis (Appendix 7-A) and an assessment of the key attributes for funding programs that should be considered. (Appendix 7-B).

7.4.1 Implementation and Considerations

This chapter has set out a framework for how the funding strategy for the Investment Plan has been developed and will continue to evolve. The following chapter (Chapter 8) applies this framework to evaluating the Initial Investment recommendations for projects to receive Measure R/M funding and evaluates which federal/state/regional grant opportunities should be targeted to address the remaining funding gaps for those prioritized projects.

Going forward, the funding strategy will continue to be refined as Investment Plan programs and projects develop and evolve and new discretionary funding opportunities emerge. It should, therefore, be considered a "living document" subject to updating and adaptation in line with changing opportunities and challenges during the investment plan's multi-decade timeframe. Throughout this time horizon, the development of programs and projects should incorporate the following positioning themes, which can contribute to the strategy's successful implementation:

Right-sizing and packaging of projects: This could involve bundling projects where synergies or minimum project sizes apply or splitting larger programs into individual projects, phases, or groups of projects to access specific funding programs more easily and address maximum grant award limits.

Positioning projects: This entails framing candidate projects to show multifaceted and, where possible, direct alignment with the desired outcomes and objectives of the targeted discretionary funding program(s).

Interim actions to progress project readiness: Project readiness is often a major consideration for discretionary programs, with federal and state agencies seeking to invest in projects that can be delivered over a near-term time horizon (e.g., present-day to five years). Accordingly, to increase the competitiveness of a candidate project, it is important to continue to progress pre-construction development activities including, but not limited to, design and planning (for capital projects), cost estimation, environmental regulatory analysis (CEQA/NEPA), technical studies (safety, traffic, and goods movement) and/or economic modeling (impacts, job creation, and benefits).

8 RECOMMENDATIONS

The Los Angeles County Metropolitan Transportation Authority (Metro) initiated the development of the Long Beach-East Los Angeles (LB-ELA) Corridor Mobility Investment Plan (Investment Plan) following the Metro Board's decision to suspend the prior I-710 South Corridor project that threatened to displace residents and local businesses, increase air pollution, exacerbate public health concerns, and create more environmental impacts for some of LA County's most vulnerable communities adjacent to the freeway. In its place, the Metro Board directed its CEO to develop a new, consensus-based process to engage impacted residents, communities, and stakeholders in developing a comprehensive, multimodal, community-responsive, and regionally significant transportation Investment Plan. This Investment Plan stands in marked contrast to its predecessor and signals a point of inflection for Metro in how it engages communities and stakeholders in developing a comprehensive approach to investment in freeway corridors through robust, ongoing, and meaningful community engagement.

To achieve the Metro Board's vision, staff created the LB-ELA Corridor Task Force and the Community Leadership Committee (CLC) to give impacted residents and communities a meaningful voice in developing the Investment Plan's values, processes, and recommendations. The Task Force is the main advisory body for Metro, comprising representatives of Corridor communities, institutions, governmental agencies, and industries that are impacted by or dependent upon the movement of people and goods in the Corridor (as described in Chapter 2). The CLC allowed Metro to convene a diverse and committed group of community representatives who live along the LB-ELA Corridor to advise the Task Force throughout the Investment Plan process (see Chapter 2).

The Task Force and CLC provided a meaningful voice to impacted communities that felt excluded or unheard during the prior I-710 South Corridor project process. As a result, the Investment Plan reflects a dedicated focus on addressing the myriad issues facing residents impacted by I-710, including poor air quality; high levels of pollution; significant health and environmental impacts; heavy traffic congestion; poor traffic safety for automobiles, trucks, bicyclists, and pedestrians; a lack of multimodal transportation infrastructure; low levels of economic opportunity for residents; and high levels of poverty (see Chapter 3).

The Task Force and CLC met separately and jointly to review and advise on Investment Plan goals, proposals, and recommendations throughout the process. Members from both groups also participated in working groups, helped ground truth data, and shared upcoming outreach and engagement efforts with their communities. Over the 30-month Task Force process, the Task Force and CLC members worked together to re-evaluate the many needs and goals for investment in the Corridor, develop multimodal strategies to meet these needs and identify potential projects and programs in the short and long-term based on those strategies. The stakeholders' lived experience in the Corridor and desire to improve regional mobility, safety, and air quality while fostering economic vitality, social equity, environmental sustainability, and access to opportunity played an integral role in creating this multimodal, community-focused, and regionally significant Investment Plan.

As a strategic planning document, the Investment Plan establishes an overarching vision for identifying and securing investment in projects and programs that align with and support the Corridor's Vision, Goals, and Guiding Principles over the next 20 years. Although the primary focus of the Task Force and CLC was the identification of projects and programs for Metro to invest and leverage Measure R and M funding dedicated to the Corridor, the comprehensive goal of the Investment Plan is also to attract regional, state, and federal investment to implement other projects and programs that also advance the Corridor's values. The Investment Plan's overall need for investment consists of projects that are fully or partially funded through external grant funding, those that will receive other Metro funding, and projects that will receive Corridor Measure R/M investment as identified in this Investment Plan. The topline amount of investment the LB-ELA Corridor Mobility Investment Plan seeks to secure is roughly \$17.3 billion, which includes the Measure R/M commitments, anticipated leveraging from the measure funding, as well as other external grant sources. This amount will likely increase as new projects and programs are identified, prioritized, and incorporated into the Investment Plan.

8.1 Projects with Outside Funding Commitments

Through collaboration with its LB-ELA Corridor stakeholders, Metro has supported and helped deliver investment in a series of multimodal transportation projects since initiating the Task Force in September 2021, from local bicycle lanes to major port infrastructure projects. On July 6, 2023, the California State Transportation Agency (CalSTA) awarded \$643.5 million to implement port projects and freight rail projects valued at over \$3 billion through its one-time Port and Freight Infrastructure Program (PFIP). These include initial funding for major freight rail efficiency projects that will support greater movement of cargo by rail, including the Commerce Flyover project and the Hobart/Commerce Intermodal Facility, which received a combined \$27 million toward their total cost of \$2.139 billion and the Port of Long Beach System-Wide Investment in Freight Transport (SWIFT) with \$225 million in state funds toward the estimated cost of \$593.7 million.

Additionally, the Task Force also identified a set of projects that received investment through the Pre-Investment Plan Opportunity (PIPO), which allowed Metro to seek grant funding for Corridor projects before the Investment Plan could be finalized to take advantage of available funding opportunities. In 2023, the PIPO yielded \$46.6 million in grant funding to support a \$76 million investment in the Corridor. ⁶² In Cycle 6 of the State Active Transportation Program, ⁶³ 15 projects in Corridor cities and unincorporated communities valued at \$114.8 million received \$92.6 million in grant funding, including one project that was included in the PIPO. In total, these recent Federal and State grant commitments

⁶¹For more information on CalSTA's program: https://calsta.ca.gov/-/media/calsta-media/documents/pfip-awards-summary-narrative-7-6-23-a11y.pdf

⁶² To read about this investment: LPP-C funding for SELA TIP: https://catc.ca.gov/-/media/ctc-media/documents/programs/local-partnership-program/competitive/2022-guidelines-competitive/tab-18-4-6-a11y.pdf

⁶³ For more information: MPO: https://catc.ca.gov/-/media/ctc-media/documents/programs/atp/2023/2023-atp-staff-reccomendations-mpo-component-a11y.pdf and State level: Statewide: https://catc.ca.gov/-/media/ctc-media/documents/programs/atp/2022/2023-atp-staff-recommendations-final-a11y.pdf

total over \$1.33 billion that will help deliver Corridor projects valued at over \$4.9 billion as part of the Investment Plan (see **Table 8-1**).

Metro is also supporting Corridor projects that will not necessarily be eligible for or receive Measure R and M funds dedicated to the Corridor. Roughly \$7.2 billion of federal, state, and Measure M transit capital funding will be needed to deliver the first segment of Southeast Gateway Light-Rail Transit (LRT) Line (formerly the West Santa Ana Branch Line). Overall, the Investment Plan supports the delivery of projects valued at \$12.1 billion that will be funded through sources other than the Corridor's Measure R/M funds described below.

Table 8-1. Corridor Investments Supported by Other* Funding Sources

	Committed Amount	Estimated Total Cost	Funding Source
Mode and Project Name	(\$M)	(\$M)	
Goods Movement			
System-Wide Investment in Freight Transport	¢224.05	ģ502 G7	Port Freight and Infrastructure (PFIP) ⁶⁴
(SWIFT) – Electrification Projects	\$224.95	\$593.67	_
Maritime Support Facility (MSF) Improvement and Expansion Project	\$149.33	\$198.25	
Port of Los Angeles Rail Mainline/Wilmington Community and Waterfront Pedestrian Grade Separation Bridge	\$42.08	\$57.91	
State Route 47-Seaside Avenue and Navy Way Interchange Improvement Project	\$41.79	\$62.98	
Commerce Rail Flyover	\$12.00	\$939.00	
Hobart/Commerce Intermodal Facility	\$15.00	\$1,200.00	
America's Green Gateway: Pier B Rail Program Buildout	\$283.00		U.S. DOT MEGA Grant ⁶⁵
- SWIFT - Pier B Component	\$158.40		PFIP
 Pier B Street Freight Corridor Reconstruction Project 	\$26.30		Congestion Mitigation and Air Quality (CMAQ) ⁶⁶
- America's Green Port Gateway: Pier B Early Rail Enhancements Project	\$70.44		Trade Corridor Enhancement Program (TCEP) ⁶⁷
- America's Green Port Gateway Phase 1: Pier B Early Rail Enhancements	\$52.20		
- North Harbor Transportation System Improvement Project	\$52.63	\$1,547	

⁶⁴ CalSTA: https://calsta.ca.gov/-/media/calsta-media/documents/pfip-awards-summary-narrative-7-6-23-a11y.pdf

⁶⁵ https://www.transportation.gov/sites/dot.gov/files/2024-01/MEGA%20Fact%20Sheets%20FY%202023-2024_Final.pdf

⁶⁶ USDOT - CMAQ: https://www.transportation.gov/sustainability/climate/federal-programs-directory-congestion-mitigation-and-air-quality-cmag

⁶⁷ https://catc.ca.gov/-/media/ctc-media/documents/programs/tcep/4192022-tcep-program-of-project-amendment-a11y.pdf

Mode and Project Name	Committed Amount (\$M)	Estimated Total Cost (\$M)	Funding Source
Middle Harbor Terminal Zero Emission Conversion Project	\$30.14	\$37.68	US DOT Port Infrastructure Development Program ⁶⁸
Goods Movement Workforce Training Facility	\$110.00	\$150.00	CA State Budget
Pier 300 Wharf Expansion/Vessel Emission Reduction Project	\$300.00	\$300.00	Port of Los Angeles
Active Transportation			
City of Bell Gardens Pedestrian and Bicycle Improvements	\$2.96	\$2.96	California Active Transportation Program
City of Carson City-wide Community Safety Improvements	\$3.45	\$3.47	Cycle 6 ⁶⁹
City of Carson Master Bicycle Plan	\$0.90	\$0.90	
City of Long Beach Mid-City Pedestrian and Bicycle Connections	\$8.82	\$9.80	
Huntington Park Safe Routes for Seniors and Students**	\$4.26	\$4.76	
Metro A Line Connections for Unincorporated Los Angeles County	\$9.86	\$12.33	
Randolph Street Bike and Pedestrian Facilities Project	\$0.15	\$1.38	
Salt Lake Avenue Pedestrian Accessibility Project	\$7.13	\$7.13	
Slauson Avenue Corridor and Citywide Pedestrian, Bike, Transit Improvements	\$2.11	\$2.11	
South Downey Safe Routes to School Project (Phase 2)	\$1.15	\$1.15	
Tweedy Boulevard Active Transportation Improvements	\$5.26	\$6.59	
Southeast Gateway Light Rail Station First-Last Mile Bikeway Safety and Access Project	\$3.38	\$3.38	
Walnut Park Pedestrian Plan Implementation	\$2.45	\$9.66	
Wilmington Safe Streets: A People-First Approach	\$32.30	\$40.78	
West Paramount Utility Easement Multi-use Path Phase I	\$9.66	\$9.66	
Randolph Street Bike and Pedestrian Facilities Project	\$6.70	\$8.50	Metro Active Transportation program ⁷⁰
Rail Mainline/Wilmington Community & Waterfront Pedestrian Grade Separation Bridge	\$5.00	\$62.60	Reconnecting Communities &
Reconnecting North Long Beach - Hamilton Loop Project (Planning Study)	\$1.20	\$1.50	Neighborhoods (RCN FY23) ⁷¹

⁶⁸ US DOT 2023: https://www.maritime.dot.gov/sites/marad.dot.gov/files/2023-11/PIDP%202023%20Awards%20Fact%20Sheets 0.pdf and 2022: https://www.maritime.dot.gov/sites/marad.dot.gov/files/2022-10/FY%202022%20Port%20Infrastructure%20Development%20Grant%20Awards.pdf

 $^{^{69}\,\}text{CA CTC:}\,\,\underline{\text{https://catc.ca.gov/-/media/ctc-media/documents/ctc-meetings/2023/2023-06/19-4-9.pdf}$

⁷⁰ LA Metro Board Report: https://boardagendas.metro.net/board-report/2020-0562/

⁷¹ US DOT FY23: https://www.transportation.gov/grants/reconnecting-communities/reconnecting-communities-fy23-awards

Mode and Project Name	Committed Amount (\$M)	Estimated Total Cost (\$M)	Funding Source
Reconnecting East Los Angeles: 60 Green Bridge Project for Belvedere Park (Planning Study)	\$0.80	\$1.00	
Arterial Roadways/Complete Streets			
I-710 Integrated Corridor Management (ICM)**	\$27.84	\$40.15	TCEP
Shoreline Drive Gateway	\$30.00	\$60.00	Reconnecting Communities and Neighborhoods Pilot (RCN FY22) ⁷²
Transit			
Southeast LA Transit Improvement Program**	\$14.50	\$31.13	Local Partnership Program ⁷³
Southeast Gateway Line LRT (Slauson A Line Station to Pioneer Segment)***	\$1,435.00	\$7,167.00	Measure M ⁷⁴ US DOT CIG (TBD) ⁷⁵
Removing Barriers and Creating Legacy - A Multimodal Approach for Los Angeles County	\$139.00	\$162.00	RCN FY23

Notes: This table is not an exhaustive list of all committed investments in the Corridor. Project costs are subject to change.

8.2 Projects and Programs Receiving Measure R/M Investment

The Investment Plan recommends the investment of \$743 million in Measure R and M funding dedicated to the LB-ELA Corridor to catalyze more than \$3.2 billion in local, state, and federal investment in priority projects and programs consistent with the Vision, Goals, and Guiding Principles of the LB-ELA Corridor, as adopted by the Task Force and approved by the Metro Board as official policy for the Corridor. Taken together, the total investment generated from Measures R and M funding is expected to be close to \$4 billion.

These projects and programs were selected through a Task Force process that initially identified more than 200 projects and programs throughout the LB-ELA Corridor, serving a wide range of travel modes and community-identified needs. After evaluating each project and program's potential to advance the Task Force's adopted Goals and Guiding Principles, highly rated projects were considered in the LB-ELA Corridor context and prioritized by assessing each project and program for technical, logistical, and political feasibility. This evaluation and prioritization process resulted in a comprehensive list of Initial Investment projects and programs (see Table 8-1) recommended for Metro's fixed Measure R/M

^{* &}quot;Other" funding sources exclude the available Measure R/M funding for the Investment Plan

^{**} Projects included in Metro's PIPO

^{***} Measure M commitment is for entire LRT corridor

⁷² US DOT: https://www.transportation.gov/sites/dot.gov/files/2023-02/RCP%20Fact%20Sheets%202022.pdf

 $^{^{73}}$ CA CTC: https://catc.ca.gov/-/media/ctc-media/documents/programs/local-partnership-program/competitive/2022-guidelines-competitive/tab-18-4-6-a11y.pdf

⁷⁴ Measure M Expenditure Plan: https://www.metro.net/about/measure-m/

⁷⁵ US DOT CIG Dashboard: https://www.transit.dot.gov/sites/fta.dot.gov/files/2024-01/Public-CIG-Dashboard-01-05-2024.pdf

funding for the Corridor, as identified in each Measure's respective expenditure plan. The Measure funding represents a small portion of the total needed to deliver these Corridor improvements; to be successful, Metro and its partners must leverage these funds with additional regional, state, and federal discretionary grant awards and other sources. These projects recommended for initial funding represent meaningful steps toward fulfilling the Investment Plan's long-term vision for the LB-ELA Corridor.

As previewed in Chapter 6, the Investment Plan aims to use Measure R/M funds as follows⁷⁶:

Funding for Implementation:_-The Investment Plan will fund projects that are (1) highly rated in achieving the Corridor Vision, Goals, and Guiding Principles as defined by the Task Force and CLC and (2) are ready for near-term funding opportunities through existing and available Measure R dollars.⁷⁷ This category could include ready-to-go projects identified through the Pre-Investment Plan Opportunity (PIPO) process (as described in Chapter 5).

Funding for Pre-Implementation: The Investment Plan will allocate funds through Modal Programs to advance other highly rated, but less-ready projects through their remaining planning and pre-implementation steps. Due to their scale and complexity, these medium to long-term projects need more time to be ready for future funding cycles (with near-term planning funding, medium-term environmental funding, and longer-term implementation funding reserved for these projects).

Funding for Development: To support the Plan's commitment to equity, the plan will allocate funds through Modal Programs to support equitable project planning, development, and ultimately, implementation of future projects that address the Corridor's Vision, Goals, and Guiding Principles. Given that some communities did not have project concepts ready for inclusion in the MSPP, this funding will also focus on identifying gaps or needs and help prioritize Equity Focus Communities (EFC), (in addition to those considered in the first two categories). This would include It will provide ing the needed technical assistance and planning resources currently lacking within under-resourced communities to fully develop project concepts, currently in their early stages, to advance toward implementation. The funding is called the START-UP (Strategic Technical Assistance for Reparative Transportation Uplifting People) Fund and will. This would result in additional candidate projects that address the Equity Guiding Principle and which qualify for future funding.

Funding for Community Programs: Community Programs are a hallmark of the Investment Plan's commitment to equity and improving the lives of those in the community. These programs are designed to provide unique, equity-centered benefits to impacted LB-ELA Corridor residents, reflecting the input received from community members throughout the Investment Plan development processof the Investment Plan. The Investment Plan includes \$40 million in funding, called the Community Programs Catalyst Fund, and is targeting additional grant funding for a total of \$300 million—an average of \$20 million for each of the 15 Community Programs. The intent of the Catalyst Fund is to allow each program

⁷⁶ These categories are displayed by project in the project fact sheets in this document as "phase" or in the online visualization dashboard as "status".

⁷⁷ See Chapter 7, Funding for more on this.

to be further developed into a fundable project or program, develop priorities for projects and programs, and create strategies for ongoing funding from local sources and discretionary grant sources. Because the community programs feature varying degrees of transportation-related scope, leveraging outside grant funding will be an important focus of this effort, as Metro cannot fund some of the community programs beyond the planning stage due to the transportation nexus requirements of Measure R and M funding. Metro commits to collaborating and partnering with other assigned lead agencies to identify eligible funding sources, implementation pathways, and appropriate sponsors for these programs. Community Program development will be supported by Working Groups comprised of community members and community-based organizations, further described in Chapter 9.

These programs feature varying degrees of transportation-related scope, requiring the project team to review each program and align it with the most appropriate agencies to lead them, and strategies tailored to their implementation. The project team is evaluating relevant Metro-led programs to determine if any are related to desired Community Programs so that Metro's ongoing efforts could be leveraged to support the implementation of the LB-ELA Investment Plan Community Programs Catalyst Fund. Metro-commits to collaborating and partnering with other assigned lead agencies to identify eligible funding sources, implementation pathways, and appropriate sponsors for these programs. Metro-expects that the Measure R/M funding allocated to Community Programs Catalyst Fund will leverage additional local funding better suited for each program's scope of work and regional, state, and federal discretionary grant funding from programs designed to support these programs.

8.3 Initial Investments: Projects/Programs Recommended for Initial Funding

Based on the project outreach and evaluation processes, the projects recommended for the initial funding allocation of Measure R/M funds assigned to the LB-ELA Corridor are included in **Table 8-2** below and are explained in more detail in the <u>F</u>act <u>S</u>sheets <u>on the following pages in Section 8.4.</u> The projects recommended for Initial Investment are in various stages of project development, from planning through implementation. <u>All applicable projects will adhere to Clean Air Act conformity analysis requirements</u>. These projects/programs are displayed in **Figure 8-16**.

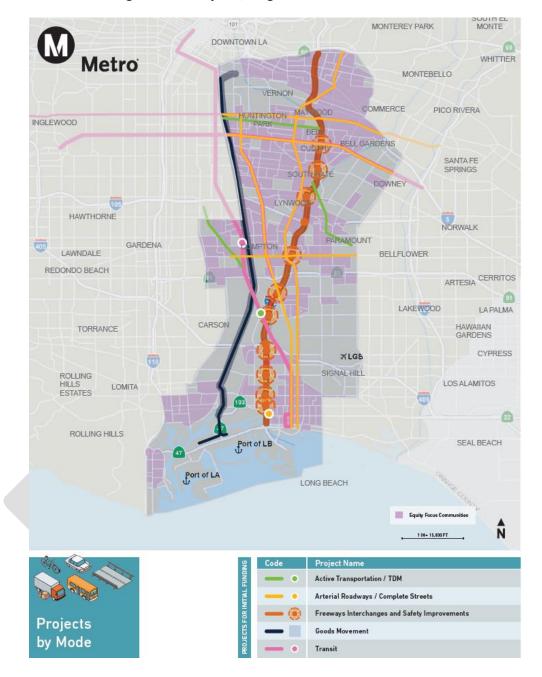


Figure 8-16. Projects/Programs for Initial Investment

In addition to the projects and programs identified for Initial Investment, the Investment Plan also looks to the future of the LB-ELA Corridor by supporting, planning, developing, identifying, and refining projects, programs, and strategic initiatives, and addressing unmet equity needs to advance the Corridor's Vision, Goals, and Guiding Principles. Modal Programs, detailed in a subsequent section, will

serve as the mechanism by which these ongoing planning and development activities leading to implementation will occur following the adoption of the Investment Plan.

The Investment Plan features five Modal Programs centered around the following modes of transportation to categorize projects during the development of the plan: Active Transportation, Arterial Roadways/Complete Streets, Freeway Safety and Interchange Improvements, Goods Movement, and Transit. Metro, its partners, and stakeholders will need to continue collaborating to advance the projects in the Modal Programs toward implementation to further the goals of the Investment Plan. Furthermore, the Investment Plan will reserve funding within each Modal Program to carry out these planning and development activities and implement some projects that eventually emerge from this future work.

Further detail is provided for projects and programs recommended for Initial Investment in the following tables. Project descriptions reflect project details available at the time of the Investment Plan project collection and evaluation process. The description and scope for projects that will require additional pre-implementation work may be modified in the future based on these planning and design processes. Projects and programs may include Equity and/or Community Input Consideration Flags described below.

Equity Flags - Highlight potential Concerns that impact EFCs, as identified through the technical evaluation criteria. A high Equity Flag refers to more or greater potential impacts, and medium or low Equity Flags refer to fewer or lesser potential impacts respectively. Where a project includes an Equity Flag, implementation requirements and guidance are provided to address the equity issues identified.

Community Input Consideration (CIC) Flags – Highlight recommendations or Concerns raised by community members through the Investment Plan development process that were not captured through the technical evaluation criteria (see Chapter 6 for more information).

The projects and programs recommended for initial funding are listed in **Table 8-2**. Equity and CIC flags are noted in project Fact Sheets within this chapter and in Appendix 6C, Table 8.

Table 8-2. Projects/Programs Recommended for Initial Investment (Alphabetical)

Project/Program Name	Investment Plan amount (\$M)	Project/Program ID
Bus Stop Improvement Projects/Programs	\$19.0	LB-ELA_0203
Complete Street Corridor: Alondra Boulevard	\$9.0	LB-ELA_0060
Complete Street Corridor: Atlantic Boulevard	\$68.6	LB-ELA_0057
Complete Street Corridor: Florence Avenue	\$24.9	LB-ELA_0058
Complete Street Corridor: Long Beach Boulevard	\$0.75	LB-ELA_0062

Project/Program Name	Investment Plan amount (\$M)	Project/Program ID
Complete Street Corridor: Slauson Avenue	\$3.6	LB-ELA_0061
Clean Truck Infrastructure*	*	LB-ELA_0023
Compton Creek Bike Underpasses	\$0.5	LB-ELA_0165
Compton Transit Management Operations Center Enhancements	\$2.0	LB-ELA_0168
Freight Rail Electrification Pilot Project	\$10.0	LB-ELA_0217
Goods Movement Freight Rail Study	\$2.0	LB-ELA_0151
Humphreys Avenue Pedestrian/Bicycle Overcrossing ⁷⁸	\$8.9	LB-ELA_0139
I-710 Freeway Lids, Caps and Widened Bridge Decks	\$5.0	LB-ELA_0181
I-710 MOSAIC Program (Interstate 710 Multimodal, Operational, Safety, and Access Investments for the Community)	\$153.6	
I-710/Firestone Interchange Improvements		LB-ELA_0033
I-710/Florence Interchange Improvements		LB-ELA_0034
I-710/Willow Interchange Improvements		LB-ELA_0028
I-710/Del Amo Interchange Improvements		LB-ELA_0029
I-710/Long Beach Boulevard Interchange Improvements		LB-ELA_0030
I-710/Alondra Interchange Improvements and Modification of SB I-710 to SR 91 Connectors		LB-ELA_0031
I-710/Imperial Interchange Improvements		LB-ELA_0032
I-710 Auxiliary Lanes (Willow to Wardlow)		LB-ELA_0035
I-710/I-405 Connector Project Improvements		LB-ELA_0036
I-710/I-105 Connector Project Improvements		LB-ELA_0037
I-710 Auxiliary Lanes (Del Amo Boulevard to Long Beach Boulevard)		LB-ELA_0038
I-710/Anaheim Interchange Improvement		LB-ELA_0091
I-710/PCH Interchange Improvement		LB-ELA_0092
I-710/Wardlow Interchange Improvement		LB-ELA_0093

⁷⁶ The Humphreys Avenue Pedestrian/Bicycle Overcrossing project was selected for the Pre-Investment Plan Opportunity (PIPO) by the Metro Board in September 2022 as a priority for the LB-ELA Corridor. This project received a \$9.9615 million USDOT Reconnecting Communities and Neighborhoods Grant.

Project/Program Name	Investment Plan amount (\$M)	Project/Program ID
I-710 Particulate Matter Reduction Pilot Project	\$2.0	LB-ELA_0157
I-710 Planning Study: Reconnecting the Long Beach-East LA Corridor Communities***	\$2.5	LB-ELA_9318
I-710 Traffic Controls at Freeway Ramps	\$10.0	LB-ELA_0156
LB-ELA Corridor Bus Transit Priority Program (Eight Corridors)	\$31.1	
Atlantic Boulevard Bus Priority Lane Corridor		LB-ELA_0146
Long Beach Boulevard Bus Priority Lane Corridor		LB-ELA_0141
Florence Avenue Bus Priority Lane Corridor		LB-ELA_0144
Slauson Avenue Bus Priority Lane Corridor		LB-ELA_0142
Gage Avenue Bus Priority Lane Corridor		LB-ELA_0143
Firestone Boulevard Bus Priority Lane Corridor		LB-ELA_0145
Whittier Boulevard Bus Priority Lane Corridor		LB-ELA_0178
Olympic Boulevard Bus Priority Lane Corridor		LB-ELA_0179
Metro A Line First/Last Mile Plan Improvements	\$9.8	LB-ELA_0008
Metro A Line: Quad Safety Gates at all A Line [Blue Line] Crossings	\$5.0	LB-ELA_0175
Rail to River Active Transportation Corridor Segment B	\$3.2	LB-ELA_0006
Regionally significant bicycle projects from the Metro Active Transportation Strategic Plan	\$15.7	LB-ELA_0017
Shoemaker Bridge/Shoreline Drive	\$9.0	LB-ELA_0010
Southeast Gateway Line Bike and Pedestrian Trail**	\$3.8	LB-ELA_0111
Zero-Emission Truck Program	\$50.0	LB-ELA_0004

Notes:

8.3.1 New Project Recommended for Initial Investment

One additional project has been added to the Projects Recommended for Initial Investment since the publication of the draft Investment Plan. While it was not assessed through the Investment Plan

I-710 = Interstate 710

^{*}Clean Truck Infrastructure investment included as part of the Zero-Emission Truck Program (LB-ELA_0004)

^{**}Formerly called the "West Santa Ana Branch" trail. Bikeway project name updated to reflect new rail corridor name

^{***} New project that was not directly evaluated through the evaluation process described in Chapter 6. This project is in alignment with the priorities of the corridor and is described below.

evaluation process, it meets several of the goals of the Plan. This planning study, described below, was submitted by Metro, Gateway Cities COG and METRANS for grant funding from the Reconnecting Communities & Neighborhoods federal grant program, but was not successful in obtaining funding.

I-710 Planning Study: Reconnecting the Long Beach-East LA Corridor Communities

This planning study will advance the work of the Task Force in collaboration with project partner METRANS to identify crossings of I-710 at which capital improvements are needed to reconnect communities on either side of the freeway. This study meshes well with the Alternatives Analysis study of the I-710 MOSAIC program projects (see fact sheet below). These crossing improvements will increase access to jobs, healthcare, education, grocery stores, and green space in this disadvantaged corridor that has long been deprived of quality connections to these necessities, especially by foot and bike. The Plan will identify which crossings are in highest need of improvements, and which specific capital improvements address those needs. To achieve this outcome, the Plan will advance the work of the Task Force and use METRANS research expertise to analyze existing travel patterns along the corridor and across the I-710 freeway. The analysis will also identify out-of-standard crossings and locations that would benefit the most from safety, active transportation, and transit improvements. The analysis will consider how to improve mobility, provide safe access to jobs, healthcare, and grocery stores, as well as green space and recreational areas such as the LA River Path. It will develop prioritization criteria to identify the most critically needed improvements in consultation with the community and Community Based Organizations (CBOs).

Metro applied for a Reconnecting Communities & Neighborhoods grant to fund this study but was unsuccessful. Metro believes this is vitally important for helping to prioritize future funding to address critical gaps and connect communities that are divided by the I-710 freeway.

8.4 Fact_Seheets: Projects and Programs Recommended for Initial Investment Bus Stop Improvement Projects/Programs [LB-ELA_0203]

Project/Program name	Bus Stop Improvement Projects/Programs [LB-ELA_0203]
Project/Program description	Collaborate with the local jurisdictions (cities and unincorporated areas of Los Angeles County) to implement bus stop improvements in the LB-ELA Corridor. Bus stop improvements would include items such as lighting, security features, benches, shade and shelters, drinking fountains, solar-powered arrival displays, trashcans, landscaping, signage, crosswalks, and improved ADA accessibility, including repositioning of utility boxes on the sidewalk. Provide financial support to help leverage local funds for project implementation. Funds would be made available based on criteria such as project need, project readiness, and project benefits relative to costs, among other factors.
Project/Program lead	Metro, Long Beach Transit, and local jurisdictions
Metro role	Partner
Location	Study-area wide
Top scoring goals/principles addressed	Safety, Community Health, Opportunity, and Prosperity
Flags	Equity Flag: None
	CIC Flag: Add design specification for paving materials to ensure bus stop accessibility for mobility devices
Modes	Transit, Active Transportation, Arterials
Phase	Development/Implementation
Implementation requirements/guidance	The Investment Plan investment would be used to purchase and install bus shelters with real-time displays and security lighting at 100 of the bus stops that currently lack shelters as well as 1,000 curb ramps to improve ADA accessibility to bus stops in the LB-ELA study area. The \$19 million can be used to leverage additional grant funding to implement additional locations as well as to support the installation of additional amenities mentioned above, such as lighting, security features, benches, drinking fountains, solar-powered arrival displays, trashcans, landscaping, and signage. Additionally, Metro is currently piloting portable public restrooms at Metro rail stations; this pilot could be expanded to specific bus stop locations if there is adequate space. The exact locations of the shelters and curb ramps will be determined using a prioritization process that focuses on areas of highest need. Metro anticipates that it will use the EFC designations, coordination with cities and Access Services, areas with high ridership, and areas that lack shade and are vulnerable to heat impacts to inform prioritization. Investment in this program will also address several city-wide bus stop improvement projects, including Bus Shelter Upgrades [LB-ELA_0118 – Signal Hill], Bus Stop Improvements [LB-ELA_0103 – Maywood]. Metro also anticipates that cities will be responsible for a city funded local match for these projects, to be determined

Potential for packaging	Related projects include Southeast Los Angeles (SELA) Transit Improvements Project (TIP) [LB-ELA_0169], Bus Shelter Upgrades [LB-ELA_0118 – Signal Hill], Bus Stop Improvements [LB-ELA_0077 – Commerce], and Bus Stop Improvements [LB-ELA_0103 – Maywood].
Estimated cost	\$19 million: \$60,000 per shelter (100 shelters) \$13,000 per curb ramp (1000 ramps)
Potential funding sources	Federal Transit Administration (FTA) (7300 series) Federal Transit Administration (FTA) Transit facilities grants
Grant matching fund requirements	Minimum local match: 20% – FTA grants
Recommended Measure R/M investment	\$19 million*

Note:



^{*} Metro will expect cities to provide at least a portion of the local funding match for these projects and generally be expected to be responsible for the future operations and maintenance costs of these facilities

Complete Street Corridor: Alondra Blvd [LB-ELA_0060]

Project/Program name	Complete Street Corridor: Alondra Blvd
Project/Program description	Alondra Boulevard, between Central Avenue and Lakewood Boulevard. Reconstruct Alondra Boulevard to establish a Complete Street Corridor, including bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.
Project/Program lead	Compton/Paramount/Gateway Cities COG
Metro role	Fund
Location	Compton, Paramount
Top scoring goals/principles	Air Quality, Safety, Community
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues CIC Flag: Assess potential for roadway reconfiguration to impact existing truck routes, and how changes may reroute truck traffic that will impact neighboring streets. Maintain existing parking where possible and facilitate alternative parking solutions where street parking reductions are needed.
Modes	Active Transportation, Arterial Roadways/Complete Streets, Transit
Phase	Implementation/Pre-implementation
Implementation requirements/guidance	Design Guidance: While multimodal travel options and throughput are important, Complete Streets projects should prioritize safety for all users. Displacements and Physical Impacts: In general, major arterial roadway redesigns should use the existing right-of-way wherever possible and minimize roadway expansions that require displacements or right-of-way impacts. Wherever these impacts are under consideration, jurisdictions should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits. Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.
Potential for packaging	Alondra Boulevard Intersection Improvements (LB-ELA_0109) Alondra Boulevard Bridges (LB-ELA_0107) I-710/Alondra Interchange Improvements and Modification of SB I-710 to SR 91 Connectors (LB-ELA_0031)
Estimated cost	\$45 million
Potential funding sources ⁷⁹	State ATP, SCCP
Grant matching fund requirements	Minimum local match: 0% – State ATP, SCCP
Recommended Measure R/M investment	\$9 million

 $^{^{79}}$ The list of funding sources and their abbreviations can be found in Tables 7-2 through 7-5 in Chapter 8



Complete Street Corridor: Atlantic Blvd [LB-ELA_0057]

Project/Program name	Complete Street Corridor: Atlantic Blvd [LB-ELA_0057]
Project/Program description	Atlantic Avenue/Boulevard, between Ocean Boulevard and State Route (SR) 60. Reconstruct Atlantic Avenue/Boulevard to establish a Complete Street Corridor, including bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.
Project/Program lead	Gateway Cities COG/Cities
Metro role	Support and/or fund
Location	Bell, Commerce, Compton, Cudahy, Long Beach, Lynwood, Maywood, South Gate, Vernon, East Los Angeles, East Rancho Dominguez
Top scoring goals/principles	Air Quality, Community, Mobility
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues Community Input Consideration (CIC) Flag: Assess potential for roadway reconfiguration to impact existing truck routes and how changes may reroute truck traffic to impact neighboring streets. Maintain existing parking where possible and facilitate alternative parking solutions where street parking reductions are needed.
Modes	Active Transportation, Arterial Roadways/Complete Streets, Transit
Phase	Implementation/Pre-implementation
Implementation requirements/guidance	Design Guidance: While multimodal travel options and throughput are important, Complete Streets projects should prioritize safety for all users. The Atlantic Corridor project passes through ten jurisdictions, including Bell, Commerce, Compton, Cudahy, Long Beach, Lynwood, Maywood, South Gate, Vernon, and communities in unincorporated Los Angeles County. Given the differing schedules for this project, with some segments ready for implementation in 1 to 2 years and other sections needing 4 to 5 years before construction, this Corridor will require near-term and long-term measure funding. Given the high project cost, this Corridor will need to leverage significant funding from state and federal grant programs and will need to be developed in phases. Displacements and Physical Impacts: In general, major arterial roadway redesigns should use the existing right-of-way wherever possible and minimize roadway expansions that require displacements or right-of-way impacts. Wherever these impacts are under consideration, jurisdictions should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits. Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.

Potential for packaging	Atlantic Bus Only Lane and Transit Signal Prioritization [LB-ELA_0019 and LB-
Estimated cost	\$457 million
Potential funding sources	RCN, State ATP, SCCP
Grant matching funds	Minimum local match:
Recommended Measure R/M	\$68.68 million



Complete Street Corridor: Long Beach Blvd [LB-ELA_0062]

Project/Program name	Complete Street Corridor: Long Beach Blvd
Project/Program description	Long Beach Boulevard/Pacific Boulevard. Reconstruct Long Beach Boulevard/Pacific Boulevard, between Ocean Boulevard and Slauson Avenue to establish a Complete Street Corridor, including bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.
Project/Program lead	COG/Cities
Metro role	Support and/or fund
Location	Compton, Huntington Park, Long Beach, Lynwood, South Gate, Walnut Park
Top scoring goals/principles	Air Quality, Community, Safety
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues CIC Flag: Assess potential for roadway reconfiguration to impact existing truck routes, and how changes may reroute truck traffic to impact neighboring streets. Maintain existing parking where possible and facilitate alternative parking solutions where street parking reductions are needed.
Modes	Active Transportation, Arterial Roadways/Complete Streets, Transit
Phase	Development
Implementation requirements/guidance	Design Guidance: While multimodal travel options and throughput are important, Complete Streets projects should prioritize safety for all users. Displacements and Physical Impacts: In general, major arterial roadway redesigns should use the existing right-of-way wherever possible and minimize roadway expansions that require displacements or right-of-way impacts. Wherever these impacts are under consideration, jurisdictions should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits. Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.
Potential for packaging	Micromobility Pilot Project (LB-ELA_0220) Long Beach Boulevard Bus Priority Lanes (LB-ELA_0141) I-710/Long Beach Boulevard MOSAIC (LB-ELA_0030) Blue Line First/Last Mile Projects (Willow/Wardlow/PCH Stations) (LB-ELA_0008)
Estimated cost	\$1.5 million (Planning study)
Potential funding sources	SS4A, State ATP, SCCP
Grant matching fund requirements	Minimum local match: 0% – State ATP, SCCP 20% – SS4A

Recommended	Measure	R/M
investment		

\$750,000 (Planning Study)

Complete Street Corridor: Slauson Ave [LB-ELA_0061]

Project/Program name	Complete Street Corridor: Slauson Ave
Project/Program description	Slauson Avenue, between Alameda Street and Lakewood Boulevard. Reconstruct Slauson Avenue to establish a Complete Street Corridor, including bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.
Project/Program lead	COG/Cities
Metro role	Fund
Location	Bell, Commerce, Huntington Park, Maywood, Montebello, Vernon
Top scoring goals/principles	Community, Safety, Equity
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues CIC Flag: Assess potential for roadway reconfiguration to impact existing truck routes, and how changes may reroute truck traffic to impact neighboring streets. Maintain existing parking where possible and facilitate alternative parking solutions where street parking reductions are needed.
Modes	Active Transportation, Arterial Roadways/Complete Streets, Transit
Phase	Implementation/Pre-implementation
Implementation requirements/guidance	Design Guidance: While multimodal travel options and throughput are important, Complete Streets projects should prioritize safety for all users. Displacements and Physical Impacts: In general, major arterial roadway redesigns should use the existing right-of-way wherever possible and minimize roadway expansions that require displacements or right-of-way impacts. Wherever these impacts are under consideration, jurisdictions should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits. Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.
Potential for packaging	Metrolink Regional Rail Line between Union Station and Long Beach (LB-ELA_0219) Slauson Avenue Corridor and Citywide Pedestrian, Bike, Transit Improvements (LB-ELA_0126) Metro Bus Priority Lane Corridor along Line 108 (Slauson) (LB-ELA_0142)
Estimated cost	\$18 million
Potential funding sources	State ATP, SCCP
Grant matching fund requirements	Minimum local match: 0% – State ATP, SCCP

Recommended Measure R/M investment

\$3.6 million



Complete Street Corridor: Florence Ave [LB-ELA_0058]

Project/Program name	Complete Street Corridor: Florence Ave	
Project/Program description	Florence Avenue, between Alameda Street and Lakewood Boulevard. Reconstruct Florence Avenue to establish a Complete Street Corridor, including bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.	
Project/Program lead	Gateway Cities COG/Cities	
Metro role	Support and/or fund	
Location	Bell, Bell Gardens, Downey, Huntington Park	
Top scoring goals/principles	Air Quality, Community, Safety	
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues CIC Flag: Assess potential for roadway reconfiguration to impact existing truck routes, and how changes may reroute truck traffic to impact neighboring streets. Maintain existing parking where possible and facilitate alternative parking solutions where street parking reductions are needed.	
Modes	Active Transportation, Arterial Roadways/Complete Streets, Transit	
Phase	Implementation/Pre-implementation	
Implementation requirements/ guidance	Design Guidance: While multimodal travel options and throughput are important, Complete Streets projects should prioritize safety for all users.	
	Displacements and Physical Impacts: In general, major arterial roadway redesigns should use the existing right-of-way wherever possible and minimize roadway expansions that require displacements or right-of-way impacts. Wherever these impacts are under consideration, jurisdictions should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits. Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.	
Potential for packaging	LB-ELA_0067 Florence Avenue Bridges LB-ELA_0080 Florence Avenue and Paramount Boulevard Intersection Improvement LB-ELA_0083 Traffic Signal Upgrades LB-ELA_0034 I-710/Florence Interchange Improvements LB-ELA_0144 Metro Bus Priority Lane Corridor along Line 111 (Florence)	
Estimated cost	\$124 million	
Potential funding sources	State ATP, SCCP, UGG, TCC	
Grant matching fund	Minimum local match:	
requirements	0% – ATP, SCCP, UGG, TCC (Development)	
	50% – TCC (Implementation)	

Recommended Measure R/M investment

\$25 million



Clean Truck Infrastructure [LB-ELA_0023] (Bundled with LB-ELA_0004)

Project/Program name	Clean Truck Infrastructure [LB-ELA_0023]
Project/Program description	The Clean Truck Infrastructure project (0023) would install charging infrastructure for ZE trucks.
Project/Program lead	Metro/Caltrans/Ports
Metro role	Partner
Location	Study Area Wide
Top scoring goals/principles	Air Quality; Opportunity; Environment
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues
Modes	Goods Movement only
Phase	Implementation



Implementation requirements/ guidance

Metro is committed to exploring all viable zero-emission technologies, including battery-electric and hydrogen, to meet regulatory mandates and sustainability goals without endorsing one solution. Metro is also committed to investing its CMIP funds in a manner that aligns with and advances the LB-ELA Corridor Task Force Vision, Goals, and Guiding Principles.

Displacements and Physical Impacts: Siting of ZE truck infrastructure should avoid displacements or right-of-way impacts. Assess potential for roadway reconfiguration to impact existing truck routes, and how changes may reroute truck traffic to impact neighboring streets. Wherever these impacts are under consideration, Metro and jurisdictions should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits.

Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.

Hydrogen Concerns: The environmental impact of hydrogen production, particularly its association with fossil fuels and significant greenhouse gas emissions on already impacted communities is a major concern. In addition, safety risks associated with the transportation and storage of hydrogen, including risks related to pipelines, trucks, rail, and ships are also of concern. Hazardous emissions such as Nitrogen Oxide (NOx) from hydrogen combustion and its impact on respiratory health in vulnerable communities should be assessed. Metro should engage in community-centered decision-making through the Air Quality and Health Working Group with impacted communities and should avoid endorsements of potentially harmful applications without community input. Metro should also conduct community education on hydrogen fuel and related issues with regional and community partners.

Environmental Review and Permit Streamlining Concerns: Metro supports robust public review and vetting for all projects, including those projects labeled zero-emission. Metro should engage in community-centered decision-making through the Air Quality and Health Working Group with impacted communities and should avoid endorsements of potentially harmful applications without community input. Metro should also conduct community education on hydrogen fuel and related issues with regional and community partners.

Flooding and Water Quality Impacts: Facilities that require the expansion or addition of paved areas should incorporate materials and designs that maintain or increase pervious cover, and/or landscaping elements that allow for sufficient stormwater runoff.

Potential for packaging

Estimated cost

Combined with 0004

Potential funding sources

\$200 million

PIDP, RTEPF, and CFI

Grant matching fund requirements	Minimum local match: 10% — Charging and Fueling Infrastructure (CFI) Program; 20% — Port Infrastructure Development Program (PIDP), Reduction of Truck
	Emissions at Port Facilities
Recommended Measure R/M investment	\$50 million * *Already committed by Metro board (shared with LB-ELA 0004)



Compton Creek Bike Underpasses [LB-ELA_0165]

Project/Program name	Compton Creek Underpasses [LB-ELA_0165]
Project/Program description	Along Compton Creek Bike Path, between 120th Street and Greenleaf Boulevard, construct a bike path under-crossings at 120th Street, El Segundo Avenue, Rosecrans Avenue, Compton Avenue, and Alondra Avenue. Add lighting, landscaping, benches, and shade to the existing path.
Project/Program lead	Compton / Metro
Metro role	Lead and/or Fund
Location	Compton
Top scoring goals/principles	Safety, Community, Equity
Flags	Equity Flag: Low See related implementation requirements/guidance below to address equity issues
Modes	Active Transportation
Phase	Planning (Conceptual Study)
Implementation requirements/ guidance	The feasibility of adding underpasses has not been studied. This recommended funding will explore the costs and benefits of adding underpasses, overcrossings, and other crossing improvements.
	Flooding and Water Quality Impacts: Class I bikeways or other facilities that require the expansion or addition of a paved right-of-way should incorporate materials and designs that maintain or increase pervious cover, and/or landscaping elements that allow for sufficient stormwater runoff.
	Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.
Potential for packaging	A Line First/Last Mile Plan Improvements (Artesia Station) [LB-ELA_0008]
Estimated cost	\$1 million for study. Results of feasibility study will include cost estimate for underpasses or other lower cost crossing options
Potential funding sources	State ATP, TCC, UGG, RCN, Rails to Trails
Grant matching fund requirements	Minimum Local Match: 0% – ATP, UGG 20% – RCN (Planning), Rails to Trails 50% – RCN (Capital), TCC (implementation)
Recommended Measure R/M investment	\$0.5 million (planning study)

Compton Transit Management Operations Center Enhancements [LB-ELA_0168]

Project/Program name	Compton Transit Management Operations Center Enhancements [LB-ELA_0168]
Project/Program description	Project improvements would include beautification, art, monuments, safety, increased bike storage, bike parking, walkways, and bike paths (Phases 1 through 5). Location: Compton Transit Management Operations Center: 275 N. Willowbrook Avenue, Compton.
Project/Program lead	Compton / Metro
Metro role	Partner and/or Lead
Location	Compton
Top scoring goals/principles	Community Health, Safety, Mobility
Flags	Equity Flag: None
	CIC Flag: None
Modes	Transit, Active Transportation
Phase	Development/Pre-construction
Implementation requirements/ guidance	NA
Potential for packaging	Compton Boulevard bikeway as part of the MSPP project LB-ELA_0017: Regionally significant bike projects from the Metro Active Transportation Plan
Estimated cost	\$27 million (estimated based on all projects included in Blue Line First/Last Mile Plan)
Potential funding sources	State ATP, TCC
Grant matching fund	Minimum local match:
requirements	0% – State ATP, TCC (Development)
	50% – TCC (implementation)
Recommended Measure R/M investment	\$2 million

Freight Rail Electrification Pilot Project [LB-ELA_0217]

Project/Program name	Freight Rail Electrification Pilot Project [LB-ELA_0217]
Project/Program description	Work with the Alameda Corridor Transportation Authority (ACTA) along with the railroads (Union Pacific (UP) and Burlington Northern Santa Fe (BNSF)) to continue to develop and test various battery electric locomotives and other electrification technologies for operation on the in the Alameda Corridor, with an ultimate goal reducing air quality impacts in the corridor with the advancement of a ZE technology capable of entering commercial, revenue service operation. Work with the Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) railroads to continue to develop and test various battery electric locomotives for operation on the Pacific Harbor Line and in the Alameda Corridor, with an ultimate goal of advancing a ZE technology capable of entering commercial, revenue service operation.
Project/Program lead	Railroad / Alameda Corridor / Ports
Metro role	Fund
Location	Vernon; Huntington Park; Florence-Graham; Firestone Park; South Gate; Lynwood; Compton; Willowbrook; Rancho Dominguez; Long Beach
Top scoring goals/principles	Environment; Air Quality; Community Health
Flags	Equity Flag: None CIC Flag: None
Modes	Goods Movement only
Phase (life cycle)	Implementation
Implementation requirements/ guidance	In response to draft CARB regulations on locomotive emissions starting in 2030
Potential for packaging	NA
Estimated cost	\$50 million
Potential funding sources	FRA pilot programs, RAISE, INFRA, TIRCP, LCTOP, and others
Grant matching fund requirements	TBD Minimum local match: 0% – LCTOP, TIRCP 20% – RAISE, INFRA, FRA
Recommended Measure R/M investment	\$10 million

Goods Movement Freight Rail Study [LB-ELA_0151]

Project/Program name	Goods Movement Freight Rail Study [LB-ELA_0151]
Project/Program description	Conduct an assessment to evaluate options for deriving greater utilization of the Alameda Corridor as a potential means for reducing truck trips in the Southern California subregion. This assessment would include options such as opportunities to increase on-dock freight rail mode share; implementation of short-haul, freight rail shuttle service to new inland rail facilities; and increased use/improved operational efficiencies of existing near-dock and off-dock intermodal facilities. This evaluation would take into account updated cargo forecasts, economic factors and projections, current trends associated with the goods movement logistics chain, including transload truck trips, and railroad and intermodal capacity constraints in the Southern California region. The Goods Movement Freight Rail Study would assess a variety of options and weigh the costs and benefits from a systemwide perspective, including changes in truck trip travel patterns, land use implications, environmental benefits and impacts, safety benefits and impacts, as well as institutional constraints. The Goods Movement Freight Rail Study would assess options from a systemwide perspective and would include factors such as changes in truck trip travel patterns, land use implications, and the potential for environmental impacts as well as institutional constraints.
Project/Program lead	Metro/Ports/Railroads
Metro role	Partner
Location	Nevin; Clement Junction; Vernon; Huntington Park; Nadeau; Firestone Park; South Gate; Lynwood; Compton; Willowbrook; Rancho Dominguez; Thenard; Long Beach
Top scoring goals/principles	Opportunity, Mobility
Flags	Equity Flag: NA – this is a study. CIC Flag: The study should focus on the potential for pollution reduction and impacts on local communities. Study should include assessment of long-term funding needed to maintain environmental sustainability.
Modes	Goods Movement only
Phase	Planning
Implementation requirements/guidance	NA – this is a study. Project Impacts: To ensure consistency with the visions set out by the Task Force, Metro should ensure that investment in this study must come with a strong commitment to study the impacts of the freight paths project recommends, which would include impacts on bike and pedestrian safety, concentrated congestion, construction impacts, increased impervious surface, and potential for new physical barrier – particularly for inland port and rail yards Addressing Community Concerns: Recognizes concerns regarding public health, emissions during hydrogen production, transportation safety, and potential leakage, affirming Metro's dedication to minimizing impacts and educating communities.
Potential for packaging	NA
Estimated cost	\$10 million (Potential to leverage with \$2 million investment)

Potential funding sources	Fed: INFRA, PIDP State: TCEP
Grant matching fund	Minimum local match: 0% – TCEP (if Caltrans nominated) 20% – PIDP
	30% – TCEP 40% – INFRA
Recommended Measure R/M	\$2 million (study)



Humphreys Avenue Pedestrian/Bicycle Overcrossing [LB-ELA_0139]80

Project/Program name	Humphreys Avenue Pedestrian/Bicycle Overcrossing [LB-ELA_0139]
Project/Program description	The Los Angeles County Metropolitan Transportation Authority (Metro), in collaboration with the California Department of Transportation (Caltrans) and Los Angeles County Department of Public Works (LADPW), plans to construct a pedestrian and bicycle overcrossing (Humphreys Avenue Crossing) near the existing Humphreys Avenue vehicle bridge in East Los Angeles. The project aims to reconnect the historically divided East L.A. neighborhood caused by Interstate 710 (I-710). The Crossing, serving as a dedicated pedestrian/cyclist route, addresses the barrier created by I-710 and enhances accessibility for vulnerable populations, connecting to essential facilities and Humphreys Avenue Elementary School. Originating from Metro Board's Motion 22.1 in 2015, the Humphreys Avenue Crossing received approval and funding, signifying a step towards rectifying past planning decisions. This project recently received \$9.861M from the Reconnecting Communities & Neighborhoods Grant program.
Project/Program lead	Metro
Metro role	Fund
Location	East Los Angeles
Top scoring goals/principles	Community, Safety
Flags	Equity Flag: NA CIC Flag: NA
Modes	Active Transportation/TDM
Phase	Pre-Implementation
Implementation requirements/guidance	NA
Potential for packaging	NA
Estimated cost	\$24.3 million
Potential funding sources	Reconnecting Communities Grant Award for \$9.861M \$1 million committed from LA County
Grant matching fund requirements	Minimum local match: 20% – RCP
Recommended Measure R/M investment	\$8.96 million

I-710 Freeway Lids, Caps and Widened Bridge Decks (LB-ELA_0181)

Project/Program name	Freeway Lids, Caps, and Widened Bridge Decks [LB-ELA_0181]
Project/Program name	Freeway Lids, Caps, and Widened Bridge Decks [LB-ELA_0181]

⁸⁰ Recommended for initial funding but also included in the Modal Programs in case it does not get funded

Project/Program description	Widen arterial bridge decks at key locations over the I-710 Freeway/LA River Channel to provide "land islands," "urban parklets," and "green belt" connections over I-710 and the LA River. Include pedestrian/bicycle pathways.	
Project/Program lead	Metro/Caltrans	
Metro role	Lead, co-fund	
Top scoring goals/principles	Community, Mobility, Safety, and the Equity principle	
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues CIC Flag: None	
Modes	Active transportation, arterial roadways	
Phase	Development/Pre-implementation	
	Will require an initial feasibility study to determine in which arterial interchanges these projects could be incorporated. The implementation of some of these could be incorporated into the redesign of select interchanges that are part of the proposed I-710 MOSAIC program.	
Implementation requirements/guidance	Follow Caltrans highway design requirements and context-sensitive design guidance. Displacements and Physical Impacts: In general, freeway projects should use the existing right-of-way wherever possible and minimize displacements or right-of-way impacts. Wherever these impacts are under consideration, Metro should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits. Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.	
Potential for packaging	This program could also be packaged with the I-710 MOSAIC program because that program starts with an alternatives analysis/prioritization study that could be expanded to include assessing the redesign of some of the interchanges to incorporate lids, caps, or widened bridge decks.	
Estimated cost	\$25 million (estimated amount to be leveraged)	
Potential funding sources	RCN, State ATP, SCCP	
Grant matching fund requirements	Minimum local match: 0% – State ATP, SCCP 20% – RCN (planning) 50% – RCN (capital)	
Recommended Measure R/M investment	\$5 million (pre-implementation)	

I-710 MOSAIC Program (Interstate-710 Multimodal, Operational, Safety, and Access Investments for the Community)

The I-710 MOSAIC Program: Multimodal, Operational, Safety, and Access Investments for the Community. This bundle of projects includes interchange upgrades and auxiliary lanes that include multimodal operations and safety improvements for autos, trucks, bicycles, pedestrians and transit. The interchange improvements are located where the freeway connects with local arterials and are also generally adjacent to the LA River, which provides the opportunity to improve the arterial river crossing bridges as well. The arterial interchange project concepts will have design elements that will address multiple modes, including bicyclists and pedestrians, not just autos and trucks. The freeway to freeway connector improvements and auxiliary lanes are proposed to improve auto and truck traffic safety and operations which will also invest in the community through safer travel. The I-710 MOSAIC naming of this bundle of projects is intended to better describe the nature of this initial investment.

Project/Program name I-710 MOSAIC program (Interstate-710 Multimodal, Operational, Safety, and Access Investments for the Community): 1. LB-ELA_0033 I-710/Firestone MOSAIC Improvements 2. LB-ELA 0034 I-710/Florence MOSAIC Improvements 3. LB-ELA 0028 I-710/Willow MOSAIC Improvements 4. LB-ELA 0029 I-710/Del Amo MOSAIC Improvements 5. LB-ELA 0030 I-710/Long Beach Boulevard MOSAIC Improvements 6. LB-ELA_0031 I-710/Alondra MOSAIC Improvements and Modification of SB I-710 to SR 91 MOSAIC Connectors 7. LB-ELA 0032 I-710/Imper ial MOSAIC Improvements 8. LB-ELA_0035 I-710 MOSAIC Auxiliary Lanes (Willow St to Wardlow Rd) 9. LB-ELA 0036 I-710/I-405 Connector Project MOSAIC Improvements 10. LB-ELA 0037 I-710/I-105 Connector Project MOSAIC Improvements 11. LB-ELA_0038 I-710 MOSAIC Auxiliary Lanes (Del Amo Blvd to Long Beach Blvd) 12. LB-ELA 0091 I-710/Anaheim MOSAIC Improvement 13. LB-ELA 0092 I-710/PCH MOSAIC Improvement 14. LB-ELA 0093 I-710/Wardlow MOSAIC Improvement

Project/Program description

Include all the proposed Investment Plan <u>I-710</u> MOSAIC infrastructure projects into one set of candidate projects for an Alternatives Analysis/Prioritization study. This is necessary because the Investment Plan evaluation of the project design concepts is not detailed enough to prioritize these projects with respect to which ones should be in the first group to be advanced in the Alternatives Analysis study. The study will assess the 14 Investment Plan <u>I-710</u> MOSAIC project concepts in more detail to ascertain which ones to recommend to the Metro Board to advance to preliminary engineering and environmental analysis and in what order. This will include new technical analyses of the multimodal benefits of each project including improvement of freeway mainline safety and operations based on updated traffic data, and refined design concepts, and reassessment of key impacts, including potential displacements, VMT, and air quality conformity. It will include a robust public and community involvement and engagement process.

Also, as part of this Alternatives Analysis study the independent utility and logical termini of each proposed project will also be assessed, which may lead to packaging some of these projects into one combined project—for example, packaging the proposed auxiliary lane between the Del Amo Boulevard and Long Beach Boulevard interchanges with the redesign of them into I-710 MOSAIC projects.

This study will provide the more refined assessment needed to determine which of these projects are the most beneficial, without significant impacts, and should move to the next phase of their development. This study will provide the more refined assessment needed to determine which of these projects are the top ranked ones and should move to the next phase of their development. These will be put before the Metro Board to approve the short list of projects to move forward to the next phase.

The next phase of I-710 MOSAIC project development is the Project Approval/Environmental Document of MOSAICI-710 MOSAIC project development phase. Each of the most highly rated 4-6 project concepts from the Alternatives Analysis study will be refined and assessed in much greater detail following required CEQA/NEPA project development procedures. The CEQA/NEPA process includes ongoing community and public review so that the affected communities and the public can provide input and feedback on design features that maximize benefits while minimizing impacts. Following this process, the remaining MOSAICI-710 MOSAIC projects will be prioritized for implementation and these recommendations will be made to the Metro Board for consideration. Following Metro Board action on the priority list of projects to move into implementation, staff will advance those projects for grant funding, final design, and implementation.

Project/Program lead

Metro/Caltrans

Metro role Location

Metro may lead and fund in cooperation with Caltrans and Gateway Cities COG. Long Beach, Compton, Paramount, South Gate, Cudahy, Bell, Bell Gardens

Top scoring goals/principles	Safety, Mobility,	Opportunity
Flags	Equity Flags:	1.710/Alandra MOCAIC Improvements and Madification of CD I
	LB-ELA_0031	I-710/Alondra MOSAIC Improvements and Modification of SB I-710 to SR 91 Connectors: High
	LB-ELA_0034	I-710/Florence MOSAIC Improvements: High
	LB-ELA_0037	I-710/I-105 Connector MOSAIC Improvements: Moderate
	LB-ELA_0092	I-710/PCH MOSAIC Improvement: High
	See related imple issues	ementation requirements/guidance below to address equity
	Other projects: N	No Equity Flag
	CIC Flags:	
	ELA 0091 speci potential displac communities. Pro designs that are Many of these Co LB-ELA_0091; LB	rns about potential displacements (LB-ELA_0093 and LB-fically, and others generally), reduced access Concerns about ements, reduced access, and increase in traffic for the local ojects will require detailed traffic and impact studies. Develop inclusive of and emphasize safety for cyclists and pedestrians. oncerns can be addressed in an AA/Prioritization Study. -ELA_0092; LB-ELA_0093: Update design specifications to ections to west Long Beach.
Modes		and MOSAICI-710 MOSAIC Improvements, Goods Movement, ys/Complete Streets, Transit, Active Transportation
	they improve tra crossing arterial, communities, an current and futu including the nee	SAICI-710 MOSAIC project concepts are multimodal because iffic safety and operations on the freeway mainline and the they improve bicycle and pedestrian safety, reconnect d improve transit operations. They are developed to respond to re traffic safety and operational issues on the freeway, as well as ed for Complete Street Corridors and bus priority lanes and filling transportation network.
Phase	Development, Pr	re-implementation, and Implementation
	Alternatives Ana involvement and highest priority p pre-implemental (CEQA)/National projects selected	ojects will start in the Development phase with a combined lysis/Prioritization study. This study will include public lengagement. With Metro Board approval, the three to four projects emerging from this study will be further advanced to the tion phase by conducting California Environmental Quality Act Environmental Policy Act (NEPA) studies (EIR/EIS). Finally, if from that process by the Metro Board Ifor implementation will explementation phase of final design and then construction.

Implementation requirements/ guidance	Further project development will need to take into account Concerns and Flags. Community involvement will be included.
	Displacements and Physical Impacts: In general, freeway projects should use the existing right-of-way wherever possible and minimize displacements or right-of-way impacts. Wherever these impacts are under consideration, Metro and Caltrans should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits.
	Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.
	Flooding and Water Quality Impacts: Facilities that require the expansion or addition of a paved right-of-way should incorporate materials and designs that maintain or increase pervious cover, and/or landscaping elements that allow for sufficient stormwater runoff.
Potential for packaging	The MOSAICI-710 MOSAIC projects include active transportation connectivity and safety features and improve traffic flow to enable bus travel times to be more reliable.
	There are opportunities to select arterial interchanges for improvement that not only improve traffic safety and operations but also align with and support the related Complete Streets, Active Transportation, and Transit projects along those crossing arterials.
Estimated cost	Alternatives Analysis/Prioritization for 14 project concepts: \$9 million CEQA/NEPA studies for three to four project concepts: \$34 million Design and construction for three to four concepts: \$573 million Total estimated cost: \$612 million
Potential funding sources	Federal: SS4A, RAISE, RCN, INFRA State: RIP, SCCP, TCEP
Grant matching fund requirements	Minimum local match: 0% – RAISE (Rural, HDC, APP), TCEP (Caltrans nominated), SCCP, RIP 20% – RAISE (Urban), RCN (planning), SS4A 30% – TCEP 40% – INFRA 50% – RCN (Capital)
Recommended Measure R/M investment	\$153.6 million

I-710 Particulate Matter (PM) Reduction Pilot Project [LB-ELA_0157]

Project/Program name	I-710 Particulate Matter (PM) Reduction Pilot Project (LB-ELA_0157)
Project/Program description	Implement a pilot project on I-710 to deploy and evaluate measures to reduce exposure of nearby populations to particulate matter, specifically localized sources of entrained/fugitive dust, tire wear, and brake wear associated with traffic on the freeway. These measures may include roadside vegetation barriers within available Caltrans' right-ofway, air filters for nearby schools or community facilities, pavement materials, frequent street-sweeping, and deployment of air quality monitoring systems, among others. In addition, include options to examine the effectiveness of "cool pavement" applications to reduce heat island effects. As part of the work plan, the pilot project would include a study element to assess and document the efficacy of the various measures
Project/Program lead	Metro
Metro role	Partner/Fund
Top scoring goals/principles	Community and Sustainability Principle
Flags	Equity Flag: None
	CIC Flag: None
Modes	Freeway Safety and Interchange Improvements, Goods Movement
Phase	Development
	Define and conduct a study of the efficacy of various methods to reduce particulate matter emissions from the I-710 freeway, especially from non-tailpipe emissions.
	Also included in the study is determining the heat island reduction effects of "cool pavement."
Implementation requirements/ guidance	N/A
Potential for packaging	The findings of this study may lead to projects that can be implemented by other programs and projects in the Investment Plan.
Estimated cost	\$2 million feasibility study and launch of pilot program
Potential funding sources	CMAQ
Grant matching fund	Minimum local match:
requirements	11.5% – CMAQ
Recommended Measure R/M investment	\$2 million

I-710 Traffic Controls at Freeway Ramps [LB-ELA_0156]

Project/Program name	I-710 Traffic Controls at Freeway Ramps
Project/Program description	Add traffic signals with protected pedestrian/bicycle phase(s), crosswalks, lighting, landscaping, signing and striping, and other safety-related pedestrian features at the ramp termini of I-710 arterial interchanges.
Project/Program lead	Caltrans
Metro role	Partner/Fund
Top scoring goals/principles	Air Quality, Community and Safety
Flags	Equity Flag: None CIC Flag: None
Modes	Active Transportation, Arterial Roadways/Complete Streets, Freeway Safety and Interchange Improvements
Phase	Development/Pre-Implementation
	Caltrans will first need to study the feasibility of adding ramp termini traffic controls to I-710 interchange ramps that currently do not have them. The factors that affect the ability to add these active transportation safety features are dependent on the existing interchange ramp geometry and ramp traffic volumes. This feasibility study would then lead to Caltrans Project Initiation Documents to determine the more specific design changes, impacts, and costs associated with each proposed feasible interchange ramp terminus improvement. The feasible interchange locations for traffic controls on ramps will be coordinated with the interchange improvement recommendations resulting from the MOSIAC freeway Alternatives Analysis/Prioritization study to avoid duplication of recommendations.
Implementation requirements/ guidance	N/A (improvements must conform to Caltrans design standards)
Potential for packaging	These projects could become an initial interim active transportation safety improvement for the interchanges that are also selected to advance through the CEQA/NEPA process to assess the total redesign of those interchanges included in the I-710 MOSAIC program described elsewhere in the list of projects for initial funding. Their development could be included in the multimodal freeway infrastructure alternatives analysis/prioritization study which is the first phase of that project recommendation.
Estimated cost	\$50 million (estimated leveraged amount)
Potential funding sources	SS4A
Grant matching fund requirements	Minimum local match: 20% — SS4A
Recommended Measure R/M investment	\$10 million

LB-ELA Corridor Bus Transit Priority Program

The LB-ELA Corridor Bus Transit Priority Program will fund capital projects that will enhance the quality of bus transit service in the Study Area. As part of the development of the MSPP list, there were eight corridors identified for transit priority. Each of these eight corridors will be considered for implementation of bus lanes and/or other treatments to speed up bus service and improve access to transit on priority corridors. The factsheet below describes the corridors analyzed and the path to implementation. Additionally, not all corridors in the Study Area were evaluated through this process. This initiative will also consider other corridors and locations in need of transit priority treatments.

Project/Program name	LB-ELA Corridor Bus Transit Priority Program
Project/Program description	Improve bus times, speeds, and reliability along Atlantic Boulevard, Long Beach Boulevard, Florence Avenue, Slauson Avenue, Gage Avenue, Olympic Boulevard, Whittier Boulevard, and Firestone Boulevard, with the opportunity to study additional corridors. Proposed improvements would include transit signal prioritization, bus priority lanes and bus stop bulb outs, all door boarding, and bus stop and layover improvements.
Project/Program lead	Metro
Metro role	Lead
Location	Multiple jurisdictions/Corridor-wide
Top scoring goals/principles	Community Health, Mobility, Equity
Flags	Equity Flag: Moderate
	See related implementation requirements/guidance below to address equity issues
	CIC Flag: Establish project specifications to minimize negative impacts on local businesses and support local businesses with technical assistance (START-UP Fund). Maintain existing parking where possible and facilitate alternative parking solutions where street parking reductions are needed.
Modes	Transit, Arterial Roadways/Complete Streets
Phase	Development/Pre-construction

Implementation requirements/guidance	The Investment Plan will support the enhancement of transit priority treatments throughout the LB-ELA corridor. This initiative will study the 8 transit corridors identified for bus priority treatments, including the Atlantic Blvd, Florence Ave, Long Beach Blvd, Slauson Ave, Whittier Blvd, Olympic Blvd, Gage Blvd, and Firestone Blvd. In addition, corridors not listed on the initial MSPP list will be considered for future investment, such as Willow St in Long Beach, or others that were not evaluated through this process. The Investment Plan will provide \$3M to study and prioritize these corridors for transit priority treatments. The CMIP will set aside \$23M to implement bus priority lanes and transit priority treatments on 2 of the 8 corridors and an additional \$5M for spot treatments to improve transit speed and reliability on other corridors. Some of the corridors include those that are also recommended for Complete Streets funding, including Atlantic Boulevard, Long Beach Boulevard, Florence Boulevard, and Slauson Avenue. These corridors were also studied as part of Metro's BRT Vision and Principles study and are the top performing corridors in the LB-ELA study area. Impacts on non-transit users: Bus lane projects have the potential to increase travel times for non-transit vehicles as well as the potential for cut-through traffic onto neighborhood streets. As part of the design and outreach processes, Metro and partner agencies will need to address travel time and parking considerations, truck traffic volumes, and the possibility of increased
	cut-through traffic on neighborhood streets when considering dedicating a lane to bus only travel.
Potential for packaging	Related projects include the four funded Complete Streets Corridor projects [LB-ELA_0057, LB-ELA_0058, LB-ELA_0061, LB-ELA_0062] as well as the Atlantic BRT project [LB-ELA_0019]
Estimated cost	\$462 million ⁸¹
Potential funding sources ⁸²	RAISE, Federal Transit Administration (FTA) Small Starts
Grant matching fund	Minimum local match:
requirements	0% – RAISE (Rural, HDC, APP)
	20% – RAISE (Urban)
	40% – CIG Small Starts
Recommended Measure R/M investment	\$31.1 million (\$3M for planning, \$23.1M for implementation of two corridors, and \$5M for additional targeted improvements)

⁸¹ Average cost for BRT lite is \$6.5 million/mile; total estimated cost of all projects is \$462 million.

 $^{^{82}}$ The list of funding sources and their abbreviations can be found in Tables 7-2 through 7-5 in Chapter 7

Metro A Line First/Last Mile Plan Improvements [LB-ELA_0008]

Project/Program name	Metro A Line First/Last Mile Plan Improvements [LB-ELA_0008]
Project/Program description	Implement projects identified in the A Line First/Last Mile Plan (formerly the Blue Line) in the LB-ELA Corridor, with an emphasis on Del Amo Station. Projects to include ramp reconfigurations, sidewalk, and bike lane improvements, and crossing improvements, among others. The First/Last Mile Plan for the Blue Line was adopted in April 2018 and represents a first-of-its-kind effort to plan comprehensive access improvements for an entire transit line. The Plan covered all 22 stations on the Metro A (Blue) Line and piloted an inclusive, equitable project planning community engagement process. The Plan included planning-level, community-identified pedestrian, and bicycle improvements within walking (1/2-mile) and biking (3-mile) distance of each A Line station.
	The Del Amo project will expand existing bicycling infrastructure through protected bike lanes to ensure bicyclists can safely connect to the Metro A Line Del Amo Station along the route and the 18-mile LA River bike path to the east. Del Amo Blvd is faced with significant safety issues, exacerbated by the I-110, I-405, and I-710 freeways bisecting the Corridor, creating barriers to transit access, and contributing to pedestrian and bicyclist fatalities. Improvements along Avalon Blvd, which connects to the university, will help ensure safe active transportation mobility for students. Building on planning and outreach efforts from the Metro A Line FLM Plan, the Project proposes protected bicycle lanes, seven intersection improvements consisting of refuge islands, dual curb ramps with truncated domes, high visibility crosswalks, and leading pedestrian intervals to reduce risks to people walking, bicycling, and rolling, and to help LA County reach vision zero.
Project/Program lead	Metro/Cities
Metro role	Lead
Location	Multiple Jurisdictions (Carson, Compton, Long Beach, Los Angeles)
Top scoring goals/principles	Air Quality, Community, Equity
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues
Modes	Active Transportation, Arterial Roadways/Complete Streets, Transit
Phase	Pre-Construction/Implementation

Implementation requirements/guidance	The Blue (A) Line First/Last Mile plan has recommendations for all stations in the Corridor, and the Investment Plan will invest in advancing First/Last Mile projects with a focus on these stations: Del Amo Artesia Wardlow Willow PCH Note: Compton Station First/Last Mile improvements are being funded separately through LB-ELA_0168 (Compton Transit Management Operations Center
	Displacements and Physical Impacts: In general, major active transportation projects should use the existing right-of-way if adding Class II or IV bike facilities to the roadway. Class I bikeways or other facilities that require the expansion or addition of a paved right-of-way should incorporate materials and designs that maintain or increase pervious cover, and/or landscaping elements that allow for sufficient stormwater runoff.
	Construction Impacts : Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.
Potential for packaging	All: Regionally significant bike projects from the Metro Active Transportation Plan [LB-ELA_0017]; City of Long Beach 8-to-80 Bikeways [LB-ELA_0162]; LB-ELA Corridor Bicycle Gap Closure Projects [LB-ELA_0163]
	Artesia Station: Artesia Complete Street Corridor [LB-ELA_0056]; Compton Creek Bike Underpasses [LB-ELA_0165]
	Wardlow, Willow, PCH Stations: Long Beach Boulevard Complete Street Corridor [LB-ELA_0062]
	Compton Station: Compton Transit Management Operations Center Enhancements [LB-ELA_0168]; Compton Creek Bike Underpasses [LB-ELA_0165]
Estimated cost	\$13.53 million (Del Amo Station)
Potential funding sources	Station TOD, State ATP, SCCP
Grant matching funds	Minimum Local Match:
requirement	0% – ATP, SCCP 20% – Station TOD
Recommended Measure R/M	\$9.76 million
investment	Recommended Investment Plan funding amount includes half the project cost for Del Amo Station, plus \$3 million for pre-implementation work on Artesia, Wardlow, Willow, and PCH stations*

Note:

^{*}Pending conversations with City of Long Beach for Wardlow, Willow, and PCH stations.

Metro A Line: Quad Safety Gates at all A Line [Blue Line] Crossings [LB-ELA_0175]

Project/Program name	Metro A Line: Quad Safety Gates at all A Line [Blue Line] Crossings [LB- ELA_0175]	
Project/Program description	Install Quad Safety Gates at all A Line [Blue Line] Crossings* for safety and increased speed/safety zones.	
Project/Program lead	Metro	
Metro role	Lead	
Location	TBD - along Metro A Line	
Top scoring goals/principles	Safety, Equity, Community Health	
Flags	Equity Flag: None	
	CIC Flag: None	
Modes	Transit, Arterial Roadways/Complete Streets	
Phase	Implementation	
Implementation requirements/ guidance	The Investment Plan will invest \$5 million to install quad safety gates at 10 locations on the A Line. These locations will be determined based on need, including factors such as equity, vehicular traffic, and accident data. *	
Potential for packaging	TBD	
Estimated cost	\$450,000 per location	
Potential funding sources	RCE, CRISI	
Grant matching fund	Minimum local match:	
requirements	20% – RCE, CRISI	
Recommended Measure R/M investment	\$5 million	

^{*}A Line crossings must be within the LB-ELA Corridor Study Area

Rail to River Active Transportation Corridor Segment B [LB-ELA_0006]

Project/Program name	Rail to River Active Transportation Corridor Segment B [LB-ELA_0006]	
Project/Program description	An approximately 4.3-mile active transportation corridor between the LA River and the Slauson A (Blue) Line station that connects to Segment A. The Rail to River Active Transportation Corridor Segment B [LB-ELA_0006] follows the Randolph Street right-of-way between the Slauson A Line Station and the LA River. The Randolph Bike and Pedestrian Project [LB-ELA_0066] comprises the eastern half of this project, in the City of Bell, between Maywood Avenue and the LA River.	
Project/Program lead	Metro/Cities/LA County	
Metro role	Funding Agency/Technical Assistance Provider	
Location	Multiple Jurisdictions (Unincorporated LA County, Bell, Huntington Park, and Maywood)	
Top scoring goals/principles	Community, Safety, Equity	
Flags	Equity Flag: Low See related implementation requirements/guidance below to address equity issues CIC Flag: None	
Modes	Active Transportation, Arterial Roadways/Complete Streets	
Phase	Pre-Construction/Implementation	
Implementation requirements/guidance	Economic Displacement Impacts: To minimize potential for economic displacement, local jurisdictions (Huntington Park, Maywood, and Bell) should implement residential and commercial stabilization measures, and proactively engage neighboring residents and businesses to identify needs and connect community members with resources to financial and technical assistance (START-UP Fund). Flooding and Water Quality Impacts: In general, major active transportation projects should use the existing right-of-way if adding Class II or IV bike facilities to the roadway. Class I bikeways or other facilities that require the expansion or addition of a paved right-of-way should incorporate materials and designs that maintain or increase pervious cover, and/or landscaping elements that allow for sufficient stormwater runoff. Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.	
Potential for packaging	Randolph Bike and Pedestrian Project [LB-ELA_0066]	
Estimated cost	\$6.3 million	
Potential funding sources	State ATP, SCCP	
Grant matching fund requirements	Minimum Local Match: 0% – State ATP, SCCP	
Recommended Measure R/M investment	\$3.15 million	

Regionally Significant Bicycle Projects from the Metro Active Transportation Strategic Plan [LB-ELA_0017]

Project/Program name	Regionally significant bike projects from the Metro Active Transportation Strategic Plan [LB-ELA_0017]	
Project/Program description	Implement regionally significant active transportation projects adopted as part of the Metro Active Transportation Strategic Plan	
Project/Program lead	Local Jurisdictions (Project Dependent)	
Metro role	Partner	
Location	Corridor-Wide	
Top scoring goals/principles	Community, Air Quality, Opportunity	
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues CIC Flag: None	
Modes	Active Transportation, Arterial Roadways/Complete Streets, Transit	
Phase	Development/Implementation	
Implementation requirements/ guidance	Metro recently updated their Active Transportation Strategic Plan (November 2023) with a new list of priority corridors throughout the county. The plan identified three first-tier corridors in the Gateway Cities subregion, two of which are in the LB-ELA study area. Additionally, there are several second-tier corridors, some of which overlap with existing corridors on the full project list (see Chapter 5 for potential packaging opportunities). The Investment Plan will invest in advancing the priorities of the Active Transportation Strategic Plan, with a focus on these corridors from the ATSP's top two tiers that fall within the LB-ELA study area: Artesia Boulevard (Alameda Street to Butler Avenue) Long Beach Boulevard (Pacific Coast Highway [PCH] to S. Pine Avenue) Randolph Street (Atlantic Boulevard to River Drive) Orange Avenue/Alamitos Avenue (E. Spring Street to Pine Avenue) Firestone Boulevard (LA River Bike Path to Lakewood Boulevard) Compton Boulevard (Paulson Avenue to Atlantic Avenue) Active Transportation and SF Railway (Washington Boulevard to Long Beach Avenue/Slauson Avenue) Southern Pacific RR (Active Transportation and SF Railway to Atlantic Avenue) Union Pacific RR (Atlantic Avenue to Wood Avenue) Flooding and Water Quality Impacts: In general, major active transportation projects should use the existing right-of-way if adding Class II or IV bike facilities to the roadway. Class I bikeways or other facilities that require the expansion or addition of a paved right-of-way should incorporate materials and designs that maintain or increase pervious cover, and/or landscaping elements that allow for sufficient stormwater runoff. Construction impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place.	

Potential for packaging	Artesia Boulevard (Alameda Street to Butler Avenue): Artesia Complete Street Corridor [LB-ELA_0056] Long Beach Boulevard (PCH to S. Pine Avenue): Long Beach Complete Street Corridor [LB-ELA_0062], Micromobility Pilot Project [LB-ELA_0220], Metro Bus Priority Lane Corridor along Line 60 (Long Beach Boulevard) [LB-ELA_0141], I-710/Long Beach Boulevard Interchange Improvements [LB-ELA_0030], Blue Line First/Last Mile Projects (Willow/Wardlow/PCH Stations) [LB-ELA_0008] Randolph Street (Atlantic Boulevard to River Drive): Orange Avenue/Alamitos Avenue (E. Spring Street to Pine Avenue): Orange Avenue Improvement Project [LB-ELA_0113] Firestone Boulevard (LA River Bike Path to Lakewood Boulevard): Metro Bus Priority Lane Corridor along Line 115 (Firestone) [LB-ELA_0145]; I-710/Firestone
	Interchange Improvements [LB-ELA_0033] Compton Boulevard (Paulson Avenue to Atlantic Avenue): Blue Line First/Last Mile Projects (Compton Station) [LB-ELA_0008]; Compton Transit Management Operations Center Enhancements [LB-ELA_0168]
Estimated cost	\$41.44 million (based on \$2 million/mile investment level based on funding 50% of the mileage which is more ready for implementation (14 miles) and \$500,000 per corridor for the three less ready corridors.
Potential funding sources	State ATP, TCC, SCCP Funding available to individual projects only
Grant matching fund requirements	Minimum Local Match: 0% – State ATP, SCCP, TCC (Development) 50 Percent – TCC (Implementation)
Recommended Measure R/M investment	\$15.65 million

Shoemaker Bridge/Shoreline Drive [LB-ELA_0010]

[ADD PLACEMENT FOR EXPLANATION NARRATIVE]

Project/Program name	Shoemaker Bridge/Shoreline Drive [LB-ELA_0010]	
Project/Program description	I-710 Improvements/Shoemaker Bridge Replacement: Replace the Eexisting Shoemaker Bridge with a nNew Bridgebridge. The New new Bridge bridge Will will Be be Reduced reduced to Have have Two two Mixedmixed Flow flow Lanes lanes in the NB and in the SB Directions directions to Tie tie the Flow flow into I-710. The New new Bridge bridge Will will Also also Include include Pedestrian pedestrian and Bicycle bicycle Accessaccess. Additionally, Bicyclebicycle, Pedestrianpedestrian, and Street street Enhancements enhancements Will will Be be Provided provided on Adjacent adjacent Thoroughfares such as Shoreline Drive.	
Project/Program lead	Long Beach	
Metro role	Fund/Support City's Funding Plan	
Location	Long Beach	
Top scoring goals/principles	Safety, Mobility, Equity	
Flags	Equity Flag: Moderate See related implementation requirements/guidance below to address equity issues	
Modes	Arterial Roadway, Freeway Safety and Interchange Improvements, Active Transportation	
Phase	Pre-Implementation	
Implementation requirements/guidance	Although the Investment Plan investment is recommended for design-only, there are several implementation recommendations when the project continues to implementation: Displacements and Physical Impacts: The project entails a major roadway redesign and bridge reconstruction with both temporary and permanent impacts to the existing right-of-way and surrounding recreational facilities, however the project will result in a permanent net gain in parkland acres due to roadway consolidation. Design should minimize impacts to existing facilities where possible, and Long Beach should proactively engage the community to set expectations around the project's potential impacts, in the context of its broader benefits. Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion, interruptions to recreational facility access, and business interruptions should be carefully assessed and planned with mitigation strategies in place.	
Potential for packaging	I-710 LA River Bike Path [LB-ELA_0055]	
Estimated cost	\$833M for Shoemaker Bridge	
Potential funding sources	BIP, RAISE, INFRA, TCEP	
Grant matching fund requirements	Minimum Local Match: 0% – RAISE (Rural, HDC, APP), TCEP (if Caltrans nominated) 20% – RAISE (Urban), BIP (Planning, non-large bridge) 30% – TCEP 40% – INFRA 50% – BIP (large bridge)	

Recommended Measure R/M investment

\$9.03 million (for partial design)



Southeast Gateway Line Bike and Pedestrian Trail [LB-ELA_0111]

Project/Program name	Southeast Gateway Line Bike and Pedestrian Trail [LB-ELA_0111]	
Project/Program description	Implement Phases 1 through 4 of Bike and Pedestrian Trail (Class I) along RR ROW between LA River and Sommerset in the City of Paramount. Includes lighting, fencing, landscaping, flashing beacons, decomposed granite, ADA curb ramps, and street furniture.	
Project/Program lead	City of Paramount with Downey and South Gate	
Metro role	Partner	
Location	Multiple Jurisdictions (Downey, Paramount, South Gate)	
Top scoring goals/principles	Air Quality, Community, Safety	
Flags	Equity Flag: Low See related implementation requirements/guidance below to address equity issues CIC Flag: None	
Modes	Active Transportation	
Phase	Development/Pre-Construction	
Implementation requirements/guidance	The City of Paramount is the lead agency on this project and will be responsible for coordination with the Union Pacific Rail Road on issues surrounding the UPRR right-of-way. Flooding and Water Quality Impacts: Class I bikeways or other facilities that require the expansion or addition of a paved right-of-way should incorporate materials and designs that maintain or increase pervious cover, and/or landscaping elements that allow for sufficient stormwater runoff. Construction impacts: Noise pollution, dust emissions, traffic delays/diversion, and business interruptions should be carefully assessed and planned with mitigation strategies in place. Economic Displacement Impacts: To minimize potential for economic displacement, local jurisdictions should implement residential and commercial stabilization measures, and proactively engage neighboring residents and businesses to identify needs and connect community members with resources to financial and technical assistance (START-UP Fund).	
Potential for packaging	Southeast Gateway Line Light Rail Station First-Last Mile Bikeway Safety and Access Project [LB-ELA_0213]	
Estimated cost	\$17M	
Potential funding sources	\$12.5 funding committed Other sources: State ATP, Rails to Trails, TCC, UGG	
Grant matching fund requirements	Minimum Local Match: 0% – State ATP, TCC (Development), UGG 20% – Rails to Trails 50% – TCC (Implementation)	

Recommended Measure R/M investment

\$3.8 million



Zero-Emission Truck Program [LB-ELA_0004]

Project/Program name	Zero-Emission Truck (ZET) Program [LB-ELA_0004]	
Project/Program description	In January 2021, the Metro Board approved the 2021 Goods Movement Strategic Plan, which included a Countywide Clean Truck Initiative, with the 710 South Clean Truck Program identified as a goods movement strategic priority. At its October 2021 meeting, the Metro Board acted to recommit \$50 million from Measure R I-710 South Corridor funds as seed funding for the 710 South Clean Truck Program, which has been subsequently renamed the LB-ELA ZET Program. The objective of this program is to turn over diesel trucks in favor of ZE trucks in the LB-ELA Corridor. The program would contribute subsidy funding to deploy a number of ZE trucks on I-710, as well as seed funding to develop electric charging/refueling stations for ZE trucks.	
Project/Program lead	Metro +	
Metro role	Partner	
Location	Study area wide	
Top scoring goals/principles	Air quality; Sustainability; Environment	
Flags	Equity Flag: Low See related implementation requirements/guidance below to address equity issues CIC Flag: Establish incentives for small business owners and truck drivers to switch to ZE vehicles.	
Modes	Goods Movement only	
Phase	Implementation	

Implementation requirements/ guidance

Displacements and Physical Impacts: Siting of ZE truck infrastructure should avoid displacements or right-of-way impacts. Wherever these impacts are under consideration, Metro and jurisdictions should proactively engage residents, businesses, and property owners to understand site-specific conditions and discuss opportunities for relocation assistance and other community benefits.

Zero-Emissions and Public Safety Strategies: Metro is committed to exploring all viable zero-emission technologies, including battery-electric and hydrogen, to meet regulatory mandates and sustainability goals without endorsing one solution.

Addressing Community Concerns: Recognizes concerns regarding public health, emissions during hydrogen production, transportation safety, and potential leakage, affirming Metro's dedication to minimizing impacts and educating communities.

Compliance with Clean Fleets Rule: California's 2035 Zero-Emission (ZE) drayage truck mandate focused on tailpipe emissions, highlighting the need for comprehensive approaches to achieve ZE outcomes.

State and Federal Investments: Significant investments in hydrogen and battery-electric technologies, including up to \$1.2 billion Regional Clean Hydrogen Hub (H2Hubs) award, indicating strong governmental support for diverse ZE solutions.

Community Advocacy and Education: Metro aims to serve as a community advocate in ZE Truck (ZET) technology policy discussions, ensuring community concerns are addressed, supporting research, and facilitating educational initiatives on ZE technologies.

Expert Panel Discussions and Symposia: Plans to organize expert panels, symposia, and community education events to deepen understanding of hydrogen technology, its state of development, and its implications for the LB-ELA Corridor.

Collaborative Efforts for ZE Future: Continue collaboration with stakeholders to develop a ZE future that benefits the LB-ELA Corridor, emphasizing the importance of community input and guidance in educational and policy initiatives.

	Construction Impacts: Noise pollution, dust emissions, traffic delays/diversion,
Potential for packaging	Combined with LB-ELA_0023
Estimated cost	\$200 million
Potential funding sources	May be eligible for federal funding sources such as RTEPF (0004) and CIF (AFC category). PIDP, RTEPF (0023); INFRA or State programs such as TCEP (0004 only).
Grant matching fund requirements	Minimum local match: 0% – TCEP (if Caltrans nominated); 20% – Reduction of Truck Emissions at Port Facilities, INFRA; 30% – TCEP
Recommended Measure R/M investment	\$50 million * *Already committed by Metro board (shared with 0023)



8.5 Community Programs Recommendations

As discussed in Section 8.2, Thethe intent of the Community Programs Catalyst Fund incorporates a range of benefits that are is to be responsive to long-standing equity issues that residents in the LB-ELA Corridor face, and will proactively and intentionally advance community health and well-being in ways not typically addressed by transportation planning. The LB-ELA Corridor Mobility Investment Plan, thanks to Metro's Board leadership and the inclusion of impacted communities in the development of the Investment Plan, features 15 Community Programs that will complement the Investment Plan's multimodal transportation investments. These Community Programs were identified by members of the Task Force, CLC, and members of the public as priorities for the LB-ELA corridor. Some Community Programs are focused on addressing current burdens that exist because of past policy, disinvestment, and infrastructure development; others are proactive measures to sustain community stability and maximize benefits as projects are implemented in the future. In no case will these programs be used as a mitigation for negative impacts of other projects.

In discussions with the Task Force and CLC, community health in all its forms emerged as an overarching priority for the Investment Plan. While transportation investments can improve health outcomes by improving and encouraging non-polluting travel modes, increasing multimodal access to healthcare, and improving conditions for outdoor physical activity, not all aspects of community health can be addressed through transportation infrastructure. The Community Programs Catalyst Fund isare designed to address various other social determinants of health, including those related to health care access and quality, neighborhood and built environment, and economic stability. The 15 Community Programs are organized into three general topic areas:

Health/Air Quality/Environment

Housing Stabilization/Land Use

Job Creation/Work Opportunities

Metro's extensive community engagement, ongoing dialogue with the CLC, and Task Force members have collectively identified 15 Community Programs as priorities for Metro to support as part of the Investment Plan. Each program has been assigned one or more potential pathways for further development, partnership, and implementation. Given the transportation nexus required for projects to receive Measure R/M funding, Metro support for Community Programs may or may not include direct funding, depending on the program scope. Metro will provide alternative forms of support, including the facilitation of_partnerships to identify and collaborate with other agencies better suited to lead these programs and seek eligible funding opportunities. Metro will help to support the creation of partnerships through the facilitation of Community Programs Working Groups, described in more detail in Chapter 9, as well as also provide staff time and technical assistance where appropriate. The 15 Community Programs are organized into three general topic areas:

- Health/Air Quality/Environment
- Housing Stabilization/Land Use

Job Creation/Work Opportunities

The Investment Plan recommends \$40 million in Community Program Catalyst Funding that is frontloaded part of Metro's initial investment to help support the prioritization of this effort. Metro is targeting to \$300 million-in additional funds, averaging \$20 million per Community Program, that could be leveraged, using the Community Program Catalyst funding, through local, regional, state, and federal funds that are more suitable to each Community Program. The catalyst funding is intended to launch each program, support its development, and foster a self-sustaining process whereby additional revenues are identified and brought into each program to support an ongoing set of priority projects and programs recommended through the Working Group process. In this way, the Community Programs will be co-designed with community members and community-based organizations, in keeping with the Equity guiding principle.

<u>Some of the Some</u> Community Programs <u>maywould</u> build upon_the existing work of Metro or other jurisdictions and organizations in the LB-ELA Corridor, <u>some would provide a framework to enhance transportation projects with complementary features</u>, and <u>some while others will would</u> require establishing new partnerships and work programs. These pathways have been organized into the categories summarized in the following paragraphs:

Collaborate to Develop New Strategy/Program. Use the current program description as a starting point to establish a new initiative in partnership with relevant agencies, community-based organizations (CBOs), and technical institutions.

Support as **Part of External Agency Program.** Identify opportunities to support an existing program led by an agency, CBO, or technical institution other than Metro that meets one or more features of the Community Program description.

Support as Part of Existing Metro Program. Identify opportunities to support an existing program led by Metro that meets one or more features of the Community Program description.

Support as Part of LB-ELA Corridor Project Implementation. Identify opportunities to incorporate features of the Community Program description directly into the design and implementation of specific projects in the LB-ELA Corridor Mobility Investment Plan. It is important to note that Community Programs are not intended to be mitigations for negative impacts of other projects funded in the Investment Plan; they are intended to be standalone projects or programs that support addressing equity and public health issues the Vision, Goals, and Guiding Pprinciples raised by the community.

Implementing the Community Programs Catalyst Fund will depend on the continued involvement of community-based partners. Metro will facilitate ongoing working groups for each of the three topic areas <u>listed above</u>, with participation open to current LB-ELA Corridor Task Force members, CLC members, and other partners identified by Metro and Task Force members. Working group participants will collaborate to define programs in each topic area further, identifying lead agencies/organizations,

funding sources, objectives, implementation actions, and other details such as geographic parameters or priority areas. The LB-ELA Corridor Task Force's Zero-Emission Truck (ZET) Program Working Group will serve as a model and case study for Community Program working groups, and lessons learned from the ZET process will inform the structure and process of future working groups. Through the creation of the Community Programs and the opportunity for them to be self-sustaining through Working Groups, Metro is empowering communities with opportunities to partner with Metro and stakeholders to achieve these investments.

The following section outlines each Community Program, including the current program description, potential pathways for development, related existing programs internal and external to Metro, potential partners, a detailed pathway suggestion, and additional notes or guidance related to program implementation.

8.5.1 Community Programs by Topic Area

Health/Air	LB-ELA_0192	Bus Electrification Projects
Quality/Environment	LB-ELA_0133	LB-ELA Corridor Community Health Benefit Program
	LB-ELA_0191	Zero-Emission Infrastructure for Autos
	LB-ELA_0218	Air Quality Monitoring Stations
	LB-ELA_0134	LB-ELA Corridor Energy Reduction/Greenhouse Gas (GHG) Emissions Reduction Program
	LB-ELA_0187	LB-ELA Corridor "Urban Greening" Initiative
	LB-ELA_0190	Public Art/Aesthetics
Housing Stabilization/ Land Use	LB-ELA_0009	Southeast Gateway Line Transit-Oriented Development Strategic Implementation Plan and Program (TOD SIP)
	LB-ELA_0193	Transit-Oriented Communities/Land Use
	LB-ELA_0194	Homeless Programs
	LB-ELA_0135	Housing Stabilization Policies
Job Creation/	LB-ELA_0197	Vocational Educational Programs
Work Opportunities	LB-ELA_0195	Targeted Hire Programs
	LB-ELA_0196	Employment/Recruitment Initiatives
	LB-ELA_0186	Economic Stabilization Policies

8.5.2 Health/Air Quality/Environment

8.5.2.1 LB-ELA Corridor Community Health Benefit Program [LB-ELA_0133]

Drogram name	LB-ELA Corridor Community Health Benefit Program
Program name	LB-ELA COMIGOI COMMUNITY HEARTH BENERIL Program

Under this program, funding would be made available to implement air quality projects to reduce exposure to air pollution as well as health education and screening programs in areas adversely affected by existing and proposed transportation infrastructure projects. The LB-ELA Community Health Benefit Program would serve the communities in the LB-ELA Corridor Study Area. This program would provide subsidy funding to implement projects and outreach activities to improve air quality and public health, including but not limited to: Air Quality Projects for Schools and Community Facilities: air filtration, HVAC upgrades, replacement/sealing of windows and doors, vegetation barriers or buffer landscaping;
Health Education and Screening: community health screening and diagnosis, health education, training for community health workers, outreach programs:
Providing support for air filtration systems and household whole-home retrofit
programs, such as weatherization and abating toxic substances such as lead, mold, and asbestos; and
Developing climate and air pollution and climate resilience centers with air
filtration, temperature regulation, and proper sealing for use during emergencies.
Collaborate to Develop New Strategy/Program
Support as part of External Agency Program
NA
None Existing, but link to I-710 Particulate Matter (PM) Reduction Pilot Project [LB-ELA_0157] recommended for funding as part of Investment Plan
SCAQMD School Air Filtration Project
Assembly Bill (AB) 617 Community Air Protection Program – Community Emissions Reduction Programs (CERP) Strategies and Actions CARB Community Air Protection Program (CAPP)
Long Beach Alliance for Children with Asthma (LBACA) East Yard Communities for Environmental Justice (EYCEJ) Earthjustice Communities for a Better Environment (CBE) SELA Collaborative Natural Resources Defense Council Coalition for Clean Air (CCA) LA County Department of Public Health Gateway Cities Council of Governments (GCCOG) South Coast Air Quality Management District (SCAQMD) Southern California Clinics Association Southern California (SoCal) Crossroads SmartAirLA

Potential Funding Sources	
Measure R/M Funding Eligibility	Yes – relates to mitigation of environmental effects of public streets and highways
Detailed pathway suggestion	
Implementation notes/guidance	

8.5.2.2 Zero-Emission Infrastructure for Autos [LB-ELA_0191]

Program name	Zero-Emission Infrastructure for Autos
Program description	Work with local jurisdictions (cities, County of Los Angeles), public agencies, and private-public partners to develop and site additional charging stations for ZE vehicles in the LB-ELA Corridor. Provide grant writing assistance to help secure funding. In addition, provide technical support to share best practices such as identification of incentives and/or policy requirements for new development.
Program primary pathway	Support as part of External Agency Program
Program secondary pathway	NA
Program third pathway	NA
Existing Metro programs	NA
Existing external programs	LA County Internal Services Department (ISD) Clean Transportation Team Electric Vehicle Supply Equipment expansion program Southern California Edison (SCE) Charge Ready Program SCAG Last Mile Freight Program (Zero-Emission [ZE] Delivery Zones)
Potential partners (may include, but not limited to)	LA County ISD SCE Gateway Cities Council of Governments Gateway Cities Regional Climate Collaborative Los Angeles Cleantech Incubator Southern California Association of Governments Local Jurisdictions
Potential Funding Sources	California Energy Commission Clean Transportation Program California Electric Vehicle Infrastructure Project (CALeVIP) Communities in Charge
Measure R/M Funding Eligibility	Yes
Detailed pathway suggestion	Metro can work with the County ISD, SCE, local jurisdictions, and private partners to identify electric vehicle charger siting priorities in the LB-ELA Corridor and provide grant writing assistance in pursuit of funding for ZE infrastructure in the Corridor. Metro can support expansion of ZE delivery zones throughout the LB-ELA Corridor through SCAG's Last Mile Freight program for lighter-duty delivery trucks and vans.

Implementation notes/guidance

When selecting sites for ZE charging facilities, lead agencies and partners should proactively engage residents, businesses, and property owners to understand site-specific conditions and challenges.

Hydrogen Concerns: The environmental impact of hydrogen production, particularly its association with fossil fuels and significant greenhouse gas emissions on already impacted communities is a major concern. In addition, safety risks associated with the transportation and storage of hydrogen, including risks related to pipelines, trucks, rail, and ships are also of concern. Hazardous emissions such as Nitrogen Oxide (NOx) from hydrogen combustion and its impact on respiratory health in vulnerable communities should be assessed. Metro should engage in community-centered decision-making through the Air Quality and Health Working Group with impacted communities and should avoid endorsements of potentially harmful applications without community input. Metro should also conduct community education on hydrogen fuel and related issues with regional and community partners.



8.5.2.3 Bus Electrification Projects [LB-ELA_0192]

Program name	Bus Electrification Projects
Program description	Seek incentives to accelerate the deployment of ZE transit and vanpool vehicles in the LB-ELA Corridor. Projects could include bus electrification (public transit buses and school buses) as well as ZE charging infrastructure. Provide technical and grant writing assistance to define and develop potential projects.
Program primary pathway	Support as part of Existing Metro Program
Program secondary pathway	NA
Program third pathway	NA
Existing Metro programs	Metro Bus Electrification Program (100% ZE bus fleet by 2030)
Existing external programs	NA
Potential partners (may include, but not limited to)	NA
Potential Funding Sources	Measure M
Measure R/M Funding Eligibility	Yes
Detailed pathway suggestion	Metro can continue expansion of its own electrification efforts and coordinate with GCCOG and LB-ELA jurisdictions on related ZE transit efforts (e.g., ZE trolley on Atlantic through Maywood, Bell, Cudahy, and South Gate)
Implementation notes/guidance	Set aside Measure M funding to study the feasibility of creating a ZE charging depot in the Gateway Cities area to support LB Transit, Metro, and other municipal operation needs, especially for transfer hubs and turnback areas. Hydrogen Concerns: The environmental impact of hydrogen production, particularly its association with fossil fuels and significant greenhouse gas emissions on already impacted communities is a major concern. In addition, safety risks associated with the transportation and storage of hydrogen, including risks related to pipelines, trucks, rail, and ships are also of concern. Hazardous emissions such as Nitrogen Oxide (NOx) from hydrogen combustion and its impact on respiratory health in vulnerable communities should be assessed. Metro should engage in community-centered decision-making through the Air Quality and Health Working Group with impacted communities and should avoid endorsements of potentially harmful applications without community input. Metro should also conduct community education on hydrogen fuel and related issues with regional and community partners.

8.5.2.4 Air Quality Monitoring Stations [LB-ELA_0218]

Program name	Air Quality Monitoring Stations
Program description	Add-four new air quality monitoring stations in the LB-ELA Corridor Study Area. Sites to be identified in cooperation with the SCAQMD, community-based organizations, and residents as part of the Community Programs Working Groups.
Program primary pathway	Support as part of External Agency Program
Program secondary pathway	NA
Program third pathway	NA
Existing Metro programs	NA
Existing external programs	California Air Resources Board's (CARB's) Community Air Protection program/ SCAQMD AB 617 Community Air Monitoring Program
Potential partners (may include, but not limited to)	SCAQMD CARB Local Jurisdictions
Potential Funding Sources	 United States Environmental Protection Agency's Climate Pollution Reduction Grant
Measure R/M Funding Eligibility	Yes – relates to research/maintenance of public streets and highways and mitigation of their environmental effects
Detailed pathway suggestion	Metro can partner with CARB and SCAQMD to identify locations for new air quality monitoring stations along the LB-ELA Corridor and provide technical grant writing assistance to seek funding for air quality monitoring stations through various state and federal grants.
Implementation notes/guidance	NA

8.5.2.5 LB-ELA Corridor Energy Reduction/GHG Emissions Reduction Program [LB-ELA_0134]

Program name	LB-ELA Corridor Energy Reduction/GHG Emissions Reduction Program
Program description	Under the Energy Reduction/GHG Reduction Program, funding would be made available to implement energy reduction as well as GHG reduction projects in areas impacted by transportation projects in the LB-ELA Corridor. This program would be an important element of any major transportation initiative that takes place in the LB-ELA Corridor. The program would provide subsidy funding to implement projects and educational activities intended to reduce GHG emissions. Examples of these projects include renewable energy projects, solar-power generation, energy efficient lighting, and tree planting, among others.
Program primary pathway	Support as part of Existing Metro Program
Program secondary pathway	Support as part of External Agency Program
Program third pathway	NA
Existing Metro programs	Metro I-710 ZET Program Metro Bus Electrification
Existing external programs	SoCalREN program SCAQMD Air Quality Investment Program (Rule 2202) SCAQMD Community Air Protection Program Incentives
Potential partners (may include, but not limited to)	SCAQMD SoCalren
Potential Funding Sources	EPA Climate Pollution Reduction Grants
Measure R/M Funding Eligibility	Yes
Detailed pathway suggestion	Metro can continue expansion of its internal bus electrification efforts and ZE truck program, commit to energy efficiency in delivery of Metro projects (with consulting services from SoCalREN), and offer collaboration on external efforts to reduce GHG emissions through transition to renewable energy throughout the county and region.
Implementation notes/guidance	NA

8.5.2.6 LB-ELA Corridor "Urban Greening" Initiative [LB-ELA_0187]

Program name	LB-ELA Corridor "Urban Greening" Initiative
Program name Program description	There is a critical need to prioritize greenspace commitments in the CMIP, particularly for low-income communities of color in the Corridor. Under this initiative, Community Plan Working Groups will develop and refine "urban greening" projects proposed projects implemented through the LB-ELA Corridor Investment Plan must consider context sensitive solutions as part of the project design as well as "urban greening" elements that foster environmental resilience. They play a vital role in improving air quality, absorbing pollutants, and releasing oxygen, which is especially beneficial for these communities burdened by pollution from industrial and transportation sources. Additionally, green spaces provide valuable opportunities for active transportation, such as walking and cycling, encouraging sustainable modes of transportation and reducing congestion and greenhouse gas emissions. Furthermore, green spaces can help mitigate the urban heat island effect, reducing temperatures in urban areas. This is crucial as temperatures rise due to climate change, contributing to the creation of more resilient and adaptable communities in the Corridor. Green space and increased greenery should be consulted with local Indigenous peoples, tribes, and organizations to honor and restore local plant life.
	<u>UThese "urban greening"</u> elements may include items such as: provision of green space/greenbelts; parklets; tree planting; community gardens and community farms; drought-tolerant planting; habitat restoration and connectivity; stormwater capture/flood diversion/water management projects; brownfield remediation; natural trail restoration; and green infrastructure, among others. Through the LB-ELA Urban Greening Initiative, project proponents may also partner with other localities, nonprofit organizations, or communities to plan, design, and implement "green" projects that demonstrate that they provide publicly accessible open-space and ecosystem benefits such as urban heat island reduction in the LB-ELA Corridor. Through the Community Plan Working groups, areas that are in the most critical need of new green space will be identified with input from cbmmunity members.
Program primary pathway	Support as part of LB-ELA Project Implementation
Program secondary pathway	Support as part of External Agency Program
Program third pathway	NA
Existing Metro programs	NA
Existing external programs	NA

Potential partners (may include, but not limited to)	GCCOG Regional Climate Collaborative East Yard Communities for Environmental Justice Communities for a Better Environment Compton Community Garden Eastmont Community Center TreePeople GrowGood Friends of the LA River
Potential Funding Sources	 Urban Greening Grant Program (CA Natural Resources Agency) Metro Countywide Urban Greening Grant Program (in development)
Measure R/M Funding Eligibility	Likely Yes – Relates to the improvement and maintenance of public streets and highways, including the mitigation of their environmental effects
Detailed pathway suggestion	Metro can make funding available to lead agencies for LB-ELA projects to add or expand upon greening elements to maximize the environmental benefits of projects with a transportation focus. Metro can also provide technical support to external agencies and CBOs that lead greening efforts in the LB-ELA Corridor, such as community gardens, tree planting/maintenance, and LA River cleanup and restoration. Finally, Metro is going to create a countywide Urban Greening program. This program was recommended in Metro's Moving Beyond Sustainability plan. ⁸³
Implementation notes/guidance	NA
	Green space and increased greenery should be consulted with local Indigenous peoples, tribes, and organizations to honor and restore local plant life.

8.5.2.7 Public Art/Aesthetics [LB-ELA_0190]

Program name	Public Art/Aesthetics
Program description	Policy initiative that would require that a percentage of transportation
Program primary pathway	Support as part of Existing Metro Program
Program secondary pathway	Support as part of External Agency Program
Program third pathway	Support as part of LB-ELA Project Implementation
Existing Metro programs	Metro Art program
Existing external programs	Caltrans Transportation Art program
Potential partners (may include,	Caltrans District Transportation Art Coordinator
Potential Funding Sources	Metro Art program
Measure R/M Funding Eligibility	Likely No

⁸³ https://www.metro.net/about/plans/moving-beyond-sustainability/

Detailed pathway suggestion	Metro can continue to bring arts programming and installations for Metro
Implementation notes/guidance	NA

Source: SPP Survey, SPP Mapping



8.5.3 Housing Stabilization/Land Use

8.5.3.1 Southeast Gateway Line Transit-Oriented Development Strategic Implementation Plan (TOD SIP) and Program [LB-ELA_0009]

	0 II I 0 I II TOD OD	
Program name	Southeast Gateway Line TOD SIP	
Program description	The TOD SIP provides an overarching vision and strategic guidance for local Southeast Gateway Line jurisdictions to use as a resource as they develop and implement their own plans, policies, and economic development and mobility strategies in the 12 Southeast Gateway Line station areas along the alignment. Additionally, in 2019, the Metro Board approved a \$1 million implementation program to fund Southeast Gateway Line jurisdictions to implement TOD SIP recommendations.	
Program primary pathway	Support as part of existing Metro Program	
Program secondary pathway	Support as part of external agency Program	
Program third pathway	NA	
Existing Metro programs	Southeast Gateway Line TOD SIP Implementation Funding Program	
Existing external programs	NA	
Potential partners (may include, but not limited to)	Local Jurisdictions	
Potential Funding Sources	Affordable Housing and Sustainable Communities (AHSC) Program	
Measure R/M Funding Eligibility	Likely No	
Detailed pathway suggestion	Metro can continue to provide guidance to local Southeast Gateway Line jurisdictions as they develop and implement plans, policies, and economic development and mobility strategies in the 12 Southeast Gateway Line station areas. Metro will continue funding implementation activities using the \$1 million of implementation funds approved by the Metro Board in 2019.	
Implementation notes/guidance	NA	

Source: Metro LRTP

8.5.3.2 Housing Stabilization Policies [LB-ELA_0135]

Program name

Housing Stabilization Policies



Program description

Applying an integrated approach, work with cities, County of Los Angeles, and public agencies to propose and pass community stabilization policies to support disadvantaged communities in the LB-ELA Corridor, improve their resilience, and address the social determinants of health. Provide grant writing assistance to secure needed funding. Housing stabilization policies and incentives include measures such as:

Mandates for process improvement: engage the community/form partnerships with CBOs;

Community benefits: establish a framework/menu/equitable development scorecard for new development projects;

Develop community land trusts/land banks for new housing and/or to support naturally occurring affordable housing;

Local wealth creation: encourage production of local for sale affordable housing, down payment assistance programs, and homeowner maintenance assistance programs;

Inclusionary housing policies with or without the option of in lieu fees;

Housing Trust Fund to support and increase funding for affordable housing production;

Density bonus programs to incentivize affordable and mixed-income housing production;

Affordable accessory dwelling unit (ADU) programs and ADU amnesty programs;

Policies to reduce housing costs, such as parking reduction/unbundling, innovative construction techniques, fee waivers, and permit streamlining;

Anti-displacement programs for tenants: tenant rights programs, including anti-harassment policies/just cause eviction policies, legal assistance for tenants, no net loss housing policies for new development, limits on residential demolition and conversion, tenant right-to-return policies, and local resident preference programs for new housing;

Rent stabilization policies;

Low-income rental assistance programs, and low-interest loan programs for maintenance and improvement in rent stabilized units;

Anti-displacement programs for homeowners: tax relief/loans/grants for maintenance/foreclosure assistance; and

Basic Income Program.

Through the Community Plan Working groups, Metro will will consult with mission-driven affordable housing providers, and tenant advocates, and other experts to create and refine develop recommendations for pfundable rograms and projects that help to prevent unnecessary evictions, curb unlawful tenant harassment, ease gentrification pressures, and preserve existing affordable units while also spurring the development of sustainable, deeply affordable units that meet current environmental review and protections.

Program primary pathway

Support as part of External Agency Program

Program secondary pathway	NA	
Program third pathway	NA	
Existing Metro programs	NA	
Existing external programs	GCCOG Housing Trust Fund GCCOG Tenant Legal Assistance	
Potential partners (may include, but not limited to)	GCCOG Local Jurisdictions Fair Housing Foundation BASTA Long Beach Legal Aid Foundation of Los Angeles	
Potential Funding Sources	GCCOG Housing Trust Fund Affordable Housing and Sustainable Communities (AHSC) Program	
Measure R/M Funding Eligibility	Likely No	
Detailed pathway suggestion	Metro can collaborate with GCCOG to identify opportunities for transit-oriented affordable housing in the LB-ELA Corridor through the Housing Trust Fund. Metro can support existing tenant assistance programs through local jurisdictions, GCCOG, and CBOs. Metro can provide technical assistance to local jurisdictions seeking to study and develop housing stabilization policies at a local level, particularly related to transit-oriented development.	
Implementation notes/guidance	NA	

Source: COG Ad Hoc Committee, SPP Survey, SPP Mapping

8.5.3.3 Transit-Oriented Communities/Land Use [LB-ELA_0193]

Program name	Transit-Oriented Communities (TOCs)/Land Use	
Program description	Work with the local jurisdictions (cities, County of Los Angeles) to apply best practices and design guidelines to encourage transit-oriented development near rail stations and heavily used bus routes in the LB-ELA Corridor. Provide technical resources such as grant writing assistance and technical assistance for community development and land use planning. Assist local jurisdictions in coordination with property owners and developers to ensure safe construction and strengthen connections to transit.	
Program primary pathway	Support as part of Existing Metro Program	
Program secondary pathway	NA	
Program third pathway	NA	
Existing Metro programs	Metro TOC Policy and Implementation Plan Metro TOC Programs (First/Last Mile, Joint Development, Systemwide Design, Economic Development, and Transit Supportive Planning)	
Existing external programs	NA	
Potential partners (may include, but not limited to)	Local jurisdictions	
Potential Funding Sources	Affordable Housing and Sustainable Communities (AHSC) Program	
Measure R/M Funding Eligibility	Likely No	
Detailed pathway suggestion	Metro can enact the TOC Implementation Plan, which includes providing grant writing assistance and technical assistance for community development and land use planning. Metro can coordinate with local jurisdictions to better plan for housing near rail stations and heavily used bus routes along the LB-ELA Corridor. Metro can also collaborate with affordable housing organizations and developers to promote development in TOC areas through incentives.	
Implementation notes/guidance	Metro already has a TOC policy to support jurisdictions in TOC initiatives.	

Source: Metro, SPP Mapping

8.5.3.4 Homeless Programs [LB-ELA_0194]

Dunamana nama	Hamalaaa Dua ayaya	
Program name	Homeless Programs	
Program description	Support homeless initiatives in the LB-ELA Corridor, and support efforts and recommendations that have emerged from Metro's Homeless Task Force, Reimagining Public Safety Initiatives, and other County initiatives and studies to address homelessness in and around the transit system, including provisions to: enhance the customer experience; maintain a safe and secure system; and connect homeless persons in the transit system to services and resources. Through the Community Programs Working Groups, Metro will consult with local community-based organizations serving the unhoused in developing these programs, with a focus on addresses the root causes of homelessness as opposed to policing.	
Program primary pathway	Support as part of Existing Metro Program.	
Program secondary pathway	Support as part of External Agency Program.	
Program third pathway	NA	
Existing Metro programs	Metro Homeless Outreach Pilot program Metro Room to Work program	
Existing external programs	GCCOG/LA Care Enhanced Care Management Partnership	
Potential partners (may include,	Local Jurisdictions	
but not limited to)	GCCOG	
	LA Care East LA Women's Center	
	Fair Opportunity for Change	
	Forgotten Children, Inc.	
	Jordan's Disciples Community Service	
	Kingdom Causes Bellflower Restoration Diversion Services	
	Salvation Army	
Potential Funding Sources	Measure H	
	CA Homeless Housing, Assistance and Prevention (HHAP) Grants	
Measure R/M Funding Eligibility	Likely No	
Detailed pathway suggestion	Metro can support existing Metro Homeless Outreach Team (MHOT) efforts to connect unhoused individuals with services; assess MHOT performance statistics/need on rail and bus routes, and associated transit stations throughout the LB-ELA Corridor; and coordinate with homeless service providers in the LB-ELA Corridor to ensure that MHOT partnerships in the Corridor are effective and up to date. Metro can partner with other transit	
	agencies in LB-ELA Corridor to expand services and coordinate across systems.	
	Metro can support its existing Room to Work program and identify opportunities for recruitment in the LB-ELA Corridor.	
Implementation notes/guidance	NA	



8.5.4 Job Creation/Work Opportunities

8.5.4.1 Economic Stabilization Policies [LB-ELA_0186]

Program name	Economic Stabilization Policies	
Program description	Work with cities, County of Los Angeles, and public agencies to propose and pass community stabilization policies to support disadvantaged communities in the LB-ELA Corridor. Provide grant writing assistance to secure needed funding. Economic stabilization policies and incentives include measures such as:	
	Mandates for process improvement: engage the community/form partnerships with CBOs;	
	Community financial empowerment programs: local hire agreements, workforce education and development, credit improvement programs;	
	Locally owned business support: small business interruption fund and loan funds during construction, guide for business support services, zoning to encourage small businesses, and lease-to-own programs for businesses and housing; and	
	Identify, protect, and encourage legacy and culturally significant businesses, and historical and cultural landmarks; and mandate inclusion of arts and culture spaces in new development.	
Program primary pathway	Support as part of External Agency Program	
Program secondary pathway	Support as part of Existing Metro Program	
	NA	
Program third pathway	NA	
Program third pathway Existing Metro programs	NA Metro Business Interruption Fund	
Existing Metro programs	Metro Business Interruption Fund LA County Economic Development Corporation (LAEDC) Business Support Program LA Conservancy Legacy Business Grant Program City of LA Legacy Business Program Long Beach Legacy Business Program BREATHE LA County LA County Commercial Tenant Protections Ordinance Education and Outreach LAEDC Cambodian Association of America United Cambodian Community LA Conservancy Long Beach Heritage	
Existing Metro programs Existing external programs Potential partners (may include,	Metro Business Interruption Fund LA County Economic Development Corporation (LAEDC) Business Support Program LA Conservancy Legacy Business Grant Program City of LA Legacy Business Program Long Beach Legacy Business Program BREATHE LA County LA County Commercial Tenant Protections Ordinance Education and Outreach LAEDC Cambodian Association of America United Cambodian Community LA Conservancy	
Existing Metro programs Existing external programs Potential partners (may include,	Metro Business Interruption Fund LA County Economic Development Corporation (LAEDC) Business Support Program LA Conservancy Legacy Business Grant Program City of LA Legacy Business Program Long Beach Legacy Business Program BREATHE LA County LA County Commercial Tenant Protections Ordinance Education and Outreach LAEDC Cambodian Association of America United Cambodian Community LA Conservancy Long Beach Heritage LA County Department of Workforce Development, Aging and Community	

Measure R/M Funding Eligibility	Likely No
Detailed pathway suggestion	Metro can provide technical assistance to local jurisdictions for planning and policy studies to enact economic stabilization policies. Metro can also support GCCOG and other organizations that provide business support (technical assistance, microloans, education), and city-led legacy business programs (e.g., Long Beach, Los Angeles) that aim to preserve long-standing businesses facing displacement pressure. Metro can support LA County WDACS outreach efforts related to the Commercial Tenant Protections Ordinance.
Implementation notes/guidance	NA



8.5.4.2 Targeted Hire Programs [LB-ELA_0195]

Program name	Targeted Hire Programs		
Program description	Support the development of targeted and local hire programs to increase the share of public dollars that is devoted to creation of local jobs for community residents in the LB-ELA Study Area. Include measures such as the establishment of Project Labor Agreements that specify local and targeted hire goals for specific construction projects, as well as first-source hire requirements. Collaborate with local jurisdictions and public agencies to align local and targeted hire policies, thresholds, and requirements.		
Program primary pathway	Support as part of Existing Metro Program		
Program secondary pathway	Support as part of External Agency Program		
Program third pathway	Support as part of LB-ELA Project Implementation		
Existing Metro programs	Metro Project Labor Agreement/Construction Careers Policy		
Existing external programs	LA County Public Works Local and Targeted Hiring Program		
Potential partners (may include, but not limited to)	Local Jurisdictions		
Potential Funding Sources	TBD		
Measure R/M Funding Eligibility	Likely No		
Detailed pathway suggestion	Metro and LA County Department of Water and Power both have local targeted hire programs already in place. Metro can collaborate with other local jurisdictions/agencies to tie existing hiring policies to Capital Improvement Program (CIP) projects, or focus on hiring for specific types of jobs, such as "green" jobs. Metro can also support existing initiatives that include established local hire/workforce development opportunities and project labor agreements.		
Implementation notes/guidance	Targeted hiring policies should be in place during the implementation process to ensure that residents benefit from projects as they are developed/constructed.		
	CIC Flag: Community suggestion to set minimum residency length requirement that workers must meet to qualify for local hire benefits.		

8.5.4.3 Employment/Recruitment Initiatives [LB-ELA_0196]

Program name	Employment/Recruitment Initiatives	
Program description	Partner with public agencies, large employers, and local businesses to conduct recruitment drives at locations in the LB-ELA Corridor (both virtual and in person.) This initiative would also include job fairs and workshops at community facilities and community colleges to provide information to local residents regarding work opportunities and networking resources. Conduct promotional campaigns to actively publicize these events in the LB-ELA Corridor communities.	
Program primary pathway	Support as part of Existing Metro Program.	
Program secondary pathway	Support as part of External Agency Program.	
Program third pathway	NA	
Existing Metro programs	Metro Workforce Initiative Now (WIN-LA) Program	
	Metro Room to Work program	
	Metro Internship and Entry-Level Trainee Program	
	Metro E3 (Expose – Educate – Employ) Initiative and Transportation School	
	Metro Transportation Career Academy Program (TCAP)	
Existing external programs	GCCOG Workforce Development Programs	
	LA County Public Works Local and Targeted Hiring Program	
Potential partners (may include,	GCCOG	
but not limited to)	CALSTART	
	Easterseals	
	GrowGood ICAN California Abilities Network	
	Mexican American Opportunity Foundation	
	Project Return Peer Support – La Casita de Apoyo	
	Restoration Diversion Services	
	Soledad Enrichment Action	
	The Arc Southeast Los Angeles County	
	Veterans Stand Together	
Potential Funding Sources	Metro Workforce Development Programs	
	GCCOG Workforce Development Programs	
Measure R/M Funding Eligibility	No	
Detailed pathway suggestion	Metro can support local implementation of its own employment/recruitment initiatives such as WIN-LA, Room to Work, E3, and TCAP in the LB-ELA Corridor communities. Metro can partner with GCCOG to support existing employment/recruitment programs in partnership with local educational institutions and labor unions. Metro can engage a variety of local nonprofit organizations providing job placement services to ensure that participants are aware of employment opportunities related to the LB-ELA Investment Plan and throughout the Corridor.	
Implementation notes/guidance	NA	

8.5.4.4 Vocational Educational Programs [LB-ELA_0197]

Program name	Vocational Educational Programs	
Program description	Partner with public agencies, private-sector employers, community colleges, labor organizations, and nonprofit organizations to expand vocational and educational programs for community residents in the LB-ELA Corridor. Examples could include training for mechanics who work for small businesses that service ZE vehicles. These programs would provide opportunities to establish a career pathway to work in key economic sectors and move up through the ranks by focusing on workforce development and skills training.	
Program primary pathway	Support as part of External Agency Program.	
Program secondary pathway	Support as part of Existing Metro Program.	
Program third pathway	Support as part of LB-ELA Project Implementation.	
Existing Metro programs	Metro WIN-LA Program Metro Room to Work Program Metro Internship and Entry-Level Trainee Program Metro E3 (Expose – Educate – Employ) Initiative and Transportation School Metro TCAP	
Existing external programs	Port of LA High Road Training Partnership Grant	
Potential partners (may include, but not limited to)	GCCOG CALSTART IBEW Training Center Carpenters Union Training Center Slawson Southeast Occupational Center Assistance League of Long Beach Empower Unlimited Driving Hope Grass Roots Community Network Soledad Enrichment Action EXP The Opportunity Engine Unearth and Empower Communities YWCA EntreNous Pacific Gateway Long Beach City College CSU Long Beach	
Potential Funding Sources	High Road Training Partnership (HRTP) Grants Metro Workforce Development Programs GCCOG Workforce Development Programs	
Measure R/M Funding Eligibility	No Control of the Con	

Detailed pathway suggestion	Metro can partner with public agencies, private-sector employers, community	
Implementation notes/guidance	Vocational training programs should ideally focus on creating a qualified	



8.6 Modal Programs and START UP Fund

In addition to identifying projects and programs for initial funding, the Investment Plan also looks to the future of the LB-ELA Corridor by planning, developing, identifying, and refining projects, programs, and strategic initiatives that will advance the Corridor's Vision, Goals, and Guiding Principles into future years. Modal Programs and the START-UP Fund will allow the Investment Plan to be a flexible, dynamic, living document that addresses future priorities and needs as they evolve.

The Investment Plan is based on an intensive, community-engaged process, which determined that additional planning work is needed to identify emerging projects/programs that align well with the adopted Vision, Goals, and Guiding Principles. Several cities, particularly those without implementation-ready projects for investment consideration, also need technical assistance (through the START-UP Fund) to support this work in their respective EFCs and ensure equitable investments throughout the Corridor. The Projects and Programs under the Investment Plan are also displayed by location and goal focus area in Appendix 8-A. Modal Programs will serve as the mechanism by which these ongoing planning and development activities lead to implementation following the adoption of the Investment Plan.

The Investment Plan features five Modal Programs, in addition to the Community Programs Catalyst Fund described in Section 8.3, including: active transportation, arterial roadways/complete streets, freeway safety and interchange improvements, goods movement, and transit.⁸⁴ Metro, its partners, and relevant stakeholders will need to collaborate to advance the projects in the Modal Programs toward their implementation, furthering the goals of the Investment Plan. Investment Plan elements that will be included in Modal Programs include the following:

- nearNear-term Tier 1 projects not selected for immediate funding;
- Lionger-term Tier 1 projects that require additional development to become implementation-ready;
- Tier 2 projects that will need additional development and refinement to become more aligned with the Investment Plan Vision, Goals, and Guiding Principles to be considered for implementation in the future;
- equitable Equitable project planning to identify equity gaps, provide technical assistance (through the START-UP Fund) for lower-resourced communities, and develop projects for future implementation; and
- pilot Pilot programs, strategic initiatives, and planning studies.

The Investment Plan will reserve funding in each Modal Program to carry out these planning and development activities and implement some projects that develop from these activities. This includes

⁸⁴ Community Programs can be found in the previous section of this document.

some projects that were ranked highly in the evaluation process but were identified as not being ready for initial investment under the plan. In addition, the Modal Program funding may be used to advance other partially funded projects with a slight funding gap or those put forward by Metro and partners for grant applications that did not receive external funding. The following sections describe the five Modal Programs and the Investment Plan funding set aside to accomplish each program's planning, development, and implementation goals.

START-UP Fund

The Investment Plan's function is to strategically distribute and leverage funding that will allow the Corridor's various jurisdictions to develop and implement their own existing projects. While the evaluation process employed a distributive equity lens to prioritize projects that are most likely to benefit the highest-need communities, the distribution of project proposals received, and levels of project development/readiness reflect disparities in municipal capacity and historic investment. Project concepts gathered from community input are included in the Plan, but will typically require start-to-finish planning processes, and require municipalities to take ownership of technical development and implementation. As cities and neighborhoods that have faced historic underinvestment often have less funding and fewer technical staff members to plan, develop, fund, and implement capital projects, these areas may be underrepresented in the Investment Plan's full project list, let alone the recommendations for initial investment.

To address this issue, Metro is setting up a START-UP ("Strategic Technical Assistance for Reparative Transportation Uplifting People") Fund that provides targeted technical assistance to support communities with the highest needs, relative to their technical resources and capacity for project development and implementation. The START-UP Fund will help communities develop project concepts for grant eligibility, and help communities participate in implementation of the Investment Plan's Corridor-wide programs (e.g., "traffic calming features", "pedestrian gap closures", and various Community Programs Catalyst Fund). The START-UP Fund will not be tied explicitly to certain municipalities or geographic communities, but assistance will be prioritized for cities or neighborhoods:

- Without any projects formally submitted for the Investment Plan
- With only conceptual or development phase projects in the Investment Plan
- With high concentrations of Equity Focus Communities (EFCs)
- Facing the greatest cumulative impacts as identified in existing conditions research

Active Transportation

The Active Transportation Modal Program category consists of projects and programs that support the safe movement of travelers using human-powered methods of travel, such as walking, bicycling, or rolling, to get from one place to another. Metro's commitment to advancing Active Transportation is

reflected in its 2023 Active Transportation Strategic Plan, 85 which reaffirms the agency's proactive role in countywide active transportation planning; and establishes proposals for regional bikeways, pedestrian districts, and first/last-mile improvement areas surrounding transit stations. While active transportation projects offer opportunities to advance equitable outcomes, projects that increase impervious cover disproportionately harm communities of color due to increased heat resulting from urban heat island effect. Metro-led projects will conform to requirements in Metro's Tree Policy and Moving Beyond Sustainability Plan and modal programs will provide opportunities to incorporate urban greening into AT projects. Active Transportation investment is summarized in **Table 8-3**.

Table 8-3. Active Transportation Investment Summary

Total Investment Plan Investment	\$100 million
Potential Leveraged Investment	\$150-200 million
Project/Programs Recommended for Initial Investment	\$44 million
Development	\$500,000
Pre-Implementation	\$4.5 million
Implementation	\$39 million
Modal Program	\$55.7 million
START-UP Fund	\$11.5 million
Pre-Implementation	\$3.0 million
Implementation	\$41.2 million

The LB-ELA Corridor Mobility Investment Plan will fund several active transportation projects and programs through initial investments (described in the Initial Investments: Projects/Programs Recommended for Initial Funding, page 8-7) and the development of future projects through the Active Transportation Modal Program. The Investment Plan allocates \$100 million in total investment in Active Transportation, including \$44 million in recommended initial funding and an additional \$57 million for the Active Transportation Modal Program. Many high-scoring Active Transportation programs are Corridorwide or regional programs that focus on implementing bicycle and pedestrian safety projects from existing active transportation plans, including Metro's 2023 Active Transportation Strategic Plan. Although several selected projects from these programs are recommended for initial funding, these plans include numerous other projects requiring further development and prioritization. Other Active Transportation program elements include greening and other sustainability features, personal security enhancements, and other elements to enhance the user experience and quality of life within the LB-ELA Corridor.

The Active Transportation Modal Program will support the planning and development of future bicycle and pedestrian safety projects, advance projects toward implementation, and fund the implementation

⁸⁵ Document can be accessed here https://www.metro.net/projects/active-transportation-strategic-plan-atsp/

of future projects. This approach includes providing equitable project planning technical assistance (START-UP Fund) and resources to help lower-capacity and lower-resourced jurisdictions and communities develop project concepts and strategies for future implementation. By prioritizing these communities for development funding within the Modal Program, the Investment Plan aims to help bridge the gaps in capacity and resources that have historically contributed to spatial inequities in the distribution of investment and within the list of implementation-ready initial projects recommended in the Investment Plan. Of the nearly \$56 million available in the Active Transportation Modal Program, 20% (\$11.5 million) will be reserved for equitable project planning development and technical assistance (START-UP Fund).

8.6.1.1 Active Transportation Project and Programs Recommended for Initial Investment

As described earlier in this chapter, the Investment Plan includes \$44 million for initial investments in Active Transportation, including distinct projects on the MSPP list that rated highly and are more ready for implementation. In addition to those projects, there are important planning documents, such as Metro's recently updated Active Transportation Strategic Plan⁸⁶ and Long Beach's Bicycle Master Plan,⁸⁷ which lay out the regionally important Active Transportation corridors in the LB-ELA Corridor. Because many of the Tier 1 Active Transportation projects on the original MSPP received funding in 2023 from California's Active Transportation Program, additional projects on the MSPP were elevated for inclusion in the initial funding recommendations. The Active Transportation funding investment is based on:

- providing funding for projects that received state Active Transportation Program awards but still have a partial funding gap;
- providing funding for projects that are prioritized in the Metro Active Transportation Strategic
 Plan, especially bike paths and cycle tracks that close gaps in the regional Active Transportation
 network and those that provide access to EFC areas; and
- providing funding to advance distinct projects that need support for implementation.

8.6.1.2 Active Transportation Modal Program

The projects and programs listed in **Table 8-4** are not included in the initial investment recommendations (or are only partially funded). Metro, its partners, and relevant stakeholders will refine, develop, and potentially package together (if appropriate) these projects and programs to make them ready for implementation through the Active Transportation Modal Program.

Table 8-4. Active Transportation Modal Program

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0212*	Tweedy Boulevard Active Transportation Improvements	South Gate	1	Implementation

⁸⁶ https://www.metro.net/projects/active-transportation-strategic-plan-atsp/

⁸⁷ https://www.longbeach.gov/lbcd/planning/advance/general-plan/mobility/bicycle/

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0213*	Southeast Gateway Line] Light Rail Station First-Last Mile Bikeway Safety and Access Project	Multiple Jurisdictions	1	Implementation
LB-ELA_0211*	City of Long Beach Mid-City Pedestrian and Bicycle Connections	Long Beach	1	Implementation
LB-ELA_0206*	City of Bell Gardens Pedestrian and Bicycle Improvements	Bell Gardens	1	Development/Pre-implementation
LB-ELA_0201	Pedestrian/Bicycle Enhancements and Safety Features	Study Area Wide	1	Development/ Implementation
LB-ELA_0214	I-710 Livability Initiative	Multiple Jurisdictions	1	Development/ Implementation
LB-ELA_0163	LB-ELA Corridor Bicycle Gap Closure Projects	Multiple Jurisdictions	1	Development/ Implementation
LB-ELA_0162	City of Long Beach 8-to-80 Bikeways	Long Beach	1	Development/ Implementation
LB-ELA_0204	Pedestrian Gap Closure Projects	Study Area Wide	1	Development/ Implementation
LB-ELA_0200	Bike Share Programs and Bicycle Amenities	Study Area Wide	1	Implementation
LB-ELA_0102	Pedestrian and Bicycle Master Plan improvements	Maywood	1	Development/ Implementation
LB-ELA_0170*	Huntington Park Safe Routes for Seniors and Students	Huntington Park	1	Development/ Implementation
LB-ELA_0076	Pedestrian and Bike Facilities	Commerce	2	Development/ Implementation
LB-ELA_0220	Micromobility Pilot Project	Multiple Jurisdictions	2	Implementation
LB-ELA_0094	Hill Street Pedestrian Bridge Overcrossing	Long Beach	2	Pre-implementation
LB-ELA_0066	Randolph Bike and Pedestrian Project	Bell	2	Implementation
LB-ELA_0055	I-710 LA River Bike Path (Western Levee Path)***	Multiple Jurisdictions	2	Pre-implementation
LB-ELA_0007	LA River Path – Central LA	Maywood to Elysian Valley	2	Pre-implementation
LB-ELA_0070	Pedestrian Bridge	Bell Gardens	2	Pre-implementation
LB-ELA_0208*	Salt Lake Avenue Pedestrian Accessibility Project	Cudahy	2	Implementation
LB-ELA_0207	City of Carson Citywide Community Safety Improvements	Carson	2	Development/Pre-implementation
LB-ELA_0159	Southern Ave. Pedestrian Connector Project	South Gate	2	Implementation

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0128	Randolph Street Bike and Pedestrian Facilities Project	Maywood	2	Pre-implementation
LB-ELA_0138	Spring Avenue Pedestrian/Bicycle Overcrossing	Long Beach	2	Pre-implementation
LB-ELA_0158	Del Amo Pedestrian Gap Closure Project	Rancho Dominguez/ Long Beach	2	Pre-implementation
LB-ELA_0199	Telecommuting Programs	Study Area Wide	2	Development
LB-ELA_0114	Walnut Pedestrian Pathway	Signal Hill	2	Pre-implementation
LB-ELA_0095	Pedestrian Crosswalk Improvements	Lynwood	2	Development/Pre- implementation
LB-ELA_0216	Bicycle Safety and Education Program (BEST)	Study Area Wide	2	Implementation
LB-ELA_0198	Carpool/Vanpool Programs	Study Area Wide	2	Implementation
LB-ELA_0090	Rectangular Rapid Flashing Beacons at Pedestrian Crossings	Long Beach	2	Development/Pre- implementation
LB-ELA_0082	Enhanced Pedestrian Crosswalk (Rives Ave. and Adwen St.)	Downey	2	Implementation
LB-ELA_0210	Greenway Traffic Circle Improvement Project	Downey	2	Implementation
NA – New	Wilmington Safe Streets – A People First Approach	Los Angeles	NA/New	
NA – New	Walnut Park Pedestrian Plan Implementation	Walnut Park	NA/New	
NA – New	West Paramount Utility Easement Multi- use Path Phase I	Paramount	NA/New	
NA – New	City of Carson Master Bicycle Plan	Carson	NA/New	
NA – New	Hamilton Loop**	Long Beach	NA/New	
NA – New	Southern Connector Pedestrian Bridge	South Gate		
NA – New	SELA Bridge Park Connector Overcrossing	Lynwood		
NA – New	Compton Boulevard Bike Path***	Compton	NA/New	
NA – New	Terminal Island to Rio Hondo Bike Path***	Multiple Jurisdictions	NA/New	

Notes:

^{*}Project is mostly funded through state ATP program

^{**}Project received planning funding through recent Reconnecting Communities & Neighborhoods Grant

^{***}The three I-710 Corridor Bike Path Concepts were requested to be added to the list. One of the projects was already on the

list (LB-ELA 0055)88

Projects deemed to be fully funded were removed from list (see Appendix 8-A)

New projects have not been evaluated. They may be eligible for future modal program funding as long as they align with the Vision and Goals of the Corridor.

Arterial Roadways/Complete Streets

The Arterial Roadways/Complete Streets modal category includes major, multi-jurisdictional corridor projects, small-scale spot treatments, and intersection improvements. Arterial roadways are the primary transportation network for local travel throughout the LB-ELA Corridor for vehicular traffic, goods movement, transit, and active transportation. Arterial Roadways/Complete Streets also function as an alternative to the I-710 freeway for regional and longer-distance vehicle and freight truck trips, especially when I-710 is congested due to collisions, delays, maintenance, and other impacts on freeway operation. Arterial Roadways/Complete Streets investment is summarized in **Table 8-5**.

Table 8-5. Arterial Roadways/Complete Streets Investment Summary

Total Investment Plan Investment	\$188 million
Potential Leveraged Investment	\$1.2 to 1.8 billion
Project/Programs Recommended for Initial Investment	\$116 million
Development	\$0
Pre-Implementation	\$10 million
Implementation	\$106 million
Modal Program	\$72.1 million
START-UP Fund	\$14.5 million
Pre-Implementation	\$4 million
Implementation	\$53.6 million

The LB-ELA Corridor Mobility Investment Plan will fund several prioritized Arterial Roadways/Complete Streets projects and programs through initial investments (described in the Initial Investments: Projects/ Programs Recommended for Initial Funding, page 8-7 as well as the development of future projects through the Arterial Roadways/Complete Streets Modal Program. The Investment Plan includes \$188 million in total investment for Arterial Roadways/Complete Streets, including \$116 million in initial funding recommendations and an additional \$72 million for the Arterial Roadways/Complete Streets Modal Program. The Arterial Roadways/Complete Streets Modal Program will support the development and implementation of future projects that meet the vision and goals of the Investment Plan. The types of investments include the following:

⁸⁸ https://www.metro.net/projects/710bikepath/

Arterial roadway safety: Future arterial investments will be aimed to improve arterial roadway safety, especially at intersections with high rates of traffic collisions and truck/vehicle or truck/pedestrian/bicycle conflicts.

Signal synchronization and operations: Future investment will focus on upgrading traffic signals, video detection, and the coordination of traffic signal timing to improve arterial roadway efficiency.

Technology: In addition to traffic operations, the Investment Plan will invest in technology to improve safety and facilitate the transition to lower emission and connected autonomous vehicles.

Complete streets and general arterial improvements: General Arterial Roadways/Complete Streets improvements will upgrade roadways to improve travel for all modes, including vehicular traffic as well as active transportation.

Arterial Bridge/Overcrossing Improvements: Many arterial roadways provide connections to I-710 and other freeways. Interchange improvements are described in the Freeway Safety and Interchange Improvements section; however, independent improvements focused on arterial bridges will be funded through the Arterial Roadways/Complete Streets Modal Program.

The Arterial Roadway Modal Program also includes funding for the provision of equitable project planning technical assistance (START-UP Fund) and resources to help lower-capacity and lower-resourced jurisdictions and communities develop project concepts and strategies for future implementation. By prioritizing these communities for development funding within the Modal Program, the Investment Plan aims to help bridge the gaps in capacity and resources that have contributed to historic spatial inequities in the distribution of investment, and in the list of implementation-ready projects put forth in the Investment Plan. Of the \$72 million available in the Arterial Roadway Modal Program, approximately 20% (\$14.5 million) will be reserved for equitable project planning development and technical assistance (START-UP Fund).

8.6.1.3 Arterial Roadways/Complete Streets Project and Programs Recommended for Initial Investment

As described earlier in this chapter, the Investment Plan will invest \$116 million in specific arterial roadway project improvements. The proposed investments include developing and implementing five priority Complete Streets Corridors: Atlantic, Alondra, Florence, Long Beach, and Slauson. These corridors provide crucial north-south alternatives to the I-710 freeway and east-west travel to and across the freeway. These corridors also serve as key transportation thoroughfares, community main streets, commercial districts, and residential neighborhoods. Although the actual design and treatments will be specific to each corridor's unique context (including its role in the Goods Movement network), the description for each project includes bicycle facilities, pedestrian facilities and crosswalks, transit stop features and amenities, safety, and traffic calming features, landscaping, hardscaping, public art (aesthetic treatments), public green spaces, trees, and water quality features such as bioswales and tree wells.

8.6.1.4 Arterial Roadways/Complete Streets Modal Program

The projects and programs listed in **Table 8-6** are not part of the initial investment recommendations. These projects and programs will be further refined, developed, and potentially made ready for implementation through the Arterial Roadways/Complete Streets Modal Program. It should be noted that not all projects in the modal program will move forward to implementation. Also, sSome projects, like those that contain traffic cameras, have been opposed by some community members garnered significant community opposition due to concerns related to cameras being used for potential surveillance.

Table 8-6. Arterial Roadways/Complete Streets Modal Program

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0064	Gage Avenue Street	Bell	1	Implementation
_	Improvements			·
LB-ELA_0059	Imperial Complete Street	Lynwood/South	1	Implementation
	Corridor	Gate/Downey		
LB-ELA_0056	Artesia Complete Street	Multiple	1	Implementation
	Corridor	Jurisdictions		
LB-ELA_0129	Garfield Avenue Improvement	South Gate	1	Pre-implementation
	Project			
LB-ELA_0202	Traffic Calming	Study Area Wide	1	Development/
				Implementation
LB-ELA_0044*	Route 1 and De Forest Ave	Long Beach	1	Implementation
	Bridge Upgrades Long Beach			
LB-ELA_0127	Lakewood Boulevard	Lakewood	1	Implementation
	Improvement Project			
LB-ELA_0119	Wright Road Improvement	South Gate	1	Implementation
	Project			
LB-ELA_0205	Arterial/General Roadway	Study Area Wide	1	Development/
	Improvements Program			Implementation
LB-ELA_0041*	Route 1 Pedestrian Upgrades	Long Beach	1	Implementation
	Long Beach			
LB-ELA_0120	Safety-Related Road	East Rancho	1	Development/Pre-
	Improvement Projects	Dominguez		implementation
LB-ELA_0104	Rosecrans Ave. Bridge	Paramount	2	Implementation
LB-ELA_0063	Gage Ave. Bridge	Bell	2	Implementation
LB-ELA_0073	Telegraph Road	Commerce	2	Implementation
	Improvements			
LB-ELA_0067	Florence Ave. Bridges	Bell	2	Pre-implementation
LB-ELA_0115	California Ave. Improvement	Signal Hill	2	Pre-implementation
	Project			
LB-ELA_0117	Burnett Street/Skyline Drive	Signal Hill	2	Implementation
	Improvement Project			
LB-ELA_0040*	Route 1 Storm Water	Wilmington/Long	2	Implementation
	Treatment Installation	Beach		
	Wilmington/Long Beach			
LB-ELA_0065	Slauson Ave. Bridge	Bell	2	Implementation

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0109	Alondra Blvd. Intersection Improvements	Paramount	2	Implementation
LB-ELA_0068	Systematic Safety Analysis Report Program (SSARP) Improvements	Bell Gardens	2	Development/ Implementation
LB-ELA_0107	Alondra Blvd. Bridges	Paramount	2	Implementation
LB-ELA_0108	Garfield Ave. Intersection Improvements	Paramount	2	Implementation
LB-ELA_0086	Gage Avenue Operational and Safety Improvements	Bell/Huntington Park	2	Implementation
LB-ELA_0110	Rosecrans Intersection Improvements	Paramount	2	Implementation
LB-ELA_0051*	Route 1 Transportation Management System (TMS) elements	Multiple Jurisdictions	2	Implementation
LB-ELA_0020	Sports Park Transportation Performance Modeling Network	Long Beach	2	Development/ Implementation
LB-ELA_0078	Randolph Street Gap Closure	Commerce	2	Pre-implementation
LB-ELA_0105	Garfield Avenue Improvement Project	Paramount	2	Implementation
LB-ELA_0012	Garfield Widening	Paramount	2	Implementation
LB-ELA_0166	LB-ELA Corridor Vulnerable Road User Connected Vehicle Infrastructure Deployment	Multiple Jurisdictions	2	Development/ Implementation
LB-ELA_0085	Intersection Improvements (Huntington Park)	Huntington Park	2	Development/Pre- implementation
LB-ELA_0069	Traffic/Ped Signal Upgrades	Bell Gardens	2	Development/ Implementation
LB-ELA_0074	Traffic Signal Upgrades	Commerce	2	Development/Pre- implementation
LB-ELA_0088	Protected Left Turns at Signals	Long Beach	2	Development/Pre- implementation
LB-ELA_0101	Video Camera installation	Maywood	2	Development/Pre- implementation
LB-ELA_0071	Mixmaster Traffic signal Improvements (Telegraph/ Eastern/Atlantic)	Commerce	2	Implementation
LB-ELA_0167	I-710 Arterial Signal Performance Measurement	Study Area Wide	2	Development/Pre- implementation
LB-ELA_0215	I-710 Arterial Traffic Signal Control Communication Upgrades	Multiple Jurisdictions	2	Development/Pre- implementation
LB-ELA_0083	Traffic Signal Upgrades	Downey	2	Implementation
LB-ELA_0100	Traffic Signal Upgrade Projects	Maywood	2	Development/Pre- implementation

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0013	Tweedy Blvd Signal Sync	Lynwood/South Gate	2	Implementation
LB-ELA_0072	Traffic Signal Coordination Projects	Commerce	2	Development/Pre- implementation
LB-ELA_0097	Traffic Signal Improvements	Lynwood	2	Development/Pre- implementation
LB-ELA_0084	Video Detection Upgrades	Downey	2	Development/Pre- implementation
LB-ELA_0081	Firestone Blvd. Traffic Signal Upgrades and Safety Enhancements	Downey	2	Implementation
LB-ELA_0099	Traffic Signal Synchronization Projects	Maywood	2	Development/Pre- implementation
LB-ELA_0075	Video Camera installation	Commerce	2	Development/Pre- implementation
LB-ELA_0096	Traffic Signal Improvements	Lynwood	2	Development/Pre- implementation
LB-ELA_0098	City Re-Striping Projects	Lynwood	2	Development/Pre- implementation
LB-ELA_0089	Emergency Vehicle Pre- Emption	Long Beach	2	Development/Pre- implementation
LB-ELA_0087	Traffic Signal Equipment Improvements	Long Beach	2	Development/Pre- implementation
LB-ELA_0116	Traffic Signal Operational Upgrade	Signal Hill	2	Implementation
LB-ELA_0112	Signal Coordination/ITS Projects	Signal Hill	2	Development/Pre- implementation
LB-ELA_0113	Orange Avenue Improvement Project	Signal Hill	2	Pre-implementation
LB-ELA_0079	Florence Avenue Bridge Rehabilitation	Downey	2	Implementation
LB-ELA_0221	Atlantic Blvd. widening Over I- 5 at Mixmaster Intersection	Commerce	2	Pre-implementation
LB-ELA_0080	Florence Ave. and Paramount Blvd. Intersection Improvement	Downey	2	Pre-implementation
NA – New	ICM Phase 2: Arterial Signal Enhancements and Integration	Multiple Jurisdictions	NA/New	
NA – New	Lomita Blvd. Punchthrough	City of LA (Wilmington)	NA/New	
NA – New	Terminal Island Freeway Decommissioning	Long Beach	NA/New	

Notes:

^{*}Project is part of Caltrans State Highway Operation and Protection Program (SHOPP) Projects deemed to be fully funded were removed from list (see Appendix 8-A)

New projects have not been evaluated. They may be eligible for future modal program funding as long as they align with the Vision and Goals of the Corridor.

Freeway Safety and Interchange Improvements

As the primary transportation facility in the study area, I-710 serves a vital purpose in connecting millions of people to key everyday travel destinations. It is also one of the most important corridors for freight movement in the entire country due to its location, carrying tens of thousands of daily truck trips serving the San Pedro Bay Port Complex, intermodal freight rail facilities, warehouses, logistics hubs, and transloading facilities in the LB-ELA Corridor and beyond. Ensuring the safety and operational efficiency of vehicles on the freeway is of crucial importance to local communities that suffer from safety, congestion, air quality, and mobility impacts when freeway operations are degraded, as well as the state and national economy that depends on the flow of goods through I-710. Freeway Safety and Interchange Improvements investment is summarized in **Table 8-7**.

Table 8-7. Freeway Safety and Interchange Improvements Investment Summary

Total Investment Plan Investment	\$210 million
Potential Leveraged Investment	\$800 million to \$1 billion
Project/Programs Recommended for Initial Investment	\$170.6 million
Development	\$9 million
Pre-Implementation	\$39 million
Implementation	\$129.6 million
Modal Program	\$39.4 million
START-UP Fund	\$0
Pre-Implementation	\$2 million
Implementation	\$37.4 million

The earlier effort to modernize I-710 focused on widening the freeway and implementing general purpose travel lanes to increase capacity, which would have displaced residents and businesses adjacent to the Corridor while degrading air quality and public health in the Corridor communities. The LB-ELA Corridor Mobility Investment Plan will neither widen the freeway nor add general-purpose travel lanes to add freeway capacity, according to Metro Board policy and state and federal policy guidance. The Investment Plan's approach, particularly through the MOSAICI-710 MOSAIC (Multimodal, Operational, Safety, and Access Investments for the Community) program, targets safety and operational improvements and develops a holistic approach to better manage the freeway and improve multimodal access and safety on and around I-710. This investment strategy will directly address the Vision and Goals of the Investment Plan, including improving safety and mobility, while addressing air quality, related public health issues, and historical underinvestment.

The LB-ELA Corridor Mobility Investment Plan will fund several I-710 MOSAIC projects through a holistic initial investment (described in the Initial Investments: Projects/Programs Recommended for Initial Funding, page 8-7) as well as the development of future projects and non-traditional freeway investments through the Freeway Safety and Interchange Improvements Modal Program. The Investment Plan is providing \$177.6 million for the projects recommended for initial investment, which is planned to leverage up to \$1 billion in freeway investments. Additionally, the Investment Plan will invest \$32.4 million in the Freeway Safety and Interchange Improvements Modal Program to support and develop new and innovative ways to address safety, operational efficiency, integrated Corridor management, and air quality issues surrounding I-710. Examples of projects in the Freeway Safety and Interchange Improvements Modal Program include new higher soundwalls, stormwater treatment, facility upgrades, technology applications, and future initiatives to explore new freeway usage policies.

8.6.1.5 Freeway Project/Programs Recommended for Initial Investment

As described in Section 7-1, the Investment Plan will invest \$170.6 million to develop and implement the I-710 MOSAIC program, which includes project concepts that will to rebuild and upgrade various freeway on- and off-ramps and auxiliary lanes for improved traffic safety, operations, and efficiency. The MOSAICI-710 MOSAIC program approach to investing in I-710 includes studying each of the 12 interchange project concepts and two auxiliary lane project concepts on the project list through an Alternatives Analysis that will feature community engagement and will evaluate each project concept for potential benefits (such as safety, operational flow, and reduction of conflicts) and impacts (such as VMT, GHG, possible displacement, sound). Each project concept will be studied as part of a segment alongside other concepts related to and, in some cases, dependent on the other concept. In addition, these MOSAICI-710 MOSAIC projects are directly related to projects and potential improvements on the intersecting roadways. Many projects on the MSPP list could be connected to the improvements on I-710, including several independent bridge upgrade projects, Complete Street Corridor projects, and transit enhancement projects that cross many interchanges. Additionally, the Investment Plan will invest \$17 million in several non-traditional freeway projects and programs, including studying the concept of adding additional greenspace in the freeway right of way, improving traffic controls at interchanges, and testing methods to reduce the impact of particulate matter emissions from non-tailpipe sources.

The initial investment will fund the I-710 MOSAIC Program, through which there will be an Alternatives Analysis for the 12 interchanges and two auxiliary lane project concepts that will include community engagement, safety and operational assessments, data collection, modeling, and other considerations to allow Metro to identify four to six project concepts, or packages of project concepts, to recommend to the Metro Board for consideration to move into a preliminary engineering and environmental documentation (PA&ED) phase. The selected project concepts will provide the most safety and operational benefits to the mainline freeway and overall transportation system while minimizing the community impacts. After PA&ED, under the condition they meet certain criteria, the projects will be prioritized as recommendations to the Metro Board for consideration to move forward into additional phases of implementation. Metro will ensure that freeway projects that move forward for implementation consideration complete the appropriate CEQA/NEPA process.

8.6.1.6 Freeway Safety and Interchange Improvements Modal Program

The projects and programs listed in **Table 8-8** are not part of the initial list of projects for initial funding. These projects and programs will be further refined, developed, and potentially made ready for implementation through the Freeway Safety and Interchange Improvements Modal Program. It should be noted that some projects, like Congestion Pricing, have garnered significant community opposition. Projects listed as Tier 1 will not necessarily move forward in the future.

Table 8-8. Freeway Safety and Interchange Improvements Modal Program

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0153	Congestion Pricing	Multiple Jurisdictions	1	Development
LB-ELA_0046*	I-405 Roadway Improvements Long Beach, Signal Hill, Los Angeles, and Carson (SHOPP)	Multiple Jurisdictions	1	Implementation
LB-ELA_0182	Express Lanes Strategic Initiative	Multiple Jurisdictions	1	Development
LB-ELA_0154	I-710 ZET Travel Zone Restriction	Multiple Jurisdictions	2	Development
LB-ELA_0188	Freeway Landscaping/Maintenance	Study Area Wide	2	Implementation
LB-ELA_0183	ZET Lane	Multiple Jurisdictions	2	Development
LB-ELA_0039*	I-710 Highway Worker Safety Improvements Long Beach/Compton	Long Beach/ Compton	2	Implementation
LB-ELA_0180	I-710 Truck Bypass Lanes	Long Beach	2	Pre-implementation
LB-ELA_0045*	Route 91 Bridge No. 53-2143F Rehabilitation Long Beach (SHOPP)	Long Beach	2	Implementation
LB-ELA_0043*	Hobart Railyard Bridge Rehabilitation Commerce/Vernon	Commerce/Vernon	2	Implementation
LB-ELA_0137	Freeway Soundwalls	Multiple Jurisdictions	2	Implementation
LB-ELA_0155	Drought Tolerant Landscaping, Hardscaping and Aesthetic Features along I-710	Multiple Jurisdictions	2	Implementation
LB-ELA_0050*	Route 91 Upgrades Carson, Compton, Long Beach, and Bellflower (SHOPP)	Multiple Jurisdictions	2	Implementation
LB-ELA_0048*	Garfield Avenue Pump Station Upgrades (SHOPP)	Paramount	2	Pre-implementation
LB-ELA_0052*	Route 47 at I-710 Roadway Upgrades Wilmington (SHOPP)	Wilmington	2	Implementation
LB-ELA_0054*	Humphrey Maintenance Station Upgrades East Los Angeles (SHOPP)	East Los Angeles	2	Implementation
LB-ELA_0053*	Pacific Place Maintenance Station Building Replacement Long Beach (SHOPP)	Long Beach	2	Pre-implementation
LB-ELA_0049*	South Gate Pump Plant and Florence Avenue Pump Plant Upgrades South Gate/ Bell Gardens/Downey (SHOPP)	South Gate/Bell Gardens/Downey	2	Implementation

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
NA – New	ICM Phase 2: Freeway Corridor	Multiple	NA/New	
	Enhancements	Jurisdictions		
NA – New	I-710 SB On-Ramp at Firestone	South Gate	NA/New	
NA – New	I-710 Active Traffic Management (ATM)	Study Area Wide	NA/New	
	Program			

Notes:

Projects deemed to be fully funded were removed from list (see Appendix 8-A)

New projects have not been evaluated. They may be eligible for future modal program funding as long as they align with the Vision and Goals of the Corridor.

Goods Movement

The Goods Movement modal category includes projects and programs that impact the trucks and trains moving goods through the LB-ELA Corridor, particularly those accessing or leaving the Port of Los Angeles (POLA) and the Port of Long Beach (POLB). The Investment Plan prioritizes several projects supporting goods movement in alignment with the Investment Plan's Vision and Goals, including the accelerated adoption of zero-emission (ZE) heavy-duty trucks, ZE truck infrastructure, a freight rail ZE study, and the goods movement freight rail study. Many prioritized goods movement projects identified through this process will be led and advanced by POLA and POLB without direct investment from the Investment Plan due to limitations on using Measure R/M funds. Through this effort and the Investment Plan development process, Metro is committed to supporting our partner agencies to advance projects that support the vision and goals of the LB-ELA Corridor Mobility Investment Plan. Metro must also continue to engage the freight industry as a whole to develop solutions that help facilitate the movement of goods and services in a multimodal manner—while at the same time addressing the air quality, health, and safety issues facing the region and impacting local communities in the LB-ELA Corridor. Goods Movement investment is summarized in **Table 8-9**.

Table 8-9. Goods Movement Investment Summary

Investment Summary			
Total Investment Plan Investment	\$80 million		
Potential Leveraged Investment	\$250 million to \$350 million		
Project/Programs Recommended for Initial Investment	\$62 million		
Development	\$12 million		
Pre-Implementation	\$5 million		
Implementation	\$45 million		
Modal Program	\$18 million		
START-UP Fund	\$0		

^{*}Project is part of Caltrans State Highway Operation and Protection Program (SHOPP)

Pre-Implementation	\$1 million
Implementation	\$17 million

The LB-ELA Corridor Mobility Investment Plan will fund several goods movement projects and programs through initial investments (described in the Initial Investments: Projects/Programs Recommended for Initial Funding, page 8-7) as well as the development of future projects through the Goods Movement Modal Program. The Investment Plan includes \$62 million for initial investments in pilot projects and the Zero-Emission Truck (ZET) Program (described in the Funding Recommendations section) and an additional \$18 million for planning, implementing pilot programs, and the future development of additional projects through the Goods Movement Modal Program. This Modal Program will address key safety, operational, and air quality issues related to freight. It will help identify and advance new projects that better address issues related to ZE technology, freight rail, port efficiency, grade separations, truck routes, lanes, and truck-to-train cargo mode shift. The initial program list lacked specific projects that directly addressed some of the key truck safety issues in the Corridor, including preventing truck cut-through traffic into residential neighborhoods, truck routing through LB-ELA Corridor communities, and conflicts with other transportation modes on arterial highways. The Goods Movement Modal Program will support collecting better truck traffic and routing data and identifying key freight safety projects for future development and implementation. This program will allow Metro to partner effectively with industry and community stakeholders to support regional, multijurisdictional, multimodal approaches to improving the movement of goods through the LB-ELA Corridor while also advancing some of the key initiatives from the 2021 LA County Goods Movement Strategic Plan⁸⁹ that are relevant to the Corridor.

8.6.1.7 Goods Movement Project/Programs Recommended for Initial Investment

As described earlier in this chapter, the Investment Plan will invest \$62 million in initial Goods Movement projects. This investment includes the ZET Program, which will invest \$50 million in seed funding to grow the ZE infrastructure investment in the LB-ELA Corridor to more than \$200 million to support the accelerated adoption of ZE technology for heavy-duty trucks. Within the ZE Truck Program, up to \$5 million will be reserved for technical assistance to support a community-focused scope to support the transition to ZE, including workforce development and supporting lower-income truck operators accessing ZE trucks. The Investment Plan will also invest in the study of freight rail in the Corridor to support moving more cargo by train versus truck—particularly through the Alameda Corridor, and a pilot study to evaluate the transition of freight locomotives to ZE technology.

8.6.1.8 Goods Movement Modal Program

The projects and programs listed in **Table 8-10** are not part of the initial recommendations. These projects and programs will be further refined, developed, and potentially made ready for implementation by their respective sponsors, with possible support from Metro.

⁸⁹ https://www.metro.net/about/goods-movement/

Table 8-10. Goods Movement Modal Program

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0024	Pier 400 On Dock Rail Modernization	Port of Los Angeles	1	Pre-implementation
LB-ELA_0026	West Basin Container Terminal Railyard Modernization	Port of Los Angeles	1	Implementation
LB-ELA_0025	Terminal Island Transfer Facility Modernization	Port of Los Angeles	1	Pre-implementation
LB-ELA_0132b	Pier 300 On-Dock Rail	Port of Los Angeles	1	Pre-implementation
LB-ELA_0123	Pico Avenue Street Improvement	Port of Long Beach	2	Pre-implementation
LB-ELA_0122	Harbor Scenic Drive Roadway and Infrastructure Improvements	Port of Long Beach	2	Pre-implementation
LB-ELA_0121	Pier D Street Realignment	Port of Long Beach	2	Pre-implementation
LB-ELA_0021	Alameda Corridor Terminus Enhancements	Port of Los Angeles	2	Pre-implementation
LB-ELA_0124	Port of Los Angeles National Multimodal Zero-Emission Freight Network Improvement Program: Rail System Improvement Projects	Port of Los Angeles	2	Pre-implementation
NA - New	Truck Safety and Truck Cut Through Study	Multiple Jurisdictions	NA/New	
NA – New	Zero Emission Truck Inductive Roadway Charging Pilot	Multiple Jurisdictions	NA/New	

Projects deemed to be fully funded were removed from list (see Appendix 8-A)

New projects have not been evaluated. They may be eligible for future modal program funding as long as they align with the Vision and Goals of the Corridor.

Transit

The Transit modal category includes improved and new bus and rail service, transit safety, and amenities to increase rider experience and safety on transit services in the LB-ELA Corridor study area. The most notable projects in the study area include the proposed Southeast Gateway Line Light Rail Corridor and a conceptual new Metrolink connection between Long Beach and Los Angeles. Improvements are also proposed to existing Metro A and C Lines and Metrolink rail services and several new bus priority lane projects on key transit corridors. Transit investment is summarized in **Table 8-11**.

Table 8-11. Transit Investment Summary

Transit Investment Summary					
Total Investment Plan Investment	\$125 million				
Potential Leveraged Investment	\$400 million to \$600 million				
Project/Programs Recommended for Initial Investment	\$57 million				
Development	\$3 million				
Pre-Implementation	\$2 million				
Implementation	\$52 million				
Modal Program	\$68 million				
START-UP Fund	\$14 million				
Pre-Implementation	\$3 million				
Implementation	\$51 million				

The LB-ELA Corridor Mobility Investment Plan will fund several transit projects and programs through initial investments (described in the Initial Investments: Projects/Programs Recommended for Initial Funding, page 8-7) and the development of future projects through the Transit Modal Program. The LB-ELA Corridor Mobility Investment Plan invests a total of \$125 million in transit projects and programs, including \$57 million in initial recommendations (described in the Funding Recommendations section) and an additional \$68 million to develop future projects and initiatives through the Transit Modal Program. Although the operational costs associated with increased service would not be eligible for Investment Plan funding, the Transit Modal Program could support the purchase of new or replacement buses, transitioning to ZE vehicles, and technology to support faster and more reliable service. Furthermore, the Transit Modal Program can support the improvement of existing Metro and Metrolink rail corridors and advance the development of new rail corridors. Other projects and programs on the initial MSPPs list include improving passenger security on the transit system, better access to transit stations, station cleanliness, bus stop enhancements, and supporting the passenger experience with transit ambassadors and better access to transit service information.

The Transit Modal Program includes funding for the provision of equitable project planning technical assistance (START-UP Fund) and resources to help lower-capacity and lower-resourced jurisdictions and communities develop project concepts and strategies for future implementation. By prioritizing these communities for development funding within the Modal Program, the Investment Plan aims to help bridge the gaps in capacity and resources that have contributed to historic spatial inequities in the distribution of investment and the list of implementation-ready projects put forth in the Investment Plan. Of the \$68 million available in the Transit Modal Program, approximately 20% (\$14 million) will be reserved for equitable project planning development and technical assistance (START-UP Fund).

8.6.1.9 Transit Project/Programs Recommended for Initial Investment

As described in Section 7-1, the \$57 million initial investment for transit will focus on providing new and upgraded bus shelters and bus stop amenities in areas of most need, including 100 new bus shelters with lighting and 1,000 new curb ramps near transit stops. The initial investment will support safe access to the Compton A-Line Station and neighboring Transit Center through bicycle and pedestrian improvements and will provide enhanced transit and vehicular safety through investment in quad safety gates along the Metro A Line within the LB-ELA study area. The initial recommendations will also support studying the feasibility of implementing eight bus-lane corridor projects on Atlantic Blvd, Florence Ave, Slauson Blvd, Long Beach Blvd, Whittier Blvd, Gage Avenue, Olympic Blvd, and Firestone Blvd. Additionally, four of those corridors are going to see multi-modal improvements through the Arterial Roadways/Complete Streets investments.

8.6.1.10 Transit Modal Program

The projects and programs listed in **Table 8-12** are not part of the list of projects for initial investment. These projects and programs will be further refined, developed, and potentially made ready for implementation through the Transit Modal Program.

Table 8-12. Transit Modal Program

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0169*	Southeast LA Transit Improvement	Multiple	1	Development/
	Program	Jurisdictions		Implementation
LB-ELA_0140	Metro Micro Transit Zone(s)	Multiple	1	Development/
		Jurisdictions		Implementation
LB-ELA_0164	Improved Frequency of Metro Buses in	Study Area	1	Development
	the LB-ELA Study Area	Wide		
LB-ELA_0219	Metrolink Regional Rail Line between	Multiple	1	Pre-implementation
	Union Station and Long Beach	Jurisdictions		
LB-ELA_0001	Southeast Gateway Line Transit Corridor	Multiple	1	Pre-implementation
	(LRT)	Jurisdictions		
LB-ELA_0136	Enhanced Transit Security	Multiple	1	Implementation
		Jurisdictions		
LB-ELA_0149	Increased Security Features at Metro's	Multiple	1	Implementation
	Existing and Planned Light Rail Stations	Jurisdictions		
LB-ELA_0161	Transit Ambassador Program	Study Area	1	Implementation
		Wide		
LB-ELA_0172	Commerce Metrolink Station	Commerce	2	Development/Pre-
	Improvements			implementation
LB-ELA_0160	Line A (Blue Line) Transit Priority/Signal	Multiple	2	Development/Pre-
	Synchronization	Jurisdictions		implementation
LB-ELA_0147	Transit Traveler Information System	Study Area	2	Development/
	Application (ITS)	Wide		Implementation
LB-ELA_0148	Transit Fare Discount Program	Study Area	2	Implementation
		Wide		

Project ID	Project Name	Jurisdiction(s)	Tier	Phase
LB-ELA_0171	Commuter Rail Maintenance, Repair, and	Multiple	2	Development/Pre-
	Safety Projects	Jurisdictions		implementation
LB-ELA_0177	Add Second Elevator to Firestone and	Florence-	2	Implementation
	Slauson A Line [Blue Line] Stations	Graham		
LB-ELA_0016	Connecting C Line (Green) and Metrolink Norwalk Station	Norwalk	2	Implementation
LB-ELA_0152	Transit Marketing and Education Program	Multiple Jurisdictions	2	Implementation
LB- ELA 0077	Bus Stop Improvements (City of	Commerce	<u>2</u>	Implementation
**	Commerce)			
LB-	Bus Stop Improvements (City	Maywood	2	Implementation
ELA 0103**	of Maywood)			
LB-	Bus Shelter Upgrades (City of	Signal Hill	2	<u>Implementation</u>
ELA_0118**	Signal Hill)			
LB-ELA_0130	Long Beach Transit (LBT) Solar Charging	Long Beach	2	Pre-implementation
	Electrification Project			
LB-ELA_0002	C Line (Green) Eastern Extension (Norwalk) (LRT)	Norwalk	2	Pre-implementation
LB-ELA_0176	Install Supervisory Control and Data	Long Beach	2	Pre-implementation
_	Acquisition System for A Line [Blue Line]			·
LB-ELA_0173	Grade Separation(s) of the A Line [Blue Line] at Washington Street	Los Angeles	2	Pre-implementation
LB-ELA_0189	Transit System Cleanliness/Maintenance	Study Area Wide	2	Implementation
LB-ELA_0174	New Metrolink Station at planned Commerce/Citadel Station	Commerce	2	Pre-implementation
NA - New**	MCP: A Line Willow Station Mobility Hub	Long Beach	NA/	
			New	
NA – New	MCP: A Line cross over at Long Beach Blvd	Long Beach	NA/	
	and Anaheim St		New	
NA – New**	MCP: Florence/Studebaker/Imperial Bus	Huntington	NA/Ne	
	Priority Improvements	Park, Bell, Bell	w	
		Gardens,		
		Downey		

Notes:

MCP: 2028 Games Mobility Concept Plan (MCP) to enhance mobility for the Olympic games and beyond

^{*}Project funded through Local Partnership Program Grant

^{**} These bus stop and shelter projects are likely to be combined with the Bus Stop Improvements Project (LB-ELA 0203) on the Initial Recommendation list.

^{***}_Projects funded with recent Reconnecting Communities & Neighborhoods Grant

New projects have not been evaluated. They may be eligible for future modal program funding as long as they align with the Vision and Goals of the Corridor.

9 NEXT STEPS

Introduction

The Investment Plan's vision is to reconnect the underserved communities of Long Beach-East Los Angeles that have been dealing with the effects of the freeway for generations and implement a comprehensive, multimodal transportation plan to rectify past harms in the corridor after the adoption of the Investment Plan. As the Investment Plan is a strategic planning document, many of the projects and programs recommended for funding will need to undergo planning, development, refinement, and/or strategic funding assessment work before they are ready for implementation. This work will take place in the Investment Plan Implementation Phase that will commence upon the plan's adoption by the Metro Board. In this next phase, Metro will continue to engage Task Force and CLC Members and convene industry experts, funding, research and resource partners, and community members to ensure we develop a work plan that supports collaboration in the refinement of these projects and programs, consistent with the principles and goals of the Investment Plan.

This work will take place in the Investment Plan Implementation Phase that will commence upon the plan's adoption by the Metro Board. In this next phase, Metro will continue to engage Task Force and CLC Members and convene industry experts, funding, research and resource partners, and community members to ensure we develop a work plan that supports will allow us to collaboratione in the refinement of these projects and programs, in a manner consistent with the principles values and sustainaband goals of the Investment Planle, equitable, and community-centered implementation of this plan...

The following Chapter describes the next steps for the Implementation Phase of the Investment Plan. This phase includes the formation of Working Groups that will shape and advance Community, Modal, and Initial Investment projects and programs and the establishment of a Technical Assistance program, (the START-UP Fund), designed to support communities with the highest needs in developing project concepts—a as a cornerstone of our shared strategic vision for the LB-ELA Corridor. While the formal Task Force and Community Leadership Committee (CLC) process will conclude when the Investment Plan is adopted, members of these bodies will be able to participate in the Implementation Phase by joining the Working Groups identified in this chapter or attending bi-annual meetings at which Metro will provide updates and progress reports on the implementation of the Investment Plan. These opportunities for ongoing engagement will—to-help provide accountability and transparency for our stakeholders and demonstrate progress toward the advancement of the plan's projects and programs.

9.1 CMIP-Investment Plan Implementation Working Groups

Only a small number of projects and programs within the Investment Plan are fully defined and ready for implementation. Most projects and programs require further development, design, refinement, community engagement, and/or environmental review. Recognizing this need to continue development of projects and programs for which we have designated initial investment or modal program funding, Metro recommends the formation of five to six new LB-ELA Investment PlanCMIP Implementation

Working Groups to support the Implementation Phase of the plan. These groups will meet on an ongoing basis following adoption of the LB-ELA CMIP to allow Metro to continue developing and defining projects and programs and to serve as a continuation of collaborative partnerships with a broad range of stakeholders, including Task Force, CLC, and community members, to help implement the Investment PlanCMIP. All Implementation Phase work will be conducted within the LB-ELA Vision, Goals, and Guiding Principles framework.

Metro recommends the creation of two "Modal" Working Groups, which would lead efforts to develop and refine the initial investment projects/programs and modal programs, and between three and four "Community Program" Working Groups, which would lead efforts to develop and refine the fifteen 15 Community Programs in the Investment Plan. The recommendation to create multiple Working Groups allows for natural connectivity among the projects and programs to be developed within each set of modes while reducing stakeholder fatigue and community concerns related to creating too many Working Groups in the Implementation Phase.

9.19.1.1 Modal Working Groups

Modal Working Group 1: Develop and refine the initial investment projects/programs and modal programs for the Transit, Active Transportation, and Arterial Roadway/Complete Streets modes.

Modal Working Group 2: Develop and refine the initial investment projects/programs and modal programs for the I-710 MOSAIC/Freeway Safety and Interchange Improvements and Goods Movement modes.

The general purpose of the Modal Working Groups, as referenced above, will include, but not be limited to, the following:

- Further refine proposed projects and programs;
- Ensure alignment with LB-ELA CMIP Vision, Goals, and Guiding Principles;
- Provide ongoing feedback to Metro and other project sponsors;
- Support community engagement efforts;
- Support implementation of technical assistance/equity work elements of the <u>Investment</u>
 <u>Plan;CMIP</u>
- Develop and refine the modal programs;
- Support planning/pilot/strategic initiatives;
- Provide a forum for affected stakeholders and project sponsors to participate; and
- <u>AssistHelp</u> Metro<u>in generating generate</u> the next wave of recommendations for project priorities and funding recommendations for the Modal Program funding.

9.1.2 Community Programs Working Groups

Community Program Working Group 1: Develop and refine the Community Programs within the Health/Air Quality/Environment topic area. If desired by the community, environmental programs could

be separated into a separate Working Group; early community feedback indicated a joint group is likely may be preferred.

Community Program Working Group 2: Develop and refine the Community Programs within the Housing Stabilization/Land Use topic area.

Community Program Working Group 3: Develop and refine the Community Programs within the Job Creation/Work Opportunities topic area.

The general purpose of the Community Program Working Groups, as referenced above, will include, but not be limited to, the following:

- Develop the vision and goals for the Working Group to achieve success in advancing each included Community Program;
- Ensure alignment with LB-ELA CMIP Vision, Goals, and Guiding Principles;
- Identify stakeholders, participants, and experts to support the work of the group;
- Identify funding sources and grant opportunities to support the funding needs of the programs;
- Identify potential projects and programs to develop, include, refine, and/or explore that could be priorities for each Community Program;
- Develop priorities and strategies for planning and implementation of these various projects and programs; and
- Provide support and input for community engagement strategies.

9.2 Technical Assistance (START-UP) Fund

Metro recommends the allocation of \$40 million to the START-UP Fund ("Strategic Technical Assistance for Reparative Transportation Uplifting People") that provides targeted technical assistance to support communities with the highest needs, relative to their technical resources and capacity for project development and implementation. The START-UP Fund will help communities develop project concepts for grant eligibility, and help communities participate in the implementation of the Investment Plan's Corridor-wide programs. The START-UP Fund will not be tied explicitly to certain municipalities or geographic communities, but assistance will be prioritized for cities or neighborhoods:

- Without any projects formally submitted for the CMIP;
- With only conceptual or development phase projects in the CMIP;
- With high concentrations of Equity Focus Communities (EFCs); and/or
- Facing the greatest cumulative impacts as identified in existing conditions research.

Specific START-UP Fund priorities will be considered and recommended by the Modal Working Groups, as project opportunities and funding/technical assistance needs are identified through ongoing communication between Metro project staff and LB-ELA Corridor jurisdictions and other community partners.

9.3 Guidance for Project Development

While a robust approach was taken to evaluate potential benefits and concerns resulting from each project, as described in Chapter 6, many projects will be further developed through the modal programs. Some community members have shared their concerns about investing in projects that have not been fully developed and the potential disbenefits that could result from the development of new and conceptual projects without equal level of scrutiny applied. For new projects, not yet evaluated as part of the Investment Plan process, the Working Groups will be able to leverage aspects of the evaluation framework and criteria created for the Investment Plan to provide an evaluation of proposed projects' alignment with the Vision, Goals, and Guiding Principles. Working groups will also review equity and CIC flags to refine project design and implementation, and projects will be subject to environmental review as part of the CEQA/NEPA process.

<u>In response to comments from community members, Metro is committed to using the following explicit</u> guidance to shape project development across all modes:

- Air Quality All projects will be screened to determine whether an air quality analysis would be required as part of the CEQA/NEPA process. As part of the CEQA/NEPA process, a project's potential health risk impacts would also be evaluated during construction and operation, which may include a quantitative Health Risk Assessment, depending on a project's location, construction duration, construction activities, potential sources of emissions and proximity to receptors.
- Displacements: This Investment Plan, in contrast to the prior I-710 South Corridor Project, does not recommend any projects or programs with any known displacements for funding and remains committed to ensuring these Board policies remain intact through the implementation of the Investment Plan. For projects that need to be developed in the Modal Working Groups, further analysis will be performed to identify and design options to avoid any potential displacements in the future. Given the unique history in this corridor, Metro's goal is to ensure zero displacement for future projects in this corridor.
- Surveillance: Any projects that include cameras or video technology will be evaluated with input from community members due to concerns about potentially compromising the privacy of corridor residents.
- Impervious cover and heat burden: Metro understands that increases in impervious cover exacerbates disparities in tree canopy and urban heat island effect. In addition to the Urban Greening Community Program, all relevant projects funded in the Investment Plan will be required toprioritize incorporatinge urban greening, native and drought-tolerant landscaping, permeable surfaces, and tree canopy, with input from the Working Groups.

9.4 Tracking Investment PlanCMIP Progress and Success

Given the breadth of issues this Investment Plan addresses, and its nature as a strategic planning document, performance metrics will need to measure the Plan's impacts across modes and on multiple

scales of progress and success. Metro recommends the establishment of a Pilot-LB-ELA Investment PlanCMIP Performance Tracking Program to track Investment Planand measure progress and impacts. progress and the benefits and impacts of projects and programs that reach implementation. The pilot program will establish consistent methods and tools for tracking project outcomes across similar projects and set performance tracking expectations for project sponsors and lead agencies to support the intent of understanding the Investment Plan's cumulative benefits and impacts over time.

Given the breadth of issues this Investment Plan addresses, and its nature as a strategic planning document, performance metrics will need to measure the Plan's impacts across modes and on multiple scales of progress and success. In coordination with the modal program working groups and other Metro efforts such as the Long Range Transportation Plan, Metro will develop a framework for tracking Investment Plan progress and success that builds upon the metrics used for the existing conditions analysis and project evaluation methodology. Metrics will be organized into the following three categories:

Process Metrics

 Metrics that quantify or qualify the Investment Plan's implementation progress based on process milestones and project and program delivery

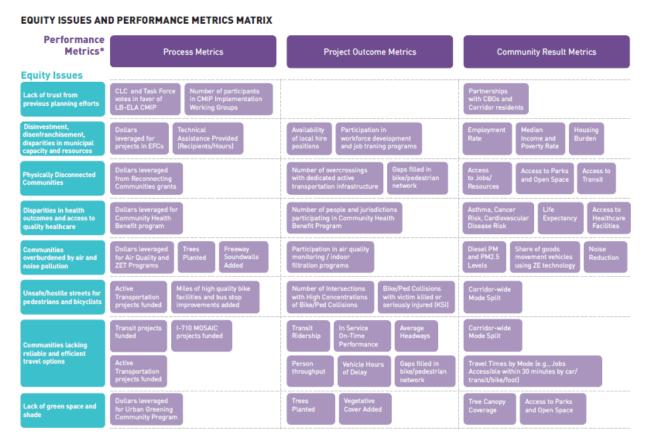
Project Outcome Metrics

 Metrics that track progress against the Investment Plan's goals, which can be attributed to specific projects and programs

Community Result Metrics

 Metrics that track progress against the Investment Plan's desired community results, which cannot be directly attributed to specific projects and programs

A summary of potential performance metrics, for discussion with the Modal and Community Programs Working Groups, is included below.



*Examples of potential performance metrics to be applied - Subject to change

9.5 Planning for the Ne t Phase

In response to stakeholder and community feedback from the Draft Investment Plan, Metro continued to cultivate the development of the next phase of plan—the Implementation Phase. Throughout the process, Metro utilized feedback from the Task Force and CLC during their meetings and Working Group meetings as a platform for discussing, though the lens of (with an equity, lens) the Investment Plan's ongoing impact on topics such as community health, air quality and existing disparities in the corridor.

Metro held an Equity Working Group meeting on March 25, 2024, to discuss the incorporation of community health in implementation of the Community Programs as well as key objectives for the Environment, Air Quality and Health-related Working Group. Metro intends to deliver on the promise to generate additional benefits for the LB-ELA Corridor communities needing investment in ways complementary to the transportation improvements the Investment Plan recommends. Equity Working Group members were asked to help Metro design the future working group structure, initiate the next steps, and prepare for the launch of the Community Programs Catalyst Fund once the Investment Plan is adopted; they provided initial ideas during this planning discussion, including feedback about taking a broad view of defining community health, in alignment with the range of Community Programs. Metro will also identify and incorporate lessons learned from the ZET and Equity Working Groups when

<u>establishing a new Working Group structure and will continue to engage stakeholders to finalize this new phase in the months ahead.</u>

The success of the plan relies on a team effort moving forward—Metro looks forward to continued work with community members, local organizations, industry experts and researchers, funding and regulatory agencies, and elected officials as the Investment Plan becomes a reality.



OF ACRONYMS AND ABBREVIATIONS

ADA Americans with Disabilities Act

AHSC Affordable Housing and Sustainable Communities Program

Areas of Persistent Poverty

ATP Active Transportation Program

Bridge Investment Program

Black, Indigenous or People of Color

Burlington Northern Santa Fe

bus rapid transit

BTU British thermal unit

California Department of Transportation

CARB California Air Resources Board

CBO community based organization

CEC California Energy Commission

CEP community engagement program

CEQA California Environmental Quality Act

CES WG Community Engagement Strategy Working Group

CIC community input consideration

CLC Community Leadership Committee

CMCP Comprehensive Multimodal Corridor Plan

CRISI Consolidated Rail Infrastructure and Safety Improvements

CSTAN Countywide Strategic Truck Arterial Network

DPM diesel particulate matter

EFC Equity Focus Community

EIR Environmental Impact Report

EIS Environmental Impact Study

EPA United States Environmental Protec on Agency

EPET Equity Planning and Evaluation Tool

FEMA Federal Emergency Management Agency

FHWA Federal Highway Administration

FRA Federal Railroad Administration

FTA Federal Transit Administration

FY fiscal year

GCCOG Gateway Cities Council of Governments

GHG greenhouse gas

GIS Geographic Information Systems

HDC Historically Disadvantaged Communities

HOV high occupancy vehicle

HQTA High Quality Transit Area

I 105 Interstate 105

I 405 Interstate 405

I 5 Interstate 5

I 710 Interstate 710

IIJA Infrastructure Investment and Jobs Act

INFRA Infrastructure for Rebuilding America (INFRA)

Investment Plan Long Beach East Los Angeles Corridor Mobility Improvement Plan

IRA Inflation Reduction Act

ITS Intelligent Transportation System(s)

LA County Los Angeles County

LADOT Los Angeles Department of Transportation

LADWP Los Angeles Department of Water and Power

LB ELA Long Beach East Los Angeles

LPA locally preferred alternative

Metro Board Los Angeles County Metropolitan Transportation Authority Board of Directors

Metro Los Angeles County Metropolitan Transportation Authority

MSPP multimodal strategies, projects, and programs

NAE Neighborhood Access and Equity

NEPA National Environmental Policy Act

NOx oxides of nitrogen

PA&ED preliminary engineering and environmental documentation

PIDP Port Infrastructure Development Program

PM_{2.5} particulate matter equal to or less than 2.5 microns in diameter

POLA Port of Los Angeles
POLB Port of Long Beach

RAISE Rebuilding American Infrastructure with Sustainability and Equity

RCN Reconnecting Communities and Neighborhoods

ROW right of way
SB Senate Bill

SCAG Southern California Association of Governments

SCAQMD South Coast Air Quality Management District

SCCP Solutions for Congested Corridors Program

SCE Southern California Edison

SMART Strengthening Mobility and Revolutionizing Transportation

SR State Route

SS4A Safe Streets and Roads for All

STP Strategic Transportation Plan

TCEP Trade Corridor Enhancement Program

TDM travel demand management

TIRCP Transit and Intercity Rail Capital Program

TOD Transit Oriented Development

TSM transportation systems management

TSM transportation systems management

UHIE Urban Heat Island E ect

UP Union Pacific

USDOT United States Department of Transportation

VMT Vehicle Miles Traveled

GLOSSARY OF TERMS

This glossary defines keywords featured in the Long Beach-East Los Angeles Corridor Mobility Investment Plan (LB-ELA Corridor Plan).

Glossary Overview

General Terms are included at the beginning of the Glossary. These include background terms and other helpful definitions that are not reflected in the Type or Subtype Sections.

Type (Category)	Subtype (Subcategory)
Active Transportation/ Travel Demand Management (TDM)	 Bicycle Routes/Facilities Pedestrian/First Last Mile Safety and Amenities TDM Strategies
Arterial Roadway	 Complete Streets Signal Coordination, Transportation Systems Management (TSM), Intelligent Transportation Systems (ITS) Traffic Calming General Local/Regional Roadway
Evaluation Criteria	Data AnalysisModelingQualitative and Quantitative Metrics
Community Programs	 Health/Air Quality/Environment Environment Housing Stabilization/Land Use Job Creation/Work Opportunities
Goods Movement	 Truck Programs/ITS Freight Rail, Goods Movement, TDM Ports
Transit	 High-Capacity Transit (Rail & BRT) Rail Line/Station Improvements Bus Transit Transit Amenities
Freeway	 Freeway Improvements Freeway Amenities/ITS Zero Emissions Lanes on I-710 Congestion Pricing

Glossary

Activity-Based Model (ABM)	Estimates household socio-economic characteristics and simulates daily activities to estimate chains of trips to complete those daily activities.
Accessible Pedestrian Signals (APS):	A pedestrian push button that communicates when to cross the street in a non-visual manner, such as audible tones, speech messages, and vibrating surfaces.
Active Transportation:	Active transportation refers to human powered transportation, and low speed electronic assist devices. Examples include but are not limited to pedestrians, bicycles, tricycles, wheelchairs, electric wheelchairs, scooters, skates, and skateboards.
Americans with Disabilities Act (ADA):	The Americans with Disabilities Act (ADA) of 1990 guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications. It prescribes federal transportation requirements for transportation providers.
Accessory Dwelling Units (ADU) amnesty programs:	Intended to provide a low-cost, penalty-free pathway to improve all unpermitted accessory dwelling units to a safe and habitable condition without requiring the removal of the units or displacement of any residents.
Advance Transportation Management Systems (ATMS):	Provides real-time roadway monitoring, incident detection, and rapid response capabilities.
Affordable accessory dwelling unit (ADU) programs:	Legal and regulatory term for a secondary house or apartment that shares the building lot of a larger, primary home. They may be built within a converted garage or accessory structure, as a newly built structure, or as a conversion of part of the main house.
Air Quality:	The degree to which the air in a particular place is pollution-free.
Air Quality Modeling:	Mathematical and numerical techniques to simulate the physical and chemical processes that affect air pollutants as they disperse and react in the atmosphere.
Alameda Corridor:	A 20-mile-long rail high-capacity freight expressway linking the port cluster of Long Beach and Los Angeles to the transcontinental rail terminals near downtown Los Angeles.
Amenities:	Roadway features that help to provide comfort, convenience, and safety
Anti-Displacement Programs:	Programs that advocate for intentional development that reduces displacement as the path forward towards equitable, affordable, and inclusive communities

Arterial Roadway:	A high-capacity road that carries longer-distance flows between important centers of activity.
At-grade crossing:	A crossing or intersection of highways, railroad tracks, other guideways, or pedestrian walks, or combinations of these at the same level or grade
Auxiliary Lane:	An extra short distance lane(s) of the highway adjoining the through travel lanes to allow for speed change, turning, weaving, truck climbing, maneuvering of entering and leaving traffic, and other safety and operational purposes supplementary to through-traffic movement.
Basic Income Program:	Government program in which every adult citizen receives a set amount of money regularly. The goals of a basic income system are to alleviate poverty and replace other need-based social programs that potentially require greater bureaucratic involvement.
Bicycle Routes/Facilities:	A portion of a right-of-way for the exclusive use of bicyclists which has been designated by pavement markings, curb, cross-hatched paint, planting strip or parked cars. Bike facilities come in many forms and are categorized into classes, typically from Class I to Class IV, with the latter including a buffer/barrier and is considered as the most protective for cyclists/pedestrians.
Bike Facilities/Paths – Class I (1):	Paved rights-of-way completely separated from streets. Bike paths are often located along waterfronts, creeks, railroad rights-of-way or freeways with a limited number of cross streets and driveways. These paths are typically shared with pedestrians and often called mixed-use paths.
Bike Facilities/Paths – Class II (2):	On-street facilities designated for bicyclists using stripes and stencils. Bike lanes are the preferred treatment for all arterial and collector streets on the bikeway network, and not typically installed on low-volume, low-speed residential streets.
Bike Facilities/Paths – Class III (3):	Streets designated for bicycle travel and shared with motor vehicles. Streets are designated as bike routes because they are suitable for sharing with motor vehicles and/or provide better (or needed) connectivity than other streets. Routes are marked with signs and/or shared lane bicycle (aka "sharrow") pavement markings intended to encourage bicyclists to ride clear of the "door zone" and to alert motorists to expect bicyclists to occupy the full lane.
Bike Facilities/Paths – Class IV (4):	Separated bikeway for the exclusive use of bicycles, physically separated from the roadway by a buffer or vertical feature.

Bike overcrossing:	Also called pedestrian/bicycle bridges, provide critical links in the bicycle/pedestrian system by joining areas separated by a variety of "barriers." Overcrossings can address real or perceived safety issues by providing users a formalized means for traversing "problem areas" including transportation corridors, such as arterial roads, freeways, and railroad tracks.
Bike Share:	A service that provides bicycles for a daily, monthly, annual, or trip- based fee. Bike share is recognized as an option for first and last mile transit connections. Learn about Metro's Bike Share program at https://bikeshare.metro.net/
Bioswales:	Channels designed to concentrate and convey stormwater runoff while removing debris and pollution, which could include vegetated, shallow, landscaped depressions designed to capture, treat, and infiltrate stormwater runoff as it moves downstream.
Bobtail:	A freight-carrying truck without a trailer.
Bollards:	A short post used to divert traffic from an area or road.
Bridge Decks:	The functional area on top of a bridge or overcrossing that allows vehicles and non-motorized traffic such as pedestrians and bicyclists to cross over a roadway, freeway, railroad, or river channel.
Brownfield:	An area with abandoned, idle, or under-used industrial and commercial facilities where expansion, redevelopment, or reuse is complicated by real or perceived environmental contamination.
Buffered Bike Lanes – Class II(IIB):	Buffer striping to provide greater separation between bicyclists and parked or moving vehicles.
Bulb outs:	A curb extension which allows a bus to stop within the travel lane. This helps buses move faster and more reliably.
Bus Priority Lane Corridor:	Typically involves the conversion of the rightmost traffic lane into a travel lane primarily dedicated to buses (allows for right turns and bike lane uses) during specific times and days of the week. These are typically installed to increase service frequency and reliability, as well as enhancing mobility by moving more people without adding more infrastructure.

Bus Rapid Transit (BRT):	Bus Rapid Transit is a mobility or bus option with many of the same benefits as light rail service, but at significantly less cost and with a faster build time. BRT offers reliable, frequent transit service in LA County with bus speed improvements over local bus service, operational enhancements and minimal infrastructure needs. Local examples of BRT service include the G Line (Orange), serving the San Fernando Valley, and the J Line (Silver), which serves El Monte, downtown Los Angeles and San Pedro.
Carpool Lane:	Also known as High-Occupancy Vehicle (HOV), is a lane restricted to vehicles with two (and in some cases three) or more occupants to encourage carpooling. Vehicles include automobiles, vans, buses, and taxis.
Changeable Message Signs (CMS):	Primarily used to give motorists real-time traffic safety and guidance information about planned and unplanned events that significantly impact traffic on the State's highway system, such as traffic congestion or AMBER (America's Missing: Broadcast Emergence Response) Alerts
Chassis:	The base frame of a motor vehicle.
Closed Circuit Television Camera (CCTV):	Camera system in which signals are not publicly distributed but are monitored, primarily for monitoring traffic and security purposes.
Community Based Organizations (CBOs):	Public or private nonprofit organization that are representative of a community and provide educational or related services to individuals in the community.
Community Health Screening:	Opportunity for anyone to receive free or inexpensive health evaluations to help determine their risk of developing a medical condition
Community Health:	Non-clinical approaches for improving health, preventing disease, and reducing health disparities through addressing social, behavioral, environmental, economic, and medical determinants of health in a geographically defined population
Community Indicator:	Quantifiable measures of community results, disaggregated by race/ethnicity and income.
Community Land Trusts (CLT) /land banks:	Nonprofit organizations governed by a board of CLT residents, community residents, and public representatives that provide lasting community assets and shared equity homeownership opportunities for families and communities

Complete Streets:	Streets that are designed and operated to enable safe access for all roadway users of all ages and abilities, including pedestrians, bicyclists, motorists and transit riders. Complete Streets strategies can include traffic calming, bicycle priority streets (bicycle boulevards) and pedestrian connectivity to increase physical activity, improve connectivity to the regional bikeway/greenway networks, local businesses and parks.
Congested Speeds:	Speeds of less than 35 miles per hour.
Connected Vehicle Infrastructure:	Infrastructure supporting vehicles that use any number of different communication technologies to communicate with the driver, other cars on the road (vehicle-to-vehicle), roadside to infrastructure (vehicle-to-infrastructure), and the "Cloud". Connected vehicles are part of the Internet of Things (IoT) concept that many cities and municipalities are beginning to adopt to tackle some of the biggest challenges in the surface transportation industry. For instance, safety, mobility, and environment.
Container Terminal Wharf:	An area designated for storing cargo in a container, usually accessible by truck, railroad, and marine transportation.
Density Bonus Programs:	Incentive-based tool that permits a developer to increase the maximum allowable development on a site in exchange for either funds or in-kind support for specified public policy goals
Design Pollution Prevention Infiltration Areas (DPPIAs):	Could include stormwater treatment devices that would treat stormwater runoff from sites along the transportation facility and contribute to pollution prevention infiltration.
Distributive Equity:	1) Allocation of benefits and amenities proportionate to levels of need and historic investment and based on self-identified community priorities rather than 'one-size-fits-all' solutions. 2) Policies and resource management to ensure benefits reach intended recipients.
Drayage truck movements:	The transport of freight from an ocean port to a destination
Economic empowerment:	The transformative process that helps move marginalized individuals from limited power, voice, and choice to have the skills, resources, and opportunities needed to attain economic security as well as the agency to control and benefit from financial gains. Ensuring the opportunity to participate in and benefit from the community's economic growth.
Economic resilience:	To build an equitable and sustainable economy where communities and residents can recover quickly from or withstand or avoid a shock to their economic conditions, especially in the overall transition to a carbon-neutral economy.

Economic sustainability:	Focuses on practices that support long-term economic growth without negatively impacting social, environmental, and cultural aspects of the community.
EFC Lens	Equity Focus Community Lens
Emergency vehicle pre- emption (EMVE):	A vehicle pre-emption or priority system that is integrated into a local street traffic signal management system designed to move emergencies vehicles faster through signalized roads. As an emergency vehicle approaches an intersection, the traffic light will turn green for the emergency vehicle, and red for the opposing traffic to clear the intersection for the emergency vehicle to pass through when responding to an emergency.
EMFAC:	A computer emissions modeling software that estimates emission rates for motor vehicles for calendar years from 2000 to 2050 operating in California.
Emission Reduction Program:	Program to lower the greenhouse gas (GHG) emissions generated by an individual, organization or country.
Environmental sustainability:	The responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
EQ QUAL:	Equity qualitative analysis
Equitable development scorecard:	An evaluation tool that ensures that residents' voices are centered in decision-making processes while also building community power by using a point based on how well projects promote equity across several criteria.
Equity Guiding Principle:	"A commitment to: (1) strive to rectify past harms; (2) provide fair and just access to opportunities; and 3) eliminate disparities in project processes, outcomes, and community results." "The plan seeks to elevate and engrain the principle of Equity across all goals, objectives, strategies, and actions through a framework of Procedural, Distributive, Structural, and Restorative Equity, and by prioritizing an accessible and representative participation process for communities most impacted by the I-710."
Equity:	1) Both an outcome and a process to address disparities to ensure fair and just access to opportunities. 2) An end state in which all groups have access to the resources, benefits, and opportunities necessary to improve the quality of their lives, which can include a more just decision making process.

Equity-Focus Community (EFC):	Metro created a community designation called Equity Focus Communities (EFCs) to help identify where transportation needs are greatest. EFCs consider where there are higher concentrations of resident and household demographics associated with mobility barriers including low-income households, BIPOC/non-white households, and households without a vehicle. EFCs reflect percentile ranges of combined metrics and refer to tracts above the 60 th (high need) and 80 th (very high need) percentiles.
Equity Opportunity:	A decision that is designed to enhance positive impacts or reduce negative impacts for historically marginalized communities or others facing disparities in access to opportunities.
Evaluation Criteria:	A benchmark, standard, or factor against which performance and suitability of an activity, product, or plan is measured.
First/Last Mile:	The first and last part of the journey that riders walk, bike or roll to and from their nearest station or bus stop is called the "first/last mile connection."
Flag:	Tool used to capture additional information not captured in the evaluation score of a project or program.
Freeway Lids, Caps:	Type of deck bridge built on top of a controlled-access highway or another roadway. It is commonly used to create new parkland in urban areas. In some locations, freeway caps or lids are used to describe overpasses containing widened bridges that accommodate wider sidewalks or small amenity space beside the roadway above the highway.
Freeway:	An expressway with fully controlled access
Freight Rail:	The use of railroads and trains to transport cargo, sometimes on railroad track that also carries human passengers.
Geofence alerts:	A virtual geographic boundary, defined by GPS (Global Positioning System) or RFID (Radio Frequency Identification) technology. When a mobile device crosses the "fence," the geofence triggers a response. Essentially, geofences use virtual GPS points to trigger responses that send alerts to mobile devices when users enter or exit the geofenced territory.
Greenhouse Gas Emissions (GHG) Emissions	Gases that absorb and emit radiant energy at thermal infrared wavelengths, causing the greenhouse gas effect. The primary greenhouse gases in Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

Geographic Information System (GIS):	Computer-based tools used to store, visualize, analyze, and interpret geographic data.
Geographic Information Systems (GIS) analysis:	A type of computer software that allows the user to manipulate geographic information and to produce maps of data.
Goal:	Desired outcomes for general areas of concern to support the overall Vision.
Goods Movement:	The distribution of freight (including raw materials, parts, and finished consumer products) by all modes of transportation including marine, air, rail and truck.
Grade Separation:	A crossing of two highways, highway and local road, or a highway and a railroad at different levels. For example, a multimodal bridge over or under the railroad tracks.
Greenbelts:	A band of the countryside surrounding a city or urbanized area on which building is generally prohibited. Similar concepts are greenways or green wedges, which have a linear character and may run through an urban area instead of around it.
Greenhouse Gas Emissions:	Emissions of any gas caused by human activity that have the property of absorbing infrared radiation (net heat energy) emitted from Earth's surface and reradiating it back to Earth's surface, including carbon dioxide, methane, and water vapor.
Guiding Principle:	A value that guides all processes and outcomes through a cohesive and intentional framework.
Hardscaping:	Refers to any man-made structure within landscaping design that is made of inanimate materials like gravel, brick, wood, pavers, or stone. Any solid structure in an outdoor area that is not plant life is considered hardscape.
HAWK beacon:	Also known as Pedestrian Hybrid Beacons (PHBs), HAWK beacons can warn and control traffic at unsignalized locations and assist pedestrians in crossing a street or highway at a marked crosswalk. Unlike a traffic signal, the PHB rests in the dark until a pedestrian activates it via pushbutton or other form of detection. When activated, the beacon displays a sequence of flashing and solid lights that indicate the pedestrian walk interval and when it is safe for drivers to proceed.
Housing/Rent Stabilization:	A form of control over housing prices so that the given cost of rent for a property only increases by a small amount each year.

Hybrid work schedules:	An arrangement that informs when employees should work remotely or from the office. Here, each employee's needs are considered while prioritizing your organization's goals.
Inclusionary Housing:	Local policies that tap the economic gains from rising real estate values to create affordable housing. This policy includes reserving a certain percentage of new housing units for low and moderate-income households.
Intelligent Transportation Systems (ITS):	Improves transportation by integrating advanced information and communications-based technologies (ICT) into transportation infrastructure and vehicles. ITS refers to a system of technologies and operational advancements that, when combined and managed, improve the capabilities of the overall transportation system.
Interchange:	Road junction that uses grade separations to allow for the movement of traffic between two or more roadways or highways
Intermodal yards:	Any transportation facility primarily dedicated to the business of freight rail and/or intermodal freight rail operations where cargo is transferred to or from a train and any other form of conveyance (usually a truck).
Internet service provider (ISP):	A company that provides individuals and organizations access to the internet and other related services
Land Use:	The human use of land. It represents the economic and cultural activities practiced at a given place. Public and private lands frequently represent very different uses
Light Rail Transit (LRT):	Light Rail Transit (LRT) Is a public transit system with vehicles that are electrically self-propelled by overhead catenary wires and usually operate in one or two-car trains (at peak times, Metro trains can have up to three cars). LRT train cars have passenger capacity of 135 per car and can carry up to 405 passengers per train, operating every five to six minutes. An LRT system has an average speed of 24-35 mph the top speed of 55-65 miles per hour (MPH) and operates above, below or at street level with a typical station spacing being one mile. Metro currently operates LRT on the Metro A Line (Blue), C Line (Green), L Line (Gold), E Line (Expo), and the recently opened K Line (Crenshaw/LAX).
Metro Micro Transit Zone(s):	Metro Micro service areas designed to replace short, solo trips by offering a flexible, on-demand service operated by Metro employees in vehicles that hold up to 10 passengers. Along with other safety measures, capacity is currently limited to five passengers to reduce risk during the COVID-19 pandemic. The Mobility on Demand pilot began by offering shared rides to or from transit stations in select zones as a way to expand equitable, affordable and efficient access to Metro's existing transit network. For more information about Metro Micro, visit https://www.metro.net/micro/ .

Mixed-Flow Traffic Lanes:	Travel lanes used by autos, buses, carpools, and trucks.
Model:	An analytical tool to provide information to planners; A means to quantitatively forecast the effects of transportation planning, policy, or investment decisions – or external factors – on transportation demand and system performance.
Multimodal options:	1) A mixture of several modes of transportation, such as public transportation (i.e., bus, light rail, commuter rail, etc.), autos, trucks, freight rail, and non-motorized systems of transportation. 2) Includes walking, taking public transportation, driving, rolling (riding a bike, scooter, wheelchair, skates).
On Dock Rail:	Railroad tracks that are located adjacent to port terminal ship berths and allows containers to be moved by cranes from a ship directly to a rail car and vice versa, and does not require the container to exit the terminal's gate via truck.
On-demand bus (Micro- Transit):	A form of bus demand-responsive transport vehicle for hire. This transit service offers a highly flexible routing and/or highly flexible scheduling of minibus vehicles shared with other passengers.
Operational Lanes:	A type of lane that is operated with a management scheme, such as lane use restrictions or tolling, to optimize traffic flow.
Overcrossing:	A structure carrying a road or street over a highway, freeway, or river channel.
Parklets:	A small seating area or green space created as a public amenity on or alongside a sidewalk, such as in a former roadside parking space.
Pedestrian:	Any person who travels by foot or a wheeled conveyance that is not a bicycle, including scooters, wheelchairs and other mobility devices.
Performance Measure:	Quantifiable measures to forecast and track how well the proposed action will work or is working. They may be quantitative, qualitative, or otherwise describe actual impact. They may also be short-term, midterm, or long-term.
Person Miles Traveled (PMT):	A standard measure of mobility that combines both the number and length of trips
Park and Ride (PNR) to Transit:	A traveler drives and parks at a transit stop to continue a trip via transit.
Port Railyard:	A rail facility in which cargo is transferred from drayage truck to train or vice-versa.

Port Transportation Analysis Model (PortTAM):	Uses Port Cargo Forecasts, Port Facility activities, and related facilities to estimate port-related cargo movements by both Rail and Truck trips.
Procedural Equity:	1) Proactive and accessible community engagement that bridges linguistic, technology, and ability gaps to meet communities where they are and enable participatory and representative decision-making processes. 2) Ongoing systems of accountability and communication to build and maintain trust.
Proposal Outcome:	A clearly defined future state of being at the program, local, or agency level resulting from the proposed action that ultimately supports the community result.
Public-private partnerships:	Public-private partnerships involve collaboration between a government agency and a private-sector company that can be used to finance, build, and operate projects, such as public transportation networks or parks. Financing a project through a public-private partnership can allow a project to be completed sooner or make it a possibility in the first place.
Quad Safety Gates:	A type of boom barrier gate protecting a grade crossing. It has a gate mechanism on both sides of the tracks for both directions of automotive traffic. The exit gates blocking the road leading away from the tracks are equipped with a delay and begin their descent to their horizontal position several seconds after the entrance gates do, to avoid trapping highway vehicles on the crossing.
QUAL:	General qualitative analysis
Qualitative Assessments:	Use of a set of methods, principles, or rules for assessing risk based on nonnumerical categories or levels.
Quantitative Analysis:	Analysis of a situation or event by means of complex mathematical and statistical modeling.
Raised islands:	Provides a raised median that serves as a physical separation between opposing vehicle travel lanes while also offering an opportunity for landscaping or visual enhancements to a roadway corridor, and a place of refuge for a pedestrian crossing a multi-lane street – all in support of improved and safe traffic flow.
Rectangular Rapid Flashing Beacons (RRFBs):	RRFBs are pedestrian-actuated conspicuity or luminosity enhancements used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks. The device includes two rectangular shaped yellow indications, each with an LED-array-based light source, that flash with high frequency when activated.

Rental Assistance Programs:	Programs intended to help eligible households cover rental and utility costs, to assist with prospective payments for rent and utilities, and provide funding for housing stabilization services and other housing-related expenses
Restorative Equity:	1) Acknowledgement of, and atonement for historic and ongoing systemic harms resulting from planning practice and policy. 2) Commensurate actions, resources, and investments dedicated to remediation and prevention of further systemic harms.
Right-of-Way:	Land legally designated for use by a transportation facility(ies) such as roadways, freeways, and transit lines.
Road Diets:	Typically involves repurposing an existing roadway – for example, a four-lane, undivided roadway segment to a three-lane segment consisting of two through lanes and a center, two-way left-turn lane – to make additional space available for other transportation modes such as pedestrians and bicyclists. In addition to low cost, the primary benefits of a Road Diet include enhanced safety, mobility and access for all road users and a "complete streets" environment to accommodate a variety of transportation modes.
Roundabouts:	An intersection where traffic travels around a central island in a counterclockwise direction. Vehicles entering or exiting the roundabout must yield to vehicles, bicyclists, and pedestrians.
SA QUAL:	Sustainability qualitative analysis
Safety:	Safety pertains to the measures taken to reduce the risk of road traffic injuries and death.
Shared-Use:	1) Facilities that have multiple users. For example, some freight rail lines have shared use with Metrolink and Amtrak. Highways have shared use between trucks and cars and transit (sometimes). Roads have shared use between transit, cars, bicycles, pedestrians, delivery trucks, etc. 2) A transportation system that responds to the needs of all users of a transportation corridor that is shared by cars, bicycles, buses, trucks, etc.
Shore-side power:	Providing electrical power from the shore to a vessel at berth, thereby allowing the auxiliary engines to be turned off.
Signal Coordination (Synchronization):	Traffic Signal Synchronization is a traffic engineering technique of matching the green light times for a series of intersections to enable the maximum number of vehicles to pass through, thereby reducing stops and delays experienced by motorists. Synchronizing traffic signals ensures a better flow of traffic and minimizes gas consumption and pollutant emissions.

Social equity:	Fairness and justice for all people in social policy. Social equity considers systemic inequalities to ensure that everyone in a community has access to the same opportunities and outcomes. Equity of all kinds acknowledges that inequalities exist and works to eliminate them.
Societal sustainability:	Focuses on the basic social needs of humans including health and well-being, education, dignity, equality, peace and justice.
Socioeconomic Data:	Data of a combined economic and sociological measure of a person's work experience and family's economic access to resources and social position in relation to others.
Soundwalls:	A wall installed parallel to highways with the intent of minimizing the traffic noise for nearby residential areas.
Structural Equity:	1) Evolution of decision-making bodies to reflect the communities they serve. 2) Restructuring of organizational systems and hierarchies to empower historically marginalized groups.
Subtype:	A secondary or subordinate type or genre, a specific one considered as falling under a general classification.
Supervisory Control and Data Acquisition System (SCADA):	A system of software and hardware elements that allows organizations to (1) control operations locally or at remote locations, (2) monitor, gather, and process real-time data (3) directly interact with devices such as sensors, valves, pumps, motors, and more through human-machine interface (HMI) software, and (4) record events into a log file.
Sustainability Guiding Principle:	"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. A commitment to sustainability to satisfy and improve basic social, health, and economic needs/conditions, both present and future, and the responsible use and stewardship of the environment, all while maintaining or improving the well-being of the environment on which life depends."
Sustainability:	The satisfaction of basic social and economic needs, both present and future, and the responsible use of the natural environment, all while maintaining or improving the well-being of the environment on which life depends. Generally made up of three pillars
Sustainable community:	A community that can maintain and support itself and its residents generationally and sustains itself economically, socially, and environmentally over time.
Sustainable development:	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Transportation Demand Management (TDM):	Used to forecast traffic flows on the transportation system. Although the transportation system may include other modes of travel such as walking, bikes, or trains, the models are typically used for evaluating roadway improvements or improvements to bus service.
Telecommuting:	The ability for an employee to complete work assignments from outside the traditional workplace by using telecommunications tools, such as phone, email, and other online communication tools.
Thoroughfare:	A road or path forming a route between two places.
Traffic Calming (speed calming):	Local street design techniques that reduce traffic speeds and discourage traffic incursion in residential neighborhoods to improve local street safety and neighborhood quality of life. Techniques include physical traffic barriers (e.g., speed humps), revised street configurations, and traffic speed enforcement.
Traffic controls (traffic signals, stop signs):	The control of traffic via any of a number of passive rules or signs (including travel way delineations, rights-of-way and other rules-of-the-road, and traffic markings and signs) or active human agents or control devices (police officers and traffic signals), to optimize safe and efficient flows.
Traffic Controls:	Directing vehicular and pedestrian traffic around a construction zone, accident, or other road disruption, thus ensuring the safety of emergency response teams, construction workers, and the public.
Traffic Volumes:	Volume of traffic moving on roads at a particular section during a particular time period.
Transit Mode Share:	The percentage of travelers using a particular type of transportation or number of trips using said type.
Transit Oriented Communities (TOC):	Community development that, by design, enable people to access and use transit more often by centering housing, jobs, services, and shopping around public transit. For more information about Metro's TOC Program, visit https://www.metro.net/about/toc-technical-assistance-program/
Transit Oriented Development (TOD):	Moderate- to higher-density development, located within easy walk of a major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians without excluding the auto. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use.
Transit:	The carrying of people, goods, or materials from one place to another. Public transit includes buses, trains, subways, and other forms of transportation that charge set fares, operate on established routes, and are available to the public.

Transload Model:	Model used to unload goods from one container to another or from one container into a warehousing facility.
Transportation Networks:	Set of links, nodes, and lines that represent the infrastructure or supply side of transportation.
Transportation Systems Management (TSM):	A comprehensive strategy to coordinate many forms of transportation (such as car, bus, carpool, rail transit, bicycle and pedestrian modes) to reduce the impact of additional development on transportation capacity. TSM focuses on using existing highway and transit systems more efficiently rather than expanding them. Computerized traffic signals, metered freeway ramps, one-way streets, rideshare matching services and other TSM measures are characterized by their low cost and quick implementation time frame.
Travel Demand Management (TDM):	A strategy for reducing demand on the road system by reducing the number of vehicles using the roadways and/or increasing the number of persons per vehicle. For example, TDM attempts to reduce the number of people who drive alone during the commuting period and to increase the number in carpools, vanpools, buses or trains, or walking or biking. TDM can be an element of Transportation Systems Management (TSM; see below).
Tree wells:	Tree wells are the space around a tree under its branches.
Truck Bypass Lanes:	Roadway that provides physical separation of trucks from passenger vehicles at a freeway interchange to eliminate weaving between passenger cars traveling at higher speeds and trucks traveling at lower speeds.
Туре:	A primary type or genre that allows other similar types to be categorized into group, more or less precisely defined or designated into a class or category
Underserved communities:	Groups with limited or no access to resources or otherwise disenfranchised.
Urban Greening:	Public landscaping and urban forestry projects that create mutually beneficial relationships between city dwellers and their environments
Urban Heat Island:	An urban or metropolitan area is significantly warmer than surrounding rural areas due to human activities.
Vanpools:	A vanpool is generally a group of between 5 to 15 people with similar travel patterns who ride to work or other places in a shared vehicle (most often a van).
Vegetation Barriers/Buffer Landscaping:	Practical environmentally friendly solution to minimize soil erosion and off-target field movement of debris and pollutants

Vision Statement:	A concise statement that captures the collective aspirations, desires, and outcomes of the project or program.
Vehicle Miles Traveled (VMT):	A measure of total vehicular travel that accounts for the number of vehicle trips and the length of those trips
Vulnerable Road User:	Those unprotected by an outside shield, as they sustain a greater risk of injury in any collision with a vehicle and are therefore highly in need of protection against such collisions.
Walk to Transit:	Transit within walking distance
Zero Emission Infrastructure	Fueling or electric charging stations for vehicles that produce no emissions
Zero Emissions Truck Lanes:	Explore options and assess the feasibility of converting the right-hand lane on I-710 to create a Zero Emissions Truck Lane. Only zero-emissions trucks could travel in this lane, while fossil-fuel vehicles would be excluded. No new lanes would be added to the existing footprint of I-710.
Zero-Emission Vehicle (ZEV):	Trucks or vehicles that produce no tailpipe emissions of criteria pollutants. Generally, ZEVs feature electric powertrains. Technically, ZEVs are still responsible for some greenhouse gas emissions, as the GHG content from the electricity generation must be accounted for. ZEVs include battery electric vehicles (BEV), plug-in electric hybrids (PHEV) when powered by an electric engine, and hydrogen fuel cell vehicles (FCV).

9.29.6Local, State and Regional Resources

Metro's Equity Platform - https://www.metro.net/about/equity-race/

Metro's Equity Platform, adopted by the Metro Board in 2018, is the agency's guiding framework to address disparities by incorporating equity in all aspects of Metro's budget and decision-making on a continuing bases to create equitable access to opportunities for all who live, work and play in Los Angeles County. The Equity Platform is structured around four pillars: 1) Listen and Learn, 2) Define and Measure, 3) Focus and Deliver, and 4) Train and Grow. In 2020, the Metro Board adopted an agency-wide equity definition which states that "Equity is both an outcome and a process to address racial, socioeconomic and gender disparities, to ensure fair and just access -[...]-to opportunities, including jobs, housing, education, mobility options and healthier communities. It is achieved when one's outcomes in life are not predetermined, in a statistical or experiential sense, on their racial, economic or social identities. It requires community informed and needs-based provision, implementation and impact of services, and programs and policies that reduce and ultimately prevent disparities." The LB-ELA Investment Plan is responsive to Metro's Equity Platform and acknowledges

the necessity to work intentionally to eliminate racial and socioeconomic disparities within and along the corridor.

2021 LA County Goods Movement Strategic Plan - https://media.metro.net/2021/Goods-Movement-Strategic-Plan-Spreads.pdf

The Plan is Metro's response to the many freight-related transportation planning challenges that undermine our county's efforts to be economically competitive, environmentally sustainable, and socially equitable. By creating a vision for goods movement needs in LA County, Metro seeks to engage our regional, state, and federal partners to develop and enrich planning efforts at these levels of government with the priorities of the county in mind. This plan aligns with Metro's Vision 2028 Strategic Plan and 2020 Long Range Transportation Plan and sets forth the strategic initiatives and priorities for Metro's goods movement planning activities over the next five years.

Blue Line First/Last Mile Plan - https://scag.ca.gov/sites/main/files/file-attachments/first_last_mile_strategic_plan.pdf

The Plan was prepared for all 22 stations on the Metro Blue Line, representing a first-of-its-kind effort to plan comprehensive access improvements for an entire transit line, its greater innovation is in piloting an inclusive, equity-focused community engagement process. As part of the consultant team for this effort, Metro partnered with a coalition of CBOs to lead outreach efforts on the project, and to help shape the overall direction of this plan. Among the improvements the plan calls for are better sidewalks, more and safer crosswalks, more lighting for pedestrians, better and safer bike lanes and facilities, more trees to supply shade, bus stop improvements, pickup/drop-off locations near stations and landscaping.

Measure H (County of Los Angeles) -

https://homeless.lacounty.gov/measureh/#:~:text=Created%20by%20the%20Board%20of,to%20addressing%20and%20preventing%20homelessness.

Measure H is the landmark ¼-cent sales tax approved by 69.34% of Los Angeles County voters in March 2017, the first revenue stream dedicated to preventing and addressing homelessness countywide. It is projected to raise \$355 million annually for 10 years, or a total of \$3.5 billion, to implement the County's Homeless Initiative strategies. It is set expire in 2027, unless renewed by voters. A Citizen's Oversight Advisory Board reviews Measure H spending. Independent audits and performance evaluations also help ensure transparency and accountability. Learn more at: homeless.lacounty.gov/measure-h/

Measure HHH (City of Los Angeles) - https://housing2.lacity.org/housing/supportive-housing-prophhh

Los Angeles voters passed Proposition HHH in 2016, which enabled City officials to issue \$1.2 billion in bonds for the development of permanent supportive housing units for people experiencing homelessness. In addition to funding permanent supportive housing development, the bonds can be used to help build temporary shelters. The passage of Proposition HHH is notable because it received

the support of a broad and unique coalition of public and private stakeholders in LA, including labor unions and private and nonprofit housing developers. Learn more at: localhousingsolutions.org/housing-policy-case-studies/los-angeles-proposition-hhh/

Measure R (Los Angeles County) - https://www.metro.net/about/measure-r/S

A two-thirds majority of LA County voters approved the Measure R half-cent sales tax in 2008 to finance new transportation projects and programs, and accelerate those already in the pipeline. The Measure R Expenditure Plan devotes its funds to seven transportation categories: 35% to new rail and bus rapid transit projects; 3% to Metrolink projects; 2% to Metro Rail system improvement projects; 20% to carpool lanes, highways and other highway related improvements; 5% to rail operations; 20% to bus operations; and 15% for Local Return programs. The Measure contains an Expenditure Plan that identifies the projects to be funded and additional fund sources that will be used to complete the projects. Learn more at: www.metro.net/about/measure-r/#what-is-measure-r

Metro 2016 Active Transportation Strategic Plan (ATSP) -

https://www.dropbox.com/sh/dtuy70ydn1pxf8o/AADhHaYBOnWX06uVDQ0K-Ssva?e=1&dl=0The Active Transportation Strategic Plan is Metro's overall strategy for funding and supporting the implementation of active transportation infrastructure and programs in Los Angeles County. It identifies strategies to improve and grow the active transportation network, to expand the reach of transit, and develop a regional active transportation network to increase personal travel options. "Active Transportation" refers to any non-motorized mode of travel, including walking, bicycling, rolling, skating, or scooting. S For more, visit: www.metro.net/projects/active-transportation-strategic-plan-atsp

Metro 2020 Long Range Transportation Plan (LRTP) – https://www.metro.net/about/plans/long-range-transportation-plan/

The LRTP provides a detailed roadmap for how Metro will plan, build, operate, maintain, and partner for improved mobility in the next 30 years. The LRTP will guide future funding plans and policies needed to move LA County forward for a more mobile, resilient, accessible and sustainable future. Available at: www.metro.net/about/plans/long-range-transportation-plan/

Metro 2028 Games Mobility Concept Plan - https://boardagendas.metro.net/board-report/2022-0781/

The 2028 Olympic and Para-Olympic Games Mobility Concept Plan (MCP) outlines mobility strategies, including capital and operating improvements, to support the transportation infrastructure needed to enhance mobility for the Games and beyond. At its December 2020 meeting, the Metro Board approved Motion 42 which directed staff to work with regional partners to develop a regional investment plan to include a federal engagement strategy and funding proposal to implement transportation improvements that would provide permanent, long-term benefits to the people of Los Angeles County. Metro's 2028 Games Task Force developed the initial project list of over 200 projects. Staff augmented and refined the Draft Initial Project List presented to the Board in January 2022 as a result of an extensive agency stakeholder outreach process to create the Comprehensive Project List covering over 300 projects. The Comprehensive Project List includes capital and operational improvements, such as bus stops, bus lanes, transfer centers, mobility hubs, communications and security equipment, and system reliability

investments; state-of-good-repair and maintenance work; and optimized customer experience improvements, such as wayfinding, digital information, and payment technology. Moving through a 6-step evaluation process, Metro and partner agencies. Identified and prioritized 50 projects for the Mobility Concept Plan Project List. The 2022 Prioritized MCP Project List consists of a broad range of multimodal projects (for example, active transportation, bus, congestion management, rail, and systemwide), and aligns with MCP goals. The project list has a diverse mix of project types: 58% capital projects, 28% operations-related improvements, and 14% expansion of existing Metro programs. Projects on this list have either no funding or partial funding. https://boardagendas.metro.net/board-report/2022-0781/

Metro Active Transportation (MAT) Corridor - https://www.metro.net/about/metro-active-transport-transit-and-first-last-mile-program/

Measure M established the Metro Active Transport, Transit and First/Last Mile (MAT) Program, which, over the course of 40 years, is anticipated to fund more than \$857 million (in 2015 dollars) in active transportation infrastructure projects throughout the region. This is a competitive discretionary program available to municipalities in LA County and will fund projects to improve and grow the active transportation network and expand the reach of transit. The purpose of the MAT Program is to encourage increased use of active modes of transportation, such as biking and walking, and enhanced pedestrian and bicycle safety. The Active Plan and Equity Platform
Framework are the core policies shaping the program. Projects will be funded based on need, with priorities established using a variety of data, such as socio-economic factors, safety for active mode users, health and existing conditions of physical infrastructure for active modes. The Program will operate in two five-year cycles. The Metro Board of Directors approved projects receiving Cycle 1
awards in January 2021.

<u>Next Gen Improvements - https://la-metro.maps.arcgis.com/apps/MapSeries/index.html?appid=8decc337ba35474ba28d0b4e9ad71647</u>

The Bus Plan was approved in October 2020 to help transition towards a reimagined bus system that focuses on providing fast, frequent, reliable and accessible service to meet the needs of today's riders. The project was developed through consideration of both technical data and all the priorities and personal experiences heard from nearly 20,000 LA County residents via over 400 meetings, events, presentations and workshops.

NextGen Bus Plan - https://www.metro.net/about/plans/nextgen-bus-plan/

In 2018, Metro launched an initiative to reimage their bus system to better meet the needs of current and future riders through the NextGen Bus Study. The NextGen Bus Plan was developed through consideration of both technical data and all the priorities and personal experiences heard from nearly 20,000 LA County residents through questionnaires and over 400 meetings, events, presentations and workshops. The process yielded thousands of comments and input from the public, including local stakeholder groups, riders and agencies and that input was used to develop the NextGen Bus Plan. The

Plan was reviewed through the public hearing process and Metro Service Councils, and then approved by the Metro Board of Directors in October 2020.

The NextGen Bus Plan proposed bus improvements that would:

- Double the number of frequent Metro bus lines
- Provide more than 80% of current bus riders with 10 minute or better frequency
- Improve and expand midday, evening and weekend service, creating an all-day, 7day-a-week service
- Ensure a ¼-mile walk to a bus stop for 99% of current riders
- Create a more comfortable and safer waiting environment

The Investment Plan transit recommendations are designed to complement the NextGen Bus Plan recommendations with a focus on the public input received from the communities along the LB-ELA Corridor.

SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020

Also known as the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy, is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. This Investment Plan vision, goals, and guiding principles are responsive to the policies and supportive strategies of the RTP/SCS ensuring consistency with the regional needs to mitigate congestion, enhance safety, and balance investments through equitable and multimodal transportation solutions. Access the full RTP at: https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020

State Highway Operation and Protection Program (SHOPP) - https://dot.ca.gov/programs/financial-programming/state-highway-operation-protection-program-shopp-minor-program-shopp

The 2022 State Highway Operation and Protection Program (SHOPP) is a four-year program of projects that collectively improves the condition, operation, and sustainability of State Highway System (SHS) and associated transportation infrastructure in California. The SHOPP funds safety and condition improvements, damage repairs, and highway operational and modal improvements on the State Highway System. By continuously repairing and rehabilitating the SHS, the SHOPP protects the enormous investment that has been made over many decades to create and manage the approximately 16,000 miles SHS. The SHS includes all Interstate routes, numbered highway, and other state owned assets including bicycle and pedestrian facilities, culverts, Transportation Management Systems (TMS),

safety roadside rest areas, and maintenance stations. The SHOPP also funds projects necessary to comply with the Americans with Disabilities Act (ADA) and stormwater control requirements. All projects funded by the SHOPP are limited to capital improvements that do not add new through highway lanes. https://catc.ca.gov/-/media/ctc<u>media/documents/programs/shopp/2022-shopp-document-final-epost-20220329.pdf</u>

Los Angeles County Metrolink Station Assessment and Improvement Plan

A Metro/Metrolink program that assessed the condition and accessibility of each Metrolink station in Los Angeles County to determine an initial set of proposed improvements for each Station.

Annual Commuter Rail State of Good Repair (SOGR) Program - https://catc.ca.gov/programs/sb1

California Senate Bill 1 (SB 1), the Road Repair and Accountability Act of 2017 provides transportation funding annually to repair aging infrastructure, make strategic investments in congested commute and freight rail corridors, and improve transit service. This a SB 1 program provides approximately \$105 million annually to transit operators in California for eligible transit maintenance, rehabilitation, and capital projects. This investment in public transit is the State of Good Repair Program.

710 South Clean Truck Program (NOW: LB-ELA Zero Emissions Truck Program) - https://lede-admin.la.streetsblog.org/wp-content/uploads/sites/50/2021/05/I-710-Clean-Truck-Program-Long-Description-09.20.20.pdf

The Metro Board acted in October 2021 (Motion 16) to commit \$50 million as seed funding for a LB-ELA Zero Emission (ZE) Truck program that would become part of the work of the Task Force. In response, staff initiated a ZE Truck Working Group as part of the LB-ELA Corridor Task Force's engagement process. The Working Group is charged with developing the ZE Truck Program under the guidance of the ZE technology parameters adopted by the Board.

Metro Task Force 2022/2023 Pre-Investment Plan Opportunity Projects (PIPO) - https://www.metro.net/calendar/i-710-task-force/

Recognizing the unprecedented amount of discretionary grant funding made available at the State and Federal levels in 2022, the Metro Board directed staff via Motion 9 to return with a "minimum of three initiatives that will apply for available State and Federal funding opportunities in Calendar Year 2022," in advance of the 710 Task Force Investment Plan being finalized in 2023. To fulfill this directive Metro staff put out a request to the Task Force membership, the CLC, cities, local agencies, and organizations to provide nominations for projects and received from stakeholders 22 project nominations ranging from categories such as Transit, Clean Air/Energy, Goods Movement, Corridor Mobility, Complete Streets, and Roadway. Staff also identified 13 additional projects for which Metro played a role in developing or supporting for grant funding. After analyzing the projects, understanding the concerns raised and input provided by the CLC, EWG, Task Force and other stakeholders, and identifying projects for which a grant application had not yet been submitted, staff identified a full PIPO for Board review and a set of 4 early initiative projects for Board approval.

Supervisory Control and Data Acquisition System (SCADA) https://csrc.nist.gov/glossary/term/supervisory_control_and_data_acquisition

Transit authorities, including Metro, use SCADA technology to regulate electricity to subways and LRT; to automate train traffic signals for rail systems; to track and locate trains and to control railroad crossing gates. It allows Metro to operate trains more frequently while maintaining safety of rail operations.

City of Long Beach Bicycle Master Plan https://www.longbeach.gov/lbcd/planning/advance/general-plan/mobility/bicycle/

The 2016 updated Bicycle Master Plan (Plan) continues to build upon a long-standing effort to make Long Beach a city known for its bicycle-friendliness and as an active, healthy, and prosperous place to live, work, and play. The Plan expands upon the Mobility Element of the Long Beach General Plan by providing further details on bicycle planning and design. It also recommends a series of bicycle facility projects and programs to be implemented by Long Beach over the next few decades. https://longbeach.gov/lbds/planning/advance/general-plan/mobility/bicycle/

The Climate Action Plan for Transportation Infrastructure (CAPTI) - https://calsta.ca.gov/subject-areas/climate-action-plan

The Climate Action Plan for Transportation Infrastructure (CAPTI) provides a holistic framework to better align the state's transportation funding with the state's climate, social, and health equity goals. The CAPTI identifies a set of strategic areas to support and be responsive to the Road Repair and Accountability Act of 2017 or Senate Bill (SB) 1 goals of fixing California's infrastructure and investing more in transit and safety. The CAPTI supports the goals of the California Transportation Plan (CTP) 2050, which is the state's vision to achieve greater safety, reduced Greenhouse Gas Emissions (GHG), and increased equity and accessibility for the future of California's transportation system. The CAPTI also builds on the principles of California's Climate Change Scoping Plan to achieve the state's 2030 GHG target and other climate goals.

CAPTI: Climate Action Plan for Transportation Infrastructure













March 28, 2024

via electronic mail

Michael Cano, Executive Officer
LA Metro
1 Gateway Plaza
Los Angeles, CA 90012
CanoM@metro.net and 710Corridor@metro.net

Re: Long Beach-East Los Angeles Corridor Mobility Investment Plan

Dear Michael Cano and Project Team Staff,

On behalf of the undersigned organizations, members of the Coalition for Environmental Health and Justice ("CEHAJ"), and Long Beach Residents Empowered (LiBRE), we submit this letter to raise aspects of the Draft Long Beach-East Los Angeles Corridor Mobility Investment Plan ("Draft CMIP") we support in concept, as well as specific concerns that threaten an extensive public process that Metro and Caltrans went through when devising priorities along the I-710 South corridor ("Corridor").

I. Introduction.

The communities along the Corridor have experienced heightened pollution burdens, health impacts, unemployment, and housing instability since the creation of the I-710. For over two decades, the major Corridor study on I-710 loomed over our communities with the threat of increased negative impacts on our already overburdened neighborhoods. Despite consistent and

voiced opposition from impacted stakeholders, on March 1, 2018, the Metro Board accepted Caltrans' proposal to favor Alternative 5C, which called for Caltrans to expand the I-710 freeway, ignoring community concerns that it would increase dangerous pollution levels in what is known as a "diesel death zone."

When the United States Environmental Protection Agency ("EPA") expressed concern that the original I-710 South Project would fail to meet air quality conformity, Metro and Caltrans suspended Alternative 5C's advancement. We were encouraged whenMetro came to terms with the fact that Alternative 5C stood in stark contrast to a sustainable and equitable future and initiated the I-710 South Corridor Task Force ("Task Force") as the focal point to advance a vision that centers on equity and sustainability. Over the past two years, our good-faith engagement hinged on Metro's steadfast commitment to equity, as defined by the Corridor communities, and sustainability principles to repair past harm done to communities. As Metro itself admits, "Given the high percentage of BIPOC populations in the Corridor," the issues identified during the planning process "reinforc[ed] racial inequities and demonstrate[d] how structural racism persists in urban communities."

CEHAJ has consistently called for change along the I-710, including meeting the community's demands for greater protection of public health for impacted residents and community-centered decision-making with affected communities as co-designers of a plan to help repair past harms. While this Draft CMIP aims "to achieve a multidimensional, multimodal investment strategy to improve regional and local mobility and air quality," the Task Force emphasized the need to promote equity at every step. For this to occur, the process must not only create greater transparency and provide a meaningful seat at the table for "stakeholders who live and work along the LB-ELA Corridor" but also "identify opportunity areas for the Investment Plan's projects and programs to support meaningful improvements, and identify the desired community results (equitable future states of well-being) to which these improvements of the Investment Plan will contribute." Thus, repairing past harms should remain central to the prioritization process under the Task Force and CLC's Vision, Goals, and Guiding Principles.

Metro has an opportunity to address the racist and harmful legacy of freeway expansions by using Measure R and M investments to directly benefit residents in communities hardest hit by the creation of the I-710. The Draft CMIP is supposed to "elevate and engrain…equity across all goals, objectives, strategies, and actions." Meaningful community input and engagement are essential, and we believe that the Task Force's re-engagement of community stakeholders serves as a critical starting point.

¹ LB-ELA Draft Corridor Mobility Investment Plan, p. 4-3.

² LB-ELA Draft Corridor Mobility Investment Plan, p. 2-12.

³ LB-ELA Draft Corridor Mobility Investment Plan, p. xxvi.

The Draft CMIP, however, currently falls short of delivering on equity in several ways.

- First, the Draft CMIP fails to promise communities that no one will be displaced by the implementation of any of the projects it proposes to endorse. CEHAJ has consistently called for Metro to end both residential and small business displacement along the Corridor. In late February, Supervisor Janice Hahn voiced her unambiguous call for Metro to "commit itself to zero residential property takes" and to have as "one of its top priorities ensuring that [its] projects do not result in kicking people out of their homes." We applaud Supervisor Hahn for making this commitment a part of her approach to the Draft CMIP and invite the entire Metro Board to join a resolution opposing all displacement. The final CMIP must make an unequivocal statement of zero displacement as an outcome of its investment.
- Second, two weeks before the Draft CMIP was released, Metro announced several
 material changes to the prioritization of projects, shifting which projects would receive
 priority funding. This change arbitrarily elevated individual industry-led projects and
 deprioritized and bundled community-facing projects with the potential to deliver
 substantial benefits to beleaguered residents.
- Third, the inclusion of Community Programs, while laudable, appears to be the lowest priority in the Draft CMIP when considering the lack of firm commitment to full implementation. We are pleased to see the County of Los Angeles stepping in to offer resource support to Metro to help actualize Community Programs, but we need to see more solid commitments to their full and independent implementation in the CMIP itself. Metro must use the County's commitment to these programs as an opportunity to redouble its commitment to ensuring the benefits come to fruition and are further codesigned and implemented in partnership with impacted communities.

With these principles in mind, our comments focus on the following: 1) projects must help address air pollution and protect public health; 2) Metro should stay true to its commitment to equity and allow the community to define community benefits; 3) industry special interests should not be allowed to derail an equitable investment plan by artificially elevating pet projects while undermining the time and resources that Metro, the Community Leadership Committee ("CLC"), community-based organizations ("CBOs") and community stakeholders who have invested in democratizing the CMIP creation and approval process.

⁴ Supervisor Janice Hahn, Letter to LA County Metropolitan Transportation Authority CEO, Stephanie Wiggins, (February 27, 2024); https://twitter.com/SupJaniceHahn/status/1762635137454600240.

II. Summary of Comments.

The following section summarizes CEHAJ's positions on several projects presented in the Draft CMIP.

- A. Projects CEHAJ Supports in Concept.
- Freeway, so long as they do not result in displacement or the addition of lanes and adhere to Clean Air Act conformity analysis requirements.
 - o LB-ELA 0028: I-710/Willow Interchange Improvements
 - LB-ELA_0156: Traffic Controls at I-710 Freeway Ramps
 - o LB-ELA 0157: I-710 Particulate Matter (PM) Reduction Pilot Project
- Arterial Roadway, so long as they do not result in displacement or the addition of lanes and adhere to Clean Air Act conformity analysis requirements.
 - o LB-ELA 0057: Atlantic Complete Street Corridor
 - o LB-ELA_0058: Florence Complete Street Corridor
 - o LB-ELA 0061: Slauson Complete Street Corridor
 - o LB-ELA 0062: Long Beach Complete Street Corridor
- **Transit.** We support improving transit service times, rider experience, and bus shelters along key routes in the corridor. We urge staff to consider expanding the availability of bus shelters for residents. CEHAJ plans to work with Metro to improve these programs with robust community outreach and engagement. For these reasons, we support investment in the following projects:
 - LB-ELA_0175: Install Quad Safety Gates at all A Line [Blue Line] Crossings, as long as these projects include community consultation to ensure gates are properly positioned and do not reduce pedestrian access points or create additional barriers to mobility.
 - o LB-ELA 0179: Metro Bus Priority Lane Corridor along Line 66 (Olympic Blvd)
- We urge Metro to consider the following projects as part of a transit safety package included on the Initial Investments Lists:
 - o LB-ELA 0189: Transit System Cleanliness and Maintenance
 - o LB-ELA 0177: Second Elevator to Firestone and Slauson A Line Station
- Active Transportation.
 - o LB-ELA 0008-Blue Line First Last Mile Plan
 - o LB-ELA 0158: Del Amo Pedestrian Gap Closure Project
 - o LB-ELA 0170: Huntington Park Safe Routes for Seniors
 - o LB-ELA 0201: Pedestrian/Bicycle Enhancements and Safety Features
 - o LB-ELA 0208: Salt Lake Avenue Pedestrian Accessibility Project in Cudahy
- We support the following projects if they include analysis for localized emissions.
 - LB-ELA 0072: Traffic Signal Coordination Projects
 - o LB-ELA 0099: Traffic Signal Synchronization Projects
 - o LB-ELA 0112: Signal Coordination/ITS Projects

- o LB-ELA 0167: I-710 Arterial Signal Performance Measurement
- o LB-ELA_0215: I-710 Arterial Traffic Signal Control Communication Upgrades
- Community Programs. The CMIP needs to include critical investments that serve to repair the harmful legacy of racist land use decisions and freeway design that created the inequality that persists today. The community programs offer an opportunity to bring investments directly to communities in the Corridor and start the work of improving conditions for residents and course correcting. CEHAJ fully supports improving these programs and working with Metro to ensure they succeed and are designed and led by Corridor communities.
 - o LB-ELA 0135: Housing Stabilization Policies
 - o LB-ELA 0187: LB-ELA Corridor "Urban Greening" Initiative
 - o LB-ELA 0191: Zero Emission Infrastructure for Autos
 - o LB-ELA 0192: Bus Electrification Projects
 - o LB-ELA 0194: Homeless Programs
 - o LB-ELA_0195: Targeted Hire Programs
 - LB-ELA_0218: Air Quality Monitoring Stations
- Zero-emissions Transportation and Infrastructure. CEHAJ continues to support the elimination of diesel trucks from the Corridor with prioritization for direct electrification for freight transportation and continued robust community engagement during the planning and deployment of these strategies and supporting infrastructure. For these reasons, we support investment in the following projects if they commit to using limited public funds to advance only zero emissions solutions.
 - o LB-ELA 0023: Clean Truck Infrastructure
 - o LB-ELA 0004: Long Beach-East Los Angeles Corridor Clean Truck Program

B. Projects CEHAJ Does Not Support.

- We caution against programs framed as "community benefits" while embedding harmful hyper-surveillance of residents through cameras and other technologies that undermine civil liberties and invade privacy. For these reasons, we do not support:
 - o LB-ELA 0075: Video Camera installation
 - o LB-ELA 0084: Video Detection Upgrades
- We oppose the prioritization of industry-led projects over community projects. Several
 projects artificially elevate pet projects while undermining the time and resources that
 Metro, the CLC, community organizations, and stakeholders have invested to
 democratize the investment plan.
 - LB-ELA_0151: Freight Rail Study (to the extent it fails to study the breadth of potential impacts on communities)
 - o LB-ELA_0217: Freight Rail Electrification Pilot Project, to the extent the project serves only private industries that should fund electrification directly.
- We do not support the inclusion of the following projects in the modal programs:

- o LB-ELA 0153: Congestion Pricing
- LB-ELA_0182: Express Lanes Strategic Initiative
- o LB-ELA_0043: 710 Commerce/Vernon Hobart Rail Yard Overhead
- LB-ELA_0049: Increased Security at Metro's Existing and Planned Light Rail Stations
- LB-ELA 0091: I-710/Anaheim Interchange Improvement
- LB-ELA 0093: I-710/Wardow Interchange Improvement

C. Deficiencies in the Draft CMIP that Require Clarification and Disclaimers.

- The CMIP should clarify that community consultation is intended throughout the development of these projects. A similar reference should be made in the Clean Truck Infrastructure [LB-ELA_0023] and Zero Emissions Truck Program [LB-ELA_0004].
- The CMIP needs to articulate the expected implications of individual projects to public health and air quality before being endorsed. Advancing projects without further scrutiny contradicts the Task Force and CLC's Vision, Goals, and Guiding Principles. Metro should provide a better evaluation, even preliminary, of the potentially toxic air impacts of the initial list of proposals, especially if these projects are derivative of prior proposals for the freeway.
- The CMIP must make an unequivocal statement ensuring the implementation of any proposed projects will not lead to the displacement of current residents or small businesses.
- Equity points were improperly given to Freeway and Arterial projects for reasons that do not align with the Corridor communities' demand of the Task Force's definition of equity.
- The lack of specificity in the CMIP's treatment of Community Programs raises questions about the plan's commitment to uplifting the community's needs and shows a potential disconnect between the planners and the communities they seek to serve. Additionally, Community Programs should not be used as "mitigation" for potentially harmful projects, and their advancement should not depend on the implementation of potentially harmful projects through "bundling" or mechanisms that would otherwise tie them to projects not serving the community directly.
- Freeway, Arterial, and Transit Projects have not been evaluated to ensure they do not fail for the same reason Alternative 5C failed.
- We urge Metro to prioritize Class VI bike lanes over other options and avoid the unintended consequence of increasing impervious cover in areas already marked by increased flood risks and urban heat island effects.
- Metro lacks a definition of zero emissions that eliminates the harms associated with combustion and nitrogen oxide (NOx) emissions.
- Equity flags should be given to the following projects.
 - LB-ELA_0031: I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors

- o LB-ELA 0034: I-710/Florence Interchange Improvements
- o LB-ELA 0037: I-710/I-105 Connector Project Improvements
- o LB-ELA_0092: I-710/PCH Interchange Improvement
- o LB-ELA 0028: I-710/Willow Interchange Improvements
- Language should be included for the following projects to prioritize pedestrian and bicycle safety and not just facilitate vehicle throughput.
 - o LB-ELA 0057: Atlantic Complete Street Corridor
 - o LB-ELA 0058: Florence Complete Street Corridor
 - o LB-ELA 0061: Slauson Complete Street Corridor
 - o LB-ELA 0062: Long Beach Complete Street Corridor
- Request confirmation that the Bus Stop Improvement project will absorb Bus Stop
 Improvements in the City of Commerce [LB-ELA_0077], Maywood [LB-ELA_0103],
 and City of Signal Hill [LB-ELA_0118].

III. Prioritze Public Health and Eliminate Projects that May Cause More Harm than Good.

A. Metro has the Opportunity to Course Correct and Address Systematic Harms Through the CMIP.

The Draft CMIP lacks specificity on what communities should expect regarding possible implications on their health, air quality, and climate. The purpose of the two-year process to develop the Draft CMIP was to change a historic pattern of development that continues to fail to prioritize the health and well-being of Corridor residents and communities most impacted. The Draft CMIP does a great job of framing the complex history of the nation's "diesel death zone" — demonstrating the moral imperative to improve public health and air quality in the Corridor. Yet, there is a dearth of details on what health impacts the public can expect from recommended projects. We acknowledge that many projects are far from being fully developed or environmentally reviewed; however, we are left questioning how the Draft CMIP prioritizes transformative change if it does not meaningfully analyze those impacts in concept to ensure future investment does not continue harming Corridor communities.

We learn almost nothing about how each recommended project will directly impact health and air quality locally and reverse past harms in the region. The Draft CMIP includes an "Evaluation and Prioritization" section that is more than 20 pages long and factsheets for each project and program recommended for initial funding. However, for most of the proposed projects, the possible health and air quality implications are marked as "N/A" in many cases; we are left feeling like our continuous calls for prioritizing community health remain unheard.

B. Current and Future Investment in the Nation's "Diesel Death Zone" Must, at Minimum, Improve Air Quality.

EPA's recent changes to the nation's ambient air quality standards reinforce the need to create more stringent, ambitious, and comprehensive strategies to protect more lives and improve air quality in the Corridor, even in the early stages of project development,. As of early February 2024, the EPA strengthened the Clean Air Act standard for fine particulate matter by lowering the annual air standard for PM2.5 pollution from 12 micrograms per cubic meter to 9 micrograms per cubic meter. Currently, most, if not all, of the communities in the Corridor live in areas with concentrations of PM2.5 above 10 μg/m3. CEHAJ and community members have continuously requested that Metro foster local and regional clean air quality by clarifying how proposed recommendations will comprehensively affect the health of those working and living in the Corridor. The environmental justice implications of not addressing pollution-induced health disparities in the region are impossible to ignore. Approximately 73 percent of residents live in an Equity Focus Community area, meaning an estimated 876,000 residents. It is not enough to say these impacts will be analyzed later while at the same time acknowledging the 710 Task Force was created to address community concerns earlier in the project planning process.

C. Metro Must Provide a More Comprehensive Evaluation of the Toxic Air Impacts of Initial List Proposals.

Metro's suggested use of health proxies, such as shifting emissions, increased local emissions, bicycle and pedestrian safety, increased vehicle miles traveled, expansion of impervious cover, noise pollution, and physical transportation barriers, are all important to track but need to result in a comprehensive approach to assessing these impacts in each proposal as an evaluation criterion, not just as proxies. Of the twenty-seven criteria used to evaluate health-related project outcomes (see Table A), only four criteria (AQ1, CH1, CON5, CON9) directly advance transparency on the implications to air quality and health. Furthermore, data on these four criteria is extremely limited, if at all available, for the vast majority of the projects and programs recommended for initial investment, with many receiving N/A simply because there is no data currently available (see Table B).

⁵ EPA, "EPA finalizes stronger standards for harmful soot pollution, significantly increasing health and clean air protections for families, workers, and communities," February 7, 2024, available at https://www.epa.gov/newsreleases/epa-finalizes-stronger-standards-harmful-soot-pollution-significantly-increasing.

⁶ LB-ELA Draft Corridor Mobility Investment Plan, p. 3-17.

⁷ LB-ELA Draft Corridor Mobility Investment Plan, p. 3-4.

Table A. Project Health Outcomes and Relevant Criteria

Project Health Outcomes	Criteria	Criteria Description
	AQ1, EQ-AQ1	Reduce Emissions (NOx, PM2.5)
	CH1, EQ-CH1	Reduce Emissions (Health Effects metrics: Diesel Particulate Matter, PM2.5)
	CH2, EQ-CH2	Reduce exposure at receptors (HVAC/HEPA, near-roadway vegetation)
	CH3, EQ-CH3	Mode Shift to active transportation, transit
	CH5, EQ-CH5	Bike/Ped Access to parks, recreational areas, or open spaces
00	SF1, EQ-SF1	Protections for Bike / Users (bike class)
	SF2	Traffic Protections (bike/ped)
0	SF4	Includes Safety Features
0	SF6	Traffic Calming Features
•	EN6, EQ-EN6	Reduce Heat Island Effect; Provide Cooling Features for Users
•	OP1, EQ-OP1	Access to jobs
•	OP4	Work Force Development
•	OP5	Potential Targeted Hire, New Construction Jobs
•	OP6, EQ-OP6	Access to Quality of Life amenities (grocery stores, healthcare services, schools)
	OP7, EQ-OP7	Access to open space, recreation and parks, LA river, etc.
	SA1	Reduces reliance on polluting and energy-intensive modes of travel and goods movement
	SA2	Promotes physical activity and health through active transportation and recreation
•	SA3	Improves climate resilience through mitigation of flooding and extreme heat impacts
•	SA4	Supports job creation in, and workforce transitions to green technology and infrastructure sectors
	SA5	Improves cargo efficiencies to minimize trip volumes and emissions from goods movement activity
00	CON4	Potential for Traffic Diversion
	CON5	Potential to increase Localized Emissions / Emissions Shifting
00	CON6	Potential for Bike/ped safety impacts
	CON9	Potential for VMT Increases
	CON11	Potential to increase impervious cover
	CON13	Potential to increase noise pollution
	CON15	Potential for new barriers/decreased access

Table B. Current Air Quality Evaluation for Projects and Programs Recommended for Initial Investment

Project Type	Project ID	Project Name	AQ1	CH1	CON5	CON9
Active Transportation	LB-ELA_0006	Rail to River Active Transportation Corridor Segment B		NA	NA	NA
Active Transportation	LB-ELA_0008	Blue Line First Last Mile Plan Improvements	NA	NA	NA	NA
Active Transportation	LB-ELA_0017	Regionally significant bike projects from the Metro Active Transportation Plan	NA	NA	NA	NA
Active Transportation	LB-ELA_0111	West Santa Ana Branch Bike & Pedestrian Trail	NA	NA	NA	NA
Active Transportation	LB-ELA_0139	Humphreys Avenue Pedestrian/Bicycle Overcrossing	NA	NA	NA	NA
Active Transportation	LB-ELA_0165	Compton Creek Bike Underpasses	NA	NA	NA	NA
Arterial Roadway	LB-ELA_0010	Shoemaker Bridge/Shoreline Drive	1	0.0	1	0
Arterial Roadway	LB-ELA_0057	Atlantic Complete Street Corridor	NA	NA	NA	0
Arterial Roadway	LB-ELA_0058	Florence Complete Street Corridor	NA	NA	NA	0
Arterial Roadway	LB-ELA_0060	Alondra Complete Street Corridor	NA	NA	NA	0
Arterial Roadway	LB-ELA_0061	Slauson Complete Street Corridor	NA	NA	NA	0
Arterial Roadway	LB-ELA_0062	Long Beach Complete Street Corridor	NA	NA	NA	0
Freeway	LB-ELA_0028	I-710/Willow Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0029	I-710/Del Amo Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0030	I-710/Long Beach Blvd. Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0031	I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors	1	2.0	1	0
Freeway	LB-ELA_0032	I-710/Imperial Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0033	I-710/Firestone Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0034	I-710/Florence Interchange Improvements	1	2.0	1	0
Freeway	LB-ELA_0035	I-710 Auxiliary Lanes (Willow to Wardlow)	1	2.0	1	1
Freeway	LB-ELA_0036	I-710 / I-405 Connector Project Improvements		2.0	1	0
Freeway	LB-ELA_0037	I-710/I-105 Connector Project Improvements		2.0	1	0
Freeway	LB-ELA_0038	I-710 Auxiliary Lanes (Del Amo Boulevard to Long Beach Boulevard)	1	2.0	1	1
Freeway	LB-ELA_0091	I-710/Anaheim Interchange Improvement	NA	NA	NA	0
Freeway	LB-ELA_0092	I-710/PCH Interchange Improvement	1	2.0	1	0
Freeway	LB-ELA_0093	I-710/Wardlow Interchange Improvement	1	2.0	1	0
Freeway	LB-ELA_0156	Traffic Controls at I-710 Freeway Ramps	NA	NA	NA	0
Freeway	LB-ELA_0157	I-710 Particulate Matter (PM) Reduction Pilot Project	NA	NA	NA	NA
Freeway	LB-ELA_0181	Freeway Lids, Caps, and Widened Bridge Decks	NA	NA	NA	0
Goods Movement	LB-ELA_0004	Long Beach-East Los Angeles Corridor Clean Truck Program	NA	NA	NA	0
Goods Movement	LB-ELA_0023	Clean Truck Infrastructure	NA	NA	NA	0
Goods Movement	LB-ELA_0151	Goods Movement Freight Rail Study	NA	NA	NA	NA
Goods Movement	LB-ELA_0217	Freight Rail Electrification Pilot Project	NA	NA	NA	NA
Transit	LB-ELA_0141	Metro Bus Priority Lane Corridor along Line 60 (Long Beach Blvd.)	1	2.0	0	NA
Transit	LB-ELA_0142	Metro Bus Priority Lane Corridor along Line 108 (Slauson)	1	2.0	0	NA
Transit	LB-ELA_0144	Metro Bus Priority Lane Corridor along Line 111 (Florence)	1	2.0	0	NA
Transit	LB-ELA_0146	Metro Bus Priority Lane Corridor along Line 260 (Atlantic Blvd.)	1	2.0	0	NA
Transit	LB-ELA_0168	Compton Transit Management Operations Center Enhancements	NA	NA	NA	NA
Transit	LB-ELA_0175	Install Quad Safety Gates at all A Line [Blue Line] Crossings	NA	NA	NA	NA
Transit	LB-ELA_0203	Bus Stop Improvements	NA	NA	NA	NA

The Draft CMIP ultimately prioritized projects without air impact scores, masking the fact that these projects do indeed have air quality impacts. For example, Goods Movement projects' implications on air quality and health were measured using qualitative criteria AQ2, which

focuses on a project's potential to facilitate the deployment of zero-emission vehicles and equipment. Most of the Goods Movements projects, including those in the Modal Programs, received scores of N/A for criteria used to evaluate health-related project outcomes because they lack sufficient information or methodologies to provide any insight on how they might lead to increased levels of diesel particulate matter, nitrogen oxides, fine particulate matter, localized emissions or emission shifting, and increases in vehicle miles traveled (i.e., the Draft CMIP cannot calculate impacts for criteria AQ1, CH1, CON5, and CON9). According to staff presentations, this N/A score means there might be an emissions increase, but Metro is currently unable to calculate or estimate the level of impact. The lack of comprehensive scoring criteria to account for health means that there are projects Metro may fund without complete or even conceptual information on the potential harm they will cause to our communities.

For similar reasons, the data on Freeway projects is not entirely trustworthy, as the methodology and calculations are also very limited. Of the 17 freeway projects recommended for initial investment, 13 received "Low Concern," and four received "N/A" for their potential to increase emissions. When we consider their potential to increase vehicle miles traveled, 14 freeway projects received a "No Impact" score, two projects scored "Low Concern," and one "N/A." It is highly doubtful that no freeway project, including interchange projects, should not have received a score higher than 1 (Low Concern) for emissions increases (CON5) when historical data tell us that freeway traffic, particularly along the 710, is a large contributor to the region's air pollution woes. The Draft CMIP evaluations are highly untrustworthy and defy common sense. For example, it is unclear why project I-710/Anaheim Interchange Improvement [LB-ELA_0091], a known traffic area for freight transportation, received N/A for emissions increase. Similarly, arterial projects lack sufficient information to determine whether the methodologies are accurate. It is equally unlikely that every arterial project recommended for initial investment should have received either an N/A or a 1.

D. The Lives of Workers and Residents in the Corridor Should be Prioritized, and Projects Likely to Cause Public Health Harm Should be Omitted.

Projects with the potential to create emissions and pollution in Corridor communities have no place in the CMIP. We strongly recommend Metro prioritize a thorough analysis of health implications before further investing in specific projects and programs. A viable solution for projects with no readily available data would be to qualitatively analyze health impacts based on what we currently know about freeway-related emissions instead of simply assigning N/A to projects generally known or expected to have implications. It is entirely possible that Metro does

⁹ South Coast Air Quality Management District, Final 2022 Air Quality Management Plan, p.2-32 through 2-34; available at: https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

⁸ Appendix 6-A Rubrics for Benefit and Concern Criteria.

not have sufficient data for all projects across all criteria. The lack of data justifies conducting further study and analysis to vet specific projects instead of the current method of advancing projects with "unknown or not applicable" health implications. Metro should more clearly identify which projects stem from past proposals related to the flawed and abandoned Environmental Impact Report (EIR) for Alternative 5C. In the absence of data for recommended projects, it could be helpful for Metro to include previous estimates and analyses on health implications for similar projects as examples of what communities could expect. Metro will be more transparent and help build trust if the CMIP acknowledges the potential to harm and provides any available estimates. Advancing projects that may cause harm to public health without a thorough study proving otherwise will only erode community trust in Metro and potentially derail the progress made during the past two years. Furthermore, given the limited funding pool, advancing projects unvetted for health impacts, even at a preliminary stage, means that other more health-protective projects may be excluded from this plan.

IV. Metro Should Prioritize Community Benefits.

The Draft CMIP represents a crucial opportunity to address long-standing inequities in transportation planning, particularly in communities of color disproportionately affected in the Corridor. While the Draft CMIP outlines various investments and improvements, there is a glaring lack of emphasis on community benefits, which should be a top priority. The Draft CMIP identified 15 Community Programs as priorities for Metro. We urge Metro not to use any of these Community Programs as forms of mitigation for potentially harmful projects in a "bundled" model. The advancement of Community Programs needs to be independent of the implementation outcomes of potentially harmful projects.

Community benefits must include proactive measures that deliver tangible outcomes that directly address the harm caused by past infrastructure projects. Describing the reduction of air pollution as a community "benefit" does a disservice to efforts to meaningfully rectify environmental injustices. Clean air is not a luxury or an added bonus for communities; it is a fundamental right and a vital necessity for health and well-being. Yet, far too many communities, particularly those burdened by pollution from industrial and transportation sources, bear the brunt of poor air quality. In these areas, respiratory illnesses and other health complications run rampant and highlight the immediate need to reduce pollution levels. Far too often, communities in the Corridor have been sidelined — their voices drowned out by decision-makers who do not understand or value their concerns. Community benefits programs must be co-designed by the affected communities themselves.

While initial funds are allocated for Community Programs, the Draft CMIP fails to provide detailed plans or descriptions for their implementation, which raises significant concerns about the feasibility and effectiveness of the proposed Community Programs. The absence of detailed

plans and descriptions for Community Programs is concerning for several reasons. Firstly, it deprioritizes these essential programs in the planning and implementation process. Without clear plans in place, there is a risk that the allocated funds may not be used effectively or that the intended goals of the programs may not be achieved. The lack of specificity in the Draft CMIP's treatment of Community Programs raises questions about the plan's commitment to uplifting the needs of the community and shows a potential disconnect between the planners and the communities they seek to serve. In order to address these concerns, we propose that Metro revise the Draft CMIP to include a more refined description of Community Programs with concrete strategies for continued implementation and funding, especially since Metro only provided details for "Community Programs" until early this year. These plans should be developed in consultation with community members to ensure they are responsive to community needs and priorities. The recent motion introduced by Supervisor Janice Hahn and unanimously passed by the Los Angeles County Board of Supervisors offers Metro additional support to ensure the implementation of these programs becomes feasible. We urge Metro to incorporate more concrete strategies, utilizing the County as a resource, to fully implement Community Programs.

Moreover, Metro's stated commitment to equity and multimodal transportation is not fully reflected in the allocation of resources within the Draft CMIP. A mere nine percent of initial investments are allocated to Community Programs. In contrast, a significant portion of funding is directed towards further developing "modal programs," such as freeway, transit, and goods movement infrastructure. This disproportionate allocation fails to prioritize more holistic and comprehensive initiatives directly supported by the affected communities and risks neglecting the root causes of transportation challenges. The imbalance not only undermines Metro's equity and sustainability goals but also risks deepening existing disparities and marginalizing the voices of communities most impacted by transportation projects. This requires a reevaluation of funding priorities within the CMIP to reflect the importance of community-led initiatives in achieving equitable and resilient transportation infrastructure. Ultimately, investing in community benefits is not just about meeting regulatory requirements or appeasing stakeholders; it is about recognizing the intrinsic value of community well-being and empowerment.

The lack of funding commitment could result in Community Programs being underfunded or abandoned altogether, further undermining the Draft CMIP's positive impact in the Corridor. It is imperative to ensure that Community Programs receive not only initial funding but also ongoing support for successful implementation. While the Draft CMIP includes initial funding for Community Programs, there is no discussion of how these programs will be sustained in the long term or any discussion of potential allocation from the \$248 million to further "modal programs." It is essential to ensure that Community Programs are not just funded for planning without a commitment to realize them. The Draft CMIP's funding allocation raises concerns about its

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¹⁰ Motion by Supervisor Janice Hahn and Hilda L. Solis, March 19, 2024, available at https://file.lacounty.gov/SDSInter/bos/supdocs/8ce66ebe-50be-4858-a810-afe1e8608900.pdf.

commitment to community benefits and leaves Community Programs vulnerable to future underfunding, further undermining the plan's long-term impact in the Corridor.

A. Greenspace has Positive Health Outcomes.

There is a critical need to prioritize greenspace commitments in the CMIP, particularly for lowincome communities of color in the Corridor. By focusing on community-supported programs and ensuring better greenspace commitments, the CMIP can directly benefit these marginalized communities. Greenspaces offer a wide range of benefits that complement and enhance the effectiveness of other transportation modes, making them essential components of any comprehensive investment plan. They play a vital role in improving air quality, absorbing pollutants, and releasing oxygen, which is especially beneficial for these communities burdened by pollution from industrial and transportation sources. Additionally, greenspaces provide valuable opportunities for active transportation, such as walking and cycling, encouraging sustainable modes of transportation and reducing congestion and greenhouse gas emissions. Furthermore, green spaces can help mitigate the urban heat island effect, reducing temperatures in urban areas. This is crucial as temperatures rise due to climate change, contributing to the creation of more resilient and adaptable communities in the Corridor. It is important to note that greenspace and increased greenery should be consulted with local Indigenous peoples, tribes, and organizations to honor and restore local plant life. We strongly favor a commitment to greenspace improvements as part of the CMIP.

The LB-ELA Corridor "Urban Greening" Initiative [LB-ELA_0187] offers the promise of delivering much needed greenspace to the region. We encourage Metro to prioritize areas right outside of schools for greenspace improvements, including the development of new parks and the upgrade of existing ones. A few non-exhaustive examples of areas where improvements can be targeted include the following: Washington Boulevard between Atlantic and Indiana Street; park areas between Darwell Avenue in Bell Gardens and Ira Street in Lynwood; areas on California Street between Tweedy and Southern in Southgate; Firestone Boulevard between Otis and California. The listed examples were all identified by Corridor residents, members of CEHAJ organizations, as places where existing park space could be improved or expanded. Residents have also voiced a desire for additional space allocated to community gardening to safely grow edible vegetation. We strongly encourage Metro to further consult with residents in deploying these strategies and look forward to participating in future discussions that include members of impacted communities.

B. Housing and Homelessness.

California is in the midst of an unprecedented housing crisis. The cost of housing is skyrocketing with a growing number of households, especially in already under-resourced communities like many in the Corridor, experiencing severe rent burdens and paying more than half of their

income just to stay housed.¹¹ Developing stronger housing protections for low-income renters and homeowners in the Corridor gets at the heart of the investment plan's equity principles by serving to repair the legacy of harm freeways have caused. Anti-displacement housing protections can also serve climate and air pollution goals by avoiding the pressures that force residents to seek more affordable housing options elsewhere and requiring them to commute longer distances to access jobs and resources, thus increasing vehicle miles traveled and harmful emissions.

We strongly believe Metro and the County can play a role in stabilizing housing by working with residents to develop programs that prevent unnecessary evictions, curb unlawful tenant harassment, ease gentrification pressures, and preserve existing affordable units while also spurring the development of sustainable, deeply affordable units that meet current environmental review and protections. To that end, we support the inclusion of the Housing Stabilization/ Land Use [LB-ELA 0135] in the Community Programs and hope to work with Metro and the County to further develop these programs and ensure maximum protection and benefits flow to Corridor residents. We believe there is a strong path forward for these programs through robust community engagement and consultation with tenant rights advocates, community land trusts, and mission-driven non-profit affordable housing experts. We also believe there is a strong benefit to developing new affordable housing options, especially along transit-rich areas. However, we remain skeptical of transit-oriented development initiatives that lack the necessary guardrails to ensure they do not lead to gentrification and other displacement pressures on existing Corridor residents. We, therefore, also urge Metro to consult with mission-driven affordable housing providers and tenant advocates in designing Transit Oriented Development initiatives [LB-ELA 0193].

Additionally, we believe homelessness support initiatives offer an opportunity to bolster local efforts to generate permanent housing options and services for the unhoused. Connecting unhoused riders of Metro to permanent housing and services, like those mentioned under Homelessness Programs [LB-ELA_0194], is a laudable goal. We urge Metro to consult with local CBOs serving the unhoused in developing these programs and caution against having these programs devolve into policing mechanisms that fail to address the root causes of homelessness.

C. Economic Stabilization and Local Hire.

CEHAJ is committed to supporting community programs that directly enhance and support economic stabilization, as well as empower residents through local hire commitments, job training, apprenticeships, and workforce development opportunities – including educational

¹¹ Jenesse Miller, *Even before the pandemic, struggling L.A.renters cut back on food, clothes and transportation*, USC Sol Price Center for Social Innovation, (December 15, 2020), https://today.usc.edu/los-angeles-rent-burdened-households-basic-needs-usc-research/.

opportunities for non-English speakers. These programs can aim to build sustainable, long-term, high-paying jobs that will ensure residents can stay in their communities and benefit directly from investments made to improve them.

We appreciate the inclusion of Community Programs that prioritize a more comprehensive approach to improving the economic well-being of Corridor residents harmed by the racist legacy of the I-710 development. We are pleased to see projects like the Economic Stabilization Policies[LB-ELA_0186] having the potential to achieve some of the equity goals aimed at correcting past harm and helping to uplift impacted communities. These programs may also be used to help stabilize and support culturally significant small businesses that have become the lifeblood of these communities for generations and will help strengthen community resilience and stave off displacement. Additionally, Targeted and Local Hire Commitments [LB-ELA_0195] have the potential to further strengthen communities and ensure that investments flowing to the Corridor directly benefit impacted residents. We strongly encourage the full implementation of these programs and suggest that local hire and training opportunities be a priority to the extent that infrastructure build-out and maintenance for zero emissions charging is also being funded and sited in impacted communities.

It's important to note that these programs are essential to correcting past harms. They should stand alone as independent projects that merit initial investment and ongoing support to ensure their implementation, not just in the planning phase. Moreover, they should not be bundled or made contingent on funding for projects that will not directly serve communities or run the risk of adding environmental and air pollution burdens, as this would undermine the equity principles developed through this process.

D. Air Quality Monitoring and Filtration.

Health-promoting programs, such as the LB-ELA Corridor Community Health Benefit Program [LB-ELA_0133], have the potential to bring about significant, equitable change in communities that are most affected by freeways, provided they are implemented correctly, co-designed with community, and with community input. We support Metro in including these programs as part of the Community Programs package and encourage their further development to maximize their effectiveness during the implementation phase. We are also encouraged by the County Board of Supervisors' recent commitment to supporting these programs by linking support from County departments with the technical expertise in developing health promotion, education, screening, and related services.

We suggest that Metro consider expanding support for households affected by freight pollution and offering assistance for whole-home retrofit programs. This could include improving weatherization and abating toxic substances such as lead, mold, and asbestos. It could be done in partnership with other programs and departments to improve indoor air quality, promote greater

energy efficiency, and prepare homes to transition to all-electric zero-emissions appliances for heating and cooling, such as heat pumps, to enhance climate resilience.

However, it's important to note that investments in air quality improvements cannot serve as mitigation for other harmful projects being proposed. Instead, they must aim to repair historical and ongoing harm from existing transportation infrastructure and not serve as a justification to usher in a new set of air quality problems.

We urge Metro to expand the services offered through this program, such as air filtration and monitoring systems, to help improve indoor air quality for homes, libraries, and community centers, in addition to schools in neighborhoods impacted most by freight traffic, noise, and other toxic air pollution in the Corridor. We also suggest that Metro explore using this program to develop climate and air pollution and climate resilience centers with air filtration, temperature regulation, and proper sealing for use during emergencies, such as days when the South Coast Air Quality Management District (SCAQMD) declares extremely unhealthful air for the region, and implement a text message alert system that notifies the public of high air pollution days (similar to the air pollution alerts implemented by Long Beach Alliance for Children with Asthma (LBACA).

Similarly, we support the expansion of Air Monitoring Stations [LB-ELA_0218] for the Corridor but urge Metro to expand these stations beyond the four currently being proposed. In addition to consultations with SCAQMD, Metro should confer with CBOs and residents familiar with the areas of highest concern to incorporate a broader network of monitoring stations that will help document progress in reducing emissions through the various initiatives funded by the CMIP.

E. Zero Emissions and Transportation Electrification.

CEHAJ has held this as a priority since the onset, and we continue to urge Metro to prioritize zero-emission solutions to protect the lives of our communities. We support the inclusion of Zero Emission Infrastructure for Autos [LB-ELA_0191] as long as Metro confirms that community members and organizations will be partners alongside local jurisdictions, public agencies, and private partners. While the project's factsheet qualifies the partner list as nonexclusive, community groups are not referenced as partners. ¹² If auto charging infrastructure is considered a "Community Program," community groups should be required to be present at the table. We suggest including organizations and active residents from the Southeast communities and Long Beach, including members of CEHAJ. We also support Bus Electrification Projects [LB-ELA_0192] in concept. Similar to our argument for [LB-ELA_0191], community members and organizations must be meaningful partners in the project's development if this is considered a

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¹² LB-ELA Draft Corridor Mobility Investment Plan, p. 8-46.

Community Program. Currently, the project factsheet lists NA for any potential partners. ¹³ For a more detailed description of our stance and suggestions for zero-emission strategies, see Section VIII.

F. Projects that Increase Policing and Surveillance Should not be Prioritized.

Governments and law enforcement have a long history of advocating for increased surveillance, often justifying the resulting loss of privacy in the name of security, or in this case, alleviating congestion for the goods movement and, as Metro's metrics suggest, under the guise of 'Personal Safety.' 14 Arguing that additional surveillance is a community and safety benefit is not only atrocious but has proven to be disingenuous, harmful, and biased. Increasing surveillance policies and technology not only pose threats to civil rights and liberties, disproportionately affecting communities of color, non-English speakers, and low-income communities but also contribute to broader distrust and skepticism of law enforcement. Investing in projects that expand police and surveillance can result in undesirable consequences and unnecessary risks.

a. Camera Surveillance is Unreliable and Harmful to Communities.

The Draft CMIP includes several projects involving Close Circuit Television Cameras (CCTV), security cameras, and "video camera installations," which are scored with some safety benefits per Metro's evaluation metrics. ¹⁵ However, video surveillance can be ineffective in deterring crime or reducing accidents, often leading to fear and distrust of public agencies and law enforcement. ¹⁶ These surveillance patterns can reflect existing societal biases, resulting in misinformed decisions around arrest and detainment that disproportionately impact communities of color. Additionally, video surveillance can be technologically flawed and vulnerable to hacking or data theft. There is also a risk of data being centralized for more extensive surveillance programs beyond Metro's jurisdiction or being sold to government agencies by private companies. ¹⁷ Law enforcement agencies often use the perceived effectiveness of video surveillance to justify securing larger budgets, resulting in funds that are catered to surveillance technologies at the expense of localized community needs. Based on this knowledge, we urge Metro to provide additional information on the ownership of CCTVs, the location of stored data,

¹⁶ Vania Ceccato et al., *Crime and Fear in Public Places: Towards Safe, Inclusive and Sustainable Cities*, p. 40, Routledge (2020), available at

https://www.researchgate.net/publication/342987504 Crime and Fear in Public Places Towar ds Safe Inclusive and Sustainable Cities.

¹³ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-47.

¹⁴ LB-ELA Draft Corridor Mobility Investment Plan, p. 6-5 and 6-6.

¹⁵ Id.

¹⁷ Kevin Collier, *U.S. government buys data on Americans with little oversight*, report finds, NBC News (June 2023), available at https://www.nbcnews.com/tech/security/us-government-buys-data-americans-little-oversight-report-finds-rcna89035.

access policies, the definition of "security purposes," and the intention of "video camera installations." ¹⁸

b. Excessive Policing and Surveillance have Negative Health Impacts on Communities.

Research indicates that excessive policing and surveillance are correlated to adverse health outcomes and health inequities. ¹⁹ Surveillance of communities, regardless of direct or indirect contact with law enforcement, leads to significant mental and physical health disparities compared to affluent communities. ²⁰ Hypervigilance, high blood pressure, anxiety, and PTSD are common in Black and Brown neighborhoods that have historically been targeted by law enforcement agencies, and the increase in police and surveillance could potentially worsen communities' mental and physical health. ²¹ Metro's evaluation of projects with increased policing and surveillance fails to consider equity and health concerns, instead focusing on benefits such as job creation, congestion reduction, and improved goods movement reliability. ²² Metro should not prioritize economic well-being at the expense of community health. Instead of relying on reactive surveillance policies, Metro should consider implementing preventative structural changes by redirecting funds to community-centered programs and equitable policies, such as those outlined in the CMIP's Community Programs. ²³

c. Prioritize Funding for Community Programs Over Surveillance Technologies.

Excessive policing and surveillance create an environment of fear and suspicion that is incompatible with democratic values and principles. Prioritizing funding back into the community through infrastructure, maintenance and accessibility improvements will help eliminate the need for additional surveillance. Currently, the law has not kept pace with surveillance technological advancements such as smart technology or Artificial Intelligence

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¹⁸ Long Beach-East Los Angeles: Corridor Mobility Investment Plan, p. 5-8, 8-71&72, Metro (Jan 2024), available at https://www.metro.net/projects/lb-ela-corridor-plan/.

¹⁹ Michael Esposito, Savannah Larimore, and Hedwig Lee, *Aggressive Policing, Health, And Health Equity*, Health Affairs (April 2021), available at https://www.healthaffairs.org/do/10.1377/hpb20210412.997570/.

²⁰ Id

²¹ Nichole A. Smith et al., *Keeping Your Guard Up: Hypervigilance Among Urban Residents Affected by Community And Police Violence*, Health Affairs (Oct 2019).

²² Draft Combined Evaluation Results, *Active Transportation Concerns*, Metro (Oct 2023).

²³ LB-ELA Draft Corridor Mobility Investment Plan, p. 5-8.

(AI),²⁴ which some CMIP programs propose to use to alleviate traffic.²⁵ How do we know communities' privacy will be protected? How do we know communities' daily activities and behavior will not be sold to private companies or other law enforcement agencies? But most importantly, how will Metro ensure that our existing societal biases are not guiding an evolving surveillance technology without any safeguards for historically marginalized communities? We demand Metro develop an agency-wide policy prioritizing investments in Community Programs over additional police and surveillance. Furthermore, we oppose the reliance on AI as an industry cost-cutting strategy that would replace community jobs.²⁶

V. Freeway and Arterial Projects Should Serve Impacted Communities and Deliver Direct Benefits.

A. Freeway Projects.

CEHAJ has repeatedly stated through this process that freeway projects should not receive equity metric points. Because they have, the freeway projects prioritized for investment are misleadingly depicted as promoting equity in a way not intended by the guiding equity principles established through the Task Force process. During the Task Force process, equity was defined as "a commitment to (1) strive to **rectify past harms**; (2) provide fair and just access to opportunities; and (3) **eliminate disparities in project processes, outcomes, and community results**."²⁷ Accordingly, equity criteria were designed to evaluate whether projects would likely provide benefits related to existing Corridor disparities and, if so, whether those benefits would be directed to geographies and populations of highest need. As expected, the majority of the freeway projects received Concern scores related to their potential to contribute toward displacement and impact the safety of bicyclists and pedestrians. However, Metro gave most freeway projects equity credit simply for moving goods through impacted communities more efficiently. For example, I-710/Anaheim Interchange Improvement [LB-ELA_0091] received equity points for basic functions of improved transportation. ²⁸ These are not the "benefits" the community called

²⁴ Queenie Wong, *California wants to reduce traffic. The Newsom administration thinks AI can help*, Los Angeles Times (Jan 2024), available at https://www.latimes.com/california/story/2024-01-08/california-traffic-roads-safer-generative-ai-help.

²⁵ LB-ELA Draft Corridor Mobility Investment Plan, p. 5-7.

²⁶ Jeff Farrah, *California Gov. Newsom is right. Truck drivers and autonomous trucks can thrive together—not just coexist*, Fortune (Oct 2023), available at https://fortune.com/2023/10/26/california-gov-newsom-truck-drivers-autonomous-trucks-thrive-together-supply-chains-tech-politics-jeff-farrah/.

²⁷ LB-ELA Draft Corridor Mobility Investment Plan, p. xxvi.

²⁸ This was taken from the Draft Combined Evaluation Results provided on the 710 Task Force Drop Box EQ-MB2 (Increases roadway speeds (or reduces travel times) for people and goods movement; EQ-MB3: (Reduces hours of delay for persons and goods); EQ-OP1 (Increases the

for because they do not directly undo the past prioritization of "industry over the health and livelihoods of Corridor residents." The Corridor communities want improved health and air quality, not more vehicle trips through their neighborhoods. 30 Increased access facilitated by new general-purpose travel lanes to create greater capacity for growing traffic and population was not the specific equity outcome that the community asked for with respect to freeway infrastructure projects. This benefits everyone who utilizes freeways in the Corridor.

From the beginning of this process, the community prioritized limiting displacement and health concerns from freeway development. The community was more concerned with "bear[ing] the project's adverse impacts" that are more localized in nature and would quash any general benefits the projects offered as a whole. In other words, equity points should only be given to a project if it improves the unique burdens that communities living within the project's impacted area have to bear, including displacement and safety concerns caused by freeway development. Presenting these freeway projects as equitable without accounting for localized equity priorities related to health and safety is misleading and presents these projects as more beneficial than they deserve. Furthermore, Metro has not explained how "bundl[ing] all the proposed Investment Plan freeway infrastructure projects into one set of candidate projects for an Alternatives

Analysis/Prioritization study" will not set it along a path mirroring the failed Alternative 5C project. Metro must ensure that all proposed freeway projects adhere to Clean Air Act conformity analysis requirements.

That said, CEHAJ appreciates that these bundled projects come with equity flags identifying the displacement concerns generally for projects I-710/Alondra Interchange Improvements & Modification of SB I-710 to SR-91 Connectors [LB-ELA_0031], I-710/Florence Interchange Improvements [LB-ELA_0034], I-710/I-105 Connector Project Improvements [LB-ELA_0037], and I-710/PCH Interchange Improvement [LB-ELA_0092]. CEHAJ supports projects I-710/Willow Interchange Improvements [LB-ELA_0028], Traffic Controls at I-710 Freeway Ramps [LB-ELA_0156], and I-710 Particulate Matter (PM) Reduction Pilot Project [LB-ELA_0157]. However, the project descriptions are so vague it is unclear whether these projects will be accomplished through the addition of lanes, no matter how modest. Therefore, equity

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average number of jobs accessible within a 30-minute time period by transit or a 45-minute time period by automobile); EQ-OP8 (Provides new job opportunities for underemployed and low-income individuals in the workforce).

²⁹ LB-ELA Draft Corridor Mobility Investment Plan, p. 4-9.

³⁰ This would be represented by receiving equity points in EQ-AQ1, EQ-AQ2, EQ-CH1, EQ-CH2, EQ-CH3, EQ-EN3, EQ-EN6. Only Projects LB-ELA_0031, LB-ELA_0034, LB-ELA_0037, and LB-ELA_0092 received equity points for EQ-AQ1, EQ-AQ2, EQ-CH1 or EQ-CH3.

³¹ LB-ELA Draft Corridor Mobility Investment Plan, p. 4-2.

³² LB-ELA Draft Corridor Mobility Investment Plan, p. 4-9.

³³ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-28.

flags should also be added to these three projects for displacement concerns. CEHAJ is against investing in I-710/Anaheim Interchange Improvement [LB-ELA_0091] and I-710/Wardlow Interchange Improvement [LB-ELA_0093] and suggests they receive equity flags for displacement and safety. Projects [LB-ELA_0043], Congestion Pricing [LB-ELA_0153], and Express Lanes Strategic Initiative [LB-ELA_0182] should not be included in the modal program because they threaten displacement as well.

B. Arterial Roadway.

CEHAJ generally supports the arterial roadway projects identified for investment, as long as Metro ensures that all proposed arterial roadway projects adhere to Clean Air Act conformity analysis requirements. Appropriately, these projects have equity flags and corresponding Implementation Requirements/Guidance narratives. The Implementation Requirements/Guidance should also include the following details so that pedestrian and bicycle safety concerns are also prioritized in future design and analyses:

- Atlantic Complete Street Corridor [LB-ELA_0057], Florence Complete Street Corridor [LB-ELA_0058], Slauson Complete Street Corridor [LB-ELA_0061], and Long Beach Complete Street Corridor [LB-ELA_0062], which are projects meant to complete the street corridor, must prioritize pedestrian and bicycle safety, and not just facilitate vehicle throughput. CEHAJ emphasizes the importance of including native landscaping as well as allergy-friendly greenery. Continued maintenance must be a part of the project as well because overgrowth creates blind spots and obstacles on the sidewalks, which poses a safety hazard for pedestrians and commuters.
- Projects that anticipate bicycle lanes should only promote Class IV bicycle lanes.
- Avoid negatively impacting pedestrian and bicycle safety and prevent the expansion of impervious surfaces that could increase stormwater runoff, environmental heat gain, or worsen water quality—all of which negatively impact ecosystems and human health.

Additionally, community members are concerned that some areas, including East Los Angeles and Commerce, do not have projects, although they have identified and raised multiple areas of concern and proposed possible solutions.

CEHAJ does not support the inclusion of any surveillance projects in the Arterial Roadways Modal Program. As described in the Draft CMIP, the following projects do not explain how they serve the local communities and increase safety. Accordingly, the following projects should not be included in the Arterial Roads Modal Programs:

- Video Camera Installation [LB-ELA 0075]
- Video Detection Upgrades [LB-ELA 0084]

The following traffic signalization projects identified for the Arterial Roadways Modal Program should also include equity flags related to their potential concerns for increased localized emissions. Should those projects move forward during the project planning and approval phase, localized air pollution (such as particulate matter) must be a part of the analyses:

- Traffic Signal Coordination Projects [LB-ELA 0072]
- Traffic Signal Synchronization Projects [LB-ELA 0099]
- Signal Coordination/ITS Projects [LB-ELA 0112]
- I-710 Arterial Signal Performance Measurement [LB-ELA 0167]
- I-710 Arterial Traffic Signal Control Communication Upgrades [LB-ELA 0215]

VI. **Transit Projects.**

The Draft CMIP cites Community Alternative 7 as a source for many programs listed in the initial investment plan and the modal programs.³⁴ With a framework centered on protecting community health and the environment while achieving traffic safety, enhancing goods movement, and reducing congestion, Community Alternative 7 proposed a comprehensive public transit plan for the Corridor that would usher in an aggressive strategy to improve public transportation via rail and bus for residents. 35 Community Alternative 7 also called into question the wisdom of assuming only the maximization of the then "Blue Line" (A Line) and increasing existing bus service over building additional light rail capacity and expanding routes and service to the surrounding communities.³⁶

With this renewed opportunity to invest in the Corridor, we call on Metro to prioritize safe, reliable, extensive, and zero-emissions public transit. Our call for a comprehensive and aggressive public transit strategy remains. The Draft CMIP has an opportunity to refocus on Metro's core commitments to residents of LA County and, in doing so, help alleviate air pollution burdens by reducing traffic and promoting equity by enhancing opportunities for resident mobility. It is well established that the population in the Corridor are public transit users and that the general area includes some of the most heavily utilized rail and bus lines in the entire Los Angeles Metro Area (see Figure A). This is evident in Metro's pre-pandemic ridership data, showing large clusters of high-volume bus and rail transit boardings occurring throughout the Corridor, especially in under-resourced communities.

³⁴ LB-ELA Draft Corridor Mobility Investment Plan, p. 5-2.

³⁵ Community Alternative 7, p. 3.

³⁶ *Id*, p. 4.

Figure A. Transit Use



This is why an investment plan put forth by the region's public transit authority should prioritize accessible and comprehensive public transit for the region's residents over projects serving only private industry interests. CEHAJ has consistently supported the removal of trucks, locomotives, and other freight equipment with health-harming tailpipe emissions. CEHAJ members, for example, have pushed for programs to electrify operations at ports and railyards. However, to the extent Metro's limited funds can support zero-emissions infrastructure, the CMIP should focus on projects that deliver the most direct investment in impacted communities.

In general, we support transit projects that will improve conditions for riders of public transit along bus routes. This includes expanding quality bus stop shelters with ample shade, accurate signage, accessibility, and pedestrian safety, as well as improving route schedules for enhanced reliability and ridership experience. Regarding signage, community members we have spoken to have stressed the importance of accurate and clear signage, with electronic message boards at more heavily used stops showing headways for buses. It's worth noting that none of the current

transit projects include this vital element. These improvements should be planned and codesigned with input from impacted communities.

As mentioned in other parts of our comments, we are opposed to projects that pose the danger of increasing surveillance, policing, and tracking of residents, such as cameras and other recording devices, as well as the use of artificial intelligence and algorithms that rely on data tracking that could invade the privacy rights of unknowing riders (for more see Section IV). While riders' safety is and should be a top priority, Metro's efforts are better spent ensuring that bus stops and transit stations are clean, have adequate lighting, are generally free of exposure to toxic hazards, and protect pedestrians and bicyclists from truck and car traffic.

We also urge Metro to prioritize expanding bus routes and services to the Corridor through robust community consultation and vetting to ensure more significant transit equity. Maximizing ridership in impacted communities will serve all elements of the equity guiding principle (procedural, distributive, restorative, and structural) and the sustainability guiding principle to enhance community and environmental well-being. Residents of Corridor communities are highly transit-dependent compared to other county regions. Expanding bus service, especially through electrified zero-emissions fleets, would improve air quality and mobility, increase opportunities by providing greater community access to quality jobs, and enhance residents' quality of life, safety, and health.³⁷ Furthermore, if a goal of the CMIP is to increase ridership and benefit impacted communities in the Corridor, Metro should consider utilizing this funding opportunity to offer fare-free transit to the communities in the Corridor. Fare-free transit will be particularly important during the construction of some of the proposed projects, given that multiyear construction creates barriers and increased traffic throughout the Corridor.

Funding for freeway safety and interchange improvement projects is nearly double what it is for transit when considering estimated investment leveraging for Measure R/M funding and the Measure R/M Funding recommendations the Draft CMIP is making (see Table C). For projects recommended for initial funding, transit receives just six percent of the recommended R/M funding compared to goods movement projects that will receive more than double that amount in initial funding, above active transportation and Community Programs.³⁸

³⁷ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-74.

³⁸ LB-ELA Draft Corridor Mobility Investment Plan, p.7-4.

Table C. Estimated Project Costs and Recommended Programming of Measure R/M Funds

	A. Estimated		asure R/M Fu mmendation			
Mode	Investment Leveraging Measure R/M Funding (\$m)	B.1. Projects for Initial Funding	B.2. Modal Programs	B.3. Total (B.1 + B.2)	Estimated Grant Funding Required (\$m) (A – B.3)	
Freeway Safety and Interchange Improvements	\$1,100	\$171	\$49	\$220	\$880	
Arterial Roadways/Complete Streets	\$940	\$116	\$72	\$188	\$752	
Transit	\$625	\$29	\$96	\$125	\$500	
Goods Movement	\$320	\$61	\$19	\$80	\$240	
Active Transportation/TDM	\$180	\$33	\$57	\$90	\$90	
Community Programs	TBD	\$40	\$0	\$40	TBD	
Total	\$3,205*	\$449	\$294	\$743	\$2,462*	

There is also more opportunity to fix the harm Corridor communities have experienced by prioritizing the acceleration of public transit direct electrification projects to improve air quality and promote greater opportunities for the region— an element that could be more fully developed in the Draft CMIP. We encourage Metro to seek more ways to electrify existing fleets by deploying catenary and battery electric buses and rail.

CEHAJ is generally supportive of efforts to maximize service and access at existing rail lines and bus routes, increase bus service, improve conditions and remove or minimize safety hazards at stations, and enhance bus shelters to provide ample shade, seating, and potentially other amenities like public restrooms and drinking fountains. We are encouraged to see many projects aiming to improve public transit make it into the Draft CMIP and modal programs. However, not all projects are alike, and given the lack of detail, some projects may pose additional concerns and consequences that should raise flags and require further study prior to committing to investing in them. Below is a breakdown of transit projects CEHAJ supports in concept and projects that raise concerns.

A. Improving Transit Service Times and Rider Experience.

Improving transit service and enhancing the rider experience are priorities CEHAJ supports, especially if these efforts directly serve residents in communities most impacted by the I-710. Projects like the Blue Line First/Last Mile Plan Improvements [LB-ELA_0008], although listed

under Active Transportation, offer greater connectivity by extending safer access to Blue Line stations in surrounding communities through enhanced bicycling infrastructure, sidewalks, and access points. This project would likely improve rider experience by offering better options to access rail when necessary while improving passenger safety and reducing risks to pedestrians and bicyclists. For this project, however, we suggest Metro define protected bike lanes as "Class IV" — a more effective way to protect bicyclists and reduce fatalities.

Other projects on the Draft CMIP seemingly offer improved transit service times, but we are concerned that without more details, the projects selected may not deliver improved transit rider experience and instead lead to traffic diversion and congestion onto adjacent residential streets. Projects aimed at creating priority bus lanes, for example, triggered equity flags and signaled high levels of concern without guaranteeing that bus times would improve. These include the Priority Bus Lane Corridor along Line 60 [LB-ELA_0141], Metro Bus Priority Lane Corridor along Line 111 [LB-ELA_0144], Metro Bus Priority Lane Corridor along Line 108 [LB-ELA_0142], and Metro Bus Priority Lane Corridor along Line 260 [LB-ELA_0146]. A priority lane alone may not decrease headways unless coupled with more buses operating on the route, especially during peak hours. While CEHAJ supports build-outs that will improve boarding and accessibility as well as improvements to bus stops, residential members of our organizations have specifically identified improved bus shelters with ample shading as a priority. We hope these specific projects might be further developed to offer greater assurances that service times and rider experiences are improved.

B. Bus Shelter Improvements

We are pleased to see that bus shelter improvements have made it onto the Draft CMIP and fully support the broader approach to improving bus shelters throughout the Corridor, but we urge Metro to increase the target number from 100 to 400 bus shelters as part of this investment strategy. Bus stop shelters are essential to improving bus rider experience and safety throughout the system. A recent report, for example, showed that roughly 75 percent of bus stops in Los Angeles lacked shelter. Bus Stop Improvements [LB-ELA_0203] offers the prospect of improving transit ridership by providing additional safety and enhancing the rider experience. We strongly recommend that Metro incorporate ample shading to the CMIP for bus shelters and encourage the inclusion of public restrooms in addition to the other planned amenities. We also request confirmation that the Bus Stop Improvement project will absorb Bus Stop Improvements in the City of Commerce [LB-ELA_0077], Maywood [LB-ELA_0103], and City of Signal Hill [LB-ELA_0118], which were each previously listed separately.

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³⁹ Maylin Tu, *More than 75% of Bus Stops in the City of Los Angeles Have no Shelter, What now?*, Los Angeles Public Press (September 26, 2023); https://lapublicpress.org/2023/09/more-than-75-of-bus-stops-in-the-city-of-los-angeles-have-no-shelter-what-now/.

C. Transit Safety.

The CMIP Initial Investments should prioritize transit safety over policing and monitoring transit riders. We support efforts to create additional protection for pedestrians accessing train stations and bus stops, such as the project to Install Quad Safety Gates at all A Line [Blue Line] Crossings [LB-ELA_0175], as long as these projects include community consultation to ensure gates are properly positioned and do not reduce pedestrian access points or create additional barriers to mobility. Not on the Initial Investment list are a series of projects that have a high benefit score, offer safety improvements to enhance the rider experience, and offer better protection. We urge Metro to consider these as part of a transit safety package included on the Initial Investments Lists. They include the following:

- Transit System Cleanliness and Maintenance [LB-ELA_0189]. Metro should prioritize strengthening its commitment to regular cleaning and maintenance on all transit vehicles and at bus and rail stations, including providing high-efficiency air filters on bus and rail transit vehicles. The COVID-19 pandemic taught us that the most under-resourced communities are also the most vulnerable to airborne illnesses. Improved cleaning also helps mitigate public health concerns like spikes in transmissible diseases.
- Add a **Second Elevator to Firestone and Slauson A Line Stations** [LB-ELA_0177]. Adding more elevator access will improve accessibility for the mobility-impaired, improve opportunities for increased ridership, and limit overcrowding at entry points and platforms.

D. Other Transit Projects Recommended for Initial Investment Require Greater Clarity and Definition.

The Compton Transit Management Operations Center Enhancements [LB-ELA_0168] represents an outlier as it is unclear whether this project is oriented towards the community or management and staff at the Metro organization. The site appears to house offices for the City of Compton and the Los Angeles County Sheriff. This project seems out of step with the goals and objectives of the CMIP and provides little, if any, direct benefit to impacted communities. More specificity about the project may shed light on the intended benefits to the community.

VII. Active Transportation.

Active transportation (AT) has proven to have major health benefits. When AT initiatives are driven by community visioning, they promote trust and address existing inequities, contributing to the long-term success and sustainability of such initiatives. ⁴⁰ Unfortunately, the equitable

⁴⁰ Meera Sreedhara, et al., *Stepping Up Active Transportation in Community Health Improvement Plans: Findings From a National Probability Survey of Local Health Departments*, Journal of Physical Activity and Health, (Sept 23, 2019), https://journals.humankinetics.com/view/journals/jpah/16/9/article-p772.xml?content=fulltext.

impacts on pedestrians and cyclists are frequently ignored, resulting in an uneven distribution of AT initiatives. This leaves communities with unsafe bike and walking paths, limited green space and shade, and a history of neglecting local knowledge and lived experiences. This oversight becomes evident when funding prioritizes car-centric initiatives. ⁴¹ The Metro Board should reevaluate funding policies to prioritize pedestrian and cycling safety, accessibility, climate-resilient features, and alignment with community vision and agency goals.

A. Active Transportation Programs Should Prioritize Community Safety and Mobility.

We welcome AT programs that align with communities' vision and lived experience, given that most communities of color and low-income communities suffer from inadequate or poor AT infrastructure. 42 Centering communities in the AT planning process provides valuable perspectives and ensures that programs are tailored to community preferences. Communities have long advocated for increased pedestrian safety, including high visibility intersections, flashing signs, traffic calming features, and green and accessible infrastructure. Huntington Park Safe Routes for Seniors and Students[LB-ELA 0170] incorporates features that address deficiencies in pedestrian safety and less on vehicle convenience. 43 Pedestrian/Bicycle Enhancements and Safety Features [LB-ELA 0201] includes measures that address green infrastructure, protection barriers, and repositioning of utility boxes for accessibility improvements. 44 Del Amo Pedestrian Gap Closure Project [LB-ELA 0158] is heavily supported by community members for its improvement of accessibility, mobility, and safety in an area that has constant truck traffic and has historically lacked any safety measures for pedestrians and cyclists. Lastly, Salt Lake Avenue Pedestrian Accessibility Project [LB-ELA 0208] in Cudahy is another initiative that underscores community preferences, focusing on enhancements like expanded sidewalks and the installation of additional ADA-compliant wheelchair ramps. 45 It is discouraging to see programs with similar initiatives not included in the recommended list for initial investment or only partially funded. 46 Metro can and should prioritize programs that reflect community input, especially those addressing equity concerns, safety upgrades, and promoting sustainability.

⁴¹ Joe Linton, *Metro Measure M Local Return Funds Go Predominantly To Driving*, Streets Blog LA (1 March 2023), available at https://la.streetsblog.org/2023/03/01/metro-measure-m-local-return-funds-go-predominantly-to-driving.

⁴² Riley O'Brien, *Disparities in Active Transportation Safety in the SCAG Region*, UCLA Institute of Transportation Studies (2018), available at https://escholarship.org/uc/item/3zw829zm.

 ⁴³ LB-ELA Draft Corridor Mobility Investment Plan, p.8-66.
 ⁴⁴ Id.

⁴⁵ ADA Standards for Accessible Design, US Dept of Justice and Civil Rights Division, available at https://www.ada.gov/law-and-regs/design-standards/.

⁴⁶ LB-ELA Draft Corridor Mobility Investment Plan, p.8-65.

B. Increased Impervious Cover Have Negative Health Impacts.

While AT programs offer many health and equitable benefits, some projects can harm communities. This includes AT programs that risk displacement and increased impervious cover and flood risks, like Randolph Street Bike and Pedestrian Facilities Project [LB-ELA_0128]. 47 Increased impervious cover, such as concrete and asphalt surfaces, negatively impact pedestrian health and the overall urban environment. Impermeable surfaces contribute to urban heat islands and high surface temperatures due to their high heat capacity, thermal conductivity, low reflectance of solar radiation, and reduced evapotranspiration cooling. 48 As for flood risks, existing impervious surfaces already prevent rainwater from infiltrating the ground 49 and projects that increase impervious pavements will only worsen storm runoff and flooding. 50 Impervious surfaces collect soot, rubber particles, and dozens of other pollutants, which can significantly impact environmental and human health and communities' mobility. 51 Additionally, studies have shown a correlation between higher proportions of impervious surfaces in communities of color and low-income communities, a policy gap that Metro can address to reduce the legacy and harm of redlining policies.

C. Active Transportation Programs Should Not Cause Displacement.

For decades, communities have advocated against the displacement of homes and businesses. Despite this, several AT programs have the potential for displacement and demolition.⁵² Metro's evaluation rubric scores displacement of "1" as "Low Impact," meaning that a total of less than three businesses or residences are likely to be displaced.⁵³ AT programs should not result in the displacement of people as AT programs are fundamentally designed to encourage non-motor

⁴⁷ Includes projects LB-ELA_0128 Randolph Street Bike and Pedestrian Facilities Project, LB-ELA_0017 Regionally significant bicycle projects from the Metro Active Transportation Strategic Plan.

⁴⁸ Bill Jesdale et al., *The Racial/Ethnic Distribution of Heat Risk–Related Land Cover in Relation to Residential Segregation*, Environmental Health Perspectives, National Library of Medicine (July 2013), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3701995/.

⁴⁹ Rong-Gong Lin II, *L.A. staved off disaster this time. But our luck is running out as extreme weather worsens*, Los Angeles Times (Feb 11, 2024), available at https://www.latimes.com/california/story/2024-02-11/l-a-staved-off-disaster-with-this-storm-extreme-weather-is-testing-our-luck.

⁵⁰ Lance Frazer, *Paving Paradise: The Peril of Impervious Surface*, Environmental Health Perspectives (July 2005), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1257665/. ⁵¹ Id.

⁵² LB-ELA Multimodal Corridor Investment Plan: Project and Program Performance Evaluation Methodology, Metro (Oct 2023),

<u>+English.pdf&rlkey=6yw2jw7gitng0omslzn743r82&dl=0</u>, p. 85-86. ⁵³ Id.

mobility, promote physical activity, and create more sustainable and accessible communities. Also, AT programs take up less space and require less impervious surfaces and resources compared to car-centric infrastructure.⁵⁴

D. Class IV Bike Lanes Should be Prioritized.

Metro promotes AT initiatives as an accessible and more appealing environment for communities but falls short in providing safer amenities for cyclists, such as Class IV Protected Bike Lanes or "Separated Bikeways." ⁵⁵ Class IV bike lanes are exclusively for bicycles and require physical separation between the separated bikeway and vehicular traffic, including inflexible barriers, raised curbs, fences, grade separations, or vegetation buffers. ⁵⁶ Currently, the Draft CMIP has zero projects that prioritize Class IV bike lanes, promoting only Classes I-III, which lack any protective barriers and promote "sharing the road" policies with motorized vehicles. 57 However, Class IV bike lanes not only protect cyclists but are also shown to significantly reduce fatalities for all street users. 58 Protected bike lanes provide an enhanced level of safety that encourages more people to embrace cycling while creating sustainable urban environments. It is concerning that 31 projects, like West Santa Ana Branch [WSAB] Light Rail Station First-Last Mile Bikeway Safety and Access Project [LB-ELA 0213], which is in the implementation stage, offer only Class II and III bike lanes in an area with high truck traffic. ⁵⁹ If Metro is committed to rectifying past harms and fostering a safe environment, then it should develop an organization-wide policy that prioritizes Class IV bike lanes as the golden standard for bicycling programs.

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⁵⁴ Thomas Gotschi et al., *Active Transportation for America: The Case for Increased Federal Investment in Bicycling and Walking*, Rails to Trails Conservancy (2008), https://www.railstotrails.org/resourcehandler.ashx?id=2948, p. 37-38.

⁵⁵ Chapter 1000: Bicycle Transportation Design, Highway Design Manual (July 1, 2020), available at https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1000-a11y.pdf/1000, pg. 1004.

⁵⁶ Michael D. Garber et al., *Have paved trails and protected bike lanes led to more bicycling in Atlanta? A generalized synthetic-control analysis*, National Library of Medicine (April 12, 2022) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9211442/.

⁵⁷ LB-ELA Draft Corridor Mobility Investment Plan, p. xxii.

⁵⁸ Wesley E. Marshall et al., *Cycling lanes reduce fatalities for all road users, study shows*, University of Colorado Denver (May 29, 2019) https://www.sciencedaily.com/releases/2019/05/190529113036.htm.

⁵⁹ LB-ELA Draft Corridor Mobility Investment Plan, p.8-38.

VIII. Zero-Emissions and Public Safety Strategies Without Displacement, Exposure to Additional Harm, and Co-designed with the Community.

From the start of the LB-ELA Corridor Task Force process, CEHAJ has consistently called on Metro to reaffirm its commitment to only exploring zero-emissions solutions for the Corridor—a commitment this coalition and several other community groups have demanded for decades. In approving the initial \$50 million seed money for a new Clean Trucks Program, the Metro Board gave a clear directive for a program that would no longer entertain half-measures like "near zero" technology but instead commit to using limited public funds to advance only zero emissions solutions. For those reasons, we generally support the proposal to include a Clean Truck Infrastructure Program [LB-ELA_0023] and the Zero-Emissions Truck Program [LB-ELA_0004] in the CMIP.

We use this opportunity, however, to reiterate our request that: 1) community health and wellbeing remain at the center of zero-emission technology deployment in the Corridor by ensuring that funded projects do not result in displacement, do not bring new health and safety risks through the production, storage, transportation, and fueling with hydrogen, and protect against air pollution and health impacts from any construction and operation of zero-emissions infrastructure; 2) investments in zero emissions result in co-benefits such as high road jobs and training for residents, and; 3) limited funds intended for the Corridor support projects aligned with community needs and tailored to provide tangible and measurable benefits to the communities most impacted by freight.

A. Zero-Emissions Infrastructure Planning and Deployment Must Include Robust Community Engagement.

We are pleased that the Draft CMIP incorporates CEHAJ requests for robust community engagement "that centers Corridor residents and stakeholders throughout the development process." ⁶⁰ We strongly believe that placing community health and wellbeing at the center of these investments requires the community to co-design the charging infrastructure and zero emissions truck program that will undoubtedly change the landscape in their communities for decades. The models for the type of engagement required are already available—one need look no further than the successful approach taken in a collaboration between CEHAJ and the Los Angeles Cleantech Incubator.

Through that project, we learned that the expertise and wisdom residents bring regarding the built environment in their neighborhoods is invaluable to this process. We urge Metro to include funding for this level of engagement moving forward as the Zero Emissions Infrastructure and Truck programs are implemented. We further urge Metro to make the commitment to community engagement in both the Zero Emissions Truck and Infrastructure programs unequivocal. For

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⁶⁰ LB-ELA Draft Corridor Mobility Investment Plan, p.2-15.

example, the factsheets in the Draft CMIP provide cursory information about each project plan. Some, like the Zero-Emissions Infrastructure for Autos [LB-ELA_0191] listed under Community Programs, cite some potential partners while others do not. We suggest Metro includes clear language stating that organizations and community members of the Corridor will be meaningful partners in developing the proposals. The Draft CMIP should clarify that community consultation is intended throughout the development of these projects. A similar reference should be made in the descriptions of the Clean Truck Infrastructure [LB-ELA_0023] and Zero Emissions Truck Program [LB-ELA_0004].

B. Invest in Zero Emissions that Serve Communities First.

Throughout this process, Metro staff have reminded us that funds are limited—a fact not lost on members of CEHAJ as the state faces a steep budget deficit this year. The available funding, however, presents an opportunity to invest in programs that can vastly improve conditions in Corridor communities and repair the harmful legacy that racist redlining practices have left and polluting industries continue to perpetuate. To the extent zero emissions programs are being funded, whether for charging infrastructure or a zero-emission truck program, those projects should maximize the air quality benefits to local communities. That means that if zero-emission trucks are being routed through Corridor neighborhoods, it corresponds with eliminating a combustion alternative that would have continued producing the harmful emissions that residents currently breathe in. Additionally, there should be alternative roadways identified to reroute truck traffic away from residential areas.

While we support electrification in other areas like the Ports and at Railyards throughout our region, the zero-emissions bundle of investments coming out of the Draft CMIP should prioritize community-facing projects when it comes to delivering the benefits of transitioning to zero-emissions. To the extent projects solely benefit industry needs and are likely already getting funding elsewhere, they should be less of a priority for CMIP limited funds. Many of those projects, while laudable, are backed by highly lucrative and well-resourced industries that are eligible for, and are seeking funding from, other sources. When ranking these projects by order of equity criteria, the zero-emissions programs prioritizing direct benefits to the community, including local hire commitments and opportunities to expand zero-emissions cars, trucks, and transit in Corridor communities, should rise to the top of the list.

There is precedent for prioritizing investments for less-resourced parties as part of the Zero Emission initiatives. As the Draft CMIP points out, the Zero-Emissions Truck (ZET) Working Group decided to allocate \$45 million to invest in zero emission infrastructure development while leveraging the remaining \$5 million of the total \$50 million allocated as a strategic set-

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⁶¹ LB-ELA Draft Corridor Mobility Investment Plan, p.8-20 and p.8-40.

aside to support small fleet owners in the transition to zero emissions. ⁶² This commitment to equity should pervade zero-emissions investments.

However, the allocation that the working group committed to is not made clear throughout the Draft CMIP. For example, the fact sheet concerning the zero-emissions truck program fails to mention the \$45 million/\$5 million allocation between infrastructure and the set aside for small fleets. The Draft CMIP is also inconsistent in describing the \$5 million set aside for small fleet operators. On one hand, the Draft CMIP describes the working group approving the entire \$5 million as part of the set-aside. It later references interviews where the suggestion was for "leveraging a *portion* of the \$5 million set aside to assist small fleet owners in transitioning to ZE trucks." We recommend that Metro clarify this point by making the CMIP consistent with the working group's recommendations.

C. The CMIP Should Focus on Deploying Strategies that Provide Direct Transportation Electrification as the Viable Zero-Emissions Solution, not Hydrogen.

In this letter, CEHAJ outlines serious concerns with directing CMIP funding to hydrogen production, transportation, storage, and fueling as the current technology fails to offer the most effective solution for the Corridor communities' health, safety, air quality, and climate risks. By contrast, direct electrification options for zero-emissions transportation are widely available, more efficient, and pose lower risks and costs to impacted communities. We urge Metro to stay focused on its promise to deliver on community stakeholders' vision for mobility that advances equity and sustainability. This can be accomplished by prioritizing funding for battery-electric and catenary zero-emissions transportation wherever feasible and allocating resources to projects that advance the deployment of these efficient, clean, and safe transportation modes along the Corridor. In most cases, hydrogen is more costly and carries more risk compared with direct electrification alternatives and should, therefore, not be included within the scope of the CMIP at this stage. Our concerns with directing limited public funding to hydrogen technologies include the following:

• Safety Risks. If not handled properly, hydrogen deployment presents potential safety risks to surrounding communities. Metro has not ruled out the use of combustible hydrogen in projects the CMIP may support, so little is known about what those projects may entail. Depending on the circumstances, the transportation, storage, and production of hydrogen have the potential to present substantial safety risks, especially if near residential areas. For already pollution-burdened Corridor neighborhoods, these risks

⁶² LB-ELA Draft Corridor Mobility Investment Plan, p.2-15.

⁶³ LB-ELA Draft Corridor Mobility Investment Plan, p.8-40.

⁶⁴ LB-ELA Draft Corridor Mobility Investment Plan, p.2-15.

⁶⁵ LB-ELA Draft Corridor Mobility Investment Plan, p.2-17.

- would be too much to bear. They would only add to the immense burdens they already shoulder due to freight movement and other industrial activity in the region.
- **Air Pollution Risks.** It is unclear whether the funding would support hydrogen combustion engines. If so, hydrogen combustion carries air pollution risks, as it may result in hazardous amounts of Nitrogen Oxide (NOx), a pollutant known to trigger ozone, which in turn disproportionately impacts health in communities near freight routes, refineries, ports, railyards, and other industrial activities. ⁶⁶ Among the known health risks of increased exposure to pollution caused by NOx include respiratory illnesses and asthma.
- Climate and Health Risks. The latest Intergovernmental Panel on Climate Change (IPCC) report finds that the use of fossil fuels must be phased out to avoid catastrophic warming past the 1.5°C threshold, which is long understood to be the point at which our current climate change trajectory will be irreversible. Current hydrogen production is almost entirely from fossil fuel-based processes that generate significant NOx emissions resulting in nearly 830 million tons of CO2 per year. Currently, there are no regulations in California to ensure clean hydrogen production. Additionally, it is far more efficient to use precious renewable energy resources directly as electricity than to convert them into hydrogen and then use them as fuel approximately three times more renewable energy is needed for a hydrogen fuel cell truck to travel the same distance as a battery electric truck. Hydrogen leakage is an additional climate risk; hydrogen is an indirect greenhouse gas approximately 12 times more potent than carbon dioxide on a 100-year timescale and 35-40 times more potent on a 20-year timescale, which is highly relevant to our current climate crisis.

⁶⁶ Sara Gersen and Sasan Saadat, *Reclaiming Hydrogen for a Renewable Future: Distinguishing Oil & Gas Industry Spin from Zero-Emissions Solutions*, Earthjustice Report (August 2021), p.10, https://earthjustice.org/feature/green-hydrogen-renewable-zero-emission;; *See also*, Alissa B. Cook and Steven P. Hamburg, *Climate consequences of hydrogen emissions, Atmospheric Chemistry and Physics* (July 20, 2022), https://acp.copernicus.org/articles/22/9349/2022/acp-22-9349-2022.pdf.

⁶⁷ Intergovernmental Panel on Climate Change, *Climate Change 2023 Synthesis Report: Summary for Policymakers* (2023), p. 21,

https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC AR6 SYR SPM.pdf.

⁶⁸ Massachusetts Institute of Technology, *Hydrogen Explainer*, Climate Portal, https://climate.mit.edu/explainers/hydrogen.

⁶⁹ Sam Wilson, Hydrogen-Powered Heavy-Duty Trucks, November 2023, https://www.ucsusa.org/sites/default/files/2023-12/hydrogen-powered-heavy-duty-trucks.pdf.

⁷⁰ Tianyi Sun et al., "Climate Impacts of Hydrogen and Methan Emissions Can Considerably Reduce the Climate Benefits across Key Hydrogen Use Cases and Time Scales," Environ. Sci. Technol., February 2024, https://pubs.acs.org/doi/10.1021/acs.est.3c09030.

⁷¹ Gersen & Sadaat, *supra*, at 19; *see also* Alissa B. Cook and Steven P. Hamburg, *Climate consequences of hydrogen emissions, Atmospheric Chemistry and Physics* (July 20, 2022), https://acp.copernicus.org/articles/22/9349/2022/acp-22-9349-2022.pdf.

More plainly put, investing in yet-to-be-defined hydrogen projects through the CMIP is not worthwhile when there are safer and more feasible methods to get to zero emissions through direct electrification. There are hydrogen applications, such as combustion, that are too risky to be included in infrastructure projects located in the very same communities that have already suffered from the freight industry's toxic legacy. Leveraging Metro's limited funding to support hydrogen projects without a clear understanding of the scope of hydrogen use and processing could rubber-stamp air pollution hazards and perpetuate the environmental injustices that have plagued communities and shortened life expectancy for individuals living in the Corridor for generations.

CEHAJ identified four potential plans that run the risk of endorsing the deployment of hydrogen projects into the very communities Metro is charged with protecting. They include the Corridor Zero-Emissions Truck Program [LB-ELA_0004], the Clean Truck Infrastructure investments [LB-ELA_0023], the Metrolink Regional Rail Line Between Union Station and Long Beach [LB-ELA_0219], and the Freight Rail Electrification Project [LB-ELA_0217], but there are potentially others. For this reason, we are calling on Metro to define the parameters around zero emissions further and include only direct electrification projects. We further reiterate our request to have a more comprehensive "health risk" score that takes a closer look at the potential for sponsored projects to exacerbate safety, air quality, and risk to climate initiatives.

D. We Do Not Want the ZET Program to be an Excuse to Further Erode Environmental Protections Such as CEQA.

We are troubled to see references in the Draft CMIP referencing some members of the Zero Emissions Truck Working Group pushing for Metro's support of efforts to erode the California Environmental Quality Act (CEQA) with a categorical exemption for ZE Charging Facilities. While we wholeheartedly support the transition to zero emissions in the Corridor and would like to see charging infrastructure developed, we cannot support such an initiative to weaken one of the few tools impacted communities have to demand greater transparency. Robust community engagement, not less, will make any Zero-Emissions charging infrastructure project successful, as has already been demonstrated.

Calls to expedite CEQA review and speed up permitting for charging infrastructure cynically ignore that this law is one of the few protections communities have to demand through analysis of impacts and proper mitigation often for health-harming consequences of projects. We ask you to rebuff these cynical efforts that would take away the most basic safety net at the worst time. As noted above, not all projects labeled "zero-emissions" are the same, and some have the potential to do more harm than good. Industry often provides anecdotes of the harms CEQA imposes but not hard evidence. If projects cannot be completed with robust public review and vetting, then they probably do not belong in communities already hard hit by pollution and

environmental burdens. While charging infrastructure will be key, we cannot bargain away the community's right to public review and transparency for the sake of expediency.

IX. Goods Movement.

The Goods Movement goal was crafted to achieve "streamlining and optimizing the efficient movement of goods and freight within and through the Corridor while simultaneously reducing air quality and health impacts to Corridor communities" caused by goods movement. There are four Goods Movement projects that are recommended for initial investment: Zero-Emission Truck Program [LB-ELA_0004], Clean Truck Infrastructure [LB-ELA_0023], Goods Movement Freight Rail Study [LB-ELA_0151], and Freight Rail Electrification Pilot Project [LB-ELA_0217]. While many of our member organizations generally support the electrification of rail, CEHAJ does not support the rail projects included in the Draft CMIP as currently described. The particular projects selected for initial investment stand in contrast to the Goods Movement goal by solely addressing industry stakeholder needs without simultaneously benefiting the communities that these rail projects will impact.

For example, CEHAJ expresses concern for the Freight Rail Study [LB-ELA 0151]. The Freight Rail Study seeks "an assessment to evaluate options for deriving greater utilization of the Alameda Corridor as a potential means for reducing truck trips in the Southern California subregion."⁷³ This assessment would include opportunities to increase on-dock freight rail mode share, implementation of short-haul, freight rail shuttle service to new inland rail facilities, and increased use/improved operational efficiencies of existing near-dock and off-dock intermodal facilities. Based on the prior analyses, this project only received concern scores for "noise" which, without more information, CEHAJ assumes is based solely on the impacts of the study itself. However, the potential future benefits of the improvements were counted toward the overall benefits score, and possible future negative impacts were ignored. Metro should have assessed the future negative impacts of the projects the study will evaluate (such as freight rail to inland ports and increased on-dock rail) to fairly account for the tradeoffs of this study. Without it, the Draft CMIP suggests that this project comes without future concerns and only future benefits (i.e., ways to move goods onto rail and off highways) and likely artificially inflates the score this project deserves. To ensure consistency with the visions set out by the Task Force, investment in this study must come with a strong commitment to study the impacts of the freight paths project recommends, which would include impacts on bike and pedestrian safety, concentrated congestion, construction impacts, increased impervious surface, and potential for new physical barrier – particularly for inland port andrailyards, all real tradeoffs for the efficiency this study is trying to promote. If the future benefits of a project were assessed, then

⁷² LB-ELA Draft Corridor Mobility Investment Plan, p. 5-12.

⁷³ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-25.

the future concerns should be as well, and if Metro staff did not do this, those projects should be clearly marked or a clear explanation for why future impacts and concerns were not assessed when future benefits were included.

As a general matter, CEHAJ does not support the infusion of community investment funds into private projects that can obtain funding via other mechanisms. For this reason, CEHAJ does not support investment in the Freight Rail Electrification Pilot Project [LB-ELA 0217]. This project envisions Metro working with the Union Pacific and Burlington Northern Santa Fe railroads to continue to develop and test various battery-electric locomotives for operation on the Pacific Harbor Line and in the Alameda Corridor, with an ultimate goal of advancing a zero emission technology capable of entering commercial, revenue service operation. CEHAJ understands that this project is receiving heavy funding, partially in response to draft CARB regulations on locomotive emissions that will come into effect in 2030, and electrification of the railways, especially if they will reduce congestion caused by diesel trucks, is a step toward compliance. The improved health benefits for this pilot remain entirely theoretical and fail to justify how the community will receive benefits now and in the interim in the way that the Task Force envisioned. Rather than funding pilots geared to benefit well-resourced private industry, the goods movement sector would better serve the principles of the Task Force by recommitting to electrifying the now underutilized Alameda Corridor. Yet Metro anticipates investing \$10 million in Measure R/M funds in a fully private project with no guaranteed return on investment. Furthermore, this project lists potential funding from other sources such as FRA pilot programs, RAISE, INFRA, TIRCP, LCTOP, and others. 74 The 10-million-dollar investment should be distributed to other projects that would contribute a real improvement to the neighborhoods that these goods would be moving through and not subsidizing the industry's exploration of future compliance needs.

X. Conclusion.

We firmly believe that this investment plan offers an opportunity for Metro to start the process of repairing the damage caused by past harmful policies in the Corridor. When it comes to the Draft CMIP, we believe that prioritizing investments in community benefits programs, improving transit, promoting safe active transportation, and bringing community-vetted zero emissions transportation and infrastructure is essential to creating a more equitable and sustainable future in the Corridor. However, we continue to have concerns regarding the skewed prioritization of industry-led projects, the risk of displacement, and the need to better protect residents from toxic air pollution and other harms. We remain committed to helping improve the CMIP and ensure that the final investment plan benefits all residents in the Corridor equally.

⁷⁴ LB-ELA Draft Corridor Mobility Investment Plan, p. 8-24.

Respectfully,

The Coalition for Environmental Health and Justice (CEHAJ)

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Andre Donado

Long Beach Residents Empowered (LiBRE)

Attachment I





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Emerging Contaminants and Issues of Concern Program

Public Health Significance

Wildfires, chemical spills, and unforeseen exposures to novel toxicants are examples of emergency situations and human health concerns that arise unexpectedly, yet regularly. In such events, decision makers depend on timely access to high-quality, actionable information to protect public health. However, with an increasing number of accidental exposures, discoveries of industrial contamination, and natural disasters, the general population may be increasingly exposed to substances for which toxicological data are limited.



Much of the work carried out by DTT is in support of the National Toxicology Program (NTP), an interagency partnership of the Food and Drug Administration, National Institute for Occupational Safety and Health, and NIEHS.

Visit the NTP Website ☑

(https://ntp.niehs.nih.gov/)



Effective and rapid mobilization of scientific resources in response to such situations can be challenging due to their unpredictable nature. Programs that intend to be responsive to these concerns must have capabilities, capacity, and communication with pertinent organizations that enable rapid generation of translationally relevant data for public health decision-making.

High-quality, reliable data are necessary to assess which substances have hazard potential so that measures can be taken to limit exposure and risks to the public. Engagement with a ected communities and translation of data, particularly when those communities would be most exposed or most susceptible if exposed, are necessary so that actions such as intervention, remediation, and litigation will be well informed.

Program Objectives

The Emerging Contaminants and Issues of Concern (ECIC) Program objectives include the following:

- 1. Address emerging issues to which the NIEHS Division of Translational Toxicology (DTT) may apply capabilities and expertise to effectively respond to public health concerns in a timely way. Projects may include:
 - Emergencies that require a rapid response when the public has been exposed to a toxicological hazard for which there are insufficient data to adequately characterize potential harm.
 - Emerging contaminants or issues of concern for which there are insufficient toxicological information available for understanding key aspects of risk to human health for contemporary environmental issues requiring a prioritized response.
- Use horizon-scanning or scoping activities to identify ECIC, especially those affecting historically marginalized and underserved populations, and develop projects to proactively address the needs of our stakeholders.
- 3. Formulate and apply strategic approaches, leveraging the breadth of DTT capabilities, which allow for fit-for-

purpose research responses to emerging contaminants, diseases, disasters, or other concerns. Development of response strategies is an iterative process and will include coordination and regular communication with internal and external organizational stakeholders and allow for the identification of capabilities and research gaps.

Background

Lessons learned from past DTT responses to emerging contaminants, such as the West Virginia chemical spill at Elk River, have shown that success depends on a prioritized, coordinated response with adherence to timelines. Ultimately, this program will strengthen the science base around ECICs, promote the use of DTT resources to effectively respond to environmental health emergencies, and facilitate coordination with other federal programs.

Emerging contaminant exposures or health conditions are typically highly visible issues that can be affected by outside factors, including political, legal, and societal considerations. While there are challenges in addressing time-sensitive issues of concern, there are also substantial rewards, including benefits to public health, the advancement of science, and expansion of collaborations.

Engaging with other organizations focused on emerging contaminants will help to identify ECIC and knowledge gaps that might be amenable to potential collaborations. Continued discussions on national and state levels will enhance the use of limited resources by avoiding duplication of effort, increasing productivity, and identifying and engaging communities and groups advocating for scientific solutions to critical health concerns.

Select Studies

Study	Description	Findings/Supporting Files
Rapid Scoping Review of East Palestine, Ohio Chemicals of Interest	On February 3, 2023, a Norfolk Southern Railway general merchandise freight train derailed, releasing vinyl chloride and other hazardous chemicals into the environment in East Palestine, Ohio. Three days later, first responders conducted a controlled burn to prevent an explosion, releasing	• East Palestine Report

Study	Description	Findings/Supporting Files
	volatile organic compounds (e.g., acrolein, benzene) into the air and potentially leaving other residual chemicals in the soil. To inform potential future research on health effects and facilitate communication with affected communities, we conducted a phased scoping and rapid SR of health hazard information for the East Palestine chemicals of interest.	(/sites/default/file s/research/atnieh s/assets/docs/east _palestine_report _508.pdf) (1MB) • East Palestine Rapid Scoping - Phase 1 (76KB)
Chronic Kidney Disease of Unknown Etiology (CKDu)	Retrospective systematic review of National Toxicology Program database to explore similarities in renal histomorphology and pathogenesis between rodent and human pathologies.	
Glyphosate	 Evaluate whether glyphosate causes genotoxicity, or damage to DNA. Examine whether glyphosate induces oxidative damage. Compare the effects of glyphosate on measures of genotoxicity, oxidative stress, and cell viability with the effects of glyphosate-based formulations. 	Glyphosate & Glyphosate Formulations (*) (https://ntp.niehs.nih.gov/wh atwestudy/topics/glyphosate/ index.html? utm_source=direct&utm_med ium=prod&utm_campaign=n tpgolinks&utm_term=glyphos ate)
MC-LR	Evaluate the chronic low dose effects of microcystin exposure associated with drinking water.	Testing Status of Microcystin LR M000056 ♂ (https://ntp.niehs.nih.gov/wh atwestudy/testpgm/status/ts- m000056.html? utm_source=direct&utm_med ium=prod&utm_campaign=n tpgolinks&utm_term=ts- m000056)
Sulfolane	Evaluate the toxicity of sulfolane, focused on effects on development, reproduction, and immune systems function.	Sulfolane Reasearch Topic (https://ntp.niehs.nih.gov/wh atwestudy/topics/sulfolane/in dex.html)
Tungstate	Evaluate the chronic toxicity and carcinogenicity due to potential human exposure via contaminated drinking water and assess human health implications of elevated exposures.	Testing Status of Sodium Tungstate

Study	Description	Findings/Supporting Files
		Dihydrate M030038 [2] (https://ntp.niehs.nih.gov/wh atwestudy/testpgm/status/ts- m030038.html? utm_source=direct&utm_med ium=prod&utm_campaign=n tpgolinks&utm_term=ts- m030038)
Synthetic Turf/Recycled Tire Crumb Rubber	Conduct research to enhance understanding of the chemicals released from synthetic turf, with an emphasis on the crumb rubber and the potential for health effects.	Synthetic Turf/Recycled Tire Crumb Rubber Research Topic (2) (https://ntp.niehs.nih.gov/wh atwestudy/topics/synthetictur f/index.html? utm_source=direct&utm_med ium=prod&utm_campaign=n tpgolinks&utm_term=turf)

Attachment J

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THE IMPACTS OF HAZARDOUS AND TOXIC WASTE MANAGEMENT: A SYSTEMATIC REVIEW

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ABSTRACT

Received: October 2021 Revised: November 2021 Approved: November 2021 **Background:** Looking at the environmental and health problems caused by the irregular disposal of hazardous and toxic waste, it is important to manage B3 waste to prevent and overcome environmental pollution or damage caused by B3 waste and to restore the quality of the polluted environment so that it is following function back. In this case, every activity related to B3 must pay attention to environmental aspects and maintain environmental quality in its original condition and prevent disease.

Aim: The main objective of this review is to identify and understand the impact of hazardous and toxic waste management.

Method: This review was conducted based on sources from Google Scholar, Pubmed, Emerald Insight, DOAJ with the types of journals published such as Elsevier, IJSDGE, proceedings, ICCEM, HINDAWI, JPHE, JSTFT, JET, AJEST, JCH, WMR, BMC Health Services Research, and two reports from WHO (World Health Organization). Furthermore, screening of titles, abstracts, and content selection or content according to inclusion and exclusion was carried out which obtained 14 articles that were analyzed

Findings: B3 waste management that enables sorting, storage, transportation, and processing at the final waste disposal site is one of the important strategies in B3 waste management.

KEYWORDS

Management of waste, hazardous and toxic materials, systematic review

INTRODUCTION

Hazardous and Toxic Materials or often abbreviated as B3 (Dangerous and toxic substances) are substances, energy, and/or other components which due to their nature, concentration, and/or quantity either directly or indirectly can pollute and/or damage the environment, endangering the environment, health and survival. Human life and other living things. B3 (Hazardous and toxic substances) waste is the residue of a business and/or activity containing hazardous and/or toxic materials which due to their nature and/or concentration and/or amount, either directly or indirectly, can pollute and/or damage the environment, and/or can endanger the environment, health, human survival and other living things (Gupta & Babu, 1999). Hazardous waste has hazardous properties (such as toxicity, flammability, carcinogenicity, reactivity, corrosiveness which makes it one of the potential hazards for humans and the environment and thus requires strict control during handling, transportation, processing, and disposal (Yilmaz et al., 2017).



The problem of B3 (Dangerous and toxic substances) waste that often arises in the community, health facilities, and industrial places is disposal that does not comply with the rules or Standard Operating Procedures (SOP). Disposal of waste into the environment will cause problems that are evenly distributed and spread over a wide environment. Waste gas is carried by the wind from one place to another. Liquid or solid waste that is dumped into rivers, washed away from upstream to far downstream, beyond territorial boundaries eventually ends up in the sea or lake, as if the sea or lake became a trash can. Problematic waste, among others, comes from residential, industrial, agricultural, mining, and recreational activities. Therefore, waste needs to be processed and controlled according to the requirements and with quality standards in the applicable laws and regulations (Taufan & Purwanto, 2018).

Most people think that the source of B3 (Dangerous and toxic substances) waste comes from industry only. But people do not realize that household waste also contains many types of B3 waste, of course, this household waste has an amount that is no less large than industrial waste (Fikri et al., 2017). Every day, households produce residual waste from household activities from products that contain toxic and hazardous materials, and sometimes manufacturers do not list the active ingredients used in their products. Insecticide or pesticide products, porcelain cleaners, glass, floors, and anti-plugs are some examples of household products that contain B3. This household B3 waste is easier to harm humans in the house itself, such as materials belonging to the type of B3 that are disposed of on the ground in the yard of the house that can contaminate underground water or plants that grow near the house (Florence Lansana Margai, 1999).

The disposal and management of hazardous and toxic waste (B3) is a problem throughout the country. Therefore, the legislators in each country must make regulations for the implementation of safe hazardous waste management and the regulations must appoint a B3 Waste Generator as a legal entity that must ensure that waste is managed following its regulatory standards. The objective of B3 waste management is to ensure safe, efficient, and cost-effective collection, transport, treatment, and disposal of waste.

The United Nations Environmental Program (UNEP) estimates that more than 400 million tonnes of hazardous waste is produced worldwide/year and is estimated to be around 60 kg for each individual in the world, mostly from industrialized countries. About 10% of this total hazardous and toxic waste is sent across international borders, with the majority of transfers occurring between countries. However, some unspecified portion of the total is shipped more or less (±) legally or illegally from developed countries to less developed countries (Orloff & Falk, 2003).

In Europe in 2014, identified (342,000 contaminated sites (5.7 per 10,000 population). Based on data provided by 33 countries, in 2011 the activity that contributed the most to the contamination or contamination of soil and water was the disposal of industrial waste (About 38% of sites) and industrial and commercial activities (Mining, oil extraction and production, power generation – about 34% of contaminated sites) (Fazzo et al., 2017).

In Asia, there are seven countries, 679 regions identified as contaminated by hazardous and toxic waste. 169 locations were polluted by lead which resulted in 245,949 children aged 0–4 years being exposed to lead. Estimated levels of exposure may be sufficient to produce both acute and chronic side effects, such as decreased intelligence. Chatman-Stephens and colleagues analyzed 373 hazardous waste sites in three Asian countries (India, Indonesia,

Philippines) and estimated about 9 million people at risk and an estimated 43 million others at risk from unscreened sites to the exposed population causing about 4 million people. Million people experience disability due to the impact of hazardous and toxic waste (Fazzo et al., 2017).

Hazardous waste not only poses a risk to the surrounding air, water, and soil but also poses a threat to the ecological environment and human health through various channels. Developed countries (Such as the United States and some member countries of the European Union) are the main producers of hazardous waste in the world. Hazardous waste management is very important because of the environmental, social, and economic health impacts of two decades the world has experienced a dramatic increase in the amount of hazardous waste generated. In developing countries, the management of hazardous materials is not very good due to the lack of comprehensive laws, landfills are not maintained and also those that handle waste are not by B3 waste handling standards. Bad behavior and improper disposal methods carried out during the handling and disposal of hazardous wastes increase the significant health and environmental hazards of pollution due to the hazardous nature of the waste (Mbrandi et al., 2016).

Currently, the problem of B3 waste is no longer just a regional problem for each country, but has become a global problem, a serious threat to the global environment. Anticipating this threat, a convention on B3 waste management was formed under the name Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, namely the Basel Convention on the Control of B3 Wastes Transboundary Movements in 1989. With the international convention on B3 waste management, countries became countries, especially countries participating and ratifying the convention, have roles and responsibilities in efforts to manage B3 waste so as not to pollute the environment globally. A convention is a form of global environmental protection arrangement in addition to other global environmental protection arrangements (Dutta et al., 2006).

Looking at the environmental and health problems caused by the irregular disposal of hazardous and toxic waste, it is important to manage B3 waste to prevent and overcome environmental pollution or damage caused by B3 waste and to restore the quality of the polluted environment so that it is under its function again. In this case, every activity related to B3 (Dangerous and toxic substances) must pay attention to environmental aspects and maintain environmental quality in its original condition and prevent disease.

METHOD

The writing of this Systematic Review uses the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) method which is carried out systematically by following the stages or procedures of the Systematic Review. Article search using the keywords Impact of COVID-19, people's lives in various countries which are accessed online from websites and visits to related university or research institute pages through Google Scholar, Pubmed, Emerald Insight, and DOAJ. Article search is limited to articles in English and international publications. The total number of articles obtained is 63 and out of these 63 articles, a selection process will be carried out to meet the inclusion and exclusion criteria.

Inclusion and exclusion criteria

Based on the systematic review procedure, the reviewed articles must meet the inclusion criteria as follows:

- a) Inclusion Criteria: International journal dealing with the impact of hazardous and toxic waste management, research articles published in a span of 10 years (2010-2020), research or review articles, and fully accessible research articles
- b) Exclusion Criteria: International articles irrelevant to strategies for developing medical waste management interventions, research articles published more than 10 years back, and so on (Not part of the inclusion criteria)

Selection Process

The selection process or article collection is carried out in stages, namely: 1) Relevant Article Search; 2) Article submission from 2010-2020); 3) Screening according to the Inclusion and Exclusion criteria; 4) Combining review results; and 5) Determining the results, findings from the grouping that have been carried out need to be discussed to conclude the context or results of the review.

Article Evaluation

Evaluation of this article to evaluate the quality and new findings of a scientific article with an international category that is included in the Systematic Review. These criteria can be used to select articles that will not be used. The assessment was carried out in journals related to the topic of strategies for developing medical waste management interventions. It should be understood that the so-called scientific literature can be in the form of papers from scientific journals, papers from a conference (Proceedings), report from a trusted organization, and textbooks.

Data Extraction

In this Systematic Review, data extraction is carried out by looking at the entire published journal within the appropriate 10-year period, then writing down the important findings from the article and proceeding to the next stage, namely data synthesis. The process of journal tracing activities is carried out as shown in the following chart.

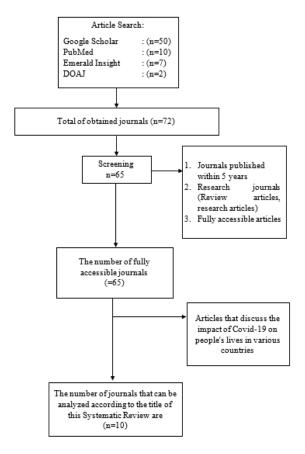


Figure 1. PRISMA Diagram: Stages of Systematic Review

Of all the articles extracted, they were taken from several sources, namely Google Scholar, PubMed, Emerald Insight, DOAJ with the types of journals published such as ELSEVIER, IJS, PROCEEDINGS, NATURERESEARCH, ORESTA, NOVEL CORONA VIRUS, GPH, BTAD, BJS, TUBITAK, CDD, JMINR, IEEE, EHP, FPH, UNTCAD, MDPI, JPP, JMII, AIM, NEJMC, OPHRP, Health Services research and six reports from WHO (World Health Organization). Furthermore, screening of titles, abstracts, and the content selection or content according to inclusion and exclusion was carried out, which obtained 10 articles that were further analyzed. This data extraction is very important in helping and tracing articles that can be analyzed and developed in the future.

Data Synthesis

Research journals that match the inclusion criteria are then collected and a journal summary is made including the name of the researcher, year of publication of the journal, country of research, research title, method, and summary of results or findings. The summary of the research journals is entered into a table sorted alphabetically and the year the journal was published and following the existing format.

RESULTS AND DISCUSSION

Based on the search results, 55 articles were found that were considered suitable for the purpose and then combined and then screened whether the titles in the articles were the same or not. After *screening*, *it was* found that there were 16 articles with the same title, from 55 journals, then *screened* based on eligibility according to the inclusion and exclusion criteria, 6 articles were obtained for further review. The literature search strategy can be seen in table 2 as follows:

Table 2. Literature Search Strategy

No.	Search Engine	Google	PubMed	Emerald	DOAJ
		Scholar		Insight	
1.	Search results	52	8	2	1
2.	Fulltext, pdf, 2010- 2020	16	5	4	-
3.	Appropriate Title	40	10	5	-
4.	Eligible according to the inclusion and exclusion criteria	4	1	1	-
Resu	ult		6		

The source of this *systematic review* is taken from studies conducted in various countries. The analysis of the 6 articles showed that 1 journal with survey method, 1 journal with *mixed methods* design, 1 journal with experimental design, 1 journal with the qualitative design, and 1 journal with multiple regressions.

After assessing the quality of the study, the 6 articles can be categorized as high, then data extraction is carried out. This data extraction is done by analyzing the data based on the author's name, title, purpose, research method, and results, namely the grouping of important data in the article. The results of data extraction can be seen in the following table:

Table 3. Data Extraction

No	Author	Title	Journal	Method	Analysis	Result
	and Year				Technique	
1.	Victor E. Akpan and David O. Olukanni, (2020)	Hazardous Waste Management: An African Overview	MDPI Journal	Descriptive research with survey method	Technique percentage and cross tabulation	Studies reveal that hazardous waste management in Africa must revolve around wealth creation, economic, and environmenta l sustainability.

						The study provided evidence that the recycling option has high potentials in the areas of
						energy recovery. The data collected show South Africa to be the most advanced in the African continent in the field of hazardous waste management. For a sustainable environment, keen attention must be paid to hazardous waste management
2.	Dimitrios Komilis, Anastassia Fouki, Dimitrios Papadopou los, (2012)	Hazardous medical waste generation rates of different categories of health-care facilities	ELSEVIE R	Quantitative descriptive	Non Parametric	globally. Based on non- parametric statistics, HMWUGR were statistically similar for the birth and general hospitals, in both the public and private sector. The private birth and general hospitals generated statistically

						more wastes compared to the correspondin g public hospitals. The infectious/tox ic and toxic medical wastes appear to be 10% and 50% of the total hazardous medical
3.	Ozge	Hazardous	ELSEVIE	Mixed	Fynlanatory	wastes generated by the public cancer treatment and university hospitals, respectively. This model
٥.	Ozge Yilmaz, Bahar Y. Kara, Ulku Yetis, (2016).	waste management system design under population and environmenta l impact consideration s	ELSEVIE R	Methods	Explanatory sequential design	provides valuable insight for decision makers and facility developers. Results obtained would help authorities to set priorities and shape their action plans in terms of the missing and inadequate components that need attention.
4.	Cyril N. Nwankwo, Akuro E. Gobo, Chigozie	Effects of hazardous waste discharge from the	Central Asian Journal of Environm ental	Experiment al design method with Cross-	Parametric test	The results showed the p values of the dumpsite dot and

	Israel-Cookey, Sodienye A. Abere, (2020)	activities of oil and gas companies in Nigeria	Science and Technolog y Innovation (CAJESTI)	sectional approach		parameters measured are significant at 5%, while the p-value of the locations considered is significant at 10%. Hence, there is a significant difference among dumpsite dot parameters measured and the three locations considered. The least squared difference comparison tests were done to identify the significant factors. It showed that the regions where hazardous wastes are dumped are barren due to the presence of heavy metals as they render the soil unfertile to permit crops and plants to germinate and affect on agriculture.
5.	Aliyu Ahmad Aliyu, Rozilah Kasim and	Siting of hazardous waste dump facilities and their	Emerald Group Publishing Limited	Multiple regression	Univariate and multivariate techniques	The results of univariate analysis suggest a substantial

David	correlation	difference
Martin,	with status of	between
(2010)	surrounding	tracts with
	residential	and without
	neighborhood	(or close to
	s in Los	and far from)
	Angeles	such hazards
	County	by
		race/ethnicity
		, income, land
		use,
		employment
		patterns,
		political
		participation,
		and
		population
		density. Multivariate
		analysis of the type
		the type suggested by
		Been (2008),
		and others
		indicates that:
		> Even
		controlli
		ng for
		income,
		industrial
		land use,
		and
		manufact
		uring
		employm
		ent,
		race/ethn
		icity
		correlate
		s with the
		location of
		TSDFs,
		and this
		holds for
		both
		African-
		America
		ns and
		Latinos.

- > Income bears a complica ted relations hip to the likelihoo d of **TSDF** location, with the latter first rising, then falling as income increases (see also Been, 2008); and.
- > As suggeste d by other authors **TSDF** location and the proximit y of a manufact uring labor force are significa ntly correlate d in a multivari ate analysis (and industrial land use, even is more significa nt

	3.5.1.	Q		0 11 1	ъ	TT1 1.
6.	Meirinawa ti, Eva Hany Fanida, Indah Prabawati, (2018)	Strategy Management of Hazardous and Toxic Waste Processing by PT Artama Sentosa Indonesia (Study of Transporting and Collecting Hazardous and Toxic Waste)	Science, Education and Humanitie	Qualitative method	Descriptive analysis	The result showed that the strength of this company is good for communicati on and cooperation between superiors and subordinates, they have cooperation with almost all waste processing companies in Indonesia, they have complete license from environment minister's recommendat ion, ISO 14001- 2009 certified, clear, basic tasks and functions competent human resources in their field, spacious building which can accommodate vehicles of transporting and collect the hazardous and toxic waste, all of the vehicles have already equipped with GPS.

At this stage attempts to analyze and discuss the problem of B3 waste originating from articles obtained from Google Scholar, Pubmed, Emerald Insight, DOAJ with the types of journals published such as ELSEVIER, IJSDGE, PROCEEDINGS, ICCEM, HINDAWI, JPHE, JSTFT, JET, AJEST, JCH, WMR, BMC *Health Services research* and two reports from WHO (World Health Organization). Focus discussion on the problem:

- 1. Management of hazardous and toxic waste (B3)
- 2. Impact of hazardous and toxic waste on health
- 3. The impact of hazardous and toxic waste on the environment

Management of Hazardous Wastes and Toxic

The first step that must be considered in the process of managing B3 waste is to identify waste. The process of identifying hazardous waste is to determine the source of toxins and hazardous waste materials and is an important first step in a waste management system to determine whether the generated waste meets the definition of hazardous and toxic, as well as to determine how the waste should be managed. The waste producer has the responsibility to determine whether the waste is included in the category of B3 waste or not. The characteristics of B3 waste can be seen in the following table (Taufan & Purwanto, 2018):

Table 4. Identification of Hazardous and Toxic Waste

No.	Types of Waste	Characteristics of	Codes of Waste
		Waste	
1.	Majun	Flammable solids	B110d
2.	Filter oil	Toxic	B340-1
3.	Spray Can, Chemical bottle,	Toxic	B104d
	Contaminated Packaging		
4.	Ex Freon Tube	Toxic	B104d
5.	Lamp	Toxic	B107d
6.	Toner + TDI	Toxic	B339-2
7.	Chemical Waste	Toxic	A106d
8.	Oli + Used Fuel	Flammable Liquids	B105d
9.	Sawdust Waste Contamination	Flammable solids	B110d
10.	Wet and Dry Battery	Corrosive	A102d
11.	Polyclinic Waste	Toxic	B337-1
12.	Fly Ash	Toxic	B409
13.	Bottom Ash	Toxic	B410

Source: Taufan Herry Setiawan, Purwanto, (2018)

The next step in B3 (Dangerous and toxic substances) waste management is one of a series of activities that includes storage, collection, utilization, transportation, and processing of B3 waste including the landfilling of the processing results. In general, both factory and household activities are not aware that the waste produced is included in the category of B3 waste, so that waste is simply dumped in to the water system without any processing so that it can pose a potential hazard to human health and the environment (Talınlı et al., 2005).

The impact of hazardous and toxic waste on the potential for environmental pollution results in many diseases that can affect human health and the surrounding environment from the mildest to the most severe. In addition, from direct contact with hazardous and toxic waste

or breathing polluted air. From the types of hazardous and toxic wastes such as infectious waste, body part waste, medical and chemical waste, radioactive waste, which can carry a greater risk to health such as skin infections, anthrax, meningitis, AIDS, dengue fever, hepatitis A, B, C (Kumar et al., 2013).

Improper disposal of hazardous waste is an increasing problem in many developing countries. Therefore, waste materials, hazardous and toxic need to be regulated under the force of law. However, B3 (Dangerous and toxic substances) waste management is very complex and regulations must be developed in the context of a comprehensive policy covering the responsibilities of various parties, socialization to the community and business actors, establishment of facilities (with special attention to criteria for determining location), and systems to control and monitor movement and B3 waste disposal (Shapiro, 1980). So, law enforcement instruments are preventive, namely in the form of preventive measures for efforts to control pollution and environmental damage, such as the 1989 Basel Convention concerning the supervision of the cross-border movement of B3 (Dangerous and toxic substances) waste (Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal) with the aim of for:

- 1. Protect human health and the environment against the dangers of B3 waste.
- 2. Returning to a principle that a State must be responsible for the B3 waste it produces.
- 3. Intensively encourage efforts to reduce the amount of B3 waste generated (Dutta et al., 2006).

In the Southeast Asia region, the country that ratified the 1989 Basel Convention was Indonesia. The Basel Convention, which consists of a preamble of 29 articles and 6 anmexes, has been ratified by Indonesia by the Decree of the President of the Republic of Indonesia Number 61 of 1993. The ratification of the Basel convention reflects the awareness of the government of the Republic of Indonesia regarding the threat of environmental pollution due to the movement or transportation of B3 waste from abroad to the country (Maulidya et al., 2019).

The main objective of any Hazardous Waste Management Plan is to ensure the safe, efficient, and economical collection, transportation, treatment, and disposal of waste (Misra & Pandey, 2005). The steps for effective B3 waste management are as shown in the following chart:

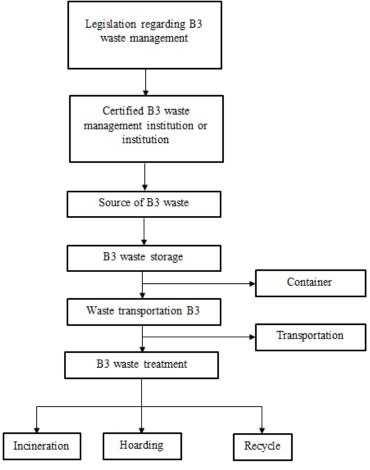


Chart 5. Hazardous Waste Management

The concept of B3 waste management is a very important aspect that needs special attention. Communities in developed countries have adopted several hazardous waste management strategies, which can be recommendations for people in developing countries (Akpan & Olukanni, 2020), such as:

- 1. Determination of public education about the potential for recycling B3 waste
- 2. Reduction of B3 waste from its source
- 3. Development of human resources in the effective use of B3 waste recycling technology
- 4. Assessment and evaluation of management schemes in the reporting platform.
- 5. Improvement of appropriate structure, practical awareness, and knowledge
- 6. Solidification and restructuring of the current regulatory structure.
- 7. Provision of funds for the development of modern infrastructure to reduce the dangers of B3 waste
- 8. B3 waste control system.

However, B3 (Dangerous and toxic substances) waste management can pose a great danger to human life, the environment, plants, and animals if not managed properly. If managed properly, B3 waste can be a source of economic benefits for the community and the state (Nwankwo et al., 2020). Therefore, environmentally friendly and sustainable B3 (Hazardous

and toxic substances) waste management always demands a well-planned management system for the collection, recycling, and final disposal of waste. Some of the household, industrial and institutional waste contains materials that can be toxic or harmful to humans and animals. In general, these materials are known as hazardous waste. At present, more attention is paid to the handling of waste and B3 (Dangerous and toxic substances) waste, both the government and society demand more in terms of protecting the environment and improving B3 waste management (Shuckrow et al., 1982).

The European Directive 2008/98/EC stipulates that the priority for B3 (Dangerous and toxic substances) waste management is prevention (Reduce), reuse, and recycling. If none of these options is feasible, the next step in the priority ranking is burning with energy recovery (Energy from waste), while the process of transporting and storing waste is also treated differently (Meirinawati et al., 2018). Management of the hazardous waste that has been generated is one of the combustion problems that require immediate attention. The main objective of any hazardous waste management plan is to ensure the safe, efficient, and economical collection, transportation, treatment, and disposal of waste. It should further ensure that the system operates satisfactorily for the current as well as for the foreseeable future scenarios. So, the B3 waste management system consists of components for the collection, transportation, treatment, and disposal of waste (Misra & Pandey, 2005).

The Impact of Hazardous and Toxic Waste on the Environment and Health

Improper waste management and illegal shipping of waste can harm both the environment and public health. Negative impacts can be caused by different handling and disposal activities that result in soil, water, and air pollution. Other disturbances caused by uncontrolled or improperly managed waste disposal can have negative impacts including impacts at the local level, such as soil damage, local air and water pollution, and indiscriminate disposal of hazardous waste. Managing waste properly and in an environmentally friendly manner is therefore important for health reasons (WHO, 2015).

Environmental pollution caused by B3 waste is a problem that has become a concern for all nations in the world since the emergence of cases of environmental pollution due to B3 waste such as in Japan's Minamata Bay, United States Love Canal, Canada's Wabigon River and India's Bophal (Maulidya et al., 2019). Hazardous and Toxic Materials are substances, energy, and/or other components due to their nature, concentration, and/or quantity, either directly or indirectly pollute and/or damage the environment, and/or damage environmental life, health, and survival. humans and other living things. Hazardous waste has a chemical composition or other properties that must be managed to prevent its release into the environment that can result in disease, death, or other harm to living organisms including humans (Meirinawati et al., 2018).

Problems regarding B3 waste management can have an impact on environmental pollution and can harm human beings, industrial players, and the environment itself. the process of pollution due to hazardous and toxic materials industrial materials can occur directly or indirectly. Directly when a pollutant has an acute effect and a direct toxic effect that interferes with human health and adversely affects the environment, animals, and plants or disrupts the ecological balance of air, water, and soil. While the indirect process is when the pollutant has an indirect and delayed effect on humans and the environment and will only be felt after a

certain period. On the other hand, improper waste management can cause carbon to explode into the atmosphere and create a domino impact on other environmental problems (Taufan & Purwanto, 2018).

The Impact of Hazardous and Toxic Waste on the Environment

Hazardous waste has the characteristics of being explosive, flammable, reactive, toxic, causing infection, and being corrosive. Assessment of the feasibility of handling B3 waste pollution requires environmental regulations for environmental safety (Li et al., 2018). The international community has tried to overcome the concern of worsening environmental conditions through various international agreements starting from the 1972 Stockholm Declaration followed by the 1989 Basel Convention which specifically highlighted the dangers of toxic waste (Hazardous waste) and the 1992 Earth Summit in Rio in Janeiro, Brazil which discusses the commitment to make the earth better and more comfortable for humans to live in. The decision to hold a "Conference on Environment and Development" has been made since 1989 by the United Nations General Assembly (Stone, 1992). Environmental problems have become an international issue since the 1972 Stockholm conference, even before this conference was held, developed countries had long been preoccupied with pollution problems in their respective countries (Paraschiv, 2015).

Ineffective B3 waste management techniques and inappropriate facilities, the informal sector has released large amounts of toxic heavy metals and organic pollutants into the workplace and the surrounding environment. The views and ideas of holding the Stockholm conference started from the concern of countries in the world seeing the increasingly high level of pollution and damaging the human environment as a result of industrialization. Hazardous and toxic waste materials greatly affect the community's living environment. The problem of environmental pollution is usually a concern of the government and industry players. However, sometimes the community is not involved which causes less monitoring of environmental pollution prevention (Panteghini & Sandberg, 2015).

The public in general still has little awareness and knowledge about household B3 waste which they often encounter in their daily life, ranging from types, impacts to the practice of transferring B3 waste. Therefore, socializing about the dangers of B3 waste and how to handle it to the community is a very important activity to do, in addition to protecting the environment, also for sustainability to improve the quality of the environment they live in. So from the socialization activities, it is hoped that the spirit of caring for the environment will arise by not throwing waste carelessly or without filtering. The socialization is designed to familiarize the public in managing B3 waste following the procedures so that B3 waste is not disposed of in any place (Ericson et al., 2013).

There are a series of environmental technicalities based on Multilateral Environmental Agreements relating to the management of Hazardous and Toxic Waste (HTW), such as:

1. The Stockholm Convention on Persistent Organic Pollutants (POPs) requires a irreversible transformation of POPs and POPs waste, as well as minimization and avoidance of emissions of dioxins, furans, PCBs and hexachlorobenzene during disposal.

- 2. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
- 3. The Rotterdam Convention on the Prior Informed Consent Procedure (PIC) for Certain Chemicals and Pesticides in International Trade.
- 4. The Vienna Convention on the Protection of the Ozone Layer and the Montreal Protocol on substances that deplete the Ozone layer (Convard and O'Toole, 1998) (Mbrandi et al., 2014).

Environmental management policy is an important tool in the management of all types of waste, including material waste, hazardous and toxic, ensuring sustainable use of natural resources, application of the principle that polluters pay for non-compliance with regulations and reduce, reuse, and recycle waste (Mbrandi et al., 2014).

Impact of Hazardous and Toxic Waste on Health

Among the effects of hazardous waste on human health is due to the toxic nature of the materials contained in the waste. Various types of diseases that can occur due to hazardous waste, one of which is cancer (Fazzo et al., 2017). Diseases caused by hazardous waste can be acute and chronic. Acute effects can result in damage to the nervous system, damage to the digestive system, damage to the cardiovascular system, damage to the respiratory system, damage to the skin, and death. mutations in body cells), teratogenic effects (Driving the occurrence of congenital defects), and damage to the reproductive system. The parts of the body that are affected are kidneys (Generally caused by toxic substances Cadmium); Bones (Generally due to the toxic substance Benzene); (generally due to the toxic substance Methyl Mercury); Liver (Generally caused by toxic substances Carbon-Tetrachloride); Lungs (Generally due to the toxic substance Paraquat); Eyes (generally caused by toxic substances Chloroquine) (Fazzo et al., 2017).

Toxic substances produced by B3 waste enter the human body through:

- 1. Oral i.e through the mouth and then the digestive tract, difficult to reach the blood circulation.
- 2. Inhalation, namely through the respiratory tract, is rapidly entering the blood circulation.
- 3. Dermal, namely through the skin so that it easily enters the blood circulation
- 4. Peritonial that is through injection, directly enters the blood circulation (Steensberg, 1982).

Humans have always been exposed to the dangers of substances going back to prehistoric times when they inhaled noxious volcanic gases or succumbed to carbon monoxide from inadequately ventilated fires in caves. Toxic substances that enter the human body will be carried by the blood and distributed throughout the body and then interfere with body organs, including neurotoxic poisoning, toxic substances will be carried to the brain, or toxic substances will be stockpiled and processed in fat tissue, muscle, bone, nerves, liver, pancreas, intestines and then after going through the process the rest will be secreted out of the body (Misra & Pandey, 2005).

Given that B3 waste is a material that is hazardous to public health, the public must have an understanding of the negative impact of B3 waste on public health. This is important so that the community can be more careful and careful in using, disposing, and managing B3 waste. The health impacts of B3 waste can be seen in the following table:

Table 6. Health Impacts of Hazardous Waste

	Table 6. Health Impacts of Haz	-
Hazardous waste	Source	Health Impact
Heavy metals	Mining, nonanthropogenic	Carcinogenic, cardiac disorders,
Arsenic	geo-chemical formation	anemia,
Cadmium	Mining, fertilizer industry,	Carcinogenic, damage to livers
	battery waste	and kidneys, chronic obstructive
	•	pulmonary diseases,
		cardiovascular and skeletal
		disorders.
Chromium	Mining areas, Tanneries	Kidney damage, skin disease,
	1,1111118 011000, 1 0111101100	acute tubular damage.
Lead	Lead acid battery smelters	Lead poisoning, neurotoxic,
Lead	Lead dela battery simetters	mental impairment in children,
		damage to brain, kidney, and liver
Manganaga	Mining arous	Respiratory disease,
Manganese	Mining areas	1 2
Manayay	Chlor allrali industrias	neuropsychiatric disorder
Mercury	Chlor-alkali industries,	Hg poisoning affects the human
	health care institutes	brain, central nervous system,
		kidneys, and liver. High Hg
		exposure causes vision, speech
		and hearing. impairment. May
3T' 1 1	1.0	lead to death.
Nickel	Mining, metal refining	Lung and nasal cancer, damage to
		the gastrointestinal system,
** .		cerebral edema, respiratory failure
Hydrocarbons	Petrochemical industries,	Headaches, nausea, leukemia,
Benzene	solvents.	damage to bone marrow.
Vinyl chloride	Plastics	Carcinogenic (liver and lung
		cancer), depression of central
		nervous system, embryotoxic.
Pesticides	Insecticides	Cancers, genetic damage,
		stillbirths, immune system
		disturbances, embryo damage.
Organic chemicals		Cancer, birth defects, skin disease
Dioxins	herbicides	
PCBs	Fluorescent lights, E-waste,	Skin damage, possibly
	Hydraulic fluid	carcinogenic, gastro-intestinal
		damage.

Source: Shantanu K Dutta, VP Upadhyay and U Sridharan (2006)

To maintain health and prevent exposure to B3 waste as shown in the table above, in carrying out B3 waste management it is necessary to pay attention to the hierarchy of B3 waste management, among others, by seeking reductions in sources, processing materials, the substitution of materials, regulation of activity operations, and the use of clean technology. If

B3 waste is still generated, the efforts are made to utilize B3 waste, which includes recycling, recovery, and reuse.

CONCLUSION

B3 waste (Hazardous and toxic materials) is a substance that directly or indirectly pollutes, damages, or endangers the environment. This waste can also endanger the health and safety of humans and other living things. This can occur due to the nature, concentration, and the amount of hazardous substances or components in them. Therefore, every person who generates B3 waste is obliged to carry out waste management before disposing of it to a landfill, such as: reducing the production of B3 waste, storing B3 waste, collecting B3 waste, transporting B3 waste, and disposing of B3 waste.

REFERENCES

- Akpan, V. E., & Olukanni, D. O. (2020). Hazardous Waste Management: An African Overview. *Recycling*, 5(3). https://doi.org/10.3390/recycling5030015
- Dutta, S. K., Upadhyay, V. P., & Sridharan, U. (2006). Environmental management of industrial hazardous wastes in India. *Journal of Environmental Science & Engineering*, 48(2).
- Ericson, B., Caravanos, J., Chatham-Stephens, K., Landrigan, P., & Fuller, R. (2013). Approaches to systematic assessment of environmental exposures posed at hazardous waste sites in the developing world: the Toxic Sites Identification Program. *Environmental Monitoring and Assessment*, 185(2). https://doi.org/10.1007/s10661-012-2665-2
- Fazzo, L., Minichilli, F., Santoro, M., Ceccarini, A., della Seta, M., Bianchi, F., Comba, P., & Martuzzi, M. (2017). Hazardous waste and health impact: a systematic review of the scientific literature. *Environmental Health*, *16*(1). https://doi.org/10.1186/s12940-017-0311-8
- Florence Lansana Margai. (1999). Promotional Strategies for the Prevention and Proper-Disposal of Household Hazardous Wastes. *Journal of Environmental Systems*, 27(2). https://doi.org/10.2190/KHGG-F66F-R7LT-5B1D
- Gupta, J. P., & Babu, B. S. (1999). A new Hazardous Waste Index. *Journal of Hazardous Materials*, 67(1). https://doi.org/10.1016/S0304-3894(99)00006-0
- Kumar, R., Samrongthong, R., & Shaikh, B. T. (2013). Knowledge, attitude and practices of health staff regarding infectious waste handling of tertiary care health facilities at metropolitan city of Pakistan. *Journal of Ayub Medical College, Abbottabad : JAMC*, 25(1–2).
- Li, M., Xu, J., & Li, B. (2018). Analysis of Development of Hazardous Waste Disposal Technology in China. *IOP Conference Series: Earth and Environmental Science*, 178. https://doi.org/10.1088/1755-1315/178/1/012027
- Maulidya, A. D., Fitriah, M. N., & Chandra, E. Y. (2019). The urgency of Indonesia to control imports of non- hazardous and toxic waste (B3) in 2019. *Global Local Interactions: Journal of International Relations*, 1(2), 22–31.

- Meirinawati, M., Fanida, E. H., & Prabawati, I. (2018). Strategy Management of Hazardous and Toxic Waste Processing by PT Artama Sentosa Indonesia (Study of Transporting and Collecting Hazardous and Toxic Waste). *Proceedings of the 1st International Conference on Social Sciences (ICSS 2018)*. https://doi.org/10.2991/icss-18.2018.39
- Nwankwo, C. N., Gobo, A. E., Israel-Cookey, C., & Abere, S. A. (2020). Effects of hazardous waste discharge from the activities of oil and gas companies in Nigeria. *Central Asian Journal of Environmental Science and Technology Innovation*, 1(2), 119–129.
- Orloff, K., & Falk, H. (2003). An international perspective on hazardous waste practices. *International Journal of Hygiene and Environmental Health*, 206(4–5). https://doi.org/10.1078/1438-4639-00225
- Panteghini, M., & Sandberg, S. (2015). Defining analytical performance specifications 15 years after the Stockholm conference. *Clinical Chemistry and Laboratory Medicine (CCLM)*, 53(6). https://doi.org/10.1515/cclm-2015-0303
- Paraschiv, D.-Ş. (2015). International regulations on the trans-boundary movement of hazardous waste. *Acta Universitatis George Bacovia Juridica*, 4(1).
- Shuckrow, A. J., Pajak, A. P., & Touhill, C. J. (1982). Management of hazardous waste leachate.
- Talınlı, İ., Yamantürk, R., Aydın, E., & Başakçılardan-Kabakçı, S. (2005). A rating system for determination of hazardous wastes. *Journal of Hazardous Materials*, *126*(1–3). https://doi.org/10.1016/j.jhazmat.2005.04.038
- Taufan, H. S., & Purwanto, P. (2018). The Management Of Toxic and Hazardous Waste Materials In The Food Industry. *E3S Web of Conferences*, 73. https://doi.org/10.1051/e3sconf/20187307020
- Yilmaz, O., Kara, B. Y., & Yetis, U. (2017). Hazardous waste management system design under population and environmental impact considerations. *Journal of Environmental Management*, 203. https://doi.org/10.1016/j.jenvman.2016.06.015

Attachment K

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Yuan Shao and Chao Li



Hazardous Wastes and its Impact on Human Health

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Abstract. Urban sprawl, population growth, rising living standards, and industrialization has resulted in waste generation in developing countries. Many solid waste sources contribute to hazardous waste which poses many pollution problems. The purpose of this study is to understand hazardous waste and its impact on human health and to address hazardous waste issues. The results revealed that hazardous waste, when incorrectly treated, processed and disposed of, has a significant impact on public health and the environment. Air pollution, water supply depletion and the spread of human diseases are the worst effects of insufficient waste management. It makes cities untidy and dirty, affects people's health, harms flora and fauna, and hinders the economy of the countries. Some of the prevention such as hazardous waste handling, dilution, a tube-well structure using well-logging methods and other forms of geophysical monitoring designed specifically for the contaminated area, as well as the different treatment systems, could also be advised.

Keywords: Hazardous Waste; Solid Waste; Industrial Waste; Inventorization; Ground Water Contamination

1. Introduction

Hazardous waste is a waste that either poses a threat to human life, health or the environment in sufficient quantities and concentrations when it is inappropriately stored, transported, treated or disposed off. The effect of hazardous waste depends on its size, composition, physical, chemical or biological characteristics. Waste could be dangerous, for example, because it is combustible and flammable (such as many solvents used in the chemical industry), corrosive (such as battery acid), explosive or reactive (such as phosphorus) and infectious (such as hospital waste, used needles and bandages). Hazardous waste is usually a by-product of industrial operations involving heavy metals and Processes involving different oil and petrochemical categories; products such as PVC and plastics; contaminated electronic waste materials such as PCBs and DDT etc., and ultimately a volatile liquid (C4H4O), which are now recognized as highly poisonous and affect on all forms of life. Hospitals are also described as one of the potential sources of hazardous waste.

1.1 Classification of Hazardous Wastes

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Hazardous waste is classified in the following categories as listed hazardous waste.

Hazardous waste features:

A waste is classified as a hazardous waste if laboratory tests show that it has one or more of the following four characteristics, La Grega et al, 2001[1]:

Ignitability (The ability to easily ignite and thus pose a fire hazard)

Corrosively (The ability to deteriorate due to a highly acidic or alkaline nature)

Reactivity (The ability to have potentially harmful, rapid reactions like explosions)

Toxicity (The ability to release such components into water at substantial concentrations under defined conditions, i.e. leaching) Classification of hazardous waste based on its attributes, as determined by the U.S. laboratory testing, EPA.

1.2 Listed Hazardous Wastes

A hazardous waste listed is that which appears in the list of specific hazardous wastes compiled by the government authorities because it is known or suspected to provide hazardous characteristics. MoEF, GoI [2] suggested a total of 18 categories of hazardous waste as identified by the Ministry of the Environment and Forests of India (MoEF), and 11 types of hazardous wastes, banned for import by (MoEF).

1.3 Sources of Generation of Hazardous Wastes

Hazardous waste is generated from a wide range of industrial, agricultural, commercial and household activities. Manufacturers of many everyday products, manufacturers of specialized items, produce them through service and retail businesses, laboratories in schools, hospitals, car repair shops, government facilities and households. The generator can either handle the waste on-site or transport it off-site for processing, disposal, or recycling after a waste is produced, usually to a commercial hazardous waste facility. Waste generation is usually related to production and technology. Following observations were typically made through a comprehensive study on the generation of hazardous waste, U.S. Code of Federal Regulations, 1985 [3]: The manufacture of paint generates 4 to 6 percent of the total production as hazardous waste by weight, steel production generates 15 to 25 pounds of electrical furnace dust per ton of steel produced; and the manufacture of printing ink generates 1% overall weight processing as hazardous waste.

1.4 Groundwater Contamination by Hazardous Wastes

Contamination of groundwater may result from spillage of hazardous chemicals, leakage from underground tanks containing hazardous substances, disposal of toxic waste, discharges of domestic and industrial wastewater, and leachate from landfill. The ground water is usually polluted by one or more of the following pollutants transferred from their sources to the aquifers:

- 1.4.1 Wastewater: Across developing countries, domestic and industrial waste water is a major source of pollution of groundwater and surface water.
- 1.4.2 Pesticides: The flooded water from agricultural fields carries chemicals and pesticides are responsible for water contamination. Due to accumulation of contaminants in the soil, this water is vulnerable to contamination.
- 1.4.3 Petrochemicals: Petrochemicals from underground oil storage facilities contaminate groundwater.
- 1.4.4 Chlorinated solvents: Metal finishing and plastic effluent, membrane cleaning, electronic equipment and aircraft manufacturing are often discharged and contaminate groundwater.

- 1.4.5 Heavy metals: pollutants like, (lead, mercury, iron, copper, manganese, cadmium, arsenic, nickel, aluminum, gold, and beryllium etc.) are extracted from waste and tailings mining, landfills, and hazardous waste landfills.
- 1.4.6 Synthetic organics: Many of the 100,000 chemical compounds commonly used are present and accumulated in the food chain in the aquatic environment. The most dangerous components to the atmosphere and human health are POPs (Persistent Organic Pollutants). Some chemicals can accumulate in fish and cause severe human health problems. Groundwater is also contaminated due to large-scale use of pesticides in agriculture, which leads to contamination. Other organic pollutants in groundwater such as carbon tetrachloride (CTC), trichloroethane (TCA) and trichloroethylene (TCE) are also responsible for ground water contamination.
- 1.4.7 Landfill leachate: Leachate is produced in landfills by the interaction of garbage, water and gravity. When the content of the waste water, Water moves slowly down the garbage under gravity until it reaches the bottom. The water, which passes through the garbage under gravity, is called the leachate. A contaminant released on the ground surface, such as leachate, first migrates vertically down (i.e. z-direction) and reaches the groundwater table. After reaching the groundwater, the contaminant is mixed with the groundwater forming a "groundwater plume" that begins to migrate in the aquifer (i.e. groundwater body) As usually shown in the horizontal plane (i.e. x and y directions) Fig. 1 Connor et al. 1997, [4]

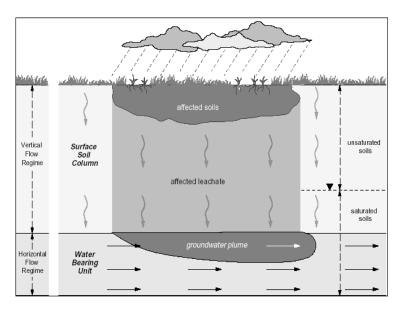


Figure 1. Idealized schematic of soil leachate migration

Modeling the transfer of a contaminant from ground surface sources, as shown in 'Figure 1', consists of two sets of models being developed:

The first model for the transport of contaminants from the surface to the groundwater table vertically downwards. Connor et al. 1997 [4]; Ganguly et al. March 1998 [5] and December 1998 [6]; Mieszkowski 2003 [7]. This model is used to estimate the concentration of steady-state contaminants reaching the aquifer (i.e. groundwater exposure concentration).

Second model for transport of contaminant through aquifer in horizontal plane (De Josselin de Jong 1958 [8]; Ogata and Banks 1961 [9]; Sayre 1968 [10]; Baetsle 1969 [11]; Domenico 1987 [12];

Runkel 1996 [13]; Hossain and Yonge 1997 [14]. Using the groundwater exposure concentration (calculated using the first model) as a reference term, this model is used to estimate the strength of contaminant at any point in the aquifer horizontal plane.

2. Hazardous Waste Impact on Human Health

Inadequate storage, handling, processing, treatment and disposal of hazardous waste may affect human health and the environment by releasing contaminants into groundwater, soil, and atmosphere. The population may be adversely affected if toxic waste is absorbed through contaminated water supplies and polluted air and soil pollution can migrate or be transported through infiltration and may eventually enter the human food chain either directly or indirectly by agriculture. Exposure to hazardous waste can cause a number of health issues, including: skin irritation, impairment and disease, breathing problems, cancer, hormonal disruption, disruption of the nervous system, liver damage, mental retardation, weight loss, etc., depending on the type of waste to which it is exposed. Lead: This affects the central nervous system of humans. It is a toxin caused by ingestion and is mildly annoying. Common air pollutant due to substandard fuel used in the automobile industry, which is now eliminated by the use of unleaded-petrol; and the atmosphere near to industrial facilities

mildly annoying. Common air pollutant due to substandard fuel used in the automobile industry, which is now eliminated by the use of unleaded- petrol; and the atmosphere near to industrial facilities where steps are not taken. When exposed to heat or flame, it is flammable in the form of dust. Lead may cause irreversible behavioral changes in young children, babies, and pregnant women, neurological damage and other problems. Exposure at significant levels can cause mental retardation, coma, seizures, and death.

Cadmium: Inhalation and other pathways are toxic to humans. It can be joined to the food chain by absorption, intraperitoneal, subcutaneous, intramuscular or intravenous pathways. Excess exposure can increase the risk of lung cancer.

Chromium: It occurs in two ways, i.e. chromium trivalent and hexavalent. Hexavalent chromium at higher doses is the cause of digestive tract cancer, cutaneous and nasal mucosal ulcers, and dermatitis. Many chromate salts, including calcium chromate, are carcinogenic when inhaled. Lung cancer has been identified in chrome industry workers.

Zinc: It is painful to the skin and affects the respiratory system. The problem arises from the preinhalation degradation of zinc fumes or the impurities like cadmium, antimony, arsenic, and lead are present.

Arsenic: Skin and gastrointestinal effects have been reported and is toxic to subcutaneous, intramuscular and intraperitoneal pathways. It is a carcinogen. Arsenic contamination in water can also cause damage to the liver and nervous system, vascular diseases, and skin cancer.

Mercury: White liquid mercury used in thermometers contains strong neurotoxin that can trigger severely brain damage and moderate tremor in the fetus and emotional disturbance in adults. When mercury and tin, converted to organic forms such as methylmercury and methyltin, these are more harmful to health and the environment.

Polychlorinated biphenyls (PCBs): It is toxic if ingestion, inhalation, or contact with the skin. A suspected human cancer is having an effect on the skin and liver. Common overdose symptoms include nausea, vomiting, weight loss, jaundice, abdominal pain, and edema.

Pesticides: Among pesticides, Organophosphates and carbonates cause severe nervous system damage and cancer. Many pesticides contain toxic substances that surpass the recommended levels and produce chlorides that trigger reproductive and endocrine damage.

Petrochemicals: Benzene and other petrochemicals can cause cancer even at low levels of exposure.

Waste oil: If oil is spilled out in the open, in sewers or landfills, it can spread to surface or sub surface aquifers. It is found that one gallon of oil contaminates one million gallons of water, rendering this non-potable. Marine species may be adversely affected even if they are exposed to oil concentrations as low as 1 mg/L. Because waste oil contains various hazardous contaminants, burning of oil increases air pollution as toxic gasses are poured into the atmosphere, affecting the ecological balance.

2.1 Health Risk Assessment Model

The general equation developed by U.S. EPA (1989 and 1991) [15,16] to estimates of chronic daily intake (CDI) for contaminants under ingestion have been considered. The equation for CDI is as follows:

$$CDI = \frac{CW \times IR \times EF \times ED}{AT \times BW} \tag{1}$$

where

CDI = Chronic Daily Intake (mg/kg-day)

CW = Concentration of contaminant in

Groundwater (mg/L)

IR = Ingestion Rate (average = 2 L/day for adult)

EF = Exposure Frequency (350 days/year)

ED = Exposure Duration (average = 70 years)

BW = Body Weight (average 70 kg for adult)

 $AT = \text{Averaging Time } (ED \times 365 \text{ days/year})$

The ELCR can be calculated by multiplying the CDI with a slope factor (SF) as follows:

$$ELCR = CDI \times SF \tag{2}$$

Where,

ELCR = Excess Lifetime Cancer Risk

SF = Slope Factor, the value of which depends on the type of carcinogenic contaminant (1/ mg/kg-day)

Using the value of *ELCR*,

The number of people predicted to develop cancer as a result of contaminant exposure can be calculat ed as follows.:

$$P_c = ELCR \times P \tag{3}$$

Where,

 P_c = Number of people expected to develop cancer from exposure to the contaminant of concern during their lifetime,

P = total number of persons exposed to the contaminant of concern

The Excel-sheet program for the groundwater quality forecasting and health risk assessment consist of a mixture of models as outlined:

2.2 Utility of the Developed Integrated System

A typical example has been considered in order to illustrate the usefulness of the integrated computerized system developed in the current work on groundwater quality prediction and health risk assessment. In this example, consideration has been given to groundwater contamination and the health risk associated with this contamination. The cause of contamination has been identified as the

transport of a carcinogenic contaminant to groundwater from a hazardous waste disposal site. The input variables, the unified computer program produced in the Excel-sheet and the output results are described as follows:

2.2.1. Input Parameters

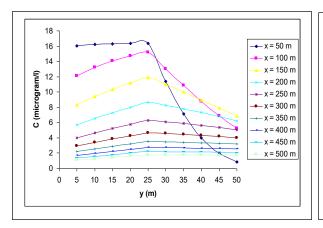
The typically considered input parameters for running the developed program are shown in Table 1. (Integrated Computer Program Developed in Excel-Sheet).

2.2..2. Output Results

The values of contaminant concentration in groundwater and the related health risk expected using the established software are presented, taking into account different sets of, and values.

Table 1: Input parameters typically selected

Input parameter	Description/ notation	Typical value
Contaminant of concern	Trichloroethylen e (a carcinogen)	
Thickness of single soil layer overlying the aquifer	e	0.5 m
Soil's longitudinal dispersivity coefficient	α	$0.1 \times e$
Infiltration rate through the soil layers overlying the aquifer (infiltration rate is taken as permeability of soil)	I	10-10 m/s
Porosity of the soil overlying the aquifer	n	0.50
Contaminant free-solution diffusion coefficient	D_0	10-9 m2/s
Tortuosity of the soil overlying the aquifer	τ	0.3
Concentration of contaminant at the source (i.e. at the base of the landfill)	C_s	1100 mg/L
Permeability of the aquifer	K	10-3 m/s
Hydraulic gradient	i	0.01
Retardation factor	R	2
First-order decay coefficient for the contaminant	λ	0
Thickness of mixing layer, measured below water table	H	30 m
Length of the site (e.g. a landfill) in the direction of groundwater flow	L	50 m
Distance down gradient of source	x	10-1000 m
Distance from centerline of source	y	0-10 m
Time	t	1-10 year
Longitudinal groundwater dispersivity	α_{x} (Eq. 2.6)	$0.1 \times x$
Transverse groundwater dispersivity	α_y (Eq. 2.7)	$0.33 \times \alpha_x$
Vertical groundwater dispersivity	$\alpha_{z \text{ (Eq. 2.8)}}$	$0.06 \times \alpha_x$
Source width	Y (Eq. 2.8)	25 m
Source depth (= thickness of mixing layer, H)	Z	30 m
Ingestion Rate	IR	2 L/day
Exposure Frequency	EF	350 d/y
Exposure Duration	ED	70 years
Body Weight	BW	70 kg
Averaging Time	AT	$ED \times 365 \text{ d/y}$
Slope factor for the contaminant	SF	0.011
Total number of persons exposed to the contaminant	P	1/mg/(kg-d) 106



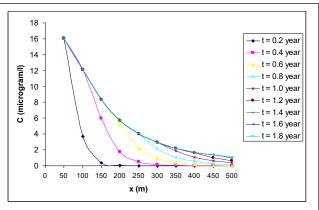


Figure 2. Variation of C with x and t at a constant y (typically equal to 5 m).

Figure 3. Variation of C with y and t at a constant Y (typically equal to 5 m).

3. Results and Discussion

Following observations have been made:

- At a constant transverse distance, y, values of C and P_c are decreasing with increase in longitudinal distance, x, from the source, as shown in 'Figure 2'.
- C and P_c are found to be approaching towards a steady-state (i.e. invariant with time) with increase in t value. The steady-state condition has been found to be typically reached at t = 1.6 years, as shown in 'Figure 2'.
- The plot of x and y versus C, as shown in Fig. 3, shows that the pollutants concentration is increasing with
- increase in y and after approaching to a peak value the concentration is decreasing with increase in y. It is also evident from 'Figure 3' that the contaminant concentration is approaching to be invariant with transverse distance y as longitudinal distance x increases.
- The health risk is found to be increasing with time.

4. Conclusions

Environment and Forest Ministry has established Specific treatment and disposal options include physical / chemical treatment, landfill, biological treatment, incineration, reuse and recovery and solidification, etc. A systematic literature review and survey was conducted on the generation of hazardous waste in various Indian states and its effects on human health. The patterns and estimation of groundwater contamination have been shown since examining the amount and its effects on human health. It is therefore recommended that The agency concerned should concentrate more on establishing effective methods for waste reduction, reuse, storage, and proper disposal. Considering that previous findings and hypotheses were based on the present results, it is recommended that this study is further extended by local environmental researchers by incorporating economic and environmental aspects. In addition, A mathematical model that uses linear regression behavior in conjunction with the Geographic Information System (GIS) may improve predictions for hazardous waste generation.

IOP Conf. Series: Materials Science and Engineering 804 (2020) 012056 doi:10.1088/1757-899X/804/1/012056

5. Acknowledgment

The researchers are thankful to the Dean of Scientific Research for providing administrative and educational support.

References

- [1] LaGrega M D, Buckingham P L, and Evans J C, 2001 *Hazardous waste management*, McGraw-Hill Companies, Inc.
- [2] Hazardous Wastes (Management and Handling) Rules, 1989, as amended in January 6, 2000 and May 21, 2003. (2) Published Official Gazette.
- [3] US Code 1985 of Federal Regulations, 40 CFR261.1.
- [4] Connor J A, Bowers R L, Paquette S M, and Newell C J, 1997 Soil attenuation model for derivation of risk-based soil remediation standards, *Groundwater Services, Inc, Houston*, Texas, July, pp. 1-34.
- [5] Ganguly C, Matsumoto M R, Rabideau A J, and Benschoten J E V, 1998 Metal ion leaching from contaminated soils: model development, *ASCE Journal of Environmental Engineering*, March, pp. 278-287.
- [6] Ganguly C, Matsumoto M R, Rabideau A J, and Benschoten J E V, 1998 Metal ion leaching from contaminated soils: model calibration and application, *ASCE Journal of Environmental Engineering*, December, pp. 1150-1158.
- [7] Mieszkowski R., 2003 Diffusion of lead ions through the Poznan Clay (Neogene) and through glacial clay, *Geological Quarterly*, 47(1), pp. 111-118.
- [8] De Josselin de Jong G, 1958 Longitudinal and transverse diffusion in granular deposits, *Am. Geophys.* Union Trans. 39, , pp. 67-74.
- [9] Ogata A and Banks RB, 1961 A solution of the differential equation of longitudinal dispersion in porous media, Professional Paper No. 411-A, *U.S. Geological Survey, Washington, D.C.*, pp.1-7.
- [10] Sayre WW, 1968 Dispersion of mass in open channel flow, *Hydraulics Paper*, No.3, 73, Colorado State University,.
- [11] Baetsle L H, 1969 Migration of radionuclides in porous media, *Progress in Nuclear Energy, Series XII, Health Physics, ed. A.M.F. Duhamel, Elmsford, N.Y.*: Pergamon Press, , pp. 707-730.
- [12] Domenico P A, 1987 An analytical model for multidimensional transport of a decaying contaminant species, *Journal of Hydrology*, 91, pp. 49-58.
- [13] Runkel R L, 1996 Solution of the advection-dispersion equation: continuous load of finite duration, *ASCE Journal of Environmental Engineering*, September, pp. 830-832.
- [14] Hossain M A and Yonge D R, 1997 Linear finite-element modeling of contaminant transport in groundwater, *ASCE Journal of Environmental Engineering*, November, pp. 1126-1135.
- [15] U S EPA (U S Environmental Protection Agency) 1989, Risk assessment guidance for superfund: volume 1 human health evaluation manual (part A)", Report No. EPA/540/1-89/002, Office of Emergency and Remedial Response, Washington,.
- [16] U. S. EPA (U. S. Environmental Protection Agency), 1991 Standard default factors, OSWER Directive Report No. 9285.6-03, Office of Emergency and Remedial Response, Washington.

CEHAJ-1

As stated in Section 2.5.3.1, the No Build (Alternative 1) was identified by Metro and Caltrans as the Preferred Alternative and therefore, Alternative 5C and Alternative 7 have been withdrawn from consideration. However, the analysis of the impacts related to these build alternatives has been retained for disclosure purposes within this Final EIR/EIS. In addition, the Preferred Alternative (Alternative 1 - No Build) was clearly called out in multiple places in the document, thus removing any confusion. The Final EIR/EIS will not be revised and responses to these comments will be provided in the ROD. Caltrans and Metro maintain that Alternative 5C does have air quality benefits compared to the No Build due to the zero/near-zero (ZE/NZE) emission truck program (4,000 ZE/NZE trucks).

CEHAJ-2

Extensive analyses were done, across multiple disciplines, in support of the document. The information could be useful for future projects, particularly for cumulative impacts. In addition, as stated in Section 2.5.3.1, the No Build (Alternative 1) was identified by Metro and Caltrans as the Preferred Alternative and therefore, Alternative 5C and Alternative 7 have been withdrawn from consideration. However, the analysis of the impacts related to these build alternatives has been retained for disclosure purposes within this Final EIR/EIS. In addition, the Preferred Alternative (Alternative 1 - No Build) was clearly called out in multiple places in the document, thus removing any confusion.

CEHAJ-3

As stated in Section 3.5.2.2, Appendix U of the Final EIR/FEIS is a list of projects that are already planned and programmed projects assumed in the 2035 travel demand forecasting for the No Build (Alternative 1) that is specific to the I 710 Study Area. These projects are not part of the project description in that they are projects that are independent of the I-710 Corridor Project and are already planned and programmed.

CEHAJ-4

See response to comment CEHAJ-1 on page 552 regarding the air quality benefits of Alternative 5C. Also, see response to comment CEHAJ-3 on page 552 regarding the No Build Projects included in Appendix U of the Final EIR/FEIS. Caltrans has gone public with their intention to move forward with the No Build as the Preferred Alternative for the 710 Corridor Project. Caltrans has no intention of moving forward with any build alternatives for this project.

CEHAJ-5

See response to comment CEHAJ-1 on page 552 regarding the need for the analysis of the build alternatives to be retained in the document. It is very clearly stated in Section 3.3.1.4 of the Final EIR/EIS that there will be no property acquisitions or relocations under the No Build Alternative.

CEHAJ-6

This is already clearly stated in Section 2.6 of the Final EIR/EIS, that any recommended project or program would include environmental reviews and approvals following a process separate from the I-710 Corridor Project Final EIR/EIS. Caltrans and Metro do not have jurisdiction over several of the projects included in Appendix U of the Final EIR/EIS, but per state and federal law (if applicable), all these projects must be cleared through their own environmental processes.

CEHAJ-7

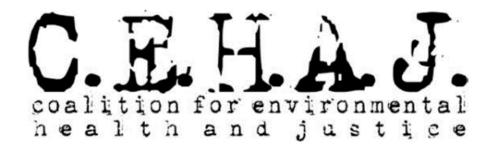
As the No Build Alternative has been selected as the Preferred Alternative, and therefore no construction will occur, no additional analyses, including hazardous waste and materials, are warranted.

CEHAJ-8

As the No Build Alternative has been selected as the Preferred Alternative, and therefore no construction will occur, no additional analyses, including hazardous waste and materials and air quality, are warranted.

CEHAJ-9

See responses to comments CEHAJ-1 through CEHAJ-8 on pages 552 and 553.













Via Electronic Mail

September 4, 2024

Kelly Ewing-Toledo Caltrans District 7, Division of Environmental Planning 100 South Main Street, MS 16A Los Angeles, CA 90012 710.Corridor.FEIRFEIS@dot.ca.gov

Re: Supplemental Comment on the Final Environmental Impact Report (FEIR) for the 1-710 Project

Dear Ms. Ewing-Toledo:

On behalf of the Coalition for Environmental Health and Justice ("CEHAJ"), we submit this supplemental comment regarding the Final Environmental Impact Report ("FEIR/FEIS") for the I-710 Project in response to your staff's confirmation that the deadline for public comments is set for today, September 4, 2024. This letter is intended to expand on our comments from August 19, 2024 and requests to incorporate prior comments submitted in October 2017 concerning air quality, public health, land use, and other impacts associated with the I-710 widening paradigm.

As mentioned, we support a decision to abandon the freeway widening Alternative 5C and the adoption of a "No Build" alternative. However, we remain concerned about the lack of clarity throughout the FEIR/FEIS — clarity necessary to ensure that programmatic elements will not be implemented by any agency, not just Caltrans, under CEQA or NEPA, without a separate

process and new environmental compliance documentation and approval. We ask that the FEIR/FEIS be withdrawn, redrafted, and recirculated for public comment to clarify that the tiering of projects will **not** flow from the flawed analysis previously provided for now-abandoned "build" alternatives. This is particularly crucial given the broad references maintained to projects, like freight rail elements, "assumed" to be in the No Build (Alternative 1). Referenced projects like SCIG and ICTF capacity expansion plans and similar projects will almost certainly require independent assessment of environmental impacts and cannot be tiered back to the approval of a FEIR/FEIS for a No Build alternative concerning mainline I-710.

I. The FEIR/FEIS Carries Forward Outdated and Flawed Analyses on Air Quality, Public Health, Land Use, and Cumulative Impacts.

In light of the FEIR/FEIS's reliance on prior analysis used to justify the freeway-widening Alternative 5C, we are compelled to resubmit our prior comments questioning the analysis done on air quality and other impacts not adequately vetted. The attached October 23, 2017, CEHAJ Legal/Technical Comments on the I-710 Expansion Project ("2017 Comment Letter") (Attachment A) is incorporated by reference. Like the Recirculated Draft Environmental Impact Report/Subsequent Draft Environmental Impact Statement ("RDEIR/SDEIS"), the FEIR/FEIS wrongly touts the superiority of Alternative 5C as the ideal choice for the region when it comes to air quality and other impacts. As we stated in our 2017 Comment Letter on the RDEIR/SDEIS, we are concerned that Caltrans has set up this document to lead the public and decision-makers to believe that Alternative 5C is the best option.

CEHAJ2-1

We are equally concerned by the prospect that Metro and Caltrans may improperly use this FEIR/FEIS to impede progress made on building public trust by improperly "tiering" future capacity-generating projects and programs, back to the flawed analysis this FEIR/FEIS maintains for the sake of expediency. Metro and Caltrans should not claim that the FEIR/FEIS serves as a Programmatic EIR post-hoc, or otherwise circumvent full environmental review of potentially dangerous projects. We strongly oppose any attempt to shoehorn future projects through this FEIR/FEIS without full, independent, environmental review and public engagement.

The comments we previously provided in our 2017 Comment Letter are still relevant as public health, air quality, land use, and cumulative impacts persist in the FEIR/FEIS. Like the now defunct RDEIR/SDEIS for Alternative 5C, the FEIR/FEIS continues to use 2012 as the baseline for air quality analysis. As we pointed out in our 2017 Comment Letter, the 2012 baseline is misleading and should never have been used. The baseline is set with no substantial evidence to support the selection of this baseline, and using 2012 as the baseline results in confusion and obfuscation of the true impacts on air quality that any widening project might have on the region. Maintaining this reference leads to the disingenuous conclusion that a capacity-enhancing

¹ The FEIR/FEIS includes a note to that effect, stating "Note: Since a build alternative has not been identified as the Preferred Alternative, these programmatic elements as described below will not be implemented by Caltrans as the Lead Agency under CEQA and NEPA and as the owner/operator of the I-710 freeway. The separate process would include new environmental compliance documentation and approval" on page 2-23. However, this statement must unequivocally state that no agency will be allowed to seek tiering from the FEIR/FEIS to approve programmatic elements, including goods movement projects, arterial road widening, and other potentially impactful transportation projects, without a full environmental review.

widening project will somehow clean up pollution, even though there is clear evidence to the contrary.

The analysis maintained in the FEIR/FEIS also misleadingly claims the freeway widening Alternative 5C is responsible for air quality benefits. Yet these alleged benefits are the result of significant regulatory standards and other programs set by the U.S. Environmental Protection Agency ("EPA"), California Air Resources Board ("CARB"), and the San Pedro Bay Ports and other agencies in the region endeavoring to clean up truck operations and freight and have nothing to do with the build alternatives themselves. The only reason the original air quality study can point to projections of reduced emissions and pollutants in the 2035 build alternatives compared to the 2012 baseline is that federal, state, and local air quality regulations/programs can reduce emissions faster than emission increases caused by increased Vehicle Miles Travelled (VMT) in 2035. While the FEIR/FEIS acknowledges that reductions in corridor pollution are influenced by regulatory and programmatic efforts from other agencies, it disingenuously maintains that build alternatives are somehow responsible for the overall emission reduction outcomes. For example, the FEIR/FEIS states that "[e]ach of the build alternatives would result in lower NOx, CO, PM2.5, and VOC emissions for all study areas when compared to 2012" yet later attributes the lower emissions to improved vehicle technology.

Moreover, to the extent future projects "assumed" to be part of Alternative 1 induce traffic and emissions, existing sensitive land uses such as residences, parks, and schools directly adjacent to the I-710 would be exposed to higher levels of vehicle exhaust emissions and traffic noise than occur within the overall I-710 Corridor. Yet, like the RDEIR/SDEIS, the FEIR/FEIS fails to describe the relationship between land use conversion and public health impacts in-depth, and therefore maintains a glaring analytical gap.

Other examples of the type of flawed analysis on air quality and health impacts are thoroughly addressed in our attached 2017 Comment letter and incorporated by reference.

II. "Tiering" Future Capacity-Enhancing Projects and Construction from this FEIR is Improper under CEQA and NEPA.

Although the FEIS/FEIR would adopt the "No Build" alternative and officially foreclose the freeway-widening Alternative 5C, we remain concerned that the ambiguity it maintains regarding projects "assumed" to be a part of Alternative 1. Coupled with the flawed air quality and health impact analysis carried over from the build alternatives, we are concerned that this ambiguity may lead to the improper approval of later projects without thorough vetting under CEQA and the National Environmental Policy Act ("NEPA"). The FEIR/FEIS must make clear that any attempt to tier future projects without full environmental analysis is improper.

"Tiering" refers to analyzing general matters contained in a broader EIR prepared for a general plan or policy statement and attributing that analysis to later individual project EIRs and negative

CEHAJ-2-1

CEHAJ2-2

² See FEIR/FEIS, p.3.3-139.

³ Air Quality Study at ES-12 & -13, ES-28.

⁴ See FEIR/FEIS, p.4-54.

declarations on narrower projects.⁵ Tiering is only proper when it helps an agency focus on issues ripe for later-stage decision-making and avoids duplicating the analysis of the previously examined environmental effects.⁶ Case law establishes that tiering is improper when it can disguise the true nature of future projects' environmental impacts.

Ultimately, the function of an EIR is to ensure that government officials deciding to approve or build a project do so with a complete understanding of the environmental consequences that the project may entail and that the public is assured that the consequences have been fully considered. To do so, the EIR must "present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed, and the public must be given an adequate opportunity to comment ... before the decision to go forward is made."

Those goals under CEQA would not be served if tiering is premised on a blemished FEIR/FEIS that relies on flawed analysis regarding air, health, and cumulative impacts. The same analysis that CEHAJ called into question regarding the now-abandoned freeway widening project cannot offer the insight needed to fully vet whether subsequent projects can be adequately mitigated. Future projects will require independent analysis of the impacts they are likely to usher in.

Nor can this FEIR be switched to a Programmatic EIR post-hoc to justify future projects whose scope is not understood and are untethered to the "No Build" alternative. Such an approach would be a violation of both CEQA and NEPA. Tiering a subsequent EIR/EIS to the FEIR/FEIS currently under review by claiming programmatic level analysis would be an about-face from the representations made to impacted communities and contrary to the currently available project description and analysis.

While NEPA's implementing regulations may provide for "tiering" of environmental review documents under certain circumstances, a future claim of "tiering" after this FEIR/FEIS is approved, would violate the statute for several reasons. First, since the analysis was done for the RDEIR/RDEIS, many circumstances have changed, not the least of which is the fact that EPA issued an opinion calling for transportation conformity hot spot analysis, which the lead agency and Metro are unable to accomplish. Caltrans cannot circumvent this requirement by merely breaking off separate projects for later review that may have additional transportation conformity requirements or otherwise bring additional unexamined impacts related to traffic and increased freight throughput. These changes would have required updated and detailed analysis in the FEIR/FEIS if it was intended to support future transportation-related programs to enhance

CEHAJ2-2

⁵ Covina Residents for Responsible Development v. City of Covina (2018) 21 Cal.App.5th 712,730. See also, CEQA Guidelines, §15152, Subd. (a).

⁶ Id at 730.

⁷ Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 440. (citing to CEQA Guidelines Cal. Code Regs., tit. 14 § 15152, subd. (b). "[t]iering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental impacts of the project and does not justify deferring such analysis to a later tier EIR or negative declaration").

⁹ See EPA Technical Response for Project-Level Transportation Conformity Status- Interstate 710 South.

throughput. ¹⁰ Second, the analysis provided in 2017 to support freeway widening Alternative 5C lacks the full scope of review required because it erroneously attributes emissions reductions to a build alternative when they are almost entirely the result of regulations and actions by other agencies and assumes compliance without thoroughly analyzing the actual effects of proposed mitigations. Finally, while the FEIR/FEIS references a list of various projects "assumed" to be part of the No Build alternative, an absence of information shrouds several projects and adds a layer of uncertainty, making it impossible to discern what impacts they will have, especially if the environmental review is narrowed based on improper tiering relying on flawed and outdated data. ¹¹

CEHAJ-2-2

III. Conclusion.

For the reasons stated above, this FEIR cannot serve as either a belated Program EIR or the basis for "tiering" to justify subsequent projects that may have an entirely different set of environmental impacts on communities. To the extent any future projects listed in the FEIR are pursued by Metro, local governments, or Caltrans, a full environmental review will be required, especially for those projects likely to contribute to cumulative impacts due to the construction of new capacity-enhancing infrastructure intended to accommodate traffic and freight. Because the analysis underlying the FEIR's conclusions is outdated and flawed, it should be withdrawn, redrafted, and recirculated for public comment and agency review- making it clear that there will be no tiering of projects from analysis done for a flawed freeway widening build alternative previously being contemplated.

CEHAJ-2-3

We thank you for considering these comments and look forward to your response.

Respectfully,

The Coalition for Environmental Health and Justice (CEHAJ)

Fernando Gaytan Vanessa Rivas Villanueva **Earthjustice**

Laura Cortez

East Yard Communities for Environmental Justice

[Additional Signatories Continued on Next Page]

¹⁰ See *NRDC v. U.S. Forest Ser.*, 421 F.3d 797,813 (9th Cir. 2005) ("Where changed circumstances affect the factors relevant to the development and evaluation of alternatives, the [agency] must account for such change in the alternatives it considers").

¹¹ See *Klamath Siskiyou Wildlands Ctr.*, v. *Bureau of Land Mgmt.*, 387 F. 3d 989, 997-998 (9th Cir. 2004) ("tiering" to an EIS that lacks information about specific impacts of the proposed project is improper).

Kelly Ewing-Toledo September 4, 2024 Page 6 of 6

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Marlin Dawoodjee Vargas Sylvia Betancourt **Long Beach Alliance for Children with Asthma (LBACA)**

Kimberly E. Leefatt
Natural Resources Defense Council

ATTACHMENTS

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Attachment C- Covina Residents for Responsible Development v. City of Covina (2018) 21 Cal.App.5th 712,730.

Attachment D- Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 440.

Attachment E- Adams, Elizabeth J. "EPA Technical Response for Project-Level Transportation Conformity Status- Interstate 710 South." Received by Mr. Tavares and Mr. Washington, 25 Mar. 2021.

Attachment F- NRDC v. U.S. Forest Ser., 421 F.3d 797,812 (9th Cir. 2005).

Attachment G- Klamath Siskiyou Wildlands Ctr., v. Bureau of Land Mgmt., 387 F. 3d 989, 997-998 (9th Cir. 2004).

ATTACHMENT A



Via U.S. Mail and Email

October 23, 2017

Ronald Kosinski Caltrans District 7, Division of Environmental Planning 100 South Main Street, MS 164 Los Angeles, CA 90012 ron kosinski@dot.ca.gov

RE: LEGAL/TECHNICAL COMMENTS ON I-710 EXPANSION PROJECT

Dear Mr. Kosinski:

On behalf of the Coalition for Environmental Health and Justice ("CEHAJ") and its individual members, we write to provide comments on the I-710 Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement and Section 4(f) Evaluation ("RDEIR/SDEIS"). We appreciate the opportunity to provide comments on the RDEIR/SDEIS. Given the inevitable regional and acute local impacts of the proposed project that will manifest for decades, it is especially important that the RDEIR/SDEIS, along with the original DEIR/DEIS, contain the necessary analysis to enable both the decision makers and the public to understand the significant environmental repercussions of the Project and prescribe mitigation measures to address significant impacts.

We remain concerned that Caltrans has set up this document to lead the public and decision makers to conclude that Alternative 5C is the best option. Unfortunately, Alternative 5C is the worst option that could be selected. Selecting Alternative 5C would disregard the significant input from communities that demand more of Caltrans than just paving a new lane in the corridor. Importantly, advancing a zero emission project is of paramount importance, in addition to the other important components included in Community Alternative 7 that would not be addressed in Alternative 5C.

Unfortunately, as described in further detail in this comment letter and accompanying technical reports, both the RDEIR/SDEIS as well as the original DEIR/DEIS fail to include the necessary analysis required under the California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA"). Because Caltrans has failed to correct many of the same

deficiencies that we raised in our previous comments, we incorporate those comments in their entirety here. As a result of the inadequacies that persist in the RDEIR/SDEIS document and additional deficiencies this document contains, there still can be no meaningful public review of the Project. CEQA and NEPA accordingly require the California Department of Transportation ("Caltrans") to prepare and recirculate documents that will permit a complete understanding of the environmental issues at stake.

I. THE PROJECT DESCRIPTION IS INADEQUATE.

The RDEIR/SDEIS fails to address numerous Project features. These omissions skew the analysis of impacts and, thereby, undercut the validity of the entire document under CEQA and NEPA. Without a complete and accurate project description, neither the agencies nor the public can be assured that all of the project's environmental impacts have been revealed and mitigated. "An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." A complete project description is indispensable because "[a] curtailed or distorted project description may stultify the objectives of the reporting process."

CEQA defines "project" as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." CEQA requires "project" to be defined broadly. While extensive detail is not necessary, the law mandates that the project description should include detail sufficient to ascertain the nature and general magnitude of environmental impacts. Thus, a deficient project description renders the analysis of significant environmental impacts inherently unreliable. Excluding a description of elements necessary to the project and associated environmental impacts from those elements results in a "truncated project concept" that violates CEQA and mandates the conclusion that the lead agency did not proceed in a manner required by law.

A. The Project Fails to Adequately Describe Project Components Required by Motion 22.1.

Motion 22.1 directed Caltrans to further investigate critical components of the project that Metro determined were necessary to the Environmental Impact Report for informed decision making on

¹ See CEHAJ I-710 Expansion Comments (Sept. 28, 2012) <u>https://earthjustice.sharefile.com/d-</u>s7e4c3effe704aa78.

² Cty. of Inyo v. City of L.A., 71 Cal. App. 3d 185, 192-93 (1977).

³ *Id.* at 199; see also San Joaquin Raptor/Wildlife Center v. Stanislaus Cty., 27 Cal. App. 4th 713, 730 (1994) ("An accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity.").

⁴14 Cal. Code Regs. § 15378(a) [hereinafter CEQA Guidelines]; *see also id.* at § 15003(h); Pub. Res. Code § 21065.

⁵ Pub. Res. Code § 21065; CEQA Guidelines § 15002(d); *Azusa Land Reclamation Co. v. Main San Gabriel Basin Watermaster*, 52 Ca1. App. 4th 1165, 1188 (1997).

⁶ See CEQA Guidelines § 15124 (requirements of an EIR).

⁷ San Joaquin Raptor/Wildlife Rescue Center, 27 Cal. App. 4th at 730; Communities for a Better Environment v. City of Richmond, 184 Cal. App. 4th 70, 89 (2010).

the project. The RDEIR/SDEIS fails to comply with the requirements of Motion 22.1, thereby excluding analysis of critical components of necessary elements of the project. Thus, the RDEIR/SDEIS fails as an informational document.

For example, Motion 22.1 provided that Metro staff should work with Caltrans to "include an analysis of a Zero Emission Truck procurement and operations program (Alternative 7 only) in any Public Private Partnership analysis to be done for the Project[.]"8 Caltrans appears to have relied on its old 2013 analysis prepared by CalStart for analyzing a ZE option. ⁹ The CalStart study was a truck commercialization study report, and does not analyze or develop a strategy for a Zero Emission Truck procurement and operations program. 10 The RDEIR/SDEIS fails to comply with this clear directive from Metro, to prepare a report on a Zero Emissions truck procurement policy.

In addition, Motion 22.1 required "Geometric design for the I-710 Freight Corridor (under Alternative 7 only) that eliminates significant impacts and displacements of homes, businesses, or community resources, such as but not limited to the Bell Shelter or Senior Centers[.]"11 Reducing impacts of displacement from the project is not one of the project objectives. Thus, it is unclear whether the project prioritized reduction of displacement impacts.

Finally, Motion 22.1 required "staff to work with community based partners (community groups, faith based groups and labor) on the development of a Local and Targeted Hiring Policy and PLA for construction jobs and a First Source Hiring Policy for permanent jobs created by the project. This should be completed, at the latest, by the completion of the recirculated DEIR/DEIS."12 Yet no local hire policy was developed as part of or concurrent with the RDEIR/SDEIS, in blatant violation of Motion 22.1. The local hire policy is critical component of ensuring the economic benefits of this project will go to local communities, which have on average higher unemployment rates, and is a therefore a critical component in assessing whether the associated project goals are met.

B. The Description of the ZE/NZE Program is Inadequate.

The ZE/NZE program description is fatally flawed. Though the ZE/NZE program is a critical component of the proposed project, Caltrans in general terms merely describes amounts that will be invested, but provides no details on how this proposed program will be developed. Without this detail, there cannot be a full analysis of the project's impacts.

¹²*Id.* at 5.

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⁸ The L.A. Cty. Metro. Transp. Auth., Bd. Rep., at 4 (Oct. 14, 2015) https://media.metro.net/projects studies/I710/images/CAC Presentation 2015 1029 Metro Bo ard Report Oct-2015.pdf.

⁹ See RDEIR/SDEIS at 2-22 through 2-23.

¹⁰ See CalStart Study, http://www.calstart.org/Libraries/I-710 Project/I-710 Project Zero-Emission Truck Commercialization Study Final Report.sflb.ashx.

¹¹ The L.A. Cty. Metro. Transp. Auth., Bd. Rep., at 2 (Oct. 14, 2015) https://media.metro.net/projects studies/I710/images/CAC Presentation 2015 1029 Metro Bo ard Report Oct-2015.pdf.

The ZE/NZE Truck Program proposes to spend either \$100 million under Alternative 5C, or \$460 million under Alternative 7 for ZE/NZE trucks. In Design Option 7ZE, \$1.05 billion will be spent on only ZE trucks. However, regardless of how much is spent on truck procurement, and regardless of whether those funds will be used for ZE or NZE trucking, the RDEIR/SDEIS proposes to build 20 electric charging stations (\$2 mil), and ten hydrogen refueling stations (\$15 mil). Thus, even if the ZE Option is chosen, Caltrans proposes to build hydrogen refueling stations, and fails to analyze whether additional electric charging stations will be necessary. There is fundamental disconnect between the proposed investment into truck deployment and the necessary infrastructure development to support that growth.

The RDEIR/SDEIS fails to look at finance options to lower the costs of the ZE Truck Program, such as using zero interest or low interest loans to incentivize truck procurement, rather than direct subsidies. Failure to consider alternative finance options makes the ZE option astronomically expensive in comparison to other project alternatives.

The description of the ZE/NZE truck program fails to include a timeline, making it impossible to anticipate when the environmental benefits of truck deployment will start to accrue and how long the purported benefits of solely a voluntary incentive program under Alternative 5C will be realized. Caltrans relies on an old study from 2013 to evaluate feasibility of ZE trucks, which fails to account for recent technological developments. Caltrans concludes that: "zero-emission capable drayage trucks can be developed, demonstrated, validated, and moved into production by a 2025 target timeline," but there remain core issues to be addressed prior to the successful commercialization of said vehicles." This conclusion is at odds with existing technological advancements. Tesla will be introducing a fully electric long-haul truck with at 200-300 mile in the near future. The RDEIR/SDEIS may be substantially underestimating potential benefits from this program by assuming major project benefits from a ZE/NZE option only start accruing 2025. The public is left to guess when such benefits will accrue, because no timeline is described or included in Section 2.0 of the RDEIR/SDEIS which describes the Project Alternatives.

C. The Project Description for Alternative 7 Fails to Adequately Describe Lane or Shoulder Widening Components.

The description of Alternative 7 fails to disclose whether lane widths will be widened, and whether shoulders will be added to the freeway. If these components are added to Alternative 7, the project may have additional undisclosed displacement and other impacts. Public comments encouraged looking at an Alternative 7 option with dedicated truck lanes, but no freeway

¹⁴ RDEIR/SDEIS at 2-22 through 2-23 (citing CalStartCalstart Study).

¹³ RDEIR/SDEIS at 2-21 through 2-23.

¹⁵ Marc Vartabedian, *Exclusive: Tesla's 'Long-Haul' Electric Truck Aims for a 200 to 300 miles on a Charge*, Reuters (Aug. 24, 2017, 12:33 PM) https://www.reuters.com/article/us-tesla-trucking-exclusive/exclusive-teslas-long-haul-electric-truck-aims-for-200-to-300-miles-on-a-charge-idUSKCN1B42GC.

widening.¹⁶ Yet a need for the proposed project includes improper lane widths.¹⁷ The description of Alternative 7 fails to describe whether expansion of general purpose lanes through lane or shoulder widening will be included.¹⁸

II. THE ALTERNATIVES ANALYSIS IS FLAWED, MISLEADING, AND UNLAWFUL.

A. The Project Alternatives Lack Details Necessary to Facilitate Comments and Informed Decision-Making.

As articulated in the prior section on the project description, the failure to fully inform on the contours of the various alternatives taints the alternatives analysis and the ability of the public to provide comments. As such, Caltrans should provide greater details on the alternatives and allow a new draft period to ensure the public is apprised of all aspects of the project.

B. Rejecting Community Alternative 7 Violates NEPA and CEQA.

The RDEIR/SDEIS rejected an analysis of Community Alternative 7. Caltrans makes two arguments why it does not need to analyze Community Alternative 7 – despite acknowledging it as "a comprehensive and holistic, broad-based solution to transportation issues affecting the I-710 Corridor communities." First, it argues "the California Department of Transportation's (Caltrans) jurisdiction is limited to the State Highway System." Second, it argues "some elements of the CA-7 alternative are much smaller in scale than the overall I-710 Corridor Project, and implementation of these elements (such as construction of bicycle lanes or pedestrian facilities), while still subject to the California Environmental Quality Act, would likely not require the preparation of a full EIR, and could be advanced more quickly individually by the agencies with jurisdiction than if they were included in the scope of the I-710 Corridor Project." Neither of these arguments are persuasive.

The Council on Environmental Quality ("CEQ") has identified the alternatives analysis as the "heart" of the EIS. Accordingly, it is crucial that Caltrans identify a properly robust set of choices for expansion of the I-710.²² An agency must "[r]igorously explore and objectively

¹⁶ See U.S. EPA, Comment Letter: Detailed Comments at 4 (Sep. 28, 2012); RDEIR/SDEIS at 2-2 ("Among other issues, included in those comments was support for the Project Team to consider and analyze different alternatives, including a recurring request for an alternative that would add a four-lane zero emission/near zero emission (ZE/NZE) freight corridor with no expansion of general purpose lanes on I-710.").

¹⁷ RDEIR/SDEIS, Exec. Summary at 3 ("On the I-710 freeway mainline, nonstandard weaving distances, narrow or nonexistent shoulders, narrow lane widths, varying number of through lanes, nonuniform ramp metering, and nonstandard pavement all contribute to current operational problems.").

¹⁸ See RDEIR/SDEIS at 2-59.

¹⁹ RDEIR/SDEIS at 2-5.

²⁰ RDEIR/SDEIS at 2-6.

²¹ RDEIR/SDEIS at 2-6.

²² See 40 C.F.R. § 1502.14.

evaluate all reasonable alternatives."²³ Realizing the importance of the alternatives analysis, the Project Committee directed the project staff to analyze Community Alternative 7. In addition, municipalities along the I-710 corridor have determined that a full analysis of Community Alternative 7 is important to fully informed decision-making on this project.

Still, despite the strong support for an analysis of Community Alternative 7, Caltrans has decided it will not fully analyze Community Alternative 7.²⁴ This violates NEPA and CEQA.

C. Community Alternative 7 Meets the Project Objectives.

The I-710 draft EIR/EIS includes the following project objectives:

- 1. Improve air quality and public health;
- 2. Improve traffic safety;
- 3. Modernize design of the I-710;
- 4. Address projected traffic volumes; and
- 5. Address projected growth in population, employment and economic activity related to goods movement.

Community Alternative 7 meets all of the project objectives. First, it improves air quality and public health through advancing zero-emission freight lanes, and by proposing active transportation infrastructure and public transit as opposed to expansion of "general purpose" lanes. It also includes a mitigation program to address impacts that could result from building this project. Second, it improves traffic safety by implementing several proposals to modernize the I-710, including dedicated truck lanes, transportation demand management, and better infrastructure to ensure pedestrian and bicycling safety. Third, it modernizes the design of the I-710 by providing zero-emissions, dedicated truck lanes, in addition to safety improvements at several intersections throughout the corridor. Fourth, it addresses projected traffic volumes by providing more robust public transportation and active transportation options. This is consistent with state laws aimed at reducing greenhouse gas emissions. Finally, it addresses the growth in population, employment and economic activity related to goods movement by facilitating more transportation options beyond just driving, additional freight through adding four freight lanes, and adding additional community amenities that reduce the impacts from the heavily impactful freight industry.

Caltrans has not made any rational argument that Community Alternative 7 does not meet the project objectives. Given this, it must be studied as a reasonable alternative.

²³ *Id.*; see also CEQA Guidelines § 15126.6(a) ("An EIR shall describe a range of reasonable alternatives to the project...which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.").

²⁴ RDEIR/SDEIS at 2-6.

D. Community Alternative 7 is a Reasonable Alternative within the Meaning of NEPA and CEQA.

Both CEOA and NEPA require environmental review documents to include a reasonable range of alternatives. The CEQA regulations require that an EIR must "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. . . , [and] must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation."²⁵ Indeed, "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."²⁶ As described above, not only does Community Alternative 7 meet the project objectives, but it does so by lessening the significant effects of the project that will result from a widened freeway allowing more traffic rather than offsetting growth with active and public transit, accommodating more freight that will pollute the air and add noise impacts rather than requiring a dedicated zero-emission freight corridor, and displacing people and businesses.

Further, with respect to NEPA, the CEQ has articulated that a reasonable alternative "include[s] those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant."²⁷ Here, CEHAJ provided evidence that Community Alternative 7 was practical and feasible from a technical and economic standpoint. In addition, CEHAJ used common sense to promote the elements. Community Alternative 7 met this test so well that the Project Committee determined that it is a matter of "common sense" to analyze Community Alternative 7 in the RDEIR/SDEIS. Caltrans would need to demonstrate either that Community Alternative 7 is not practical or feasible, or that the Project Committee, the Cities of Commerce, Bell, Long Beach and Huntington Park lacked "common sense" in promoting an analysis of this alternative.

Beyond the inability of Caltrans to demonstrate that the Project Committee and the cities supporting an analysis of Community Alternative 7 lacked "common sense," longstanding precedent in the United States Court of Appeals for the Ninth Circuit supports inclusion of Community Alternative 7. In particular, the Courts have determined:

An EIS will be found to be in compliance with NEPA:

when its form, content, and preparation substantially (1) provide decision-makers with an environmental disclosure sufficiently detailed to aid in the substantive decision whether to proceed with the project in the light of its environmental consequences, and (2) make available to the public, information of the proposed project's

²⁵ CEQA Guidelines § 15126.6(a).

²⁶ *Id.* § 15126.6(b).

²⁷ 46 Fed. Reg. 18026 (March 23, 1981).

environmental impact and encourage public participation in the development of that information.²⁸

An analysis of Community Alternative 7 is of paramount importance to meet both of these requirements. First, Community Alternative 7 helps provide the robust review necessary to help inform all stakeholders. Moreover, an expanded range of alternatives is certainly warranted for a project with an up-to \$10 billion price tag, one of the most expensive road expansion projects in the nation.

Second, the public has spent significant time and resources analyzing and articulating the elements of Community Alternative 7, considering the merits of each provision of Community Alternative 7, and ultimately supporting Community Alternative 7. To not even dignify this work and careful consideration with an analysis of Community Alternative 7 in the RDEIR/SDEIS does not "encourage public participation." Rather, it diminishes the public's confidence that the I-710 EIR/EIS process truly considers the input of the impacted community, including the representative body of elected leaders that stood up to support analysis of Community Alternative 7. Those interested in participating in a truly open and technically sound process that has been promised by the agencies could become dispirited, and instead rely on other tools like protest and litigation to make sure their voices are heard. Given that Community Alternative 7 is a reasonable alternative, failure to analyze it violates state and federal laws.

E. Caltrans' Jurisdictional Argument is a Red Herring.

Caltrans' argument that it lacks jurisdiction over some of the components of Community Alternative 7 is inappropriate and unlawful for several reasons. First, to the extent this argument deals with the public transit enhancements of the project, LA Metro is part of the project team, so the agency that Caltrans claims has jurisdiction is deeply involved with this project. Second, Caltrans' own directives demand that the agency "develop[] integrated multimodal projects in balance with community goals, plans, and values. Addressing safety and mobility needs of bicyclists, pedestrians, and transit users in *all projects*, regardless of funding, is implicit in these objectives." Third, even if promoting multimodal transportation projects is found to be somehow outside of Caltrans' jurisdiction (and the project partners are somehow not actually involved in delineating the project), that is still not a reason to exclude that analysis under NEPA and CEQA. In fact, Caltrans states "NEPA . . . clearly requires that lead agencies consider alternatives that may not be within the jurisdiction of their agency." Thus, hiding behind a

²⁸ Coalition for Canyon Preservation v. Bowers, 632 F.2d 774, 781 (9th Cir. 1980) (citing Trout Unlimited v. Morton, 509 F.2d 1276, 1282-83 (9th Cir. 1974)).

²⁹ Caltrans Deputy Directive DD-64-R1, Complete Streets—Integrating the Transportation System (October 2008), *available at* http://www.dot.ca.gov/hq/tpp/offices/bike/sites_files/DD-64-R1 Signed.pdf (emphasis added).

³⁰ See generally Caltrans, Alternatives Guidance, pg. 8 (Alternatives Outside of the Agency's Jurisdiction), available at,

http://www.dot.ca.gov/ser/downloads/guidance/alternative_analyfaq.pdf. While CALTRANS does not believe the California Environmental Quality Act requires an analysis of alternatives outside of its jurisdiction, CEHAJ disagrees. But, this matter is irrelevant because the National

jurisdictional curtain cannot shield Caltrans from assessing components it feels is not under its jurisdiction.

F. Arguments About the Size of Some Components of Community Alternative 7 Makes No Sense.

Nothing in NEPA and CEQA mentions the small scale of components as a means to reject an alternative. Besides, the proposed alternatives already include components that Caltrans considers "small" such as improvements to pedestrian facilities and bike lanes. CEHAJ understands the mobility and community needs of many along the community. Sometimes this entails large pieces of infrastructure, and sometimes this entails smaller projects. As Caltrans concedes, Community Alternative 7 is more comprehensive and holistic. CEQA and NEPA do not bar agencies from engaging in more comprehensive and holistic strategies to address mobility needs. In fact, these laws are specifically designed to achieve this objective.

Moreover, the fact that some pieces of Community Alternative 7 may not need to undergo environmental review misses the point. Community Alternative 7 provides a comprehensive vision and solution. The components need to proceed as a package to ensure the full benefits of this holistic solution. As such, packaging them in one project makes sense to ensure all the vital components move forward together. If parts that do not require environmental review are accomplished along the way, that does not harm the overall objective of a comprehensive solution.

Because the alternatives analysis suffers serious flaws, the RDEIR/SDEIS violates CEQA and NEPA.

III. THE DISCUSSION OF LAND USE IMPACTS IS FLAWED AND INADEQUATE.

The RDEIR/SDEIS discussion of land use impacts remains inadequate. It fails to identify and adequately discuss inconsistencies with land use plans. And even when inconsistencies are identified, the document does not discuss the impacts of those inconsistencies on the environment, nor does it discuss what can be done to reduce or avoid those impacts or provide meaningful mitigation.

A. The RDEIR/SDEIS Does Not Provide an Adequate Discussion of the Inconsistencies of the Project Alternatives with Land Use Plans.

To comply with CEQA guidelines, the RDEIR/SDEIS must analyze and discuss inconsistencies between the proposed project and applicable land use plans as of the time that the Notice of Preparation ("NOP") was prepared.³¹ Caltrans fails to do so.

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Environmental Policy Act clearly requires this analysis as conceded in CALTRANS own planning document.

³¹ CEQA Guidelines § 15125(d) & (e).

The conclusion in the RDEIR/SDEIS that the build alternatives are "generally consistent" with land use plans is not supported by the evidence. In fact, Caltrans admits that adoption of any build alternative would require local and regional agencies to amend their plans to reflect changes in land use and configuration of the freeway, but fails to discuss this important inconsistency.³²

CEQA does not require a discussion of the consistencies of build alternatives with land use plans, but rather requires a discussion of the inconsistencies.³³ Here, Caltrans asserts that the build alternatives are "generally" consistent and does not adequately discuss the inconsistencies, let alone the impact of those inconsistencies on the environment. This does not comport with the law.

Caltrans incorrectly concludes that because the freeway is contemplated by some local plans, that the build alternatives are necessarily consistent with those plans. "Although the build alternatives would impact 536 to 752 acres of land currently in other uses, because I-710 has been considered in the local General Plans since its construction as a freeway in the 1950s, the build alternatives are generally compatible with adjacent land uses." Perhaps the existing freeway was considered, but that does not mean that this proposed freeway project, which displaces vital community resources and housing while a number of these jurisdictions are facing a housing crisis, would be consistent.

The RDEIR/SDEIS is misleading where it identifies the build alternatives as consistent with a general plan, while burying inconsistencies acknowledged later. For example, with respect to consistency with the South Gate General Plan, the RDEIR/SDEIS states that the build alternatives will "preserve residential neighborhoods in the City of South Gate by avoiding residential displacements in the city." To the contrary, Table 3.1-1 shows that there will be 0.29 and 0.36 acres of residential land converted to transportation land use under alternatives 5C and 7 respectively. Similarly, the City of Paramount is slated to have 0.57 acres of residential land converted to transportation land use under either build alternative and 0.9 to 1.28 acres of industrial land lost, yet the RDEIR/SDEIS states that build alternatives "would not adversely impact residences or businesses." With respect to East Los Angeles, the RDEIR/SDEIS states

³² See, e.g., RDEIR/SDEIS at 3.1-54 ("While adoption of any one of the build alternatives would require SCAG, the County of Los Angeles, and several other regional and local agencies to amend their plans and/or land use maps to reflect modifications to the I-710 mainline, interchanges, arterial highways, and arterial intersections, as well as the elimination of any land uses that may need to be acquired for the project, the proposed build alternatives are generally consistent with these plans. Caltrans will need to amend its existing freeway agreements with cities where the build alternatives would add or remove connections to I-710 or I-405.").

³³ Pfeiffer v. City of Sunnyvale City Council, 200 Cal. App. 4th 1552, 1566 (2011); CEQA Guidelines § 15125(d) and (e).

³⁴ RDEIR/SDEIS at 3.1-11.

³⁵ *Id.* at 3.1-59.

³⁶ *Id.* at 3.1-14.

³⁷ *Id.* at 3.1-14; 3.1-58.

that the build alternatives are consistent with the community plan due to their "retaining of residential areas in East Los Angeles." To the contrary, Table 3.1 shows that 0.09 to 1.77 acres of residential land use will be lost as a result of the build alternatives. And in the City of Bell Gardens, the RDEIR/SDEIS states that build alternatives "would not result in business displacements within the City of Bell Gardens" yet table 3.1-1 indicates 0.27 or 0.28 acres of impacts for commercial and services for 5C and 7; and 2.17 and 1.94 acres of industrial; and 1.47 and 1.02 for residential. 40

The RDEIR/SDEIS fails to identify that the build alternatives are actually inconsistent with several of the plans, incorrectly stating they are consistent:

- California Coastal Act. Goal C states "Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners." The RDEIR/SDEIS states that build alternatives "would require relocation of residences and businesses . . . some of which are located in the Coastal Zone," but that because relocations would comply with the Uniform Act, the build alternatives would not result in adverse impacts. 42
- City of Bell Gardens General Plan: states consistency despite 1.02 to 1.47 acres of residential land will be converted, and preserving residential property is a stated principle of the general plan. "According to the City of Bell Garden General Plan (1995), residential land uses account for the majority of land use in Bell Gardens, and the majority of housing stock is over 50 years old. As a result, the City of Bell Gardens strives to preserve the existing residential neighborhoods while promoting new development in the industrial areas to provide employment opportunities." 43
- As currently written, the RDEIR/SDEIS fails several of the guiding principles of the 2035 County of Los Angeles General Plan. That plan promotes working to "Coordinate an equitable sharing of public and private costs associated with providing appropriate community services and infrastructure to meet growth needs." A public private partnership to fund the ZE corridor would be consistent with this goal. In addition, another policy provides working to "promote programs that support a stable and well-educated workforce." A local hire policy would promote this goal, but is currently lacking in the proposed projects.
- For some plans, the RDEIR/SDEIS fails to acknowledge inconsistencies with local policies. For instance, as CEHAJ explained in comments on the DEIR/S, the Sustainable

³⁸ RDEIR/SDEIS at 3.1-59.

³⁹ *Id.* at 3.1-13.

⁴⁰ *Id.* at 3.1-56; 3.1-13.

⁴¹ *Id.* at 3.1-60, Table 3.1-2.

⁴² *Id*.

⁴³ *Id.* at 3.1-5.

⁴⁴ *Id.* at 3.1-21.

⁴⁵ *Id.* at 3.1-21 through 3.1-22.

Communities Strategy calls for working to "increase the efficiency of the existing transportation system" and expanding the freeway is inconsistent with this goal.

Finally, Table 3.1-1 Fails to provide total acres impacted for Alt. 7, Option 3B in the table.⁴⁶

Moreover, Caltrans does not consider all of the relevant local and regional plans and policies that apply to the Project. For instance, the RDEIR/SDEIS fails to consider greenhouse gas elements of local plans.

B. The RDEIR/SDEIS Fails to Explain the Environmental Impacts of Inconsistencies with Land Use Plans.

Once inconsistencies have been identified and adequately discussed, Caltrans must discuss the impacts of those inconsistencies and what can be done to reduce or avoid those impacts.⁴⁷ Here, as discussed above, Caltrans incorrectly asserts that the build alternatives are "generally" consistent and does not discuss either the inconsistencies or the impact of those inconsistencies on the environment. Even where inconsistencies with land use plans are acknowledged, the RDEIR/SDEIS fails to analyze the environmental impacts of the inconsistencies, or as discussed in the next section to meaningfully mitigate those impacts.

For example, the RDEIR/SDEIS fails to adequately analyze the environmental impact of the following inconsistencies it identifies:

- The SCAG RCP states that build alternatives would not be consistent with "several" guiding principles and goals, but that "the build alternatives would not provide new housing or education as referenced in the RCP."
- With respect to the SCAG RTP/SCS, the RDEIR/SDEIS states, "The build alternatives
 do not provide high-occupancy vehicle (HOV) gap closures or a rideshare program;
 therefore, the build alternatives would not be consistent with these policies in the RTP."
 Also, the project description does not match and the RTP would need to be amended
 prior to approval of the Final EIR/EIS.⁴⁹
- The FTIP section acknowledges that both the RTP and RTIP will need to be amended to match the preferred alternative prior to approval of the final EIR/EIS.⁵⁰
- Because "the build alternatives would result in impacts to open space and recreation land uses. Therefore, the project is not consistent with the objective" of the IRWMP. 3.1-55.
- With respect to the objectives of the OSHARP and OSHARTM, "The loss of recreation and open space land use associated with the build alternatives is not consistent with the objectives".⁵¹

⁵¹ RDEIR/SDEIS at 3.1-55.

⁴⁶ RDEIR/SDEIS at 3.1-14.

⁴⁷ CEQA Guidelines § 15125(d).

⁴⁸ RDEIR/SDEIS at 3.1-54.

⁴⁹ *Id.* at 3.1-55.

⁵⁰ *Id*.

- With respect to the City of Bell General Plan, the document states: "The build alternatives would not expand public facilities in the city; however, Caltrans is working with agencies responsible for public facilities throughout the corridor to mitigate any direct impacts." Despite acknowledging this inconsistency, also states that the build alternatives are consistent with the goals and policies of the General Plan. Bell General Plan Policy 10: "Expand public facilities to meet community needs and demands." 53
- With respect to the City of Long Beach General Plan, "The build alternatives would also result in relocation of businesses and residents in the city, which would be inconsistent with the General Plan." Confusingly, despite acknowledging this overall inconsistency, the RDEIR/SDEIS also states that build alternatives "are consistent with the adopted goals and policies in the City of Long Beach General Plan."

Failure to analyze specific local impacts to land use is not in compliance with CEQA. For example, the City of Commerce is clear that it will oppose a project that "does not first consider the potential impacts of such facilities on the local community in which the facility will be located." Yet, despite the fact that Commerce has some 280 entries in the Appendix L Parcel Acquisition table, Caltrans fails to discuss how the land use changes in the build alternatives are inconsistent with the land use plan and what impacts those inconsistencies will have.

The RDEIR/SDEIS does not discuss the impacts of changing land uses. The RDEIR/SDEIS acknowledges that large amounts of land will need to be converted to a different land use in order for either Project Alternative to be built. Yet Caltrans fails to describe why this significant amount of land to be converted will have a "minimal" impact on land use conversion, and furthermore fails to discuss how land use conversion will impact the environment and the people living in affected communities.⁵⁷

⁵⁶ *Id.* at 3.1-29 ("Transportation Policy 6.1: The City of Commerce will ensure that all future transportation facilities that will provide a regional benefit do not have a significant adverse impact on the community and that any such impacts are mitigated to the fullest extent possible. [...] Transportation Policy 6.2: The City of Commerce will oppose any regional public transportation improvement that does not first consider the potential impacts of such facilities on the local community in which the facility will be located.").

⁵⁷ RDEIR/SDEIS at 3.1-11 (Of the 536 to 752 acres of land that will be required for the project, "Generally, approximately 68 percent of the existing rights of way required for Alternatives 5C and 7 consist of existing transportation, utilities, and vacant land uses. Approximately 3 percent and 20 percent of existing rights of way for the build alternatives consist of existing commercial and services, and industrial uses, respectively. Additionally, approximately 3 percent of existing rights of way for the build alternatives consists of existing residential uses. Therefore, permanent impacts to land use as a result of Alternative 5C and Alternative 7 are considered minimal in terms of land use conversion.").

⁵² *Id.* at 3.1-56.

⁵³ *Id.* at 3.1-25.

⁵⁴ *Id.* at 3.1-58.

⁵⁵ *Id*.

A total of 537 to 750+ acres of land will be converted as a result of the project. The document does not analyze what do these changes in land use mean in terms of impacts. The RDEIR/SDEIS must discuss the impacts to local housing, noise, traffic circulation, or other activities that result from changing land uses. For example, in the City of Long Beach, between 270.29 to 373.35 acres of land will be impacted by the build alternatives, including 5-6 acres of residential land.⁵⁸ The document must discuss the impacts of those land use changes. Moreover, the RDEIR/SDEIS does not discuss whether local agencies would be willing to make those changes.

The land use section of the RDEIR/SDEIS also fails to consider public health impacts resulting from conversion of land use. On page 3.1-15, Caltrans states that "The transportation/land use relationship is a critical one relative to public health," and "existing sensitive land uses (residences, parks, schools, etc.) directly adjacent to the I-710 are exposed to higher levels of vehicle exhaust emissions and traffic noise than occur within the overall I-710 Corridor." Yet, the RDEIR/SDEIS fails to describe this relationship in any more depth or how the changes to land use will impact public health. In addition to the public health considerations related to air quality and noise and sensitive land uses, there are other health impacts, including those associated with displacement that result from reducing residential land uses in the region, that must also be analyzed. The RDEIR/SDEIS states that "Avoidance, minimization, and mitigation measures are proposed to reduce the impacts resulting from the build alternatives on existing land uses." The RDEIR/SDEIS must specify what these mitigation measures are and how they will reduce impacts to public health as a result of changing land uses.

In addition, where the RDEIR/SDEIS adds analyses for additional plans not discussed in the DEIR/S, it nevertheless still fails to discuss the inconsistencies or their environmental impacts, or to mitigate for them.

C. The RDEIR/SDEIS Fails to Mitigate or Avoid Land Use Impacts.

Because Caltrans failed to identify and adequately discuss the inconsistencies and their environmental impacts, it has also failed to adequately mitigate the impacts. As explained below, Caltrans fails to provide any meaningful avoidance or mitigation efforts for impacts of the build alternatives on land use.

LU-1 is not a meaningful mitigation measure and is inadequate for both permanent impacts to land use and for issues related to inconsistency with general plans. LU-1 simply states that Caltrans will "request" that affected Cities and the County amend their General Plans "to reflect the final alignment, interchange locations, and modification of land use designations for properties that would be acquired for the project." In the RDEIR/SDEIS, LU-1 was changed to clarify that the timing and processing of amendments would be at the discretion of each local jurisdiction, and that these amendments could occur "during the next cycle of amendments to

⁶⁰ *Id*.

⁵⁸ *Id.* at 3.1-13, Table 3.1-1.

⁵⁹ *Id.* at 3.1-15.

⁶¹ RDEIR/SDEIS at 3.1-62.

each local jurisdiction's General Plan Circulation and Land Use Elements."⁶² LU-1 also states that Caltrans will "also initiate amendments to existing freeway agreements with cities where the build alternatives would add or remove access to I-710 or Interstate 405."⁶³

The proposed Caltrans request is not a mitigation measure, as it does not do anything to avoid or reduce impacts to changes in land use that occur as a result of the project. The mitigation is merely a paper exercise to achieve "consistency"; meanwhile, nothing is done to mitigate the many acres of residential land that will be converted to transportation uses. Indeed, in response to comments Caltrans acknowledges that this is not a binding mitigation measure. "Measure LU-1 was written as a request of and not a requirement on local jurisdictions such as the City of Maywood because Caltrans has no authority to require a local jurisdiction to amend its General Plan. However, in the longer term, it is to a local jurisdiction's benefit for its General Plan to reflect actual land uses such as transportation facilities."

The RDEIR/SDEIS should analyze all feasible mitigation measures. For example, mitigation should be included to avoid or reduce changes to land use, avoid impacts to residential areas and community resources, and increase the amount of housing and access to community resources.

D. Caltrans' Response to Prior CEHAJ Comments on the DEIR/SDEIR Land Use Section is Inadequate.

CEQA § 21091 and CEQA Guideline §15088 require lead agencies to respond in writing to comments submitted by the public that raise significant environmental questions. An adequate response to comments explains why the lead agency has rejected the recommendations and objections raised in the comments and provides a good faith, reasoned analysis to support the agency's determination. The level of detail in the response should be the same as the level of detail in the comment, and conclusory statements are insufficient. Caltrans and Metro's response to CEHAJ's comment on land use is inadequate because it failed to explain the agency's basis for rejecting the recommendation or objection, provided only a general response to a specific and detailed comment, and provided only conclusory statements.

Caltrans' response to the three pages of legal comments that CEHAJ provided on the DEIR/S is a single sentence: "In response to this comment, Section 3.1.2 of the Recirculated Draft EIR/Supplemental Draft EIS has been expanded to provide more detail for the General Plan Consistency Analyses for the Study Area jurisdictions, including specific analysis of any inconsistencies." Comparing section 3.1.2.3 of the DEIR/S to the RDEIR/SDEIS, it is clear that almost nothing has changed in terms of the inconsistency discussions. For instance, where

 63 *Id*.

⁶² *Id*.

⁶⁴ RDEIR/SDEIS, Appendix S, Response to Comments-Local Agency Comments, L-13-24 at 168 (responding to comment from City of Maywood calling LU-1 an unfunded mandate to local agencies, and revising the measure to show that general plan updates are a state requirement.).

⁶⁵ RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties, IP-22-44 at 783-84.

⁶⁶ DEIR/S at 3.1-47 through 3.1-50.

discussing the environmental impacts to cities affected by the build alternatives, the RDEIR/SDEIS repeats exactly the same language as was in the DEIR/S.⁶⁷

The inadequacy of this response to comment violates CEQA § 21091 and CEQA Guideline § 15088 and undermines the sufficiency of the EIR as an informational document.

IV. THE RDEIR/SDEIS ANALYSIS OF THE PROJECT'S IMPACTS ON PARKS IS INADEQUATE.

The RDEIR/SDEIS identifies 72 parks and recreation facilities within half a mile of the proposed construction.⁶⁸ Yet the RDEIR/SDEIS provides only minimal assessment of the impacts from this Project to these areas. Similarly, the Draft Section 4(f) Evaluation ("4(f) Evaluation") fails to consider potentially severe impacts to enjoyment and use of parks located directly along the proposed construction. As a result of this bald analysis, these documents fail to (1) adequately analyze the impacts to these facilities, (2) identify alternatives which would avoid or limit these impacts to parks, and (3) identify sufficient measures to minimize and mitigate the impacts. This limited analysis fails to meet the requirements of NEPA, CEQA and Section 4(f) of the Department of Transportation Act ("Section 4(f)").

NEPA requires an EIS to carefully assess the impacts of a proposed project and to explore "all reasonable alternatives." CEQA requires that all environmental impacts of a project be analyzed, and that no project be approved "if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." Similarly, under Section 4(f) of the Department of Transportation Act, an agency overseeing a transportation project may not approve any project requiring the use of a significant public park, recreation area, wildlife and waterfowl refuge, or historic site, unless it determines that: (1) there is no prudent and feasible alternative to using the property, and (2) the project includes all possible planning to minimize harm to the property.

A. The RDEIR/SDEIS and Section 4(f) Evaluation Fail to Adequately Analyze the Environmental Impacts that the Project Alternatives will have on Parks.

Here, the RDEIR/SDEIS and Section 4(f) evaluation fail to consider potential severe impacts to enjoyment and use of parks located directly along the proposed construction. The Section 4(f) analysis lacks evaluation of constructive uses of parks, as well as discussion of temporary occupancies, focusing exclusively on parks where the project would require a physical presence on park land. By incorrectly finding that there are no temporary or constructive uses, and only de minimis uses, Caltrans improperly evades the requirement to analyze prudent and feasible

⁶⁷ *Compare* RDEIR/SDEIS at 3.1-56 to 3.1-59; *see* 3.1-58 (adding one sentence about impacts the City of Long Beach, "The build alternatives would not expose persons within the City of Long Beach to excessive noise.").

⁶⁸ RDEIR/SDEIS at 3.1-64 through 3.1-69.

⁶⁹ 40 C.F.R. § 1502.14 (2017).

⁷⁰ Cal. Pub. Res. Code § 21002.

⁷¹ 23 U.S.C. § 138(a) (2015); 49 U.S.C. § 303(c) (2015).

avoidance alternatives to uses of section 4(f) properties. Thus, the document also fails to identify all possible measures to avoid, limit, and/or mitigate impacts.

1. The RDEIR/SDEIS and Section 4(f) Analysis Fail to Consider Potential Severe Impacts to Parks.

The document fails to adequately analyze the full extent of potential severe impacts to parks, including Julia Russ Asmus Park, Coolidge Park, Dills Park, Bandini Park, Maywood Park and others.

For example, despite its proximity to the I-710, there is no discussion in the section 4(f) document about Julia Russ Asmus Park. And the RDEIR/SDEIS conclusorily states: "Improvements to the I-710 mainline and local arterials would not result in direct impacts to the park. As indicated in the Traffic Noise Study Report (Caltrans 2016) prepared for the proposed project, sound barriers were found to be feasible under the I-710 Corridor Project Build Alternatives along the east side of I-710 that could provide noise reduction to this park and surrounding land uses." Such a conclusory statement does not suffice.

Similarly, with respect to Coolidge Park, while acknowledging that "because Coolidge Park is adjacent to the study area, indirect noise, visual, and air quality impacts at Coolidge Park could result from the build alternatives following construction", 73 the RDEIR/SDEIS does not discuss these impacts in section 3.1.3. It simply concludes, "Improvements to the I-710 mainline and Artesia Blvd. would not result in direct to this park; improvements would be made within the existing right of way." But in so doing, it fails to adequately discuss the impacts on noise, visual, access, and air quality could have negative impacts to park use and enjoyment. Notably, the document does not address noise and visual impacts to park's picnic area.

With respect to both Julia Russ Asmus Park and Coolidge Park, Caltrans uses a flawed rationale for minimizing and dismissing conclusorily potential impacts. In both cases, Caltrans concludes that "Because the focus of the park is active uses that are not particularly sensitive to indirect impacts such as noise or changes in views to/from the park," the effects of the project would not substantially impair the park's activities and functions or meaningfully reduce or remove the values of the resource.⁷⁵ Further, with respect to Coolidge Park, Caltrans also relies on the limited hours of the park to determine that increased noise, air quality, and visual impacts would not impact park use.⁷⁶ In both cases, this analysis is cursory and flawed.

⁷⁴ RDEIR/SDEIS at 3.1-83, table 3.1-5.

⁷² RDEIR/SDEIS at 3.1-78, table 3.1-5.

⁷³ Section 4(f) Evaluation at 72.

⁷⁵ RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties at 799.

⁷⁶ Section 4(f) evaluation at 72. (According to the RDEIR: "The park does not include any amenities or features (such as wildlife habitat, a campground, or outdoor amphitheater) that would be considered highly sensitive to noise, visual, or air quality impacts. In addition, the park's hours are Monday through Friday, 12:00 to 6:00 p.m.; and Saturday, 12:00 to 4:00 p.m. Based on the nature of the amenities at the park (baseball field, basketball courts, spray pool), recreational users would most likely use the park for a limited time (e.g., a few hours during

Finally, Caltrans cannot use the fact that there are existing impacts to urban parks to avoid analyzing the additional impacts of the project. For instance, the discussion of Dills Park acknowledges noise impacts, yet states that there will not be impacts because "the park is currently located adjacent to an existing transportation facility with existing traffic noise." Also, under the public health considerations, Caltrans states: "VISUAL IMPACTS. As shown in Table 3.1-4, a low visual impact to Coolidge Park, would result with implementation of the I-710 Corridor Project Build Alternatives. Similar impacts are anticipated for other parks and recreation facilities located adjacent to or in proximity of the I-710 mainline and proposed freight corridor. The visual impact of the build alternatives would be low at Maywood River Park, and the visual impact at Bandini Park would be moderately low. Because these parks are within an existing urban environment, these visual impacts are not expected to reduce the public's use of parks adjacent to I-710." This faulty logic would suggest that parks already experiencing visual impacts can be worsened to an infinite degree without impact on use.

2. The RDEIR/SDEIS and Section 4(f) Analysis Fail to Evaluate Constructive Uses of Parks.

Section 4(f) applies to both physical taking and "constructive use" of parkland.⁷⁹ "Constructive use of park land occurs when a road significantly and adversely affects park land even though the road does not physically use the park."⁸⁰ Yet the document fails to provide an adequate discussion of the constructive uses of section 4(f) properties.

The document provides only a minimal assessment of the impacts to the 72 parks and recreation facilities within a half mile of the proposed construction. The Section 4(f) evaluation determines there will be no constructive uses of parkland, even though there will be increased noise and visual impacts on numerous of the parks; and it ignores serious disruptions to use and enjoyment both temporary and permanent at many of the park. Until Caltrans undertakes sincere inquiry into the constructive uses to these parks, it has not made the "special effort" required by 4(f).

baseball or basketball events, or daytime hours only to use the spray pool or picnic facilities), and would not likely spend several hours from early morning to late evening at the park. Therefore, recreational users would have limited exposure to air quality, noise, and visual impacts, and these impacts would not prevent recreational users from enjoying the active recreation activities at the park.").

⁷⁷ Section 4(f) Evaluation at 76 ("Indirect noise impacts would result from the project at Dills Park; however, the park is currently located adjacent to an existing transportation facility with existing traffic noise, which currently does not interfere with the activities, features, and attributes of the park. Additional indirect noise impacts from the project are not anticipated to result in substantial impairment of the park.).

⁷⁸ RDEIR/SDEIS at 3.1-87.

⁷⁹ 23 C.F.R. § 774.17.

⁸⁰ Sierra Club v. Dep't of Trans., 948 F.2d 568, 573 (9th Cir. 1991); see also Laguna Greenbelt, Inc. v. U.S. Dep't of Transp., 42 F.3d 517, 533 (9th Cir. 1994).

Caltrans' discussion of constructive uses ignores discussing 4(f) protected resources in many instances. Caltrans improperly narrows its consideration of sensitive uses to "campgrounds" and "outdoor amphitheaters." Citing a 2012 FHWA Policy Paper, Caltrans contends in the response to comments that constructive use impacts "The types of impacts that may qualify as constructive use, such as increased noise levels that would substantially interfere with the use of a noise sensitive feature such as a campground or outdoor amphitheater, are addressed in 23 CFR 774.15." In the RDEIR/SDEIS, Caltrans goes on to rely on the fact that there are no campgrounds or outdoor amphitheaters in many of the parks to support its conclusion that there are not constructive use impacts. But the FHWA never meant this guidance to mean constructive impacts can *only* occur where there are outdoor amphitheaters and campgrounds, merely that those are examples. To the contrary, constructive impacts can and likely will occur at the many picnic areas, playgrounds, and outdoor recreation facilities that will be impacted by the project.

For the parks within a half mile of the project, there are foreseeable impacts that the RDEIR/SDEIS must address yet does not. A thorough evaluation of these impacts is necessary to understand whether a constructive use occurs.

For example, the document acknowledges that there will be "short term air quality and traffic effects" yet does not discuss what those impacts will be.⁸³ Therefore, the idea that those undescribed impacts will be mitigated is not a meaningful promise to the public, since the impacts are not disclosed. Additionally, the assertion that noise walls and berms will mitigate those impacts does not follow – noise walls do not mitigate air quality impacts, and in any case, Caltrans has found that for several of the parks suffering from increased noise levels, sound walls are not feasible.⁸⁴

The RDEIR/SDEIS specifically fails to consider constructive uses due to noise. According to section 4(f), 23 CFR 774.15 specifically identifies as constructive use a situation in which "[t]he projected noise level increase attributable to the project substantially interferes with . . . [e]njoyment of an urban park where serenity and quiet are significant attributes." For urban parks like Coolidge park, which offer restful settings in urban areas, noise impacts may substantially interfere with enjoyment of the park.

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⁸¹ RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties Comments at 797; Fed. Highway Admin., Section 4(f) Policy Paper, at 7 (July 20, 2012) https://www.environment.fhwa.dot.gov/4f/4fpolicy.pdf.

⁸² RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties at 797 (Caltrans also relies on fact that there are no campgrounds or outdoor amphitheaters as part of rationale that there are no constructive uses.).

⁸³ *Id*.

⁸⁴ *Id.* ("Other indirect impacts such as short-term air quality and traffic effects near those resources would be substantially mitigated based on measures implemented during project construction and permanent design features of the project such as noise walls and berms."). ⁸⁵ *Id.* at 64.

In addition, while the Response to Comments acknowledges that there will be effects on Table 3 parks including "noise, air quality, and visual effects" due to "both existing uses and activities . . . as well as the effects of the I-710 Corridor Project." Yet the document fails to analyze to what extent the project will have impacts above the baseline conditions, and simply includes a conclusory statement that the impacts will not substantially impair the features qualifying under Section 4(f). Nowhere is this analysis in the document.

For its analysis of constructive impacts under the section 4(f) analysis, Caltrans simply states the following: "The properties meeting the criteria for protection under Section 4(f) were also evaluated to determine whether the build alternatives would result in the constructive use of those properties. The detailed analyses documented in the project technical reports did not identify any proximity impacts resulting from the project that would be so severe that the activities, features, or attributes that potentially qualify those properties for protection under Section 4(f) would be substantially impaired. The proximity impacts of the build alternatives in the vicinity of properties that potentially qualify for protection under Section 4(f) would not meaningfully reduce or remove the values of those resources in terms of their Section 4(f) significance. Therefore, the build alternatives were determined not to result in constructive use of any properties potentially protected under Section 4(f)."87 Yet the section 4(f) evaluation and the RDEIR/SDEIS do not disclose the impacts identified in the technical reports, so we cannot be sure that they will not be substantial or severe.

Finally, the public health considerations in the parks section of RDEIR/SDEIS is also inadequate. Caltrans must consider air quality impacts on the use and enjoyment of park resources. Numerous studies demonstrate the health impacts from exercising in areas of poor air quality, ⁸⁸ and this diminished use must be analyzed, addressed, and mitigated.

3. The RDEIR/SDEIS and Section 4(f) Analysis Fail to Evaluate Temporary Uses of Parks During Construction.

The discussion of impacts and mitigation measures for temporary construction impacts to parks and temporary closures of parks during construction is also inadequate. There are a number of parks that will be subject to temporary construction easements and temporary closures under the proposed project alternatives. The documents do not adequately discuss the impacts of using park space for construction staging and for temporary closures of the parks.

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⁸⁶ *Id.* at 797.

⁸⁷ Section 4(f) Evaluation at 2-3.

⁸⁸ See, e.g., CA Air Res. Bd., *Physical Activity: Health Benefits, the Role of the Built Environmental and the Impact of Air Pollution* at 38-40 (Dec. 16, 2016), https://www.arb.ca.gov/research/vprp/physical_activity_and_health_final_161216.pdf; Jason G. Su et. al., Does exposure to air pollution in urban parks have socioeconomic, racial or ethnic gradients? Envtl. Res. 111:319–328 (2011), http://doi.org/10.1016/j.envres.2011.01.002; M. Jerrett et al., *Traffic-related Air Pollution and Obesity Formation in Children*, Envtl. Health 13:49 (2014); R. McConnell et al., *A Longitudinal Cohort Study of Body Mass Index and Childhood Exposure to Secondhand Tobacco Smoke and Air Pollution: The Southern California Children's Health Study*, Envtl. Health Perspectives 123:360-6 (2015).

Merely stating that vague TMPs will be implemented and that closed or TCE areas will be returned to public use after the temporary impacts are over does not satisfy the law. Caltrans must discuss the actual impacts to use and enjoyment of the park, if even for a temporary time, and include mitigation measures to minimize those impacts.

Some of the temporary construction impacts do not meet the criteria as set out by 23 CFR 774.13(d).⁸⁹ For instance, the TCEs and temporary closures *would* interfere with the activities or purposes of the resource on a physical basis, making those TCEs and temporary closures a temporary occupancy that requires mitigation.

For the many of the projects included in the cursory constructive use analysis, Caltrans improperly concludes that "[v]isual, noise, and air quality impacts would not result in substantial impairment because no severe proximity impacts at the soccer fields/greenbelt are identified in the EIR/EIS." This discussion applies to five parks – Drake/Chavez Soccer Fields and Greenbelt Project, Oregon Park, Baker Street Park, 72nd Street Staging Area, and Dills Park. These parks include facilities such as playgrounds, picnic areas, soccer fields, and tot lot. First, the reference to the analysis in the EIR/EIS is inadequate, since the document is not sufficient to adequately assess the impacts. Second, the section 4(f) evaluation cannot circularly rely on the RDEIR/SDEIS, which in turn relies on the section 4(f) evaluation. By referencing to each other, the documents attempt to get away with doing no analysis. The documents must disclose the impacts to visual, noise, and air quality impacts on parks, among other impacts.

The section 4(f) evaluation also states that: "For the remaining resources in Table 3, a review of the technical analyses in the EIR/EIS did not identify any project-related proximity impacts that would be so severe after mitigation as to result in substantial impairment of the activities, features, and/or attributes that qualify the properties listed in Table 3 for protection under Section 4(f). Because no severe proximity impacts have been identified in the EIR/EIS, it was determined that the build alternatives would not result in the constructive use of the resources listed in Table 3."91

⁸⁹ Section 4(f) Evaluation at 16 ("A temporary occupancy is when land is temporarily used by the project, such as for temporary construction easements (TCEs) or staging areas. A temporary occupancy would not constitute a use if the following five conditions set forth in 23 CFR § 774.13(d) can be satisfied: The duration of occupancy must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land; The scope of the work must be minor, i.e., both the nature and magnitude of the changes to the 4(f) resource must be minimal; There are no anticipated permanent adverse physical impacts, nor will there be interference with the activities or purposes of the resource, on either a temporary or permanent basis; The land being used must be fully restored, i.e., the resource must be returned to a condition which is at least as good as that which existed prior to the project, and There must be documented agreement of the appropriate federal, state, or local officials having jurisdiction over the resource regarding the above conditions.").

⁹¹ *Id*. at 76-77.

4. By Failing to Find Constructive or Temporary Uses of 4(f) Properties, Caltrans Improperly Evades the Section 4(f) Requirement to Evaluate Avoidance Alternatives for Uses of Section 4(f) Resources.

Caltrans must assess prudent and feasible avoidance alternatives for the temporary and constructive uses imposed by the project. By incorrectly finding that there are no temporary or constructive uses, and only de minimis uses, Caltrans improperly evades the requirement to analyze prudent and feasible avoidance alternatives to uses of section 4(f) properties. The document cannot simply list parks surrounding the project under a blanket conclusion of no use or de minimis use; Caltrans must actually consider the impacts to these areas.⁹²

5. The RDEIR/SDEIS Should Include Additional Information about Impacts to Parks.

Caltrans should explain why Parque Dos Rios will be non-functional under Alternative 7. Currently, the documents only state that Alternative 7 will require permanent incorporation of 3.21 acres of Parque Dos Rios, but that "because of the limited accessibility and functionality of the remnant parcel, the entire 8.6-acre park would be required by the project." Why are the other 5.39 acres non-functional? Could they be redesigned to be functional? Furthermore, if they are non-functional, what will happen to those 5.39 acres if the project is built?

B. Caltrans Fails to Identify Alternatives that would Limit Impacts to Parks.

Until all of the environmental impacts to parks are identified and properly analyzed, Caltrans cannot meaningfully consider the range of alternatives that would avoid or reduce those impacts. Section 4(f) requires the consideration of avoidance alternatives, which may include new alignments and design variations that would avoid the use of the Section 4(f) resource.

Section 4(f) permits use of a park only when there is no prudent and feasible alternative to using the park, and the project includes all possible planning to minimize the harm to the park. 94 Under Section 4(f), an alternative is "feasible" merely if it can be built "as a matter of sound engineering judgment."95 An alternative is "prudent" so long as it does not unreasonably compromise the project's stated purpose and need, and does not produce certain "unacceptable," "severe," "extraordinary," "unique," or "unusual" impacts. 96 Thus, under Section 4(f), an agency approving a transportation project which uses parkland must consider all viable alternatives, even those not fully meeting the identified "needs" of the project:

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⁹² See City of S. Pasadena v. Slater, 56 F. Supp. 2d 1106, 1122-23 (C.D. Cal. 1999) (granting preliminary injunction against proposed extension of 710 Freeway, where plaintiffs claimed Section 4(f) evaluation "merely repeat[ed] the same conclusion about each property without having conducted a thorough review.").

⁹³ Section 4(f) Evaluation at 47.

⁹⁴ 23 U.S.C. § 138(a) (2015); 49 U.S.C. § 303(a) (2015).

⁹⁵ Id.; Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 402, 411 (1971).

⁹⁶ 23 C.F.R. § 774.17 (2017).

The mere fact that a "need" for a highway has been "established" does not prove that not to build the highway would be "imprudent" . . . To the contrary, it must be shown that the implications of not building the highway pose an "unusual situation," are "truly unusual factors," or represent cost or community disruption reaching "extraordinary magnitudes."97

Whatever alternative is ultimately selected must include "all possible planning" to minimize the project's harm to used parkland. 98 "All possible planning" means all reasonable measures to minimize or mitigate harm, including design modifications or goals, provision of comparable replacement land, and monetary compensation.⁹⁹

Caltrans has not demonstrated how it has exhausted "all possible planning" to avoid and minimize these project's impacts. For example, it has not exhausted all possible alternative design modifications of a zero-emission freight corridor, that neither increase the number of general purpose lanes nor widen lanes or shoulders, to minimize impacts to Parque Dos Rios or avoid or minimize other parkland impacts.

C. Caltrans Fails to Identify Sufficient Measures to Minimize and Mitigate the **Impacts to Parks.**

Until all constructive uses and impacts have been identified and properly analyzed, measures necessary to minimize and mitigate cannot be determined. Caltrans must consider all alternatives, including both physical and constructive, including temporary uses due to construction, and any other noise, aesthetic, or other impacts which may affect the enjoyment and use of parkland. Mitigation measures should include installation of sound barriers already found to be feasible, consideration of additional safeguards to limit noise and aesthetic interference with parks including measures to limit construction impacts), and the LID practices described in section XIV (water quality impacts) of these comments.

Another mitigation measure is the establishment of additional parks to serve the communities affected by the project, many of which are park poor. 100 Caltrans should require considering park equity as a component of identifying the replacement park. Currently, the mitigation measures

⁹⁹ 23 C.F.R. § 774.17 (2017).

⁹⁷ Stop H-3 Ass'n v. Dole, 740 F.2d 1442, 1455 (9th Cir. 1984), quoting Overton Park, 401 U.S. at 411-13.

⁹⁸ 23 U.S.C. § 138(a) (2015); 49 USC § 303(c) (2015).

¹⁰⁰ See, e.g., L.A. Cty. Dep't. of Parks & Recreation, Los Angeles Countywide Comprehensive Park Needs Assessment (May 9, 2016),

http://file.lacounty.gov/SDSInter/dpr/245982 Attachment1-

ParksNeedsAssessment FinalReport.pdf; J. Wolch et al., Parks and Park Funding in Los Angeles: An Equity-Mapping Analysis, Urban Geography 26(1):4–35 (2005), http://doi.org/10.2747/0272-3638.26.1.4.

include "Key considerations in identifying replacement property/properties are (1) the acreage of the replacement property/properties compared to the acres used at Parque Dos Rios, (2) whether equivalent or better recreational functionality can be provided on the replacement property/properties, and (3) whether and what connections can be provided to other recreational resources from the replacement property/properties, notably the Los Angeles River Trail." Another consideration should be park equity. Caltrans should also consider the access points to the LA River for the community. Further, Caltrans should specify whether it will pay for the replacement property and describe how that will be funded.

The mitigation measures for physical impacts to parks should be strengthened. Caltrans should add more information in its mitigation measure for impacts to Parque Dos Rios and for replacement of the basketball court at Cesar E. Chavez Park. At Parque Dos Rios, the section (4) evaluation identifies that "there may be some interference with the protected activities, features, or attributes on a temporary basis during construction" However, the mitigation measure does not address the temporary impacts during construction. Similarly, Caltrans should specify whether it will pay for the replacement of basketball court at Cesar E. Chavez park.

The RDEIR/SDEIS should limit the planned closures of trail crossings for the LA River and Rio Hondo Trails. Currently the section 4(f) says that the alternatives would require closures lasting from a few days to "several months" in duration. ¹⁰³ A mitigation measure should specify limits on the duration of these closures, such that they do not disrupt access for longer than a specified number of days and for only the minimum period necessary.

Caltrans must mitigate the loss of 3.76 acres of the basin from the Dominguez Gap and DeForest Treatment Wetlands. ¹⁰⁴ Currently, no mitigation measures for the permanent loss of these wetlands are proposed.

Caltrans must also do more to mitigate the removal of 7.9 acres of the West Basin during construction. Alternative 7 would require the temporary removal of 7.9 acres of the West Basin, which would be restored following construction. While the mitigation states that the construction contractor will be required to return the area "to a condition as good as or better than prior to its use for construction" in consultation with the LACDPW, more can be done to specify how this area would be improved. 106

Caltrans should consider additional noise mitigation where sound walls not found acoustically feasible, and discuss impacts of not abating the noise. For example, for Ralph C. Dills Park: "As indicated in the Traffic Noise Study Report (Caltrans 2016) prepared for the proposed project, under Alternative 7, there would be a substantial noise increase resulting in noise impacts. Noise

¹⁰¹ Section 4(f) Evaluation at 48.

¹⁰² *Id.* at 51.

¹⁰³ *Id.* at 7, table 1.

¹⁰⁴ *Id.* at 65.

¹⁰⁵ Section 4(f) Evaluation at 8.

¹⁰⁶ *Id.* at 66.

abatement was considered in the form of a sound wall along the proposed truck lanes; however, it has been determined to be acoustically not feasible."¹⁰⁷ Additionally, the discussion of public health impacts of noise does not discuss those instances where sound walls will not be added in.

D. Caltrans' Response to CEHAJ Comments on the Section 4(f) Analysis is Inadequate.

CEQA § 21091 and CEQA Guideline § 15088 require lead agencies to respond in writing to comments submitted by the public that raise significant environmental questions. An adequate response to comments explains why the lead agency has rejected the recommendations and objections raised in the comments and provides a good faith, reasoned analysis to support the agency's determination. The level of detail in the response should be the same as the level of detail in the comment, and conclusory statements are insufficient. Caltrans and Metro's response to CEHAJ's comment on parks and section 4(f) is inadequate because it failed to explain the agency's basis for rejecting the recommendation or objection, provided a general response to a specific and detailed comment, and provided only conclusory statements. The section 4(f) document provides no more details about constructive uses, just a summarily stated conclusory paragraph. The inadequacy of the response to comment violates CEQA § 21091 and CEQA Guideline § 15088 and undermines the sufficiency of the EIR as an informational document.

E. Section 6(f) Analysis is Inadequate.

Caltrans acknowledges that the Teen and Senior Center in Cesar E. Chavez park, as well as landscaping around the center, were funded by L&WCF Act funds, making impacts to those facilities ways of potentially triggering section 6(f). However, Caltrans states that "The Teen and Senior Center and the area immediately around the Teen and Senior Center would not be affected by the build alternatives. Therefore, the requirements of Section 6(f) are not triggered for Cesar E. Chavez Park." 109

This cursory dismissal of impacts, however, fails to account for potential impacts to the facility due to construction, such as air, noise, visual impacts, and the potential ongoing impacts due to the building of an on-ramp through part of the park. The analysis fails to identify both potential temporary impacts from construction as well as permanent impacts to the facilities. In addition, as Caltrans acknowledges, there will be temporary closures of the park, presumably those closures would affect the Center. More analysis and discussion is needed here to adequately assess the impacts, identify whether section 6(f) requirements are triggered, and identify alternatives to avoid them or mitigation.

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¹⁰⁷ RDEIR/SDEIS at 3.1-85.

¹⁰⁸ RDEIR/SDEIS at 3.1-65, table 3.1-3 (Cesar E. Chavez Park is approximately 25.5 acres in size and features basketball courts, a community center, a playground, a weight room, restrooms, and picnic areas. The community center is known as The Zone Teen and Senior Center and is located in the east side of park area.).

¹⁰⁹ Section 4(f) analysis at 11.

V. THE RDEIR/SDEIS ANALYSIS OF CULTURAL RESOURCE IMPACTS AND MITIGATION IS INADEQUATE.

The RDEIR/SDEIS discussion of cultural resources impacts and mitigation is inadequate. For example, the document does not adequately describe the status and results of tribal consultation. It simply states "Consultation is ongoing with three individuals/tribes who have expressed interest Caltrans will continue to consult with tribes as construction details are developed." In the RDEIR/SDEIS and accompanying technical reports on the topic, Caltrans does little to assure the public that adequate efforts have been made to reach all interested tribes, or to describe the process, substance, or results of consultation efforts. As a result, it is impossible to determine the actual impacts identified or whether the mitigations proposed in the document for cultural resources, such as CON-CUL-2, are adequate either to arrive at a mutual agreement with consulted tribes or to actually address any impacts identified.

In addition, CON-CUL-3 punts further description of specific mitigations for cultural resources impacts to other future documents. When a project will significantly impact cultural resources or archaeological sites, the preferred manner of mitigation is preservation in place. Preservation in place involves planning construction to avoid archaeological sites and other measures that protect cultural resources. In discussing cultural resources, Caltrans failed to address preservation in place and include it as an alternative. Additionally, mitigation measures for cultural resources cannot be deferred, and leaving mitigation measures for cultural resources undefined constitutes deferred mitigation. These details are needed to fully assess whether the proposed mitigations will actually address the impacts.

Without this information and these details, the discussion of cultural resources impacts and mitigation is inadequate and fails to comply with CEQA and NEPA.

VI. THE RDEIR/SDEIS' GROWTH INDUCEMENT ANALYSIS IS INADEQUATE.

Under the CEQA, the RDEIR/SDEIS is required to "discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Because this project is subject to NEPA review, the environmental impact report or assessment must present "a *detailed* statement setting forth . . . [t]he growth-inducing impact of the proposed project." The conclusions,

111 RDEIR/SDEIS at 3.24-50 ("CON-CUL-3[] Caltrans will develop a project-level Programmatic Agreement (PA) following submittal of a Supplemental Finding of Effect document...").

¹¹³ Pub. Res. Code § 15126.4(a)(1)(B); *Ballona Wetlands Land Tr. v. City of L.A.*, 201 Cal. App. 4th 455 (2011).

¹¹⁰ RDEIR/SDEIS at 3.7-17.

¹¹² Pub. Res. Code § 15126.4(b)

¹¹⁴ CEQA Guidelines, § 15126.2(d); see also CEQ Regulations, § 1508.8(b) (effects to be considered include "growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate").

¹¹⁵ Pub. Res. Code, §§ 21100(b)(3) (emphasis added), 21100.1(c).

findings, and determinations made regarding the growth-inducing impacts of the project must also be supported by substantial evidence. Substantial evidence excludes [a]rgument, speculation, unsubstantiated opinion or narrative, [and] evidence which is clearly erroneous or inaccurate "117

In preparing the RDEIR/SDEIS, Caltrans has failed to satisfy these legal requirements to explain in detail the proposed project's growth-inducing effects and to support conclusions with adequate substantial evidence. Instead, the RDEIR/SDEIS provides general, conclusory statements and opinion without proper evidentiary support. And based on these assertions, the RDEIR/SDEIS unreasonably determines there would be "no adverse growth-related effects" from any of the I-710 Corridor Project build alternatives, and as a result, no mitigation measures are required. The law requires more information and detailed analysis from public agencies. Caltrans must revise the document in order to provide the public and decisionmakers with sufficient detail to make an informed decision about this project's growth-inducement impacts and to consider potential mitigation measures. Moreover, Caltrans must also provide adequate substantial evidence to support its analysis and conclusions, as required by law.

A. The RDEIR/SDEIS Fails to Provide Sufficient Detail and Substantial Evidence to Support Conclusions Regarding the Availability of Vacant Land to Facilitate Population and Housing Growth.

The RDEIR/SDEIS asserts that growth in population and housing within the Study Area are unlikely to be significant because "[m]ost of the cities are close to being built out and have very limited vacant land for new development." The RDEIR/SDEIS maintains this assertion throughout its growth-inducement analysis. Based on this assertion, Caltrans argues that the lack of vacant land on which to build additional housing within the Study Area acts as a "physical constraint[] to growth in population and housing" and in effect would control or limit any potential growth caused by the project. However, Caltrans's analysis lacks the necessary information for the public and decisionmakers to assess and confirm these assertions.

Caltrans does not cite to any substantial evidence in the record to support this growth-inducement determination. For instance, the RDEIR/SDEIS does not provide or cite to studies and other expert reports detailing the shortage of vacant land for new housing development or

¹¹⁶ See, e.g., *Bakersfield Citizens for Local Control v. City of Bakersfield*, 124 Cal.App.4th 1184, 1198 (2004).

¹¹⁷ CEQA Guidelines § 15384 (substantial evidence includes "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.").

¹¹⁸ RDEIR/SDEIS at 3.2-21

¹¹⁹ *Id.* at 3.2-4.

¹²⁰ See, e.g., *Id.* at 3.2-13 ("Due to the lack of vacant or less developed land within the I-710 Corridor, the build alternatives would not facilitate new development by opening up access to previously undeveloped or less developed areas."); see also RDEIR/SDEIS at 3.2-15 ("[T]he Study Area is already highly developed, and there is limited land available for new development or redevelopment.").

¹²¹ RDEIR/SDEIS at 3.2-4.

redevelopment. And the RDEIR/SDEIS does not provide evidence to corroborate the statement that planning efforts in cities within the Study Area are focused on the reuse of existing uses. Instead, the environmental document relies on mere opinion and broad assertions concerning the availability of vacant land in the area. However, speculation and unsubstantiated opinions are not substantial evidence to support findings. As noted, the failure to cite to the evidence relied upon deprives the public and decisionmakers of the ability to test that evidence to determine its adequacy. Moreover, Caltrans' failure to provide the underlying evidence supporting its findings undermines CEQA's statutory goals to allow for informed public participation and decisionmaking. 123

Additionally, in reaching this conclusion, the environmental document fails to provide an adequate level of detail, as required by law, to "enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." For example, the RDEIR/SDEIS does not provide the percentage and location of vacant land in cities in and around the Study Area. Instead, it leaves the public and decisionmakers to speculate about the actual amount and how Caltrans reached this conclusion. The RDEIR/SDEIS is required to address these deficiencies.

B. The Surrounding Environment Includes Areas Beyond the Pre-Defined Study Area.

As a preliminary matter, in assessing the project's potential growth-inducing effects, Caltrans is required to detail the project's potential to "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the *surrounding environment*." ¹²⁵ In other words, Caltrans must make decisionmakers aware of the project's broader direct and indirect growth-inducing effects "on areas outside of the boundaries of the project area." ¹²⁶ Although the scope of what constitutes the "surrounding environment" to be considered is not expressly defined, CEQA must be "interpreted in such a manner as to afford the *fullest possible protection* to the environment within the reasonable scope of the statutory language." ¹²⁷ Thus, Caltrans is required to consider a reasonable scope that includes a significant portion of the surrounding environment beyond the project area that would likely shoulder some of the project's growth effects.

¹²³ Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs, 91 Cal.App.4th 1344, 1355 (2001).

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¹²² Pub. Res. Code § 21082.2(c).

¹²⁴ Laurel Heights Improvement Assn. v. Regents of University of California, 47 Cal.3d 376, 405 (1988); see also Pub. Res. Code, § 21100(b)(5); Napa Citizens for Honest Government v. Napa County Bd. of Supervisors, 91 Cal.App.4th 342, 369 (2001) ("The detail required in any particular case necessarily depends on a multitude of factors, including, but not limited to, . . . the ability to forecast the actual effects the project will have on the physical environment.").

125 CEQA Guidelines § 15126.2(d), emphasis added.

¹²⁶ Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors, 91 Cal.App.4th 342, 369 (2001).

¹²⁷ CEQA Guidelines § 15003(f), emphasis added.

Contrary to CEQA's requirements, in assessing the project's growth inducing effects, the RDEIR/SDEIS constrained its review to a predetermined Study Area that excluded large portions of Los Angeles County. For example, in assessing conditions and other factors that would reduce the project's potential to foster growth, the RDEIR/SDEIS confined its analysis and conclusions to these artificial boundaries, stating that "[w]ithin the *Study Area*, there are several physical constraints to growth in population and housing," "[i]n the northern part of the *Study Area*, the railroad yards and tracks also act as a constraint to growth," and "utility corridors within the *Study Area* are also a physical boundary to growth." By confining the growth-impacts assessment within this artificial Study Area, Caltrans was able to ignore a significant portion of the surrounding environment near the project that would likely experience impacts from induced growth. This narrow Study Area allowed Caltrans to minimize the project's growth-inducing effects and to ultimately conclude that the project would have no significant growth impacts. As a result, the RDEIR/SDEIS found that no mitigation was necessary.

Caltrans's constrained consideration of the "surrounding environment" is precisely what courts have rejected in other circumstances. For instance, courts have ruled against efforts to give a "project's purpose an artificially narrow definition" because doing so would allow a government agency to avoid review of certain alternatives to the proposed project. Similarly, Caltrans cannot artificially constrain what constitutes the "surrounding environment" in order to help the agency avoid a robust growth-inducement analysis and to conclude that no significant growth is likely to occur and no mitigation is required. Rather, the RDEIR/SDEIS must consider the full scope of the direct and indirect impacts the surrounding area is likely to experience as a result of this project beyond the Study Area. The RDEIR/SDEIS must establish a specific, broader study area to analyze these growth effects, similar to the supplemental study areas developed for the project's health risk assessment and water quality impacts. Moreover, the need to constrain review to the Study Area must be explained, if Caltrans believes growth-inducement impacts are likely to *only* occur within the general area.

1. A Substantial Amount of Vacant Land Exists in Parts Beyond the Study Area.

As detailed, throughout the growth analysis, Caltrans asserts that "several physical constraints to growth in population and housing" exist within the Study Area. One of these main constraints is the "very limited vacant land for new development" that would control the construction of additional housing and therefore restrict population growth. He RDEIR/SDEIS maintains this assertion throughout its growth analysis, asserting that because "the Study Area is already highly developed, there is limited land available for new development

¹²⁸ RDEIR/SDEIS at 1.

¹²⁹ *Id.* at 3.2-4, emphasis added.

¹³⁰ *Id.* at 3.2-21.

¹³¹ North Coast Rivers Alliance v. Kawamura, 243 Cal.App.4th 647, 668 (2015).

RDEIR/SDEIS at 1 ("Specific study areas have been established for individual analyses (e.g. health risk assessment area of interest or water quality areas.").

¹³³ *Id.* at 3.2-4.

¹³⁴ *Id.* at 3.2-4.

and redevelopment."¹³⁵ However, the RDEIR/SDEIS ignores other areas near the project, beyond the narrow Study Area, that would provide the necessary vacant land and other development opportunities to facilitate the reasonably foreseeable population and housing increases from the project. ¹³⁶

Although the RDEIR/SDEIS focuses on the availability of vacant land *within* the Study Area, a closer inspection of the larger surrounding environment near the project shows a substantial amount of vacant land that would facilitate increased housing development and population growth. The availability of this vacant land undermines Caltrans' assertions that housing and population growth are naturally constrained. Notably, in Los Angeles County, almost 9,000 vacant parcels of land exist with multifamily residence zoning already in place to build additional housing (see Figure 1). These zoned sites have the capacity to provide between 32,000 to 72,000 housing units.

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¹³⁵ *Id.* at 3.2-15.

¹³⁶ *Id.* at 3.2-14 ("mobility expected to be achieved as a result of the build alternatives could have a slight influence on the demand for residential and nonresidential uses").

¹³⁷ McKinsey Global Institute, A Tool Kit to Close California's Housing Gap: 3.5 Million Homes by 2025 (Oct. 2016), http://www.mckinsey.com/global-themes/urbanization/closing-californias-housing-gap.

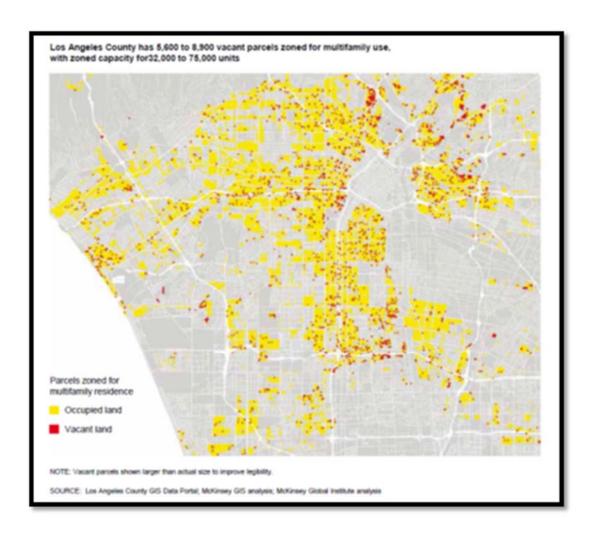


Figure 1. Vacant Parcels in Los Angeles County Zoned for Multifamily Use.

In fact, this estimate does not even account for vacant land that can be rezoned for residential use at sites both within the Study Area and in the larger surrounding areas near the project. Additionally, about 28 percent of *occupied* parcels zoned for multifamily currently utilize less than 50 percent of their capacity, and these sites have the potential to add an additional 306,000 housing units. ¹³⁸

As illustrated, available land for housing exists in the surrounding areas near the project, contradicting the RDEIR/SDEIS' assertions that the project "would not facilitate new development by opening up access to previously undeveloped or less developed areas "¹³⁹ Additionally, a significant amount of vacant land exists in areas north of the project, beyond the narrow Study Area, questioning the RDEIR/SDEIS' claim that "[i]n the northern part of the Study Area, the railroad yards and tracks also act as a constraint to growth "¹⁴⁰ Thus, it is

¹³⁸ *Id*.

¹³⁹ RDEIR/SDEIS at 3.2-13

¹⁴⁰ *Id.* at 3.2-4

reasonable to expect more housing development will occur on vacant land and on already occupied land to accommodate additional population increases, driven in part by the project.

C. The RDEIR/SDEIS Fails to Provide Relevant Data and Information Concerning the Project's "Slight Influence" on Demand for Residential and Nonresidential Development.

This project entails the modernization of a critical piece of infrastructure in the region. Because the project will update a major freeway and improve the current level of service, one can reasonably expect this improved mobility to foster development in nearby areas. As admitted by Caltrans, "[t]he improved mobility expected to be achieved as a result of the build alternatives could have a *slight influence* on demand for residential and nonresidential uses in the cities and communities in the Gateway Cities subregion"¹⁴¹ The RDEIR/SDEIS fails to actually detail the estimated amount of this "slight influence" and to explain the potential growth effects outside of the narrow Study Area.

Moreover, the RDEIR/SDEIS asserts the Project build alternatives "are not *expected* to influence the amount, timing, or location of growth in the Study Area." Presumably, if an increased demand for residential and nonresidential development is likely to occur, one can reasonably expect such demand to also influence supply and the amount of development that occurs in the region. Once again, Caltrans fails to provide additional information and evidence in the record supporting its *expectation* that the project is unlikely to foster increased growth.

CEQA requires more than wishful thinking by a public agency. The public and decisionmakers are left to blindly accept as accurate the RDEIR/SDEIS' conclusions regarding growth-inducement. But speculation and unsubstantiated opinion are inadequate to support findings in an environmental review document. Additional relevant information is necessary to allow for informed public participation and informed decision-making. The document must be revised to provide additional detail and evidence to support these conclusions.

D. The RDEIR/SDEIS Fails to Properly Consider the Reasonably Foreseeable Significant Growth Effects from the Project's Construction, Given Its Nature and Scope

The RDEIR/SDEIS focuses largely on the potential growth effects from the project's operations at full build-out. For example, although admitting that interstate and State highways play a central role in goods movement, the RDEIR/SDEIR dismisses any increased port growth related to the project. Similarly, the RDEIR/SDEIS concludes that increased vehicle mobility as a result of the project is unlikely to result in greater levels of residential and nonresidential

¹⁴³ CEOA Guidelines § 15384.

¹⁴¹ *Id.* at 3.2-14 (emphasis added).

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¹⁴⁴ Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs, 91 Cal.App.4th 1344, 1355 (2001).

¹⁴⁵ RDEIR/SDEIS at 3.2-5, 3.2-17.

development.¹⁴⁶ However, the environmental document provides only a cursory one-paragraph discussion of growth effects from the project's construction, claiming that growth is unlikely because construction related jobs would be filled by "the existing labor pool within the Study Area since the unemployment rate in the Study Area currently ranges from 2.8 percent to 8.1 percent." This hasty analysis is inadequate.

Caltrans minimizes a critical aspect of the project that is also likely to induce growth in the region: the construction of this major piece of infrastructure. The construction of this project entails substantial capital investment totaling billions of dollars for right-of-way acquisitions, utility relocation, materials, and labor.¹⁴⁸ A large portion of this amount will be invested in the region, and the construction of this project will require a significant labor force over an extended period of time. Indeed, infrastructure projects, such as the one proposed by Caltrans, involve not only construction workers, but also tradesmen, transportation and material hauling, in addition to other downstream job opportunities in the area.¹⁴⁹ In fact, an investment of just \$1.3 billion dollars in infrastructure can create about *29,000* construction jobs alone, in addition to other employment opportunities in related supporting industries.¹⁵⁰

Yet without adequate support, the RDEIR/SDEIS speculates that local residents will likely fill these jobs due to the unemployment rate in the Study Area. This assertion is pure speculation and lacks additional information. Notably, Caltrans fails to detail whether workers in the local communities have the necessary training to take-on the construction and other related jobs generated by this project. Moreover, one can reasonably expect that many workers will move into the area seeking employment opportunities created by the project. Beyond generating an increased demand for housing, the foreseeable increase in population as a result of the economic opportunities generated by this project will tax existing community service facilities and "may encourage and facilitate other activities that could significantly affect the environment"152 Thus, the RDEIR/SDEIS fails to properly assess the direct and indirect growth effects from the construction of this project.

Indeed, the failure to adequately consider this aspect of the project also undermined the consideration of feasible mitigation measures. For example, Caltrans could have required job training programs to ensure that area workers are able to take advantage of the employment opportunities created by this project. Additionally, Caltrans could have recommended a mandatory local hiring program to reduce the potential influx of external workers into the area and instead hire local residents to help with the construction of the project. Caltrans must revise the

¹⁴⁶ *Id.* at 3.2-14.

¹⁴⁷ *Id.* at 3.24-5.

¹⁴⁸ *Id.* at 2-1.

¹⁴⁹ Anthony P. Carnevale, *Trillion Dollar Infrastructure Proposals Could Create Millions of Jobs*, Georgetown University (2017), https://cew.georgetown.edu/wp-content/uploads/trillion-dollar-infrastructure.pdf.

¹⁵⁰ Standard and Poors, *U.S. Infrastructure Investment: A Change to Reap More Than We Sow* (May 2014), http://images.politico.com/global/2014/05/05/sp-usinfrastructure201405.html.

¹⁵¹ RDEIR/SDEIS at 3.24-5

¹⁵² CEQA Guidelines, § 15126.2.

RDEIR/SDEIS to adequately analyze these foreseeable growth impacts from the construction of the project and to prescribe the appropriate mitigation measures.

VII. AN EIR MUST FULLY INFORM DECISIONS MAKERS AND THE PUBLIC OF THE ENVIRONMENTAL IMPACTS OF DISPLACEMENT AND RELOCATION.

MOREOVER, AN EIR MUST CONSIDER FEASIBLE MITIGATION MEASURES TO AVOID SUCH IMPACTS.

While we commend Caltrans in its effort to analyze the Project's displacement and relocation impacts in the RDEIR/SDEIS, we also recognize that the resulting development must occur in a manner consistent with the California Environmental Quality Act and its implementing regulations. The "overriding purpose of CEQA is to ensure that agencies regulating activities that may affect the quality of the environment give primary consideration to preventing environmental damage." Compliance with CEQA helps to ensure that "the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian" remains the "guiding criterion in public decisions." 154

At the heart of CEQA is the environmental impact report (EIR).¹⁵⁵ It is the "primary means of achieving the Legislature's considered declaration that it is the policy of this state to 'take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state."¹⁵⁶ With an EIR, the lead agency is entrusted with the responsibility of "provid[ing] public agencies and the public in general with detailed information about the effects which a proposed project is likely to have on the environment; [listing] ways in which significant effects of such a project might be minimized; and [indicating] alternatives to such a project."¹⁵⁷ These requirements are real and not mere technicalities:

"As our Supreme Court has recently emphasized, 'The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been taken into account. For the EIR to serve these goals it must present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed, and the public must be given an adequate

¹⁵³ Save Our Peninsula Committee v. Monterey County Board of Supervisors (2001) 87 Cal. App. 4th 99, 117 (Save Our Peninsula Committee).

¹⁵⁴ See Pub. Res. Code § 21001, subd. (d).

¹⁵⁵ See Laurel Heights Improvement Association v. Regents of University of California (1988) 47 Cal.3d 376, 392 (Laurel Heights).

¹⁵⁶ *Id.* (*citing* Pub. Res. Code § 21001, subd. (a)).

¹⁵⁷ Pub. Res. Code § 21061; see CEQA Guidelines, § 15002, subd. (a).

opportunity to comment on that presentation before the decision to go forward is made."158

Importantly, once the impacts are identified:

"Public Resources Code section 21081 requires a public agency to make certain specific findings attesting to its consideration of the need for the mitigation measures identified in the EIR. The findings must be supported by substantial evidence in the record. If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has 'eliminated or substantially lessens significant effects on the environment where feasible' and that any unavoidable significant effects on the environment are 'acceptable due to overriding concerns ...'" 159

When an EIR fails to fully inform both decisions makers and the public of the environmental consequences of, mitigation for, and alternatives to a proposed project, and provide the public with an adequate opportunity to comment on that information, the EIR fails to comply with the letter and spirit of CEQA.

The informational benefit of an EIR is its primary function. Judicial review of an EIR is based on an abuse of discretion standard, which "is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence." Specifically, a "prejudicial abuse of discretion occurs 'if the failure to include relevant information precludes informed decision making and informed public participation, thereby thwarting the statutory goals of the EIR process." To reach this conclusion, courts undergo a pragmatic analysis involving "an evaluation of whether the discussion of environmental impacts reasonably sets forth sufficient information to foster informed public participation and to enable decision makers to consider the environmental factors necessary to make a reasoned decision." If the EIR does not serve as an informational document, it fails to comply with the letter and spirit of CEQA.

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¹⁵⁸ Communities for a Better Environment v. City of Richmond (2010) 184 Cal. App. 4th 70, 79 & 80 (Communities for a Better Environment) (citing Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal. 4th 412, 449 & 450).

¹⁵⁹ Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners of the City of Oakland (2001) 91 Cal. App. 4th 1344, 1354 & 55 (Berkeley Keep Jets Over the Bay Committee) (citing Pub. Res. Code § 21081 & CEQA Guidelines, §§ 15091, 15092, subd. (b)(2)(A) & (B)). ¹⁶⁰ Pub. Res. Code § 21168.5.

¹⁶¹ Berkeley Keep Jets Over the Bay Committee, supra, 91 Cal. App. 4th at p. 1355.

¹⁶² Id., at p. 1356; see also San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal. App. 4th 645, 654 (San Joaquin Raptor) (citing Association of Irritated Residents v. County of Madera (2003) 107 Cal. App. 4th 1383, 1390) ["When assessing the legal sufficiency of an EIR, the reviewing court focuses on adequacy, completeness and a good faith effort at full disclosure."].

As discussed below, the RDEIR/SDEIS fails to include sufficient information to provide meaningful review of the displacement and relocation impacts of the Project. Moreover, the RDEIR's analysis of related mitigation measures is legally insufficient. These legal deficiencies in the RDEIR/SDEIS are "so fundamentally and basically inadequate and conclusory in nature that" they fail to comply with CEQA and its implementing regulations. The Draft EIR must therefore be revised and recirculated to comply with CEQA.

A. The RDEIR/SDEIS Fails to Accurately Describe Displacement Impacts, Relocation Impacts and Mitigation Measures for the Multi-Service Center in Long Beach, which would be displaced by Alternative 7.

Since 1997, the Multi-Service Center (MSC) has been located at 1301-1327 W. 12th Street in Long Beach. The MSC is critical to assisting the needs of homeless persons in Long Beach. Led by the Long Beach Health Department, the Multi-Service Center facility houses 12 public and private partner organizations working together to promote self-sufficiency and rebuild the lives of those experiencing homelessness. Annually, the MSC averages 26,000 client visits, making this facility the primary point of entry for persons seeking homeless services assistance in Long Beach. Services range from basic amenities of shower, laundry, mail and message center, to street outreach, van shuttle, transportation, medical care, mental health services, substance abuse treatment, HIV/AIDS services, integrated case management and housing coordination. The mission of the MSC is to provide comprehensive supportive services to promote progress towards permanent housing and self-sufficiency, by creating a community where health, safety and well-being are established.¹⁶⁵ The MSC recently completed a \$2 million renovation in 2014, which expanded the medical clinic, classrooms and community rooms.¹⁶⁶

Alternative 7 would displace the MSC. 167 Despite the proposed displacement of this vital community resource, the RDEIR/SDEIS fails to include adequate analysis of relocation impacts or feasible mitigation measures. The RDEIR/SDEIS lacks analysis regarding the critical nature of the MSC to homeless persons in the region and the land use challenges of relocating such a sensitive facility. Moreover, there is no analysis regarding the impacts to the 26,000 clients who visit the MSC each year. The RDEIR/SDEIS merely states, "relocation of this facility would require a comprehensive relocation plan and include changes to zoning and other issues that would make the move difficult. Early planning for a replacement site would be required, as well as obtaining public input for city planning commission approval for a replacement location." Despite this statement, the RDEIR/SDEIS fails to identify potential sites for relocation in the City of Long Beach and it fails to mention the great likelihood of land use appeals from the Planning Commission to the City Council, which would create additional barriers to

¹⁶³ See CEQA Guidelines, § 15088.5, subd. (a)(4).

¹⁶⁴ See Mountain Lion Coalition v. Fish and Game Commission (1980) 214 Cal. App. 3d 1043, 1052 (Mountain Lion Coalition).

¹⁶⁵ See Homeless Services: About Us, Long Beach Health and Human Serv. http://www.longbeach.gov/health/services/directory/homeless-services/about-us/.

¹⁶⁶ Draft Relocation Impact Report, March 2017, at p. 87.

¹⁶⁷ RDEIR/SDEIS at 3.3-40.

¹⁶⁸ RDEIR/SDEIS at 3.3-40.

relocation.¹⁶⁹ The RDEIR/SDEIS also fails to include any analysis regarding the local and regional impacts of displacing the MSC if Long Beach fails to approve a new site. And, the RDEIR/SDEIS does not consider mitigation measures to allow the MSC to remain in its current location.

The Community Impact Statement acknowledges that the MSC is in a census tract that exceeds the Los Angeles County average percentage for both minority and low-income persons and that the facility serves minority and low-income residents, as well as other vulnerable and disadvantaged populations.¹⁷⁰ The Community Impact Statement then goes on to make a conclusory and unsupported statement that "[a]lthough these relocation impacts would be predominantly borne by environmental justice populations... these impacts would not represent a disproportionate adverse impact to environmental justice communities.¹⁷¹ This conclusory statement is contradictory to the analysis that precedes it. If displacement of the MSC will primarily impact low income communities of color, then there *will be* adverse impacts to environmental justice populations and this must be analyzed and mitigated in the RDEIR.

This lack of analysis and deferred analysis denies the public an opportunity to review and comment on the displacement and relocation impacts to the MSC, as well as mitigation measures, before environmental review is finalized. The RDEIR/SDEIS is inadequate because it fails to identify and analyze significant environmental effects of the proposed project on the MSC and it fails to consider feasible measures which could minimize significant adverse impacts. The RDEIR/SDEIS must therefore be revised and recirculated.

B. The RDEIR/SDEIS Fails to Accurately Describe Displacement Impacts, Relocation Impacts and Mitigation Measures for the Bell Shelter, which would be displaced by Alternative 7.

The Bell Shelter is one of the largest homeless shelters in the country and provides shelter and meals for up to 350 individuals, emergency shelter, mental health and substance abuse treatment, prevention education, English as a second language classes, computer training, job referrals, and treatment programs." Alternative 7 would require the acquisition of property and displacement of the transitional housing structures at Bell Shelter.¹⁷⁴

172 See CEQA Guidelines, § 15126.2, subd. (a); id., § 21061, subd. (a)(1).

¹⁶⁹ Members of CEHAJ have been informed in meetings with Caltrans over the past year that it is likely that relocation of the MSC would have to occur outside the City of Long Beach, as there may be no place to relocate it to in Long Beach. Despite these statements in meetings with Caltrans, the RDEIR/SDEIS includes no mention of this, nor does it examine potential sites for relocation in Long Beach or elsewhere. Relocation of the MSC outside the City of Long Beach would be devastating to the 26,000 clients who visit the MSC each year. Relocation outside the City would also have regional impacts, which have not been analyzed in the RDEIR.

¹⁷⁰ Second Revised Community Impact Statement, July 2017, at 6-68 & 6-69.

¹⁷¹ *Id.* at 6-69.

¹⁷³ See Second Revised Final Community Impact Statement, July 2017, at 4.3-19.

¹⁷⁴ RDEIR/SDEIS at 3.3-32.

The displacement of Bell Shelter's transitional housing structures is proposed without analyzing the impacts this would have on the residents of this facility (and other homeless persons in the region), especially in light of our current housing crisis in Los Angeles County. The RDEIR/SDEIS also fails to analyze the availability of transitional housing in the area, identification of available and appropriate sites for relocation of such a sensitive land use, the land use challenges of relocating such a sensitive land use and potential mitigation measures to keep the Bell Shelter in its existing location.

The Community Impact Statement acknowledges that the Bell Shelter is in a census tract that exceeds the Los Angeles County average percentage for both minority and low-income persons and that the facility serves minority and low-income residents, as well as other vulnerable and disadvantaged populations.¹⁷⁵ The Community Impact Statement then goes on to make a conclusory and unsupported statement that "[a]lthough these relocation impacts would be predominantly borne by environmental justice populations... these impacts would not represent a disproportionate adverse impact to environmental justice communities.¹⁷⁶ This conclusory statement is contradictory to the analysis that precedes it. If displacement of the Bell Shelter would primarily impact low income communities of color, then there *will be* adverse impacts to environmental justice populations and this must be analyzed and mitigated in the RDEIR.

The missing and deferred analysis regarding the impacts to the Bell Shelter denies the public an opportunity to review and comment on the relocation impacts and feasible mitigation measures before the environmental documents for this Project are finalized. The RDEIR/SDEIS is inadequate because it fails to identify and analyze significant environmental effects of the proposed Project on the Bell Shelter and it fails to consider feasible measures which could minimize significant adverse impacts. The RDEIR/SDEIS must therefore be revised and recirculated.

C. The RDEIR/SDEIS Fails to Accurately Describe Displacement Impacts, Relocation Impacts and Mitigation Measures for Homes in Commerce and Compton, which would be Displaced by the Project.

Depending upon which build version of the Project is selected (Alternative 5C or 7), the Project will include up to 140 residential displacements for approximately 560 residents. The majority of these will occur in Commerce and Compton. The RDEIR/SDEIS states that for the majority of the Study Area, residential displacements, given the present market conditions, do not indicate the need for the construction of replacement housing. The Draft Relocation Impact report states that "[r]esearch shows that at the time of this study, adequate relocation resources exist in the project area and surrounding communities for residences." The Draft Relocation resources exist in the project area and surrounding communities for residences.

¹⁷⁷ See CEQA Guidelines, § 15126.2, subd. (a); id., § 21061, subd. (a)(1).

¹⁷⁵ Second Revised Community Impact Statement, July 2017, at 6-68 & 6-69.

¹⁷⁶ *Id.* at 6-69.

¹⁷⁸ RDEIR/SDEIS Executive Summary at 12; RDEIR/SDEIS at 3.3-63.

¹⁷⁹ RDEIR, Executive Summary at 32.

¹⁸⁰ RDEIR, Executive Summary at 12.

¹⁸¹ Draft Relocation Impact Report, March 2017, at 4.

However, these conclusory statements are in direct contradiction to our current and well documented housing crisis in Los Angeles County where vacancy rates are low, rents are rapidly rising, incomes are not keeping pace with rising rents, affordable housing supply is extremely limited and displacement is rapidly happening throughout the region. Moreover, the RDEIR's conclusion that adequate relocation resources exist also contradict with the analysis throughout the RDEIR, where the RDEIR/SDEIS finds that such resources are *not* available. For example, the RDEIR/SDEIS states that "[s]ome of these displaced residences are in areas (mainly the Cities of Commerce and Compton) where there is insufficient replacement housing available. Therefore, it will not be possible to relocate all displaced residents within their community or an area within reasonable proximity to their community. For this reason, the construction of replacement housing in these areas may be necessary." 183

Furthermore, according to the Community Impact Statement, "the City of Commerce is primarily built out and limited vacant land is available." As a result of the relocations of Commerce residents, the City of Commerce would experience adverse impacts to community character and cohesion as a result of these relocations." ¹⁸⁵

The RDEIR/SDEIS also acknowledges that the Study Area cities, including Commerce and Compton, are considered to be highly cohesive based on the factors of median age, ethnic homogeneity, high tenure of residents, above-average household size, high percentage of transit-dependent population and percentage of elderly residents. ¹⁸⁶ Therefore, displacement of residents will have significant impacts on those families. Displacement and the correlating loss of social cohesion can cause increased stress, decreased access to jobs, income and job benefits,

¹⁸² See Los Angeles County Renters in Crisis: A Call for Action, CA Housing Partnership (May 2017), http://lp08d91kd0c03rlxhmhtydpr.wpengine.netdna-cdn.com/wp-

content/uploads/2017/05/Los-Angeles-County-2017.pdf; (This Report explains that Los Angeles County needs to produce 551,807 more affordable units to house residents who are currently on the edge of homelessness. Moreover, there has been a 32 percent increase in rents in the County and a 3 percent decrease in real median income since 2000. Finally, the Los Angeles County poverty rate jumps to more than 25 percent, meaning one in four Angelenos is officially poor, when local housing costs are considered.); *See also, California's Housing Crisis – It's Even Worse Than You Think*, KCET (August 2017), https://www.kcet.org/shows/socal-connected/californias-housing-crisis-its-even-worse-than-you-think; *And, Why SoCal is at a tipping point in its housing affordability crisis*, KPCC (Aug. 29, 2017),

https://www.scpr.org/news/2017/08/29/75035/a-deeper-dive-into-las-housing-affordability-crisi/ RDEIR, Executive Summary at 32; see Also, RDEIR/SDEIS Executive Summary at 36, which states that the Project will displace substantial numbers of existing homes and people necessitating the construction of replacement housing.

¹⁸⁴ Second Revised Final Community Impact Statement, July 2017, at 4.7-1.

¹⁸⁵ RDEIR/SDEIS at 3.3-47.

¹⁸⁶ RDEIR/SDEIS at 3.3-19.

psychological impacts and poor mental health.¹⁸⁷ "Residents have disclosed symptoms of stress, loss, grief, and poorer mental health following housing displacement and relocation.¹⁸⁸

Oddly, the RDEIR/SDEIS also makes a conclusory and contradictory statement that "the build alternatives would not result in adverse effects to public health related to social cohesion." This conclusion is contradictory to the analysis and other statements in the RDEIR, as discussed above. 189

The RDEIR/SDEIS finds that adequate relocation options do not exist for the mobile homes in Compton that will be displaced. The RDEIR/SDEIS states that Housing of Last Resort may have to be considered for relocating affected residential properties such as mobile homes. The Draft Relocation Impact Report states that there are "no adequate relocation resources" for residential tenants or mobile homes. However, the RDEIR/SDEIS provides no information about how, where or when replacement housing will be provided. And, there is no specific analysis regarding mitigating these impacts to prevent displacement.

The RDEIR/SDEIS has not fully analyzed the impacts of residential displacements and relocations, it has not identified potential sites for relocation, it has not contextualized the difficulty of relocations in light of our current housing crisis and it has not analyzed feasible mitigation measures to prevent residential displacements. Finally, the RDEIR/SDEIS has not studied a version of the Project that would eliminate residential displacements.

The RDEIR/SDEIS relies in a conclusory manner on the application of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act to address displacements. This reliance is problematic in many ways. First, there is no analysis regarding the difficulty of relocations in the Study Area and the likelihood of relocations in the same community. Second, if relocation to another community is likely, there is no analysis regarding the impacts this will have on displaced families. Third, we have been informed by Caltrans representatives in Sacramento that Caltrans will not provide relocation assistance to undocumented families who are displaced by the Project unless the Federal Highway Administration (FHWA) approves such relocation assistance. He Project unless the Federal Highway Administration of relocation

¹⁸⁷ RDEIR/SDEIS at 3.3-48

¹⁸⁸ RDEIR/SDEIS at 3.3-48.

¹⁸⁹ RDEIR/SDEIS at 3.3-50.

¹⁹⁰ RDEIR/SDEIS Executive Summary at 12.

¹⁹¹ RDEIR/SDEIS at 3.3-68.

¹⁹² Draft Relocation Impact Report, March 2017, at 30.

¹⁹³ RDEIR/SDEIS at 3.3-49.

¹⁹⁴ Attorneys with the Legal Aid Foundation of Los Angeles (LAFLA) have had multiple conversations with Ms. Joann Georgallis, Assistant Chief Counsel to Caltrans in Sacramento, regarding this issue. Ms. Georgallis informed LAFLA attorneys that Caltrans will not pay for relocation assistance for undocumented families who are displaced by a federally funded project unless the Federal Highway Administration (FHWA) approves the payment of relocation

laws, ¹⁹⁵ Caltrans cannot rely on relocation assistance as a mitigation measure for undocumented families when Caltrans has informed us that undocumented families may not receive such assistance.

The inconsistent, deferred and lacking relocation impacts analysis in the RDEIR/SDEIS denies the public an opportunity to review and comment on relocation and displacement impacts. The RDEIR/SDEIS is also inadequate because it fails to consider feasible measures which could minimize significant adverse impacts to the homes in Commerce and Compton. The RDEIR/SDEIS must therefore be revised and recirculated.

D. The RDEIR/SDEIS Fails to Comply with the Requirements of Metro Motion 22.1 with Respect to Eliminating Displacement.

The RDEIR/SDEIS fails to comply with the anti-displacement requirements of Metro Motion 22.1. Motion 22.1 was developed in conjunction with community stakeholders, including CEHAJ members, to ensure that the RDEIR/SDEIS included analysis of critical Project components. Motion 22.1 requires "Geometric design for the I-710 Freight Corridor (under Alternative 7 only) that eliminates significant impacts and displacements of homes, businesses, or community resources, such as but not limited to the Bell Shelter or Senior Centers[.]" While the RDEIR/SDEIS has some right of way avoidance analysis in section 3.3-55, it is cursory at best and does not meet the informational requirements of CEQA. Moreover, the limited analysis in the RDEIR/SDEIS does not satisfy the anti-displacement requirements of Motion 22.1 because both Alternatives 5C and 7 include displacement of homes, transitional housing, homeless service facilities and other vital community resources. Accordingly, the RDEIR/SDEIS fails to comply with the requirements of Motion 22.1, thereby excluding analysis of critical components deemed necessary elements of the Project. Thus, the RDEIR/SDEIS fails as an informational document. For this reason as well, the RDEIR/SDEIS must be revised and recirculated.

VIII. THE RDEIR/SDEIS FAILS TO CONSIDER LOCAL AND TARGETED HIRING REQUIREMENTS AS FEASIBLE MITIGATION MEASURES. SUCH MEASURES ARE LEGALLY PERMISSIBLE AND SHOULD HAVE BEEN INCLUDED IN THE RDEIR.

An EIR must "include feasible measures which could minimize significant adverse impacts." Importantly, "[w]ith some projects, the only feasible mitigation for cumulative impacts may

assistance. Ms. Georgallis also informed LAFLA attorneys that she has reached out to FHWA multiple times to discuss this issue, but she has not received a reply.

should therefore be eligible for relocation assistance pursuant to California State relocation law.

When a project is funded by both state and federal funds, a displaced person is entitled to receive the maximum relocation assistance allowed under *either* state or federal law. *United Auto Workers v. Dep't of Transp.*, 20 Cal. App. 4th 1462, 1471 (1993). While federal law prohibits the payment of relocation assistance to "unlawful alien[s]", California law permits such payments. *Compare* 42 U.S.C. § 4605(a) and Cal. Gov. Code § 7260(c). Displaced families

¹⁹⁶ See CEQA Guidelines § 15126.4(a)(1).

involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis." Furthermore, "a public agency may use discretionary powers provided by such other law for the purpose of mitigating or avoiding a significant effect on the environment subject to the express or implied constraints or limitations that may be provided by law." Clearly, "it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." 199

The RDEIR/SDEIS states that a key component of the proposed Project is economic development. With regard to economic development, the Gateway Cities Sub-region experiences high levels of unemployment and poverty. In September 2016, unemployment rates in the Study Area ranged from 2.8 to 8.1 percent of the workforce within the affected communities, which in some cases is higher than Los Angeles County (5.2 percent) and State (5.5 percent) unemployment rates. Highway congestion causes delays affecting personal mobility and goods movement and results in increased economic costs." ²⁰¹

Depending upon which Project alternative is selected, the Project would create between 99,885 to 179,180 new jobs.²⁰² Moreover, it is anticipated that Alternative 7 would generate even more jobs as a result of ZE technology development.²⁰³

According to the RDEIR, the I-710 Corridor is home to a large proportion of minority and low-income populations.²⁰⁴ As of the 2010 Census, the I-710 Corridor Project Study Area was 85.6 percent non-White. In contrast, Los Angeles County was 72.2 percent non-White and the State of California was 59.9 percent non-White.²⁰⁵ Moreover, according to the 2010-2014 American Community Survey, 22.8 percent of I-710 Corridor residents live in households that fall below the Federal poverty threshold. Within Los Angeles County, 18.7 percent of households fall below the Federal poverty level and in California, as a whole, 15.3 percent of the households fall below the Federal poverty level.²⁰⁶ Without a local and targeted hiring policy, low income residents of color who live along the Project's corridor will not benefit from the economic development opportunities created by the project.

Utilizing local and targeted hiring measures has the additional benefit of reducing vehicle miles traveled to work, which reduces greenhouse gas emissions. "With California's population

¹⁹⁷ See CEQA Guidelines 15130(c) (emphasis added).

¹⁹⁸ Pub. Res. Code § 21004.

¹⁹⁹ Pub. Res. Code § 21002.

²⁰⁰ RDEIR/SDEIS Executive Summary at 4.

²⁰¹ RDEIR/SDEIS Executive Summary at 4; See also RDEIR/SDEIS at 3.3-31.

²⁰² RDEIR/SDEIS at 3.3-51.

²⁰³ RDEIR/SDEIS at 3.3.52.

²⁰⁴ RDEIR/SDEIS at 3.3-77.

 $^{^{205}}$ Id

²⁰⁶ RDEIR/SDEIS at 3.3-77.

increasing and housing becoming less affordable, surface level transportation has increased as residents are commuting farther to work.²⁰⁷

The RDEIR/SDEIS fails to include any analysis regarding whether the jobs that will be created by the Project will actually benefit the low-income minority residents who reside in the impacted cities along the Project's Corridor. If job creation is not specifically targeted to local and disadvantaged residents residing in the impacted communities along the Project's Corridor, there is no basis for assuming that the jobs created will actually benefit residents of the impacted communities. Moreover, without local and targeted hiring provisions, the jobs created by the Project will result in increased traffic, as a result of increased commuters into the area. This, in turn, will have significant and additional environmental impacts on traffic, air quality and greenhouse gas emissions.

In addressing air quality and traffic impacts, the South Coast Air Quality Management District (SCAQMD) encourages local hiring provisions, which support a jobs/housing balance. SCAQMD's guidance documents state that:

"Residents in urban areas in the South Coast basin have become increasingly concerned with increased traffic congestion and the failure of the region to achieve state and federal clean air standards. The concept of 'jobs/housing balance' is based on the premise that the number of vehicle trips and vehicle miles traveled (VMT) can be reduced when sufficient jobs are available locally to balance the employment demands of the community, and when commercial services are convenient to residential areas. . . . The AQMD and the SCAG both embrace jobs/housing balance as a viable tool available to local governments to reduce air pollution." 208

The RDEIR/SDEIS states that the majority of corridor residents work outside the cities in which they reside and they have significant commute times. Within the City of Bell, 90% of working residents work outside the City and the mean commute time is 29.4 minutes. Within the City of Bell Gardens, 89% of working residents work outside the City and the mean commute time is 28.3 minutes. Within the City of Carson, 85% of working residents work outside the City and the mean commute time is 26.2 minutes. Within the City of Commerce, 86% of working residents work outside the City and the mean commute time is 27.3 minutes. Within the City of Compton, 88% of working residents work outside the City and the mean commute time is 28.4 minutes. Within the City of Cudahy, 95% of working residents work outside the City and mean commute time is 31.7 minutes. Within the City of Downey, 82% of working residents work outside the City and mean commute time is 28.3 minutes. Within the City of Huntington Park, 87% of working residents work outside the City and mean commute time is 30.2 minutes. Within the City of Lakewood, 89% of working residents work outside the City and the mean commute

²⁰⁸ SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (May 2005), Chapter 2 – Air Quality Issues Regulating Land Use, p. 2-13 [available at http://www.aqmd.gov/prdas/aqquide/aqquide.html].

²⁰⁷ See California Green Innovation Index, Next 10, 2017, p. 22 & 24; 2017 California Green Innovation Index, Next 10 (August 22, 2017), http://next10.org/2017-gii.

time is 27.9 minutes. Within the City of Long Beach, 66% of working residents work outside the City and the mean commute time is 29 minutes. Within the City of Lynwood, 90% of working residents work outside the City and the mean commute time is 29.4 minutes. Within the City of Maywood, 92% of working residents work outside the City and the mean commute time is 27.9 minutes. Within the City of Paramount, 84% of working residents work outside the City and the mean commute time is 27.1 minutes. Within the City of Signal Hill, 85% of working residents work outside the City and the mean commute time is 26.8 minutes. Within the City of South Gate, 88% of working residents work outside the City and mean commute time is 29.1 minutes.²⁰⁹

By including local and targeted hiring provisions as a mitigation measure, it would help to mitigate some of the Project's significant and unmitigated environmental impacts on air quality, greenhouse gas emissions and traffic. The RDEIR/SDEIS should include an analysis of the environmental benefits of including local and targeted hiring provisions as a feasible mitigation measure. This vital discussion of local and targeted hiring is missing from the RDEIR.²¹⁰

We are aware that some of the Federal Highway Administration's (FHWA) statutes and regulations have been interpreted to limit the ability to impose local or geographic hiring requirements on FHWA funded projects.²¹¹ However, it is unclear how much of the Project will be funded by the FHWA. Other funding sources for the Project will not include any such limitations and some funding sources (i.e., the Los Angeles County Metropolitan Transportation Authority and Department of Housing and Urban Development) would actually require local and targeted hiring requirements.

In order to ensure that economic opportunities created by the Project reach impacted I-710 corridor residents to the greatest extent feasible, Caltrans should segment FHWA Project funds so that other funding sources can be used to hire both local and disadvantaged residents. Best

²⁰⁹ RDEIR/SDEIS at 3.1-5 – 3.1-9.

²¹⁰ The I-710 Corridor Project Health Impact Assessment (HIA), which was released in November 2011 by Human Impact Partners, recommends that local hiring be tracked to ensure that the impacted Corridor communities benefit from the Project's job creation opportunities. The HIA, at 10-22, recommends that jobs be measured and tracked, to track the proportion of local jobs in each industry that are filled by local residents. This data would allow policymakers to make informed decisions regarding strategies to enhance and stimulate local economies. The HIA also recommends that cities along the Corridor encourage businesses, through incentives, to locate in the I-710 Corridor communities. Incentives may be in the form of tax breaks, credits or may be in the form of lower loan interest rates for potential small business owners, among others. (HIA at 10-22.) Finally, the HIA recommends increased job training opportunities for residents to better prepare the workforce for the Project's employment opportunities and to reduce unemployment. (HIA at 10-23.)

²¹¹ See 23 U.S.C Sec. 112 and 23 C.F.R. 635, Subpart A.

practices within this area typically require that 40% of the work hours be targeted to local residents and 10% of the work hours be targeted to disadvantaged, local residents.²¹²

The RDEIR/SDEIS specifically acknowledges that construction will be staged and segmented. "Staging of construction would be required for all ramp reconstruction, freeway widening, and profile adjustments....The following procedures have been identified to stage construction of either build alternative: Project divided into segments; segments divided into major components..."²¹³ Moreover, the RDEIR/SDEIS states that funding, right-of-way certification, maintenance of traffic, and contractor innovation are all variables that drive the timing, priority, and scope of staged improvements.²¹⁴ Therefore, Caltrans can segment FHWA funds through its staged construction process so that non-FHWA funds can utilize both local and targeted hiring measures. And, FHWA funded portions of the freeway can take advantage of targeted hiring measures without geographic restrictions.

Importantly, even for portions of the Project that receive FHWA funds, the FHWA's statutes and regulations permit targeted hiring measures that don't discriminate geographically. Therefore, even with FHWA funding, it would be legally permissible to require that 40% of the work hours be performed by low income residents, irrespective of residency. Low income, targeted, hiring requirements for the Project would also advance the affirmative action and civil rights goals of Executive Order 11246. Executive Order 11246 prohibits federal contractors and subcontractors and federally-assisted construction contractors and subcontractors that generally have contracts that exceed \$10,000 from discriminating in employment decisions on the basis of race, color, religion, sex, or national origin. It also requires covered contractors to take affirmative action to ensure that equal opportunity is provided in all aspects of their employment. Finally, a targeted hiring requirement would advance FHWA's own on-the-job training program, which is administered through FHWA's Office of Civil Rights, as well as Executive Order 13502. Executive Order 13502, signed by President Obama on February 6, 2009, announced that "it is the policy of the Federal Government to encourage Executive Agencies to consider requiring the use of project labor agreements in conjunction with large-scale construction projects in order to promote economy and efficiency in Federal procurement."

The RDEIR/SDEIS is inadequate because it fails to consider local and targeted hiring requirements as feasible mitigation measures, which would minimize significant adverse impacts.²¹⁵ The RDEIR/SDEIS must therefore be revised and recirculated.

Finally, the Project fails to comply with the local and targeted hiring requirements of Metro Motion 22.1. Motion 22.1 was developed in conjunction with community stakeholders to direct Caltrans to study critical components of the Project that Metro deemed necessary to include in the revised environmental documents. Motion 22.1 required "staff to work with community

https://media.metro.net/about_us/pla/images/construction_careers_policy_2017.pdf.

²¹² For example, see L.A. Cty. Metro. Auth.'s Local Hire Policy: General Management Construction Careers Policy (Revised January 26, 2017),

²¹³ RDEIR/SDEIS at 2-87 and 2-88.

²¹⁴ RDEIR/SDEIS at 2-87 & 2-88.

²¹⁵ See CEQA Guidelines § 15126.2(a); Cal. Pub. Res. Code § 21061(a)(1).

based partners (community groups, faith based groups and labor) on the development of a Local and Targeted Hiring Policy and PLA for construction jobs and a First Source Hiring Policy for permanent jobs created by the project. This should be completed, at the latest, by the completion of the recirculated DEIR/DEIS." Unfortunately, however, no progress has been made towards developing a Local and Targeted Hiring Policy or a First Source Hiring Policy. This is a blatant violation of Motion 22.1. This exclusion makes the Project fatally flawed as an informational document, as required by CEQA. Therefore, the RDEIR/SDEIS must be revised and recirculated.

IX. THE ENVIRONMENTAL JUSTICE ANALYSIS FAILS TO DISCLOSE AND ANALYZE THE TRUE IMPACTS ON THE PROJECT ON THE SURROUNDING LOW-INCOME COMMUNITIES OF COLOR.

Federal and state laws require agencies to consider environmental justice and to prohibit discrimination in their decision-making processes.

Title VI of the Civil Rights Act of 1964 and related statutes require that there be no discrimination in federally assisted programs, like Caltrans, on the basis of race, color, national origin, age, sex, or disability. Similarly, California has enacted Government Code 11135(a), which states: "No person in the State of California shall, on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, genetic information, or disability, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state." These laws prohibit Caltrans from taking actions that intentionally discriminate against any of these classes; they also prohibit Caltrans from taking actions that result in disparate impacts even if unintentional.²¹⁶

Federal Executive Order (EO) 12898 (1994) requires Federal agencies, including the United States Department of Transportation (DOT) and FHWA, to make environmental justice part of their mission and to develop environmental justice strategies. The Presidential Memorandum accompanying the Executive Order specifically singles out NEPA, and states that "[e]ach Federal agency must provide opportunities for effective community participation in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of public meetings, crucial documents, and notices." On August 4, 2011, the Secretary of Transportation, along with heads of other Federal agencies, signed a Memorandum of Understanding on Environmental Justice and Executive Order 12898 (EJ MOU) confirming the continued importance of identifying and addressing EJ considerations in agency programs, policies, and activities as required by E.O. 12898. DOT's internal EJ Order establishes procedures and guidance for the Department to implement E.O. 12898. "Compliance with this DOT Order is a key element in the environmental justice strategy adopted by DOT to implement the Executive Order, and can be achieved within

²¹⁶ 49 C.F.R. § 21.5(b)(2); Cal. Code Regs. Tit. 22, § 98101(i)(1).

²¹⁷ Exec. Order No. 12898 (Feb. 1994), https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf.

the framework of existing laws."218 FHWA policy calls for the prevention of disproportionately high and adverse human health or environmental effects on minority and low-income populations, and calls for the collection of related data to identify any risk of discrimination in the implementation of the NEPA, among other Federal statutes.²¹⁹

The State of California has defined "environmental justice" as: "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."²²⁰ Additionally, CEQA regulations define impacts or effects to be analyzed as including "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative."221

The EJ Analysis Fails to Adequately Analyze the EJ impacts in Context. A.

As described more fully in other sections of this letter, Caltrans has failed to adequately analyze air, noise, traffic, parks, construction, displacement, and other impacts or to adequately mitigate those impacts. Accordingly, its environmental justice analysis suffers from these same deficiencies.

In addition, though noting that surrounding populations are disproportionately low-income and Latino, the RDEIR/SDEIS does so on the basis of a comparison of the corridor's minority and low-income populations to that of the County and statewide data. For a project of national significance, such as this one, where the benefits accrue nationwide, a comparison to national demographic statistics is also relevant. Without the correct comparisons, any assessment of disproportionate impacts is also necessarily flawed.

Moreover, the EJ analysis requires further analysis of local conditions and sensitivity and vulnerability factors to more particularly understand and analyze how the impacts identified elsewhere in the document will be felt by the surrounding overburdened communities. While the RDEIR/SDEIS does note that the surrounding populations are disproportionately low-income and Latino, it for example fails to take into account the fact that these communities are more vulnerable to pollution impacts.²²² The EJ analysis is deficient because it fails to adequately include these factors.

²¹⁸ Dep't of Transp., Envtl. Justice Order No. 5610.2(a) at 4 (2012), https://www.fhwa.dot.gov/environment/environmental justice/ej at dot/orders/order 56102a/in dex.cfm.

²¹⁹ Fed. Highway Admin, Order No. 6640.23A (June 14, 2012), http://www.fhwa.dot.gov/legsregs/directives/orders/664023a.htm.

²²⁰Cal. Gov. Code § 65040.12(e) (2013).

²²¹ 40 C.F.R. § 1508.8(b) (2017).

²²² Office of Envtl. Health Hazard Assessment, Cumulative Impacts: Building a Scientific Foundation, Exec. Summary at ix (Dec. 2010), http://oehha.ca.gov/ej/cipa123110.html ("[A] number of studies have reported increased sensitivity to pollution, for communities with low income levels, low education levels, and other biological and social factors. This combination of

It is well established that "[t]he significance of an activity depends upon the setting."²²³ Accordingly, "[a] lead agency therefore should take special care to determine whether the project will expose "sensitive receptors" to pollution...."²²⁴ According to the California Office of the Attorney General, "[b]ecause CEQA requires that environmental impacts must be considered in context, cities and counties should pay special attention to whether a project might cause additional impacts to communities that already are affected by, or particularly vulnerable to, environmental impacts like air and water pollution."²²⁵

As the California EPA's Office of Environmental Health Hazard Assessment explains:

Existing research on environmental pollutants and health risk has consistently identified socioeconomic and sensitivity factors as "effect modifiers." For example, numerous studies on the health effects of particulate air pollution have found that low socioeconomic status is associated with about a 3-fold increased risk of morbidity or mortality for a given level of particulate pollution (Samet and White, 2004). Similarly, a study of asthmatics found that their sensitivity to an air pollutant was up to 7-fold greater than non-asthmatics (Horstman et al., 1986). Low-socioeconomic status African-American mothers exposed to traffic-related air pollution were twice as likely to deliver preterm babies (Ponce et al., 2005). The young can be 10 times more sensitive to environmental carcinogen exposures than adults (OEHHA, 2009). Studies of increased risk in vulnerable populations can often be described by effect modifiers that amplify the risk.²²⁶

multiple pollutants and increased sensitivity in these communities can result in a higher cumulative pollution impact.").

²²³ Kings Cty. Farm Bureau v. City of Hanford, 221 Cal. App .3d 692, 718 (1990) (citing CEQA Guidelines, § 15064, subd. (b)); see also id. at 721; CEQA Guidelines, § 15300.2(a) (noting that availability of listed CEQA exemptions "are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant.").

²²⁴ CA Dep't of Justice, *Environmental Justice at the Local and Regional Level Legal Background* (2012), https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet.pdf. ²²⁵ *Id*.

²²⁶ Office of Envtl. Health Hazard Assessment, Cal Enviro Screen 3.0 Report at 6-7, citing D. Horstman, L. Roger, H Kehrl, & M Hazucha, *Airway Sensitivity of Asthmatics To Sulfur Dioxide*, Toxicology and Indus. Health 2: 289-298 (1986); Office of Envtl. Health Hazard Assessment, Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures (2009), https://oehha.ca.gov/media/downloads/crnr/tsdcancerpotency.pdf; N.A. Ponce, K.J. Hoggatt, M. Wilhelm & B. Ritz, *Preterm birth: the interaction of traffic-related air pollution with economic hardship in Los Angeles neighborhoods*. Am. J. Epidemiology 162(2):140-8 (2005); J.M. Samet

Other studies confirm that young or old age, low income, and race are vulnerability factors in assessing health risk from environmental pollution.²²⁷

The RDEIR/SDEIS fails to include this data in its analysis, and fails to analyze how the clear demographic data showing that the surrounding communities are overburdened, low-income, and minority affects the communities' risks for adverse impacts from the project. In order to adequately analyze the impacts and risks on communities living near the proposed expansion, therefore, the RDEIR/SDEIS must first clearly identify the vulnerabilities and susceptibilities of the surrounding communities. Given the likelihood that these communities also already suffer from high rates of pulmonary and cardiac diseases, cancers, pregnancy complications, adverse cognitive effects, diabetes, and other diseases with risks associated with living, working, or going to school near freeways, the RDEIR/SDEIS must also identify the existing rates and severity of these diseases—especially those that disproportionately affect low-income and minority populations—among children and the general population living at the very least within one quarter of a mile of the proposed project.

Once Caltrans has clearly identified these risk factors and disease rates and severity, it must then fully analyze the impacts of the project on these communities, given both the vulnerabilities and susceptibilities of the surrounding communities and known impacts of roadway pollution on the health of those nearby. Researchers have identified several methodologies for undertaking this analysis.²²⁹ Because Caltrans has failed to describe existing conditions among the surrounding community, it has not and cannot meaningfully describe impacts and mitigation measures it can take to remediate these impacts. For each of the impacts, Caltrans must in its EJ analysis analyze all identified impacts according to the vulnerability and sensitivity factors discussed above. These deficiencies are particularly, but not exclusively, apparent in Caltrans's failure in the EJ section to adequately analyze impacts on minority and low-income populations and considering the vulnerability and other factors described above in several key areas. The analysis falls short in considering the full extent of the impacts on minority and low-income populations from residential displacement; the jobs, economic, and other impacts on minority and low-income populations from business displacement; and the traffic safety impacts on minority and low-

[&]amp; R.H. White, *Urban air pollution, health, and equity*, J. Epidemiology Community Health, 58:3-5 (2004), http://jech.bmj.com/content/58/1/3.full.

²²⁷ Qian Di, Yan Wang, Antonella Zanobetti, Yun Wang, Petros Koutrakis, Christine Choirat, Francesca Dominici & Joel D. Schwartz, *Air Pollution and Mortality in the Medicare Population*, New Eng. J. Med. (June 29, 2017), http://www.nejm.org/toc/nejm/376/26/. ²²⁸ See Council on Envtl. Quality, *Environmental Justice Guidance Under the National Environmental Protection Act* at 9 (Dec. 10. 1997),

http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf [hereinafter, CEQA EJ Guidance under NEPA], (Directs agencies to "recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action.").

²²⁹ See e.g., Joel Schwartz, David Bellinger & Thomas Glass, Expanding the Scope of Environmental Risk Assessment to Better Include Differential Vulnerability and Susceptibility, Am. J. of Pub. Health Vol. 101, No. S1, S88-S109 (Dec. 2011).

income populations from arterial "improvements" that will facilitate additional truck traffic through the communities.

In addition, Caltrans must analyze the cumulative impacts in accordance with these vulnerability and sensitivity factors to adequately identify, disclose, and then mitigate the cumulative impacts. The communities surrounding the 710 corridor are already overburdened with other industrial sources of pollution, such as the Ports of LA and Long Beach, large refineries, scrap yards, chrome platers, lead smelters, and other facilities. These cumulative impacts of all of these pollution sources with the 710 project must be identified and analyzed as described above.²³⁰

В. Caltrans' Response to Prior CEHAJ Comments on EJ Impacts is Inadequate.

CEQA § 21091 and CEQA Guideline § 15088 require lead agencies to respond in writing to comments submitted by the public that raise significant environmental questions. An adequate response to comments explains why the lead agency has rejected the recommendations and objections raised in the comments and provides a good faith, reasoned analysis to support the agency's determination. The level of detail in the response should be the same as the level of detail in the comment, and conclusory statements are insufficient. Caltrans and Metro's response to CEHAJ's comment on environmental justice analysis is inadequate because it failed to explain the agency's basis for rejecting the recommendation or objection, provided a general response to a specific and detailed comment, and provided only conclusory statements. For example, CEHAJ asks for additional analyses, including cumulative impacts, which have not been separately addressed except indirectly only for AQ/GHG/HRA through mass emission analyses. In addition, the response fails to address comments about specific additional mitigations, such as freeway lids. The inadequacy of the response to comment violates CEQA § 21091 and CEQA Guideline § 15088 and undermines the sufficiency of the EIR as an informational document.

X. THE AIR QUALITY ANALYSIS IS FLAWED, INACCURATE, AND MISLEADING.

The Air Quality analysis for this project is particularly important. Even beyond CEQA and NEPA's information disclosure and mitigation requirements, this project includes an objective to "[i]mprove air quality and public health."231 Thus, an honest assessment of air quality impacts is crucial to ensure the ultimate alternative selected achieves this vital objective. The current air

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²³⁰ See Council on Envtl. Quality, Envtl. Justice Guidance Under the Nat'l Envtl. Protection Act at 9 (Dec. 10. 1997), https://www.epa.gov/communityhealth/environmental-justice-guidanceunder-national-environmental-policy-act-nepa-council [hereinafter CEQA EJ Guidance under NEPA] (Directs agencies to "consider relevant public health data and industry data concerning the potential for multiple or cumulative exposure to human health or environmental hazards in the affected population and historical patterns of exposure to environmental hazards, to the extent such information is reasonably available. For example, data may suggest there are disproportionately high and adverse human health or environmental effects on a minority population, low-income population, or Indian tribe from the agency action. Agencies should consider these multiple, or cumulative effects, even if certain effects are not within the control or subject to the discretion of the agency proposing the action."). ²³¹ RDEIR/SDEIS at 1-40.

quality analysis, like the original air quality analysis in the Draft EIR/EIS, fails CEQA and NEPA's mandates for providing information backed by reasoned analysis. The same criticisms in that prior comment letter submitted by CEHAJ remain applicable to this Project. In addition to those flaws, the following sections outline additional flaws with the analysis.

A. The RDEIR/SDEIS Fails to Provide the Requisite Detail Necessary to Understand the Air Quality Implications of the Alternatives Selected.

The air quality analysis provides insufficient details to allow the public and decision-makers to understand how this project will impact air quality. Some of the analysis is delayed like the hotspot conformity analysis, and some other analysis does not provide sufficient detail about assumptions and how the agency is assessing significance. For example, throughout the analysis, the Air Quality section notes that the ZE option is "relatively similar" or other sufficiently vague terms. Because the analysis is so lacking, Caltrans needs to revise it to provide more detail and better information about the assumptions.

B. The 2012 Baseline Misleads Decision Makers and the Public.

The CEQA baseline selected (i.e. 2012) is not supported by the RDEIR/SDEIS and the technical documents. The Air Quality Technical Study solely provides the following basis for selecting 2012 as the project baseline:

The CEQA Baseline represents existing, current conditions, defined to be the conditions at the time the Notice of Preparation (NOP) was released. In the Draft EIR/EIS, the CEQA Baseline represented project-specific conditions in the year 2008 (release date for the NOP). Since considerable time has passed after the release of the NOP, the CEQA Baseline year for the RDEIR/SDEIS air-related analyses will be represented by the project-specific conditions in the year 2012 (e.g., traffic on the I-710 and selected roadways in the year 2012).

Neither the Air Quality Technical Report nor the RDEIR/SDEIS provide any rationale why 2012 was chosen beyond just a bald assertion that 2012 has been selected. Thus, there is not substantial evidence to support the selection of this baseline. In fact, solely using this baseline misleads the public and decision-makers. Importantly, the RDEIR/SDEIS notes that decrease in MSATs "is primarily due to improvements in vehicle technology driven by federal, state, and local regulations/programs." Moreover, the Air Quality Study acknowledges that "[t]hese results indicate that a reduction in emissions due to improved vehicle technology resulting from the implementation of federal, state, and local regulations/programs such as CARB's Truck and Bus Regulation, the Pavley Standard, and the Ports' Clean Trucks Program outpaces increases in

²³³ Air Quality, Greenhouse Gas, and Health Risk Assessment Technical Study (Ramboll-Environ, June 2017) at ES-12 (hereinafter "Air Quality Study").

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²³² Air Quality, Greenhouse Gas, and Health Risk Assessment Technical Study (Ramboll-Environ, June 2017) at 3 (hereinafter "Air Quality Study").

emissions resulting from increased vehicle activity in 2035."²³⁴ The Air Quality Study further confirms that "[e]ven along the I-710, emissions of criteria and air toxic pollutants decreased in the 2035 build alternatives compared to the 2012 Baseline, as federal, state, and local air quality regulations/programs reduced emissions faster than emission increases caused by increases in VMT in 2035."²³⁵ The analysis makes clear that this project is not responsible for the reductions in pollution in the corridor; rather it is the work of other agencies like the California Air Resources Board and the Ports of Los Angeles and Long Beach.

In fact, the use of the 2012 baseline for many pollutants simply shows how bad the situation in the corridor is. The scope of this project and the magnitude of this freight highway expansion means Caltrans should use a baseline that does not confuse people and take credit for the significant efforts from EPA, CARB, the Ports and other agencies to clean up dirty trucks.

This concern about the document being misleading is not simply hypothetical. Caltrans includes the following statement in the RDEIR/SDEIS: "the build alternatives will improve air quality and reduce public health risk in the Basin and the I-710 AOI."²³⁶ Importantly, Caltrans seeks to make the public and decision-makers believe that this project will clean up pollution – even with clear evidence to the contrary.

Neither CEQA nor the CEQA Guidelines mandate "a uniform, inflexible rule" for determining a project's baseline conditions.²³⁷ Rather, the statute empowers agencies to "employ a realistic baseline that will give the public and decision makers the most accurate picture practically possible of the project's likely impacts," and the Supreme Court has confirmed that lead agencies have the discretion and the responsibility, to "decide exactly how the existing physical conditions without the project can most realistically be measured," subject to review for support by substantial evidence.²³⁸ Here, Caltrans employs a CEQA baseline that fails to accurately depict the significance of the Project's likely impacts. As such, it should use a baseline that allows the public and decision-makers to understand the true impact of this project on air quality.

C. The Assumptions in the Air Quality Analysis Are Not Supported by Substantial Evidence.

The RDEIR/SDEIS is rife with assumptions that are not justified. Here is just a subset of the issues that do not appear justified in the RDEIR/SDEIS.

• Despite having no real enforceable mitigation tied to it, the RDEIR/SDEIS assumes 22% of the trucks in the corridor under Alternative 5C will be zero or near-zero emissions.

²³⁴ Air Quality Study at ES-12 & -13; see also RDEIR/SDEIS at 3.13-24.

²³⁵ *Id.* at ES-28.

²³⁶ RDEIR/SDEIS at 3.13-55.

²³⁷ Neighbors for Smart Rail v. Exposition Metro Line Const. Authority, 57 Cal.4th 439, 449 (2013).

²³⁸ *Id.*; 14 CCR § 15125(a); *Cherry Valley Pass Acres and Neighbors v. City of Beaumont*, 190 Cal.App.4th 316, 337 (holding that "without an appropriate baseline description, an adequate analysis of a project's impacts, mitigation measures, and alternatives 'becomes impossible."").

- The analysis assumes that only non-diesel trucks will meet the "Near Zero" category for trucks. This is not substantiated.
- In many places, the document fails to articulate a differentiation between the emissions of the ZE alternative and the NZE alternative.

Given that air quality is so important to this project, the RDEIR/SDEIS should be revised.

D. The RDEIR/SDEIS Should Have Included the Quantitative Project-Level PM10/PM2.5 Analysis.

The RDEIR/DEIS notes that the quantitative hotspot analysis will be performed at selected locations in the corridor for the "preferred project."²³⁹ The hotspot conformity analysis provides a vital tool to understand the contours of the proposed alternatives. As such, it is inappropriate to exclude it from the Draft EIR/EIS. The environmental review should be re-circulated with this analysis to allow the public to provide comments and benefit from the hotspot analysis in assessing the benefits and burdens of the various alternatives.

E. Air Quality Mitigation Measures Must Be Improved.

Caltrans must improve the mitigation measures for this project. While we are generally supportive of additional monitoring and air filtration at schools, these mitigation programs are vague and lack concrete details.

1. Construction Mitigation

Despite the long list of construction mitigation measures proposed to address air quality issues, there is little information about many of the programs and how these programs will be implemented.²⁴⁰ The Construction Mitigation section needs more details to ensure that the mitigation are truly enforceable with the meaning of CEQA. The following two mitigation measures specifically need to be improved to ensure the cleanest technology available is used.

a. CON-AQ-15

The current language in CON-AQ-15 should be amended to more assertively require a minimum of Tier 4 construction equipment. Accordingly, we recommend deleting the phrase "depending on the responsible agency that administers the construction contract and the availability of construction equipment compliant with these standards."²⁴¹ This phrase essentially eviscerates the mitigation measure. Importantly a condition of becoming the responsible agency for this project should be committing to a minimum of Tier 4 construction equipment.

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²³⁹ RDEIR/SDEIS at 3.13-29.

²⁴⁰ RDEIR/SDEIS at 3.24-53 to -58.

²⁴¹ RDEIR/SDEIS at 3.24-56.

b. CON-AQ-17

We appreciate Caltrans insertion of electric construction equipment into the document in CON-AQ-17.²⁴² However, the language is vague. Currently, any contractor will need to replace any equipment with "electric equipment whenever feasible."²⁴³ There is no determination how this decision will be made, and how the public can ensure contractors and responsible agencies are using electrical options when available. The EIR/EIS must be improved to make clear how this mitigation measure can be enforced.

2. Operational Mitigation

Overall, there needs to be more details about the contours of the operational mitigation programs in the air quality analysis. For example, AQ-3 is hard to decipher. Will Caltrans require vegetative buffers throughout the corridor? Or, is this program limited in some way? The mitigation measure also does not clarify who will implement this measure and whether there will be continual funding for maintenance of the vegetative buffers. Commenters generally support vegetative buffers, and we recommend a process be developed to engage with stakeholders on the design and implementation of this type of program.

Finally, the RDEIR/SDEIS is woefully lacking in details about the grant program to fund near zero and zero emission trucks. The only detail on this program is contained in section 2 of the RDEIR/SDEIS. 244 As part of the project, it is unclear how this program will work and whether it will be effective. Moreover, by not identifying this part of the project as a mitigation measure, Caltrans has subverted the CEQA process. In particular, it prevents the public and decision makers from assessing the efficacy of this mitigation measure to address significant impacts. For example, commenters are precluded from understanding why 105 million dollars was selected to make 22% of trucks under Alternative 5C zero emission or near zero emissions. Moreover, for alternative 5C, it is not explained how a one-time grant program will lead to the level of trucks assumed for the project analysis. Unless truck lanes are mandatory, it does not ensure that trucks meeting specific emissions standards will actually use the project, or extend once the millions of dollars are no longer available.

F. Caltrans' Response to CEHAJ Comments on the Air Quality Analysis is Inadequate.

CEQA § 21091 and CEQA Guideline § 15088 require lead agencies to respond in writing to comments submitted by the public that raise significant environmental questions. An adequate response to comments explains why the lead agency has rejected the recommendations and objections raised in the comments and provides a good faith, reasoned analysis to support the agency's determination. The level of detail in the response should be the same as the level of detail in the comment, and conclusory statements are insufficient. Caltrans and Metro's response to CEHAJ's comment on air quality is inadequate because it failed to explain the agency's basis

²⁴² RDEIR/SDEIS at 3.24-57.

²⁴³ RDEIR/SDEIS at 3.24-57.

²⁴⁴ RDEIR/SDEIS at 2-21 & -22.

²⁴⁵ Lotus v. Department of Transportation, 223 Cal.App.4th 645, 658 (2014).

for rejecting the recommendation or objection, provided a general response to a specific and detailed comment, and provided only conclusory statements. Importantly, this project must include a zero emission freight corridor to ensure that growth in freight address the serious air quality issues faced by the people that live in the corridor. The inadequacy of the response to comment violates CEQA § 21091 and CEQA Guideline § 15088 and undermines the sufficiency of the EIR as an informational document.

XI. THE GREENHOUSE GAS ANALYSIS IS FLAWED, INADEQUATE, AND MISLEADING.

A. The Greenhouse Gas Analysis is Misleading.

The Air Quality Technical Report discloses the following assumption: "For the purpose of this analysis, ZE/NZE trucks in the build alternatives were conservatively assumed to have the same GHG emission factors as conventional trucks." This approach makes no sense and seeks to obfuscate the benefits of the various build alternatives, including the zero emission option. A new draft is necessary to ensure the greenhouse gas emission impacts from this project are properly understood.

The Air Quality Technical Report also notes that "[b]oth 2035 build alternatives display a negligible increase in GHG emissions when compared to the 2035 Alternative 1 (No Build)."²⁴⁷ But, this is misleading because the statement ignores the Alternative 7 ZE option. In the RDEIR's analysis, that alternative is more than a 1 million MT of CO2E lower than the other build alternatives – i.e. Alternative 5C and Alternative 7. The Report fails to acknowledge the deep greenhouse gas emission reductions associated with this project.

B. The Greenhouse Gas Analysis Fails to Identify What Baseline it is Using.

The CEQA analysis does not clarify what is the baseline for the greenhouse gas analysis. This is an important part of CEQA because the public must understand what baseline forms the conclusions developed in the analysis.

C. Failing to Identify a Significance Threshold Violates CEQA.

In the CEQA analysis, the RDEIR notes that "it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change."²⁴⁸ This approach violates CEQA. CEQA Guidelines make clear that lead agencies must decide "[w]hether the project emissions exceed a threshold of significance that the lead agency determines applies to the project."²⁴⁹ It's clear that Caltrans cannot simply ignore this provision by failing to identify a significance threshold.

²⁴⁶ Air Quality Study at 34.

²⁴⁷ Air Quality Study at ES-3.

²⁴⁸ RDEIR/SDEIS at 4-82.

²⁴⁹ CEQA Guidelines § 15064.4(b)(2).

Beyond the information disclosure problems with this approach, failing to determine significance also allows Caltrans to evade its mitigation duties. By ducking the significance determination, it refers to its strategies as simply "measures," and these measures are not enforceable under CEQA.

Finally, by failing to identify a significance threshold, it allows the agency to overlook the deep GHG benefits of the 7ZE option as compared to the other build alternatives. The South Coast Air Quality Management District has identified 10,000 MT of CO2E as a significance threshold for projects under its jurisdiction. Alternative 7ZE exhibits dramatic reductions of greenhouse gas compared to the 2035 No Build on the order of 100 times the Air District's significance threshold. This fact is buried and glossed over in the RDEIR, which must be cured in a future draft of the EIR/EIS.

D. Excluding Greenhouse Gas Emission Analysis from the NEPA Analysis Violates NEPA.

The RDEIR/SDEIS does not commit that the greenhouse gas analysis from the CEQA portion of the document – even if faulty - will inform the NEPA analysis. The RDEIR/SDEIS states "[t]he CEQA analysis may be used to inform the...NEPA determination for the project."²⁵⁰ The United States Court of Appeals for the Ninth Circuit has made clear that "the fact that 'climate change is largely a global phenomenon that includes actions that are outside of [the agency's] control ... does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also effect global warming' [T]he impact of greenhouse gas emissions on climate change is precisely the kind of impacts analysis that NEPA requires agencies to conduct."²⁵¹ Thus, there is no discretion under NEPA to ignore greenhouse gas emissions analysis in a NEPA analysis. The agency must assess the greenhouse gas impacts against the NEPA baseline for this project in the RDEIR/SDEIS. Moreover, the agency must look to the greenhouse gas analysis to identify which project alternative is environmentally superior.

E. Caltrans' Response to CEHAJ Comments on the Greenhouse Gas Analysis is Inadequate.

CEQA § 21091 and CEQA Guideline § 15088 require lead agencies to respond in writing to comments submitted by the public that raise significant environmental questions. An adequate response to comments explains why the lead agency has rejected the recommendations and objections raised in the comments and provides a good faith, reasoned analysis to support the agency's determination. The level of detail in the response should be the same as the level of detail in the comment, and conclusory statements are insufficient. Caltrans and Metro's response to CEHAJ's comment on greenhouse gas analysis is inadequate because it failed to explain the agency's basis for rejecting the recommendation or objection, provided a general response to a

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²⁵⁰ RDEIR/SDEIS at 3.13-58.

²⁵¹ Center for Biological Diversity v. National Highway Traffic Safety Administration, 538 F.3d 1172, 1217 (9th Cir. 2008)(requiring the National Highway Traffic Safety Administration to monetize the benefits of GHG emissions from setting fuel economy standards and requiring the agency to analyze the project's cumulative impacts on climate change).

specific and detailed comment, and provided only conclusory statements. In particular, the NEPA includes no greenhouse gas analysis in response to CEHAJ's comments, and the CEQA analysis has deep flaws. The inadequacy of the response to comment violates CEQA § 21091 and CEQA Guideline § 15088 and undermines the sufficiency of the EIR as an informational document.

XII. THE ENERGY ANALYSIS IS FLAWED AND INADEQUATE.

The RDEIR/SDEIS discussion of energy impacts remains inadequate. It fails to identify and adequately discuss the true impacts from the operation and construction of this project. The current energy analysis does not comply with the requirements of CEQA and NEPA.

A. CEQA Energy Analysis Overview.

CEQA requires lead agencies to prepare or require preparation of an EIR on any project it may carry out or approve "that may have a significant effect on the environment." An EIR must include a detailed statement that sets forth "[m]itigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient and unnecessary consumption of energy." The absence of such a statement, or one explaining the reasons for determining that a project will not have a significant effect on the environment, renders an EIR "fatally defective." Appendix F, which is part of the CEQA Guidelines, cites to and elaborates on CEQA, section 21100, subsection (b)(3).

CEQA Guidelines provide that, "Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant. Examples of energy conservation measures are provided in Appendix F."²⁵⁵

The Agency amended Appendix F in 2009 to ensure that lead agencies comply with section 21100(b)(3)'s substantive provision that they analyze energy use in their EIRS. ²⁵⁶ The Agency explained that the amendments were necessary because the Legislature directed the Office of Planning and Research and the Agency to develop guidelines on how to analyze and mitigate greenhouse gas ("GHG") emissions, a significant source of which results from energy use. ²⁵⁷ The Agency stated that, in order to reduce GHG emissions, agencies should focus on mitigation as well as project design features (as identified in Appendix F), which can reduce emissions both directly and indirectly. ²⁵⁸

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²⁵² CEQA § 21100(a).

 $^{^{253}}$ *Id.* at (b)(3).

²⁵⁴ People v. County of Kern, 62 Cal.App.3d 761, 774 (1976) (citing CEQA § 21100(c)).

²⁵⁵ CEQA Guidelines § 15126.4(a)(1)(C).

²⁵⁶ California Natural Resources Agency (December 2009) Final Statement of Reasons for Regulatory Action, p. 71 ("Final Statement of Reasons").

²⁵⁷ *Id.* at pp. 72-73.

²⁵⁸ *Id.* at 46-47.

First, the 2009 amendments revised the introduction to include a cross-reference to CEQA section 21100(b)(3) and clarified that agencies need not re-analyze energy impacts in subsequent EIRs. Final Statement of Reasons, *supra*, at p. 71. Second, the amendments clarified that agencies "shall" analyze energy conservation in their EIRs, emphasizing that the duty is mandatory. Third, the Agency removed the term "lifecycle" from Appendix F because it was ambiguous. Fourth, the amendments clarified that projects can employ water use and solid waste disposal measures for energy savings. And fifth, the Agency made minor improvements to the Appendix's grammar and syntax. Several years after the Agency promulgated these amendments, two appellate court decisions ushered Appendix F into the spotlight: *California Clean Energy Committee*²⁵⁹ and *City of Ukiah*. ²⁶⁰

Appendix F explains that CEQA requires EIRs to include mitigation measures to reduce energy consumption in order to ensure that agencies consider energy implications in project decisions.²⁶¹ It further explains that, for many projects, energy efficiency may be more determinative than initial dollar costs when it comes to cost effectiveness.²⁶² However, it also allows a lead agency to consider any environmental review that has already adequately analyzed and mitigated the effects of energy productions of a particular energy source serving a project.²⁶³

Appendix F requires EIRs to consider "[p]otentially significant energy implications of a project" to the extent that they are applicable and relevant to that project. It also enumerates various "energy impact possibilities" and "potential conservation measures" in order to illuminate the EIR preparation process. It provides that these should be considered in an EIR whenever they are "applicable or relevant to the project. As may be evident from its provisions, "CEQA's requirement to analyze and mitigate energy impacts of a project is substantive, and is not merely procedural."

B. The Operational Energy Analysis Is Flawed.

The RDEIR/SDEIS provides insufficient information about the energy analysis to foster informed commenting. Importantly, the Energy Analysis fails to justify why assumptions about near zero emission technologies are assumed not to be diesel technologies. The RDEIR/SDEIS should also compare gasoline and diesel for the various alternatives. This will allow a more appropriate comparison of energy use amongst the alternatives, instead of just lumping all the fuels together and calculating the BTUs. Finally, it is unclear whether the agency assumed NZE and ZE trucks use no energy – gasoline or diesel – in estimating the energy use amongst the

²⁶³ *Id*.

²⁵⁹ California Clean Energy Committee v. City of Woodland (2014) 225 Cal.App.4th 173.

²⁶⁰ Ukiah Citizens for Safety First v. City of Ukiah (2016) 248 Cal. App. 4th 256.

²⁶¹ CEQA Guidelines Appendix F § I.

²⁶² *Id*.

²⁶⁴ CEQA Guidelines Appendix F § II.

²⁶⁵ *Id*.

²⁶⁶ Id.

²⁶⁷ Final Statement of Reasons, supra, p. 71 (citing People v. County of Kern, supra, at p. 774).

alternatives. If so, this is massively deceptive because just assuming these vehicles will have no energy use fails from an information disclosure standpoint.

C. The RDEIR/SDEIS Analysis of Construction Energy Impacts is Flawed.

With no analysis about how it measured significance, the RDEIR/SDEIS concludes the following:

Construction of any of the build alternatives would not result in adverse impacts related to energy consumption in the project Study Area or in the South Coast Air Basin compared to the No Build Alternative. No avoidance, minimization, or mitigation measures are required.²⁶⁸

CEQA and NEPA requires more than this type of bald analysis. And, this failure to properly analyze the construction energy impacts has consequences. It allows Caltrans to evade mitigation to ensure the wiser use of energy. The Energy Technical Report discloses that the majority of energy expended from construction comes from the materials used for the roads and the process of constructing the roads.²⁶⁹ This is clearly an opportunity to use alternative fuels and mitigate this fuel use as Appendix F and NEPA directs.

The downside of Caltrans approach is clarified when instead of adopting real mitigation measures to ensure the wiser use of energy as mandatory CEQA mitigation measures, Caltrans just adopts "measures." Importantly, the RDEIR makes clear they are not in fact "mitigation measures" for CEQA purposes. ²⁷⁰ Caltrans does not even explain what these "measures" are and how one would ensure they are 1) effective and 2) actually implemented. Caltrans should take a look at the significant energy consumption that will occur in building this massive project and identify real mitigation measures to reduce that energy use. Measures that note the agency might use more efficient lighting, for example, does not provide the assurances that these measures will actually be implemented.

Because the Energy analysis is misleading and fails to examine true mitigation to ensure the wise and efficient use of energy, Caltrans should create a new analysis that cures the flaws.

XIII. THE RDEIR/SDEIS DOES NOT ADEQUATELY ADDRESS WATER QUALITY IMPACTS.

The RDEIR/SDEIS analysis of water quality impacts from construction and ongoing operation of the expanded I-710 corridor continues to be inadequate and incomplete. As such, the proposed mitigations are inadequate, and additional feasible mitigation is warranted.

As described in our prior letter, the RDEIR/SDEIS fails to adequately and precisely describe prospective stormwater management actions and site-specific context. Those deficiencies

²⁶⁸ RDEIR/SDEIS at 3.15-15; see also Energy Technical Report (June 2017) at 39.

²⁶⁹ Energy Technical Report at 37 [Table 4.3-1].

²⁷⁰ RDEIR/SDEIS at 4-90.

continue to plague this document. For example, the final design of Best Management Practices that will be employed as construction mitigation are punted for later description.²⁷¹ Similarly, the document cursorily concludes that the proposed mitigation will account for the construction impacts, but without engaging in a fully developed discussion and analysis of the impacts that need to be mitigated. As such, the document continues to fail to provide precise locations, specific data, or detail regarding impacts or mitigation, which inhibits informed decision-making and comment by the public. Caltrans must provide significantly more information and detail on both the impacts and on the proposed mitigations in order to comply with, and serve the purposes of, CEQA and NEPA.

CEQA § 21091 and CEQA Guideline § 15088 require lead agencies to respond in writing to comments submitted by the public that raise significant environmental questions. An adequate response to comments explains why the lead agency has rejected the recommendations and objections raised in the comments and provides a good faith, reasoned analysis to support the agency's determination. The level of detail in the response should be the same as the level of detail in the comment, and conclusory statements are insufficient. Caltrans and Metro's response to CEHAJ's comment on stormwater issues is inadequate because it does not provide an analysis of a significant environmental question, provided a general response to a specific and detailed comment, provided only conclusory statements that were unsupported by information or fact to justify its decision that the issues raised in the comment were insignificant or would not occur. The responses and document do not adequately address how TMDLs will be met for trash and bacteria, account for impacts from construction. It is insufficient to simply rely on as of yet undetermined measures ("final design of BMPs will be analysed during PS&E")²⁷² to mitigate impacts that have not been fully analyzed. The inadequacy of the response to comment violates CEQA § 21091 and CEQA Guideline § 15088 and undermines the sufficiency of the EIR as an informational document.

XIV. THE RDEIR/SDEIS SEVERELY UNDERSTATES THE PROJECT'S NOISE IMPACTS AND FAILS TO MITIGATE THESE IMPACTS.

The RDEIR/SDEIS's analysis of noise impacts and proposed mitigation continues to be wholly inadequate.

The California Legislature has declared in CEQA that "it is the policy of the state" to "[t]ake all action necessary to provide the people of this state with . . . freedom from excessive noise."²⁷³ Research on noise from transportation—especially heavy-duty trucks—shows significant health impacts. For instance, noise above 60 decibels ("db") has been shown to have psychological impacts, such as worsening children's mental health, concentration, and classroom behavior in

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²⁷¹ RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties, IP-22-52 at 34-36, 789.

²⁷² RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties, IP-22-52 at 34-36; 789.

²⁷³ Pub. Res. Code § 21001(b).

children at school.²⁷⁴ (For reference, "a diesel truck 50 feet away going 50 miles per hour, may register between 80 and 90 decibels.").²⁷⁵ Other studies show that chronic noise exposure, including near roadway exposure, contribute to a worsening of heart disease and higher rates of stroke, after accounting for the risks association with air pollution.²⁷⁶ Traffic noise can also disturb sleep.²⁷⁷

The revised analysis continues to use standards and criteria that are unreasonable and substantially above the current recommended and local noise criteria, especially for sensitive receptors, such as schools; continues to use an unreasonable and indefensibly high threshold of significance of 12 dBA; continues to employ a methodology containing serious omissions that skewed results and failed to provide information required by CEQA and NEPA; and continues to proposes only minimal measures to lessen the severity of noise and vibration impacts and absolutely no measures to avoid them.²⁷⁸ As a result, the RDEIR/SDEIS noise analysis remains inadequate under NEPA and CEQA

Finally, CEQA § 21091 and CEQA Guideline § 15088 require lead agencies to respond in writing to comments submitted by the public that raise significant environmental questions. An adequate response to comments explains why the lead agency has rejected the recommendations and objections raised in the comments and provides a good faith, reasoned analysis to support the agency's determination. The level of detail in the response should be the same as the level of detail in the comment, and conclusory statements are insufficient. Caltrans and Metro's response to CEHAJ's comment on noise is inadequate because it failed to explain the agency's basis for rejecting the recommendation or objection, provided a general response to a specific and detailed

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²⁷⁴ Martha Matsuoka, Andrea Hricko, Robert Gottlieb & Juan DeLara, *Global Trade Impacts:* Addressing the Health, Social and Environmental Consequences of Moving International Freight through Our Communities, Occidental College and University of Southern California (2011) [hereinafter Global Trade Impacts], citing World Health Org., Guidelines for Community Noise, Chapter 3, Adverse Health Effects of Noise (1999),

http://www.who.int/docstore/peh/noise/Comnoise3.htm; E.E. Van Kempen *et al.*, *Children's Annoyance Reactions to Aircraft and Road Traffic Noise*, J. Acoustical Soc'y Am. 125(2) at 895-904 (2009); U.S. Dep't of Transp., Fed. Railroad Admin., *The General Health Effects of Transportation Noise*, Document # DTS- 34-RR297-LR2 FRS/RDV-03/01 (2002); P. Lercher, G. W. Evans, M. Meis & W. W. Kofler, *Ambient Neighbourhood Noise and Children's Mental Health*, Occupational and Envtl. Med. 59(6) at 380-86 (2002); Gary W. Evans, *Child Development and the Physical Environment*, 57 Ann. Rev. of Psychol. 423-451 (2006).

²⁷⁶ Global Trade Impacts at 18, citing Wolfang Babisch, Transportation Noise and Cardiovascular Risk: Updated Review and Synthesis of Epidemiological Studies Indicate that the Evidence Has Increased, Noise & Health, Vol. 8, Iss. 30, 1-29 (Jan. 2006); Mette Sorensen et al., Road Traffic Noise and Stroke: A Prospective Cohort Study, Eur. Heart J. 1-8 (Jan. 25, 2011).

²⁷⁷ Global Trade Impacts, 19, citing World Health Org., Guidelines for Community Noise, Chapter 3, Adverse Health Effects of Noise (1999),

http://www.who.int/docstore/peh/noise/Comnoise3.htm.

²⁷⁸ Pub. Res. Code § 21100(b)(5); City of Antioch v. City Council of Pittsburg 187 Cal. App. 3d 1325, 1337 (1986).

comment, and provided only conclusory statements. Caltrans has not adequately addressed any of the concerns we previously raised, nor has it provided an adequate response for its failure to do so. The inadequacy of the response to comment violates CEQA § 21091 and CEQA Guideline § 15088 and undermines the sufficiency of the EIR as an informational document.

XV. THE RDEIR/SDEIS FAILS TO ADEQUATELY DISCUSS AND MITIGATE CONSTRUCTION IMPACTS.

A. The Project should Incorporate the Construction Components of CA-7.

While the RDEIR/SDEIS responded to some of construction components included in CA-7, it did not address or incorporate a number of others. These additional elements that should be included are:

- Commitment to fund air mitigation (\$10M per year) & accelerate mitigation for indoor air filtration and in for air filtration in schools
- Commitment to fund noise mitigation (\$10M per year) & accelerate soundproofing mitigation & programs in schools; for near freeway blocks, reduce interior noise to 30 decibels or less
- Free public transit program
- Independent third-party monitor
- Conduct a health study during construction
- Funding for community outreach program (\$200,000 per year)
- Job training and local hire program
- Minority business enterprise, women business enterprise and small business utilization and retention program
- Use power grid for electric motors
- Use of ZE technology where available

In addition, the while the DEIR/S referenced the need to build catenary or toll systems for ZE,²⁷⁹ the RDEIR/SDEIS fails to include construction plans for special structures for such a ZE alternative.

B. The RDEIR/SDEIS Contains an Inadequate Discussion of the Environmental Impacts of Construction.

The RDEIR/SDEIS fails to provide basic information about how construction on the project would proceed, making it impossible to identify potential environmental impacts. Based on this limited information about how construction would proceed, the discussion of construction impacts is extremely vague and fails to adequately identify and discuss impacts on the environment.

279	DEIR at 3.24-4.	
	DEIK at 3.24-4.	

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For example, the discussion of land-use impacts hints at business closures and relocations due to construction impacts, but fails to provide any more details about this potential. Similarly, when discussing impacts to schools, the RDEIR/SDEIS states that there will be "temporary construction impacts" at Cesar Chavez park but does not explain what those impacts would be, or how they might impact the neighboring school. To the extent that the RDEIR/SDEIS relies on CON-TR-1 to minimize impacts to access to parks and schools, this measure is too vague to provide any information about how impacts will be reduced.

Similarly, the RDEIR/SDEIS fails to discuss construction impacts on community resources, providing even less of a discussion than the DEIR, which had included a table listing community resources impacted by construction.²⁸¹ The only discussion is two sentences without explanation: "Additionally, temporary construction impacts would occur under each build alternative and would occur for property owners whose properties are fully acquired and require relocation. *These property owners would be temporarily impacted during the relocation process.*"²⁸² The document does not include a description of *how* displacement will impact people while they are relocating.

The discussion of how construction impacts will affect EJ communities is similarly stunted. "Lastly, construction activities would temporarily affect environmental justice populations. Temporary construction impacts would include disruption of local traffic patterns and access to residences and businesses, increased traffic congestion, and increased noise, vibration and dust. However, construction activities would provide jobs, which would benefit local economies that include minority and low-income populations." The idea that additional jobs may be available for some members of EJ communities (although there is no guarantee of this) is irrelevant to the fact that, as the RDEIR/SDEIS acknowledges, construction will cause detrimental impacts to traffic, access to residences and businesses (including displacements) and increased noise, etc.

The RDEIR/SDEIS also rests on the faulty assumption that since construction will last for less than 5 years on a single segment, the emissions should not be considered permanent impacts. "According to the conceptual construction schedule used to develop the construction emissions analysis, some of the conceptual construction phases would take more than five years to complete. However, construction would not occur at any one location for more than five years. Therefore, construction-related emissions may be considered temporary; subsequently, any construction-related PM2.5 and PM10 emissions due to this project were not included in the hot-

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²⁸⁰ RDEIR/SDEIS at 3.24-4 through 3.24-5 ("Construction would temporarily affect nearby land uses. Temporary construction impacts would include disruption of local traffic patterns and access to residences and businesses; increased traffic congestion; and increased noise, vibration, and dust. Although some businesses could close or relocate during a prolonged construction period, this impact would be localized and would not likely result in long-term changes in land use.").

²⁸¹ DEIR at 3.24-9.

²⁸² RDEIR/SDEIS at 3.24-14 (emphasis added).

²⁸³ *Id.* (emphasis added).

spot analysis."²⁸⁴ Yet it is unclear from the limited detail provided whether this would in fact be the case.

Finally, Caltrans should provide a quantitative analysis of health impacts and much more information about construction impacts, including how and where the project will be phased in over time, construction related changes to health risks.²⁸⁵ And the GHG analysis should include lifecycle GHGs of construction emissions and equipment.

C. Mitigation Measures for Construction Impacts are Inadequate.

In part because the analysis of existing local conditions is so inadequate, Caltrans cannot propose mitigation measures to address the clear impacts this project will have on local communities. With respect to the measures that are proposed, many of them are so undeveloped that they give no indication of whether they will actually abate any of the construction impacts.

For example, CON-TR-1, the Transportation Management Plan, is extremely vague and merely states the general principles that will be included in the plan, without providing specifics. For instance, it does not explain how much public information will be made available, whether or how residents will be notified of construction activities in their neighborhoods, etc. Given the lack of specifics and the fact that this TMP is undrafted, it is unclear that this measure will do anything to reduce impacts of construction. Where the RDEIR/SDEIS relies on undrafted TMPs to abate impacts for a wide range of impacts, these assertions are unsupported.

CON-AQ-15, which states that "dependent upon the responsible agency that administers the construction contract" the types of equipment used and associated emissions levels will vary, is not a mitigation measure since it does not actually require anything.

Other measures are also so broad as to be meaningless, such as those for noise proposing site restrictions and "shielding with barriers' and "educating contractors and their employees to be sensitive to noise impact problems", and unsupported assertions that construction activities will provide local jobs. The conclusion that job benefits will accrue to local EJ communities is unsupported. Additionally, assuming that this will mitigate other construction impacts to EJ communities is incorrect.

In this vein, CON-LU-2 is unenforceable and inadequate mitigation to address community concerns and provide information to the community. CON-LU-2 requires "one or more public information field office(s) near the construction site(s)," meaning that potentially only a single field office will be set up for the entire 710 project area. Moreover, the notice requirements are inadequate and vague. CON-LU-2 states that the field office will serve the purpose to "Notify property owners, residences, and businesses of major construction activities (e.g., utility

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²⁸⁴ *Id.* at 3.24-29 (emphasis added).

²⁸⁵ RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties, IP-22-56 at 792 ("Detailed construction phasing cannot be developed at this time and thus detailed modeling would be speculative in both time and location.").

relocation/disruption, rerouting of delivery trucks) at least 14 days prior to the disruption."²⁸⁶ The measure does not include provisions to notify sensitive receptors. CEHAJ has previously requested that sensitive receptors within 1000 ft of the project be notified at least 30 days before construction begins.²⁸⁷ Finally, requiring vague "periodic meetings" is not sufficient to satisfy CEHAJ request for monthly meetings and does not describe where these meetings will be held, how often, or how community concerns will be incorporated into construction plans.²⁸⁸

D. Caltrans' Response to Prior CEHAJ Comments on the Construction Impacts of the Project are Inadequate.

CEQA § 21091 and CEQA Guideline § 15088 require lead agencies to respond in writing to comments submitted by the public that raise significant environmental questions. An adequate response to comments explains why the lead agency has rejected the recommendations and objections raised in the comments and provides a good faith, reasoned analysis to support the agency's determination. The level of detail in the response should be the same as the level of detail in the comment, and conclusory statements are insufficient. Caltrans and Metro's response to CEHAJ's comment on construction impacts is inadequate because it does not offer evidence in support of the agency's decision, failed to explain the agency's basis for rejecting the recommendation or objection, provided a general response to a specific and detailed comment, and provided only conclusory statements.

For example, Caltrans does not provide an explanation for why power grid is not used for mobile generators. ²⁸⁹ Citing to CON-AQ-8 which reduces diesel idling in sensitive areas is a different issue and does not respond to the comment. In addition, Caltrans did not respond to CEHAJ's comment to use electric cranes and forklifts where possible. In addition, the following responses were inadequate:

- Failure to fund requested programs because there is no specific construction schedule and therefore not possible to estimate the annual budget is besides the point; Caltrans can still commit to funding these programs without a specific construction schedule.
- Reliance on unfunded community benefits program is inadequate to mitigate these impacts on construction.
- Deflection to Metro to develop local hire policy is not in compliance with Motion 22.1.
- Dismissal of request to conduct a health study is not supported by substantial evidence.²⁹⁰
- Idea that community will benefit from construction jobs and that this will mitigate impacts is unsupported.

The inadequacy of the responses to comment violates CEQA § 21091 and CEQA Guideline § 15088 and undermines the sufficiency of the EIR as an informational document.

²⁸⁶ RDEIR/SDEIS at 3.24-44.

²⁸⁷ RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties, IP-22-42 at 782-783.

²⁸⁸ *Id.* at 775.

²⁸⁹ *Id.* at 782-83.

²⁹⁰ RDEIR/SDEIS, Appendix S, Response to Comments-Interested Parties, IP-22-21 at 774 ("Caltrans respectfully disagrees with the need for such a study . . . Another study will not will help reduce air quality and health risk impacts related to project construction.").

XVI. THE RDEIR/SDEIS CUMULATIVE IMPACTS ANALYSIS IS INADEQUATE.

The RDEIR/SDEIS's analysis of cumulative impacts is inadequate and flawed. It contains out-of-date descriptions of the status and impacts in its list of other projects, and it relies on an inadequate and flawed analysis of project impacts as described in the preceding sections.

The RDEIR/SDEIS lists in Table 3.25-1 the past, present, and foreseeable future projects for its cumulative impacts analysis.²⁹¹ But not all the entries in that table are up-to-date. For example, in line P-5, the description of the China Shipping project has an old, out-of-date description of the status, as of the date of the RDEIR/SDEIS release.²⁹² Without accuracy here, the cumulative analysis is faulty.

Further, the cumulative impacts analysis relies on the impacts identified in other sections of the document. However, because the analysis of impacts and provision of mitigation is inadequate as discussed above, the analysis of cumulative impacts based on those flawed project impact analyses is also flawed. For example, with respect to land use, the cumulative impacts analysis and its conclusion that there are no cumulative impacts is based on the notion that the project is generally consistent with local land use plans;²⁹³ as discussed in section III (land use) above, that conclusion is unsupported and flawed. Thus, for each section discussed above with an inadequate project impact analysis, the cumulative impacts analysis is similarly inadequate and flawed.

XVII. THE COMMUNITY HEALTH BENEFIT PROGRAM IS INADEQUATE AS MITIGATION AND DOES NOT COMPLY WITH CEQA

The RDEIR/SDEIS acknowledges the I-710 Corridor Project will disproportionately and adversely impact minority and low-income populations who live within the project area.²⁹⁴ To address these impacts, the RDEIR/SDEIS proposes additional mitigation, in the form of a Community Health Benefit Program (Program), under which communities can apply for grants to implement air quality improvement and renewable energy projects.²⁹⁵ However, the RDEIR/SDEIS does not adequately explain the amount of funding, describe how projects will be funded and selected, or ensure that the projects will mitigate the project's environmental impacts. As such, the RDEIR/SDEIS' description of the Community Health Benefit Program mitigation measure is inadequate and constitutes unlawfully deferred mitigation. Caltrans must include specific performance criteria and funding commitments in the project description to ensure the Program mitigates the impacts it is designed to address.

²⁹¹ RDEIR/SDEIS, Table 3.25-1.

²⁹² *Id.* at 3.25-19, Table 3.25-1.

²⁹³ *Id.* at 3.25-47 ("Therefore, the I-710 Corridor Project would not substantially contribute to a cumulative effect related to consistency with State, regional, and local plans because the project is generally consistent with area General Plan goals and policies....").

²⁹⁴ RDEIR/SDEIS pp. 3.3-148 to 149.

²⁹⁵ RDEIR/SDEIS pp. 3.3-148 to 149.

A. The Program Does Not Comply with CEQA's Requirements for Mitigation Measures.

CEQA requires proposed projects that will have significant environmental impacts to include measures to mitigate these impacts that are fully enforceable and are not deferred. The Program fails to meet these requirements.

CEQA requires mitigation measures to be "fully enforceable through permit conditions, agreements, or other legally-binding instruments. In the case of the adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design."²⁹⁶ The Program is not a fully-enforceable mitigation measure. In fact, there is no guarantee that it will be adopted. It is only included as a programmatic component of the build alternatives. Therefore, it is possible for the project to be built without the implementation of this Program, which would leave the project's serious, disproportionate impacts on environmental justice communities unmitigated. Failure to mitigate significant environmental impacts violates CEQA.

Moreover, the Program constitutes unlawfully deferred mitigation. CEQA prohibits deferred mitigation. CEQA Guidelines § 15126.4 states, "Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way."²⁹⁷ Thus, for the Program to be a valid mitigation measure under CEQA, the RDEIR/SDEIS needs to include specific performance criteria to ensure it will mitigate the project's significant environmental impacts and make further project approvals contingent on meeting these criteria. ²⁹⁸ The description of the Program, as written in the RDEIR/SDEIS, is vague and does not include crucial information that is needed to ensure the Program will be implemented and that it will sufficiently mitigate the impacts it is designed to address. The Program does not include any specific funding commitments or explain how the Advisory Committee will be selected. These details are critical to ensure the success and adequacy of the Program as a mitigation measure.

Currently, the RDEIR/SDEIS states the Program will include yearly funding contributions adjusted for inflation over a ten-year period, commensurate with any phased construction strategy. ²⁹⁹ It does not specify how much money will be allocated each year. Additionally, it does not identify the sources of the funding or guarantee that the needed funds will be available. As such, the Program is not enforceable, and there is no assurance that it will implemented. Without guaranteed funding commitments, there is no way to know if the Program will be

²⁹⁶ CEQA Guidelines § 15126.4(a)(2).

²⁹⁷ CEQA Guidelines § 15126.4(a)(1)(B).

²⁹⁸ Rialto Citizens for Responsible Growth v. City of Rialto, 208 Cal. App. 4th 899, 944 (2012); Defend the Bay v. City of Irvine, 119 Cal. App. 4th 1261, 1275 (2004); Endangered Habitats League, Inc. v. Cnty of Orange, 131 Cal. App. 4th 777, 793 (2005).
²⁹⁹ RDEIR/SDEIS at 2-24.

funded or if the money allocated for the Program will actually be able to fund projects of the quality and quantity that will be needed to adequately mitigate the project's impacts.

The Program description also fails to adequately explain how the Advisory Committee members will be selected. The Advisory Committee will have the authority to select which projects will receive grants through the Program, and the allocation of the grant funding will determine the success of the mitigation measure. It is important that projects that address the most serious and urgent impacts on environmental justice communities are selected. One way to achieve this is by ensuring the impacted communities have voices on the Advisory Community and can choose which projects are selected. The RDEIR/SDEIS states the Advisory Committee will consist of area experts, members of the funding partner agencies, and community representatives. This discussion should also include criteria for selecting members of the Advisory Committee that ensure the interests of the impacted communities will be represented. It is not enough to say community representatives will serve on the Advisory Committee without explaining who will determine what constitutes a community representative and how they will be selected.

B. The Program Should Be Strengthened to Ensure it Fully and Equitably Mitigates Project Impacts.

The RDEIR/SDEIS should also provide specific criteria for how to select and prioritize projects and allow for more types of projects to be funded by the Program. Currently, the RDEIR/SDEIS simply prioritizes projects that will benefit the most people per dollar and aid undefined environmental justice communities. Cost-effectiveness may be an important factor in allocating the Program's grant funding, but it is not the only factor that the Advisory Committee should consider. In addition to considering how many people a project will benefit, the Committee should consider the distributional effects of the project's impacts and select projects that address the most severe impacts.

Currently, the Program covers projects that fall under three categories: 1) air quality improvement and/or noise reduction measures at local schools; 2) air quality improvements at hospitals, medical centers, and senior facilities, as well as health education, outreach, and screening; and 3) greenhouse gas (GHG) reduction through renewable energy and tree-planting projects. While these projects may be able to address the air pollution impacts caused by the project, these categories are quite narrow and only allow community members to address the new harms created by the project. The project's impacts will fall on communities that are already disproportionately impacted, which will compound present air quality issues and exacerbate existing health impacts. Limiting the Program to new harms created by the project does not address the project's contribution to cumulative air quality issues. A more comprehensive program that allows for funding of projects that fall under broader categories would allow community members to proactively address the project's impacts.

The Community Health Benefit Program, as described in the RDEIR/SDEIS, is inadequate and constitutes unlawfully deferred mitigation. To comply with CEQA, the Program needs to be

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³⁰⁰ *Id.* at 2-23.

³⁰¹ RDEIR/SDEIS at 2-23 through 2-24.

fully-enforceable through a legally-binding instrument and/or specific performance criteria need to be incorporated into the project description to ensure the Program fully and successfully mitigates the impacts it is designed to address. It should also be strengthened to ensure it provides adequate mitigation for the Project's significant impacts.

XVIII. A REVISED DRAFT EIR MUST BE PREPARED AND RE-CIRCULATED.

Because of the inadequacies discussed above, the RDEIR/SDEIS cannot form the basis of a final EIR/EIS. CEQA requires preparation and recirculation of a supplemental draft "[w]hen significant new information is added to an environmental impact report" after public review and comment on the earlier draft EIR. The opportunity for meaningful public review of significant new information is essential "to test, assess, and evaluate the data and make an informed judgment as to the validity of the conclusions to be drawn therefrom." An agency cannot simply release a draft report "that hedges on important environmental issues while deferring a more detailed analysis to the final [EIR] that is insulated from public review." 304

In order to cure the panoply of RDEIR/SDEIS defects identified in this letter as well as the defects previously identified in the DEIR/SDEIS that persist, Caltrans must obtain substantial new information to adequately assess the proposed Project's environmental impacts, and to identify effective mitigation and alternatives capable of alleviating the Project's significant impacts. This new information will clearly necessitate recirculation. CEQA requires that the public have a meaningful opportunity to review and comment upon this significant new information in the form of a revised draft EIR.

Sincerely,

Adrian Martinez Oscar Espino-Padron Earthjustice

Susanne Browne Legal Aid Foundation, Los Angeles Ramya Sivasubramanian Natural Resources Defense Council

Angelo Logan Moving Forward Network

³⁰² Pub. Res. Code § 21092.1.

³⁰³ Sutter Sensible Planning, Inc. v. Sutter County Board of Supervisors, 122 Cal. App. 3d 813, 822 (1981); City of San Jose v. Great Oaks Water Co., 192 Cal. App. 3d 1005, 1017 (1987). ³⁰⁴ Mountain Lion Coalition v. California Fish and Game Comm'n, 214 Cal. App. 3d 1043, 1052 (1989).

ATTACHMENT B



Air Quality and Health Risk Assessments Technical Study for the I-710 Corridor Environmental Impact Report / Environmental Impact Statement

> Prepared for: URS Corporation Santa Ana, California

Prepared by: ENVIRON International Corporation Irvine, California

Date: February 2012

Project Number: 05-18574E4

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Acronyms

μg/m³ micrograms per cubic meter
AAQS Ambient Air Quality Standards

AATWG Agency Air Technical Working Group
AERMET AERMOD Meteorological Preprocessor

AERMOD American Meteorological Society/Environmental Protection Agency

Regulatory Model

AOI Area of Interest

AP-42 Air Pollution emission factors compiled and assess by the EPA

AQ/HRA Air Quality and Health Risk Assessments

AQMP Air Quality Management Plan

CAAQS California Ambient Air Quality Standards
Caltrans California Department of Transportation

CARB (ARB) California Air Resource Board
CCAR California Climate Action Registry
CEQA California Environmental Quality Act

CFR Code of Federal Regulations

CH₄ Methane

CO Carbon monoxide CO₂ Carbon dioxide

CO₂e Carbon dioxide Equivalent CPTP Clean Port Truck Program

DEIR Draft Environmental Impact Report
DEIS Draft Environmental Impact Statement

DPM Diesel Particulate Matter
EIR Environmental Impact Report
EIS Environmental Impact Statement

EPA United States Environmental Protection Agency

FHWA Federal Highway Administration

FC Freight Corridor

GCCOG Gateway Cities Council of Governments

GHG Greenhouse Gas

GIS Geographic Information Systems

GP General Purpose

GRP General Reporting Protocol
GWP Global Warming Potential

hr Hour

H₂S Hydrogen Sulfide

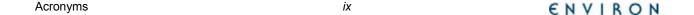
HRA Health Risk Assessment

IPCC International Panel on Climate Change
ITS Intelligent Transportation Systems

JPA Joint Powers Authority

lb Pounds

LPS Locally Preferred Strategy



MCS Major Corridor Study

Metro Los Angeles County Metropolitan Transportation Authority

mg/m³ milligrams per cubic meter
MSAT Mobile Source Air Toxics

MTA Los Angeles County Metropolitan Transportation Authority

NAAQS National Ambient Air Quality Standards

NB Northbound

NEPA National Environmental Policy Act

 $\begin{array}{ccc} N_2O & \text{Nitrous oxide} \\ NO_2 & \text{Nitrogen dioxide} \\ NO_x & \text{Oxides of nitrogen} \\ NOP & \text{Notice of Preparation} \end{array}$

 O_3 Ozone

OEHHA Cal/EPA Office of Environmental Health Hazard Assessment

Pb Lead

PM Particulate Matter

PM₁₀ Particulate Matter less than 10 microns in diameter PM_{2.5} Particulate Matter less than 2.5 microns in diameter

POLA Port of Los Angeles
POLB Port of Long Beach
ppm parts per million

RECLAIM Regional Clean Air Incentives Market

RTIP Regional Transportation Improvement Program

RTP Regional Transportation Plan ROG Reactive Organic Gases

SB Southbound

SCAB South Coast Air Basin

SCAG Southern California Association of Governments SCAQMD South Coast Air Quality Management District

SCS Sustainable Communities Strategy
SER Standard Environmental Reference

SMAQMD Sacramento Metropolitan Air Quality Management District

SO₂ Sulfur dioxide
SO_x Oxides of sulfur
TAC Toxic Air Contaminant

TDM Transportation Demand Management
TSM Transportation Systems Management

USEPA United States Environmental Protection Agency

UPF Ultrafine Particulates

VMT Vehicle Miles Travelled

VOC Volatile Organic Compounds

Acronyms x ENVIRON

Executive Summary

This report presents the results of the Air Quality/Health Risk Assessment analyses for the Interstate 710 (I-710) Corridor Project (Project). The Executive Summary presents the general air quality, health risk, and greenhouse gas impacts from the Project Alternatives. Section ES.11 presents a brief summary overview of the results of the AQ/HRA/GHG analyses. Compared to the 2008 base year, key results for the communities along the I-710 freeway include:

- Cancer risk decreases in residential areas and at sensitive receptors (e.g., schools, hospitals, daycare and elder care centers, etc.) for all 2035 Project alternatives, with the greatest reductions generally in Project alternatives with a zero-emission freight corridor.
- Most vehicle exhaust emissions, including air toxics and inhalable particulate matter, and related impacts decrease for all 2035 Project Alternatives. The greatest reductions generally occurred in Project alternatives with a zero-emission freight corridor.
- Road dust lofted (entrained) into the air by passing vehicles on the I-710 freeway resulted in increased inhalable particulate matter levels in some areas very near to the I-710 freeway (generally less than 200 meters or 660 feet) compared to the 2008 baseline. However, these increases may be an artifact of the U.S. Environmental Protection Agency (U.S. EPA) calculation method for entrained road dust and are inconsistent with the South Coast Air Quality Management District's 2007 Air Quality Management Plan (AQMP) methodology and proposed 2012 AQMP method, which do not result in the growth of entrained dust seen in the U.S. EPA method. If re-entrained dust growth were excluded from the calculations, all of the project alternatives would reduce PM emissions as compared to 2008 baseline.
- Localized carbon monoxide and particulate matter impacts on local intersections would not cause exceedences of air quality standards and/or delay the timely attainment of such standards.
- All criteria pollutant single-segment peak-day construction emissions except NO_X were
 found to be lower that the SCAQMD significance thresholds. Construction emissions for
 the worst-case schedule (simultaneous construction of all segments) show greatest
 peak-day emissions during mainline widening/shifting. Phasing and scheduling could
 further reduce construction peak emissions.
- GHG emissions from the freight corridor build alternatives decrease as compared to the No Build alternative (Alternative 1) with Alternative 6B showing the largest reduction in GHG emissions (approximately 600,000 tonnes CO₂e/yr).
- PM_{2.5} mortality and morbidity were analyzed qualitatively based on comparative analysis of total PM_{2.5} emissions and near I-710 concentrations for the various alternatives. Overall, the public's exposure to PM_{2.5}-related morbidity and mortality health risks would generally decrease relative to the 2008 baseline; the exceptions would be some locations within 100 m to 300 m of the I-710 freeway and/or freight corridor, which generally would not have people present.
- Incremental ultrafine particulate (or UFP) impacts were qualitatively analyzed using exhaust PM_{2.5} emissions as a surrogate. This analysis shows a decrease in the public's

exposure to ultrafine particulates for all 2035 Alternatives relative to the 2008 baseline, particularly on area freeways, arterials near the ports and even along the I-710.

The main report includes more details about these impacts and the methodologies used for assessing them. This report also includes extensive technical appendices.

The I-710, also known as the Long Beach Freeway, is a major north-south interstate freeway linking the Port of Los Angeles (POLA) and the Port of Long Beach (POLB) to Southern California and beyond. The I-710 Major Corridor Study (MCS), undertaken to address the I-710 capacity and mobility issues and to explore possible solutions for transportation improvements, was completed in March 2005 and identified a Locally Preferred Strategy (LPS) consisting of ten general purpose lanes next to four separated freight movement lanes. The Los Angeles County Metropolitan Transportation Authority (Metro or MTA), in a cooperative effort involving California Department of Transportation (Caltrans), the Gateway Cities Council of Governments (GCCOG), the Southern California Association of Governments (SCAG), the POLA, the POLB, and the I-5 Joint Powers Authority (JPA), are collectively known as the I 710 Corridor Project Funding Partners. They are overseeing the preparation of environmental analysis and documentation for the proposed I-710 Corridor Project, which includes improvements along the I-710 Corridor from Ocean Boulevard in the City of Long Beach to State Route 60 [SR-60] in East LA.

The purpose¹ of the proposed I-710 Corridor Project (also referred to as the Project or I 710 Project) is to:

- Improve air quality and public health
- Improve traffic safety
- Address design deficiencies
- Address projected traffic volumes
- Address projected growth in population, employment, and activities related to goods movement

The environmental impacts of the proposed project alternatives are assessed and disclosed in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans (the lead agency²) and Metro have initiated work on the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the proposed Project, the purpose of which is to inform the public and governmental decision-makers of possible environmental effects associated with the proposed Project and to describe the measures that would mitigate those effects.

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A full description of the Need and Purpose of the I-710 Corridor Project can be found in the Notice of Preparation (http://www.metro.net/projects_studies/I-710/images/710_NOP.pdf) and the I-710 Major Corridor Study Final Report (http://www.metro.net/projects_programs/final_report.htm).

² Caltrans is the lead agency under CEQA. Under NEPA, the Federal Highway Administration's (FHWA's) responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being carried out by Caltrans under its assumption of responsibility pursuant to 23 United States Code (USC) 327.

In support of the EIR/EIS and transportation conformity determination, ENVIRON conducted air quality and health risk assessments (AQ/HRA) to evaluate the incremental air quality and human health risk impacts associated with the proposed Project and project alternatives as compared to the baselines (i.e., 2008 Notice of Preparation baseline for CEQA and 2035 No Federal Action baseline for NEPA). The AQ/HRA for this Project consists of two parts, meeting two separate regulatory requirements:

- An analysis of air quality and human health risk impacts for the EIR/EIS document, consistent with CEQA/NEPA requirements.
- Intersection "hot-spot" analyses in support of the transportation conformity determination, consistent with federal and state transportation conformity requirements.

The various analyses and the methodologies used to carry out the analyses follow the April 2010 I-710 AQ/HRA Protocol³ prepared by ENVIRON. The Air Quality / Health Risk Assessments (AQ/HRA) Working Group, comprised of Funding Partner representatives, oversaw the development of the I-710 AQ/HRA Protocol. In addition, an Agency Air Technical Working Group (or AATWG) was consulted during the preparation of the draft I-710 AQ/HRA Protocol. The AATWG included representatives from the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), South Coast Air Quality Management District (SCAQMD), Federal Highways Administration (FHWA), Cal/EPA Office of Environmental Health Hazard Assessment (OEHHA), U.S. Army Corps of Engineers, Los Angeles District, as well as Funding Partner representatives. ENVIRON gave several briefings were made to the Environmental Subject Working Group, Corridor Advisory Committee, Technical Advisory Committee, and Project Committee. The draft I-710 AQ/HRA Protocol was released for comments in March 2009. Revisions to the I-710 AQ/HRA Protocol, based on comments received in April 2009 and information from initial analyses, are described in the April 2010 Draft Final AQ/HRA Protocol. This Protocol is contained in Appendix A.

ES. 1 Project Study Area

The general I-710 Corridor Project study area includes the portion of the I-710 from Ocean Boulevard in Long Beach to SR-60, a distance of approximately 18 miles. Specific study areas may be established for individual analyses. For example, the study area for traffic analyses for the Project currently extends one mile east and west of the I-710 and includes freeway to freeway interchanges at I-405, SR-91, I-105, and I-5. Additionally, the traffic study examines intersections and roadway segments of key north/south and east/west arterials from Wilmington Avenue in the west to Lakewood Boulevard in the east⁴. Given the size of the I-710 Corridor Project and its impact on the region, incremental mobile source (traffic generated) emission impacts were assessed for the South Coast Air Basin (or SCAB), an Area of Interest (or AOI)⁵, which is a sub-region of the SCAB that includes cities and communities along the I-710 freeway and the I-710 freeway itself (see Figure ES.1). For the AQ/HRA dispersion modeling analyses,

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³ Protocol for the Air Quality and Health Risk Assessments (AQ/HRA) for the I-710 Corridor Environmental Impact Report / Environmental Impact Statement (EIR/EIS) (Draft Final), ENVIRON International Corporation, April, 2010.

Freeway Traffic Operations Analysis Report (Draft); Prepared for Los Angeles County Metropolitan Transportation Authority; Prepared by URS; December 2, 2009.

It should be noted that the Executive Summary does not discuss the results for the AOI; results for the AOI are discussed in the main report. See Figure 4.1 for a map of the AOI.

the American Meteorological Society / Environmental Protection Agency Regulatory Model (AERMOD) dispersion model and a coarse receptor grid was used to determine a zone of impact of the emissions from the I-710 freeway itself. This modeling zone of impact was generally the size of the general I-710 Study Area (see Figure ES.1) and smaller than the Area of Interest.

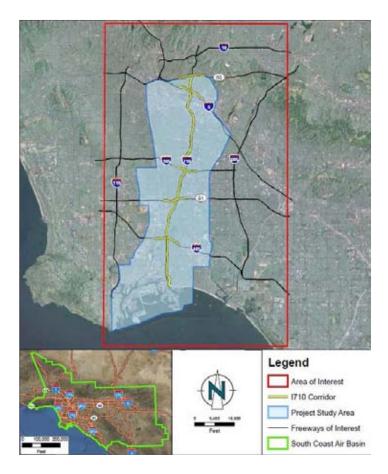


Figure ES.1 South Coast Air Basin, Air Quality Area of Interest, General I-710 Project Study Area, and I-710 Freeway

ES.2 Project Baselines

The AQ/HRA performed for any projects under CEQA/NEPA are conducted for the changes (i.e., increments) in project-related emissions, air quality impacts, and health risks relative to a baseline condition. Therefore, identifying the baseline condition is an important step in the EIR/EIS process.

Furthermore, it is important to note that the definition of baseline differs under CEQA and NEPA as discussed below:

The CEQA Baseline represents existing, current conditions, defined to be the conditions at the time the Notice of Preparation (NOP) was released. Therefore, the CEQA baseline represents project-specific conditions in the year 2008 (e.g., traffic conditions on the I-710 and selected roadways in the year 2008).

The NEPA Baseline represents conditions in a future year where no federal funds were used for the Project. In this case, the "No Build Alternative" in the year 2035 (also known as Alternative 1) represents the NEPA baseline.

ES.3 Project Alternatives

The AQ/HRA evaluated the identified project alternatives compared to these baselines in the analysis year of 2035. A multidisciplinary technical team developed the alternatives to achieve the I-710 Corridor Project purposes. Various committees involved in the I-710 Corridor Project community participation framework reviewed the alternatives. The Alternative Screening process for this Project recommended that three 2035 build alternatives (Alternative 5A, 6A, 6B) be evaluated in the EIR/EIS along with Alternative 1, the 2035 No Build Alternative 6. Subsequently in late 2010, the Funding Partners added a fourth build alternative (Alternative 6C). Section 1.4 of the main report describes these alternatives in detail; Figure ES.2 summarizes the alternatives.

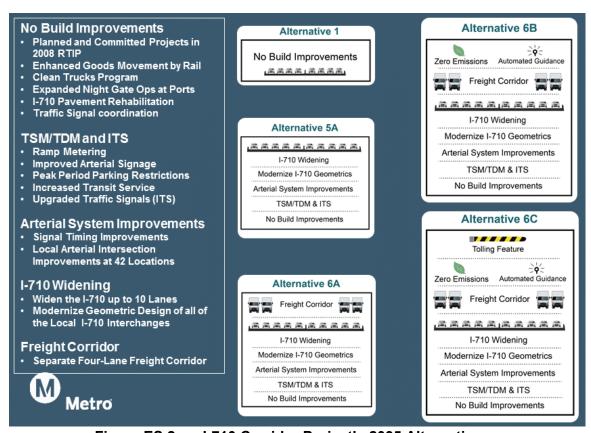


Figure ES.2 I-710 Corridor Project's 2035 Alternatives

ES.4 Scope of AQ/HRA

As mentioned earlier, the Project is a joint venture of several agencies associated with transportation and goods movement in the greater Los Angeles area and the subject of great interest to the local communities and other stakeholders involved in the I-710 Sustainable

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Technical Memorandum – Alternatives Screening Analysis (Final); Prepared for Los Angeles County Metropolitan Transportation Authority; Prepared by URS; May 29, 2009.

Communities Strategy (SCS) and other related studies. Metro, Caltrans and the other Funding Partners recognized that stakeholders wanted special analyses beyond the standard Caltrans analyses typically done for roadway/freeway projects (as described in Caltrans' Standard Environmental Reference at www.dot.ca.gov/ser/vol1/sec3/physical/ch11air/chap11.htm). Thus, additional special Project analyses over and above the standard analyses done for freeway projects were conducted because of the unique goods movement component of the Project and the air quality purpose of the Project. The various stakeholders wanted these special Project analyses because of their concern over the proportionately high volume of diesel-powered trucks serving the ports and surrounding logistics related activities. The community's perception is that these trucks generate higher levels of emissions, which are a cause of increased health impacts on the communities surrounding the I-710,

NOTE: Multiple metrics must be used to assess the AQ/HRA impacts of the project alternatives. A single metric cannot, and should not, be used to evaluate the full AQ/HRA impacts of any project alternative. The results of the different analyses should be considered together to give a comprehensive understanding of project AQ/HRA impacts.

Figure ES.3 below presents a summary of the analyses conducted for this Project, including those done for a typical roadway project EIR/EIS and additional analyses done for the Project.

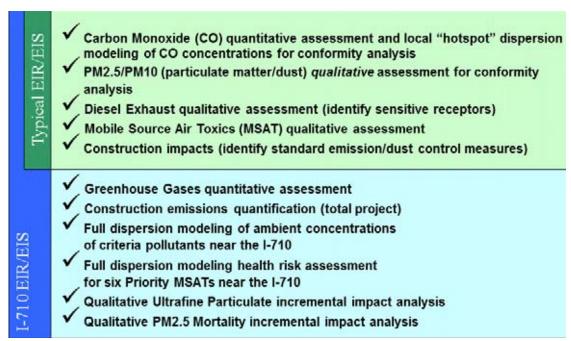


Figure ES.3 Summary of AQ/HRA/GHG Analyses for the I-710 Corridor Project

The Executive Summary presents the general air quality, health risk, and greenhouse gas impacts from the Project. The main report includes more details about these impacts and the methodologies used for assessing them. Section ES.11 presents a brief summary overview of the results of the AQ/HRA/GHG analyses.

ES.5 South Coast Air Basin and Area of Interest (AOI) Air Emissions Impacts

This section presents a summary of the results of the incremental emissions impacts of the proposed I-710 project alternatives based on the I-710 Traffic Model and applicable emission factors. The I-710 Traffic Model produces information along traffic "links" (which represent one or more roadway segments) throughout the South Coast Air Basin (and beyond). Incremental emission impacts are calculated for mobile source air toxics (MSAT) including diesel particulate matter (DPM) and criteria pollutants (ozone precursors such as oxides of nitrogen (NOx) and reactive organic gases (ROG), particulate matter less than 10 microns in diameter (PM₁₀) and less than 2.5 microns in diameter (PM_{2.5}), and other gases). The incremental emission impacts are calculated for the entire South Coast Air Basin, the Area of Interest around the AOI, and along the I-710 freeway itself (mainline and, if applicable, the proposed freight corridor).

ES.5.1 Mobile Source Air Toxics (MSAT) Incremental Emissions Impacts Compared to the 2008 Baseline

Toxic air contaminants (TACs) emissions are components of total organic gas (TOG) emissions (gas-phase TACs) and PM₁₀/PM_{2.5} emissions (particle-phase TACs) produced by vehicles (autos and trucks) powered by internal combustion engines (mobile source emissions). Emissions of individual TACs were calculated by applying speciation profiles from the California Air Resources' Board's (CARB) speciation database⁷ to the TOG and PM₁₀/PM_{2.5} emissions. There are numerous TACs in mobile source emissions as per the ARB speciation database. However, Caltrans Standard Environmental Reference (SER) and Federal Highway Administration (FHWA) memorandum titled "Interim Guidance on Air Toxic Analysis in NEPA Documents" and its Update⁸ both reference the 21 Mobile Source Air Toxics (MSAT) identified by the United States Environmental Protection Agency (USEPA).⁹ In consultation with Caltrans, the Lead Agency for this Project, ENVIRON analyzed the six "priority" MSAT as discussed below.

In March 2001, EPA issued its first MSAT rule, 40 CFR Parts 80 and 86 - Control of Emissions of Hazardous Air Pollutants From Mobile Sources; Final Rule, March 2001 (http://www.epa.gov/EPA-AIR/2001/March/Day-29/a37.htm), which identified 21 MSAT as being hazardous air pollutants that required regulation. A subset of six MSAT was identified as having the greatest influence on human health. In February 2007 EPA issued a second MSAT rule, which generally supported the findings in the first rule and recommended that acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases, formaldehyde, naphthalene, and polycyclic organic matter as having the greatest influence on health. As presented in the I-710 EIR/EIS AQ/HRA protocol (released March 2009) and agreed on by the AQ/HRA Working Group and the Agency Air Technical Working Group (AATWG), the I-710 AQ/HRA evaluates the six priority MSAT identified in the first MSAT rule. The September 2009 FHWA guidance references the newest seven MSAT. The Lead Agency confirmed use of original six priority MSAT as the protocol was completed and the analyses were well underway before the new guidance was issued. Thus, the six priority MSAT analyzed in the I-710 AQ/HRA are:

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⁷ Available at http://www.arb.ca.gov/ei/speciate/speciate.htm.

⁸ Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents, FHWA, September 2009.

Available at http://www.epa.gov/otaq/regs/toxics/toxicfrm.pdf.

- Diesel exhaust (particulate matter and organic gases)
- Benzene
- 1,3-Butadiene
- Acetaldehyde
- Formaldehyde
- Acrolein

Emission tables for the incremental emission impact of all of the MSAT (for the SCAB, Area of Interest, and the I-710 freeway itself) are included in Section 4.3.5.1 for all 2035 Alternatives compared to 2008 Baseline emissions. Emissions of all six priority MSAT decrease for all 2035 Alternatives compared to the 2008 baseline, despite forecast increases in vehicle miles of travel (VMT) in 2035 compared to 2008. This decrease in MSAT emissions is direct result of improved vehicle technology in the future years because of stricter regulations or programs such as CARB's diesel truck regulations and the San Pedro Bay Ports' Clean Air Action Plan. As an example, Table ES.1 presents a summary of the results for DPM, the dominant contributor to cancer risk. Table ES.1 shows the DPM emissions for the 2035 Alternatives as a fraction of the 2008 DPM emissions Area of Interest emissions.

Table ES.1 2035 Alternatives Comparison to 2008 DPM Emissions (lbs/day)

	SCAB	Area of Interest	I-710 Freeway Itself*
Alt. 1	-23,000	-5,500	-390
Alt. 5A	-23,000	-5,400	-350
Alt. 6A	-23,000	-5,400	-230
Alt. 6B	-23,000	-5,600	-460
Alt. 6C	-23,000	-5,600	-430

^{*}For all alternatives with a freight corridor (i.e. Alternatives 6A, 6B, and 6C), the

Overall 2035 DPM emissions in the AOI are about 80% lower than the 2008 DPM emissions, with small variations among the alternatives. Overall DPM emissions for the entire I-710 freeway are also lower in the 2035 alternatives as compared to the 2008 baseline (40% to 76% lower), although the variations are greater (40% lower in Alternative 6A and greater than 70% lower in Alternatives 6B and 6C). Along the I-710, Alternative 6A shows the smallest reduction in DPM emissions due to the increased truck traffic with the introduction of the freight corridor; Alternatives 6B and 6C have greater reductions due to the zero emission freight corridor.

[&]quot;I-710 freeway itself" will include the freight corridor also, where applicable

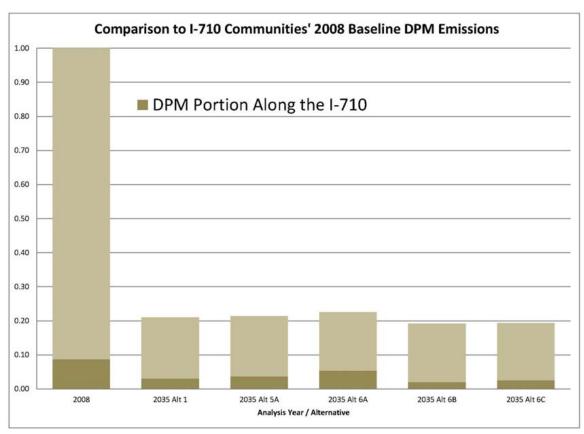


Figure ES.4 2035 Alternatives DPM emissions (as a fraction of the 2008 Area of Interest emissions)¹⁰

ES.5.2 Criteria Pollutant Incremental Emissions Impacts Compared to the 2008 **Baseline**

Emission tables for the incremental emission impact of all of the criteria pollutants (for the SCAB, Area of Interest, and the I-710 freeway itself) are included in Section 4.3.3 for all 2035 Alternatives compared to 2008 Baseline emissions. As with the MSAT, these emissions were calculated using the I-710 Traffic Model data. Where applicable, the SCAQMD CEQA regional mass emission significance thresholds are included for information purposes. All criteria pollutants (except total PM₁₀ and SO₂) show decreases for the 2035 Alternatives compared to the 2008 Baseline, despite increases in vehicle miles travelled (VMT). This reduction in exhaust emissions is a result of the improvement in vehicle technology because of stricter adopted regulations or programs such as the San Pedro Bay Ports' Clean Air Action Plan, which will continue to reduce motor vehicle tailpipe emissions per mile of travel as newer, cleaner vehicles enter the fleet. The increase in total PM₁₀ emissions results from the increase in entrained PM₁₀ dust emissions; but exhaust PM₁₀ emissions decrease in the SCAB in 2035. Entrained PM (both PM₁₀ and PM_{2.5}) emissions in this project were calculated using the most recent (February 2011) EPA AP-42 equation. That equation assumes that roads have infinite amounts of dust (also known as silt reservoirs) to entrain. This is in contrast with the SCAQMD's

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¹⁰ Each bar represents the ratio of DPM within the AOI for future alternatives to the 2008 AOI DPM emissions. The bottom darker portion of each bar represents the DPM portion along the I-710 compared to the 2008 AOI DPM.

2007 Air Quality Management Plan (AQMP), which reflects the SCAQMD's judgment that the dust on freeways and major arterial roads is finite and an increase in vehicles (or VMT) will NOT result in additional entrained PM_{10} or $PM_{2.5}$ emissions. After the I-710 Corridor Project emission calculations were completed, SCAQMD has proposed a modified methodology for entrained PM emissions as part of their 2012 AQMP development. In SCAQMD's proposed methodology, 2008 PM_{10} and $PM_{2.5}$ estimates will be lower, particularly $PM_{2.5}$ estimates. Most importantly, future year entrained PM will remain constant unless the roadway is lengthened. In this case, actual PM impacts for the project alternatives (compared to the 2008 baseline) would be more similar to the exhaust PM impacts than the results presented for total PM impacts. The exhaust PM_{10} emissions do decrease for the 2035 year alternatives when compared to the 2008 baseline, similar to the results of the other criteria pollutants.

Table ES.2 summarizes the incremental impacts of the criteria pollutants for the 2035 Alternatives compared to the 2008 baseline emissions for the SCAB. The SCAQMD's CEQA Significance Thresholds are also provided for reference.

Table ES.2 Incremental (2035 Alternatives minus 2008 Baseline) Traffic Emission

Impacts – South Coast Air Basin

		Oxides of Nitrogen (NO _x)	Carbon Monoxide (CO)	PM ₁₀	PM _{2.5}	Volatile Organic Compounds	Sulfur Dioxide (SO ₂)
SCAQMD Thresholds* (lbs/day)		55	550	150	55	55	150
2035 South Coast Air Basin incremental emission impacts (traffic operations)	No Build	↓,<	↓,<	> (↓)	↓,<	↓,<	>
	Alt. 5A	↓,<	↓,<	> (↓)	↓,<	↓,<	>
	Alt. 6A	↓,<	↓,<	> (↓)	↓,<	↓,<	>
	Alt. 6B	↓,<	↓ ,<	> (↓)	↓,<	↓,<	>
	Alt. 6C	↓,<	↓,<	> (↓)	↓,<	↓,<	>

^{*} Please note that Caltrans will make the determination of significance. The SCAQMD thresholds presented for information purposes only.

- ↓ Decrease relative to the 2008 baseline year
- < Less than SCAQMD significance threshold
- > Greater than SCAQMD significance threshold
- () Exhaust PM only

Incremental PM_{10} emissions (compared to the 2008 baseline for SCAB) increases are greater than the SCAQMD's threshold. However, these increases would NOT occur if it is assumed that the dust that can be entrained on freeways and major arterials is finite, as in the SCAQMD's 2007 AQMP. If the entrained dust from freeways and major arterial roadways would not increase with greater traffic levels (as seen in all 2035 alternatives), then the incremental PM_{10} emission impacts would be only the exhaust PM emissions (which includes brake and tire wear emissions, as well as tailpipe emissions) for these roadways. Exhaust PM_{10} and $PM_{2.5}$ emissions decrease in the SCAB for all 2035 alternatives.

¹¹ SCAQMD. 2007 AQMP (Appendix V, pages V-2-22 and V-2-23).

Incremental sulfur dioxide (SO₂) emissions (compared to the 2008 baseline for the SCAB) increase. This increase (~1300 lbs/day or 0.65 tons/day) is essentially the same for all 2035 alternatives and results from forecasted increases in VMT; the 2008 baseline already reflects the requirement for trucks to use ultralow sulfur diesel fuels in California that was adopted before 2008.

Incremental emission impacts for the AOI and on the I-710 freeway itself (including the proposed freight corridor, if applicable) were also calculated. [NOTE: Any comparison to SCAQMD thresholds is applicable for the entire SCAB only, not subareas of the region. SCAQMD established mass daily emissions thresholds (for itself as the lead agency and as guidance for other local lead agencies) that indicate when a project may have significant regional effects on air quality. SCAQMD used the SCAB as the setting for establishing these thresholds. Thus, the SCAQMD CEQA thresholds are presented with the incremental emissions (project alternative less the 2008) for the whole SCAB region only.] Table ES.3 summarizes the incremental impacts of the criteria pollutants for the 2035 Alternatives compared to the 2008 baseline emissions for the AOI and for the I-710 freeway itself (mainline and, as appropriate, the freight corridor).

Table ES.3 Incremental (2035 Alternatives minus 2008 Baseline) Traffic Emission Impacts – Area of Interest and on the I-710 Freeway Itself

•		NO _x	СО	PM ₁₀	PM _{2.5}	VOCs	SO ₂
Area of Interest (including I-710 Communities)	No Build	\	\	↑(↓)	\	\	↑
	Alt. 5A	→	↓	↑(↓)	\	\	↑
	Alt. 6A	\	↓	↑(↓)	\	\	↑
	Alt. 6B	→	\	↑(↓)	\	\	↑
	Alt. 6C	→	↓	↑(↓)	\	\	↑
I-710 freeway itself (traffic emissions on the I-710 mainline and, if applicable, freight corridor)	No Build	\rightarrow	↓	↑(↓)	→	↓	↑
	Alt. 5A	→	↓	↑(↓)	~ (↓)	\	↑
	Alt. 6A	\rightarrow	↓	^(~)	↑(↓)	↓	↑
	Alt. 6B	→	↓	↑(↓)	~ (↓)	\	↑
	Alt. 6C	\	↓	↑(↓)	~(↓)	↓	↑

NOTES:

- ↓ Decrease relative to the 2008 baseline year
- ↑ Increase relative to the 2008 baseline year
- No appreciable change relative to the 2008 baseline year
- () Exhaust PM only

Incremental PM_{10} emissions (2035 alternatives compared to the 2008 baseline) increase for the Area of Interest and for the I-710 freeway itself (including the proposed freight corridor, if applicable). Incremental $PM_{2.5}$ emissions decrease for all 2035 Alternatives in the Area of Interest, as exhaust $PM_{2.5}$ reductions exceed increases (assuming an infinite silt reservoir) in entrained $PM_{2.5}$ due to VMT increases between 2008 and 2035. For the I-710 freeway itself, incremental $PM_{2.5}$ emissions decrease for the 2035 No-Build Alternative (Alternative 1) compared to the 2008 baseline; these incremental emissions increase for Alternative 6A and

are essentially stay the same as 2008 emissions for 2035 Alternatives 5A, 6B and 6C. As noted above, this analysis assumes that the dust on the freeways and major arterial roadways is infinite, contrary to the assumptions in the 2007 AQMP. If the dust reservoir on freeways and major roadways is finite, the incremental emission impacts would be only the exhaust PM emissions (which includes brake and tire wear emissions, as well as tailpipe emissions) on these roadways. Exhaust PM_{10} and $PM_{2.5}$ emissions decrease/remain unchanged in the Area of Interest and the I-710 freeway itself for all 2035 alternatives as compared to 2008.

As for the SCAB, incremental sulfur dioxide emissions (compared to the 2008 baseline) increase in the Area of Interest and the I-710 freeway itself. The increases are similar for all 2035 alternatives and result from increases in VMT only since the 2008 baseline already reflects the ultralow sulfur diesel fuels required since the mid-2000s.

As an example comparison of exhaust emissions, Figure ES.5 shows the NOx emissions for the 2035 Alternatives compared to the 2008 NOx emissions (as a fraction of the 2008 NOx Area of Interest emissions).

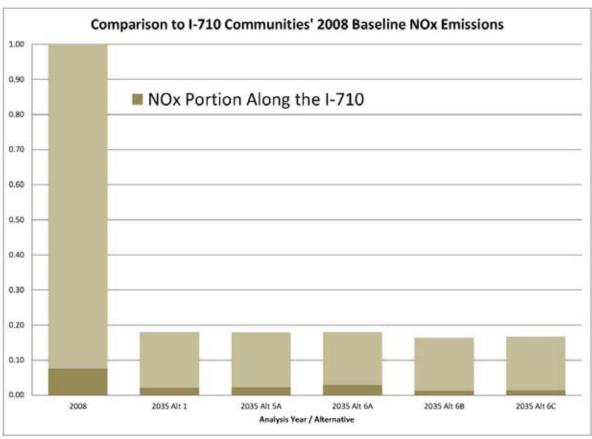


Figure ES.5 2035 Alternatives NO_x emissions (normalized to the 2008 Area of Interest emissions)¹²

 $^{^{12}}$ Each bar represents the ratio of NO_X within the AOI for future alternatives to the 2008 AOI NO_X emissions. The bottom darker portion of each bar represents the NO_X portion along the I-710 compared to the 2008 AOI NO_X.

Overall 2035 NO_x emissions in the AOI are expected to be more than 80% lower than in 2008, with small variations among the alternatives. Overall NO_x emissions for the entire I-710 freeway itself are also lower in the 2035 alternatives (60% to 83% lower), although the variations are greater (60% lower in Alternative 6A and more than 80% lower in Alternatives 6B and 6C).

ES.5.3 Incremental Emissions Impacts of the 2035 Build Alternatives Compared to the 2035 No-Build Alternative (Alternative 1)

Comparisons of incremental criteria and air toxic emissions impacts for the 2035 Build Alternatives related to the 2035 No-Build Alternative (Alternative 1) are presented in the main report (Sections 4.3.1 and 4.3.5.1). For the 2035 Build Alternatives, emissions are greater on the I-710 freeway in various locations, certain roadways on the north and south ends of the I-710 for Alternatives 6A, 6B, and 6C (freight corridor alternatives) than in the 2035 No-Build (Alternative 1). Emissions are lower for some nearby freeways (including portions of SR-91, I-105 and I-605) and along much of the I-710 for Alternative 6B and 6C (zero emission freight corridor alternatives).

ES.6 I-710 Freeway Near-Roadway Health Risk and Air Quality Impacts

The previous section dealt with incremental emission impacts of the I-710 Corridor Project 2035 Alternatives. The 2035 criteria pollutant emissions impacts compared to 2008 baseline decreased in SCAB, AOI and the I-710 freeway for most pollutants (except for increases in total PM_{10} and SO_2 along the I-710 freeway). In addition, analysis of gridded incremental emission maps (see Section 4) show that some geographic areas near the I-710 freeway can have different incremental impacts because: 1) the proposed alignment changes for some segments of the alternatives from the current freeway alignment; 2) the inclusion of the freight corridor in 2035 Alternatives 6A, 6B, and 6C; 3) the effect of the zero emission freight corridor in 2035 Alternatives 6B and 6C; as well as 4) the changes in traffic volumes and patterns associated with each of the alternatives.

The SCAB is currently classified as a nonattainment area (standard is violated somewhere in the SCAB or Los Angeles County) for federal and state ozone, PM₁₀, PM_{2.5}, and lead standards; attainment with a maintenance SIP (attainment-maintenance) for federal CO and NO₂ standards; and attainment or attainment/unclassified for federal SO₂ and all other state standards. Table 2.1 in the main report provides more details on the attainment/nonattainment status for various pollutants.

Emissions released from sources (such as vehicles on roadways) are mixed and diluted in ambient air and transported away from the sources. Caltrans normally does not do air dispersion modeling for roadway projects, although specialized roadway dispersion modeling for impacts very close to the freeway (<500 feet) is done for certain projects. Various stakeholders believed that project alternative impacts from the I-710 freeway traffic would extend further into the local communities, based on the high level of truck traffic on the freeway. In response to public and community requests, Caltrans (the Lead Agency) had already committed to conducting full dispersion modeling to calculate the incremental air quality and health risk impacts of the I-710 Corridor Project Alternatives from emissions on the I-710 freeway (including the proposed freight corridor, as applicable). This is the first time that Caltrans had included this type of dispersion modeling for a freeway project, based on the unique nature of the I-710

Corridor Project. Full air dispersion modeling simulates the release and transport of emissions from sources in order to estimate the concentrations of the criteria pollutants at specified locations (called "modeling grid points") for greater distances away from the source(s). A dispersion model is a mathematical model that calculates impacts from emission sources at the modeling grid points. The main report and associated technical appendices discuss the air dispersion modeling steps used for calculating the concentrations of criteria pollutants. The emissions impact analysis confirmed that the greatest incremental impacts would occur along the I-710 freeway.

As mentioned above, specialized models are used to calculate air quality and health risks from roadways. These models, such as CALINE4 and CAL3QHC, calculate impacts up to 500 feet from the roadway, generally for modeling done to meet conformity requirements. Incremental air quality impacts from emissions generated by traffic on the I-710 freeway, which is the heaviest travelled goods movement freeway in the US, were anticipated to travel much farther distances. The Ports of Long Beach and Los Angeles use the EPA-approved AERMOD dispersion model in their terminal expansion projects, as well as in their Baywide HRA Tool used to establish the Baywide Health Risk Standards. (AERMOD is also a SCAQMD-approved model for stationary source permitting analyses.)

AERMOD was used in the I-710 Corridor Project Alternatives analysis of incremental near-roadway air quality and health risk impacts from emissions from the I-710 freeway itself (including proposed freight corridor emissions, if applicable.) Vehicle traffic was simulated as a series of volume emission sources along the I-710 freeway (and proposed freight corridor, if applicable). The I-710 freeway near-roadway AERMOD modeling uses over 4,000 such volume sources spaced approximately 50 m apart. Air Quality and health risk impacts were calculated at over 6,600 model grid points ¹³ and 1173 "sensitive" receptors ¹⁴ (e.g., schools, senior centers, daycare centers, etc.) were specifically analyzed.

IMPORTANT NOTE: Modeling of the quantities and effects of project traffic-related air pollution was performed using emissions data calculated only for the I-710 mainline and for certain alternatives, the freight corridor, using post-processed traffic data as described above. This was done because of several reasons, including 1) I-710 Traffic Model link data does not have information on all local roads (it is aggregated for certain origins and destinations) appropriate for near-roadway modeling, 2) post-processed data would not be available for other roadways, and 3) it was anticipated that the greatest impacts would be on the I-710 freeway and freight corridor because the project would result in higher traffic levels/emissions on the I-710. The modeling results do not reflect changes in emissions on the other nearby freeways, local arterials and other local roadways. Based on the emissions analysis of the build alternatives, emissions of criteria pollutants generally decrease on these nearby freeways, arterials and roadways as traffic shifts to the I-710. **The modeling results presented account for the impacts from increased traffic on the I-710 for the build alternatives but do not account**

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Modeling grid points are 100 meters by 100 meters to 500 meters from I-710, 250 meters by 250 meters from 500 to 2500 meters from I-710, and 500 meters by 500 meters from 2500 to 5000 meters from I-710

to 2500 meters from I-710, and 500 meters by 500 meters from 2500 to 5000 meters from I-710

14 719 sensitive receptors were including as modeling points and additional 454 sensitive receptors were analyzed by interpolating the modeling results to those sensitive receptor locations. This was done because additional sensitive receptors were identified after the initial modeling runs in early 2010.

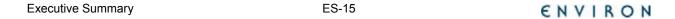
for any decreases in ambient concentrations related to reduced traffic on nearby freeways, arterials, and roadways for the build alternatives as mobility improves on the I-710. In addition, the modeling assumes weekday traffic levels/patterns for every day of the year, including weekends and holidays. All incremental cancer risk calculations are based on residential cancer risk assumptions, including 70-year ambient outdoor exposure (24/7/365). (Worker cancer risk is generally lower, since it assumes only work shift exposure for 40 years.) These assumptions are conservative and will generally yield a conservative estimate of incremental air quality and health impacts. These results should ONLY be used to compare the relative impacts of the alternatives.

ES.6.1 I-710 Freeway Near-Roadway Health Risk Assessment for Air Toxics (Comparison to 2008 Baseline)

The health risk assessment (HRA) for the Project was conducted using a methodology that is consistent with Office of Environmental Health Hazard Assessment (OEHHA)¹⁵ Air Toxics Hot Spots Program Risk Assessment Guidelines and SCAQMD Rule 1401/212 risk assessment guidance.¹⁶ The main report presents the methodology used for calculating the ambient air concentrations of the various MSAT. The most recent toxicity values (cancer potency slope factor, chronic reference exposure level and acute reference exposure level) as published by OEHHA were used in the HRA. The HRA was a multi-pathway risk assessment, which means that all the applicable pathways for a particular MSAT were evaluated when calculating the health risks. Calculated health metrics are incremental cancer risk (in number per million), incremental hazard index (chronic and acute; unitless), and cancer burden. Cancer burden was not calculated as the 2035 alternatives showed a decrease in cancer risk for all residential and commercial receptors; thus, the cancer burden would be a negative number.

Table ES.4 presents a summary of the incremental impacts for the 2035 Alternatives as compared to the 2008 baseline, as they relate to the SCAQMD's CEQA Significance Threshold for health risk metrics.

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Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, August 2003.

¹⁶ South Coast Air Quality Management District, Risk Assessment Procedures for Rules 1401 and 212. Version 7.0. July 2005.

	2008 bas	seline)		
		Health Risk	Metrics and Averaging	g Periods
		Maximum Incremental Cancer Risk	Chronic Non-Cancer Health Index	Acute Non-Cancer Health Index
		Annualized	Annual	1 hr
SCAQMD TH	resholds*	> 10 in a million	Hazard Index (Chronic) ≥ 1	Hazard Index (Acute) ≥ 1
	No Build	<	<	<
1.740	Alt. 5A	<	<	<
I-710 Roadway Dispersion	Alt. 6A	> (15 non-residential grid points only)	<	<
Modeling	Alt. 6B	<	<	<

Table ES.4 2035 Alternatives Incremental Emission Impacts (compared to the 2008 baseline)

<

< Less than SCAQMD significance threshold

Alt. 6C

> Greater than SCAQMD significance threshold

The 2035 alternatives show a decrease in cancer risk, chronic hazard index and acute hazard index as compared to the 2008 baseline, which is consistent with the MSAT mass emissions for the 2035 Alternatives being lower than those of the 2008 baseline. (Only 15 modeling grid points in Alternative 6A showed an increase in cancer risk. These modeling points do not lie in residential areas and are located in the vicinity of the freight corridor or near the railroad yards at the north end of the I-710 freeway.) The incremental cancer risk, chronic hazard index, and acute hazard index for all 2035 Alternatives, including Alternative 6A, as compared to the 2008 baseline were found to decrease at all the sensitive receptors (e.g., schools, senior centers, daycare centers, etc.) located within 5 km of the I-710 freeway centerline.

All 2035 build alternative show an increase in incremental cancer risk compared to the No-Build Alternative (Alternative 1) north of the Hobert rail yard. South of those rail yards incremental cancer risk is greater than the No-Build Alternative for Alternative 5A and 6A (within ~1 mile of freeway) and lower than the No-Build Alternative for Alternatives 6B and 6C.

ES.6.2 I-710 Freeway Near-Roadway Air Quality Impact (Comparison to 2008 Baseline)

As guidance to lead agencies, the SCAQMD has established CEQA significance thresholds for concentration impacts for NO_2 (1-hr and annual average), CO (1-hr and 8-hr), PM_{10} (24-hr and annual average), and $PM_{2.5}$ (24-hr average). Therefore, the concentration impacts for only these criteria pollutants and corresponding averaging periods were calculated and reported.

The SCAQMD's CEQA guidance assumes that the SCAB is in attainment for both the California and National Ambient Air Quality Standards (AAQS) for NO₂ and CO, meaning that the incremental impacts need to be added to the background ambient air concentration to be compared to the SCAQMD CEQA thresholds. (Note that the SCAB is now a California AAQS non-attainment area for NO₂ because of recent exceedences of the standard level at SCAQMD

^{*} Please note that Caltrans will make the determination of significance. SCAQMD thresholds presented for information purposes only.

NOTES:

monitoring locations, including at the Lynwood/Compton Station used in our analyses). A single background monitoring station cannot be used as a representative station for all the receptors in the modeling domain because the project area is 18 miles long. Therefore, ENVIRON identified three different SCAQMD ambient air monitoring stations closer to the I-710 freeway that were used to derive the background concentrations. ¹⁷ SCAQMD's CEQA guidance calls for a comparison of the incremental PM₁₀ and PM_{2.5} concentrations to their CEQA thresholds.

Table ES.5 summarizes the results of the I-710 freeway near-roadway modeling air quality analysis comparison with the SCAQMD's thresholds. Incremental air quality impacts are for the 2035 Alternatives compared to the 2008 Baseline.

Table ES.5 2035 Alternatives Incremental Air Quality Impacts (compared to the 2008 baseline)

	Succession 5											
			Pollutants and Averaging Periods									
		N	O ₂	C	0	P	M ₁₀	PM _{2.5}				
		1 hr	1 hr Annual 1		8 hr	24 hr	Annual	24 hr				
SCA0 Thresh (μg/	nolds*	339	56	23,000	1,000	$\Delta_{2.5}$						
	No Build	<	<	<	/	> (↓)	> (↓)	\				
1.740	Alt. 5A	/	/	/	/	> (↓)	> (↓)	> (↓)				
I-710 Roadway Modeling	Alt. 6A	'	> (1 grid point)	'	<	>	>	>				
	Alt. 6B	/	~	/	~	> (↓)	> (↓)	> (↓)				
	Alt. 6C	<	<	<	<	> (↓)	> (↓)	> (↓)				

^{*} Please note that Caltrans will make the determination of significance. SCAQMD thresholds presented for information purposes only.

Notes:

- < Less than SCAQMD significance threshold
- > Greater than SCAQMD significance threshold
- (↓) Decrease relative to the 2008 baseline year for <u>exhaust</u> PM emissions (grid points ≥50m from I-710 freeway)

All emitted NO_x assumed to be NO_2 ; this is a conservative assumption All modeling grid points have levels below the new 1-hour NO_2 standard (188 $\mu g/m^3$)

The CO and NO_2 incremental impacts decrease for all 2035 alternatives as compared to the 2008 baseline (except for Alternative 6A at a single modeling grid point). The 2035 ambient concentration levels for NO_2 , calculated by adding the incremental impacts to existing background concentrations were found to be below the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS) except for one receptor, which is ~10 meter from the center of the freight corridor. This receptor is located in a non-residential area in meteorological zone 3 between the freight corridor and the LA River, in an area that is neither residential nor commercial. Most importantly, the annual average

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¹⁷ It should be noted that, for the air dispersion modeling, the project study area has been divided into four meteorological zones (see Section 4.3.4 for more details). One representative background ambient air monitoring station was used for receptors lying in a particular meteorological zone. It should further be noted that SCAQMD does not has a ambient air monitoring station in zone 1 and hence the data from the ambient air monitoring station for zone 2 was used for receptors lying in zone 1. The ambient air monitoring stations and related data are discussed in more detail in Sections 3.2 and 4.3.4.

background concentration at the nearest monitoring station is $57.6\mu g/m^3$, which is greater than the CAAQS ($56\mu g/m^3$). Lastly, the analysis assumes that all NO_x is converted to NO₂.

On January 22, 2010, EPA promulgated a new 1-hour NO₂ standard. Unlike most criteria pollutant standards, this standard specifically focused on near-roadway exposure as well as regional exposure. EPA included this near-roadway standard after their review of the latest health effects studies linking higher short-term NO₂ levels near roadways with adverse health impacts. EPA is also requiring near-roadway (<50 meters) monitoring for urban areas with high populations and heavily trafficked roads, such as Los Angeles County, by no later than January 2013. SCAQMD staff gave a presentation 18 on the preliminary results of their 2009 I-710 near-roadway monitoring study to the I-710 Corridor Project Corridor Advisory Committee (CAC) in February 2010. ENVIRON calculated the incremental 1-hour NO₂ concentration changes for the 2035 alternatives compared to the 2008 base year levels. Calculated maximum 1-hour NO₂ concentration levels (maximum of the sum of the current background plus modeled incremental concentration change) are well below the new 1-hour NO2 standard level of 100 ppb (or 188µg/m³) as reductions in vehicle emissions from adopted regulations and fleet turnover reduce emissions faster than the rate of increase in vehicle miles travelled. The large reductions in NO₂ concentrations in the 2035 alternatives are consistent with EPA¹⁹ and SCAQMD projections of reductions in future NO₂ levels.

All the build alternatives show an incremental increase in the PM_{10} and $PM_{2.5}$ concentrations as compared to 2008 baseline that are greater than the SCAQMD incremental thresholds. It should however be noted that these impacts are for total PM_{10} and $PM_{2.5}$, which also include the entrained dust emissions. As noted previously, ENVIRON used the new EPA's AP-42 methodology to estimate the entrained dust emissions; that method assumes an infinite silt on the roadway. The SCAQMD, in the 2007 AQMP, assumed a finite silt reservoir and did not increase the entrained emissions on freeways and arterial roadways from their baseline (assuming that the finite amount of dust would already be entrained by the original level of vehicle traffic). Impacts for only the exhaust portion of PM_{10} and $PM_{2.5}$ are below the SCAQMD incremental threshold at most model grid points. The model grid points that do show an exhaust PM impact greater than the SCAQMD significance threshold are almost all located in non-residential areas in close proximity to the I-710 freeway (or emission source).

ES.6.3 Incremental Health Risk and Air Quality Impacts of the 2035 Build Alternatives Compared to the 2035 No-Build Alternative (Alternative 1)

Comparisons of incremental air quality and health risk impacts for the 2035 Build Alternatives related to the 2035 No-Build Alternative (Alternative 1) are also presented in the main report (Sections 4.3.3 and 4.3.6). For health risk, model grid points close to the I-710 (mainline and/or freight corridor) show an increase in maximum incremental cancer risk, chronic hazard index and acute hazard index in some locations for all build alternatives when compared to the No Build Alternative (Alternative 1). This is a result of two factors 1) significant decrease in total

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¹⁸ SCAQMD. Presentation to the I-710 Corridor Project Community Advisory Committee (CAC). February 18, 2010. Presentation can be found at: www.metro.net/projects_studies/I710/images/AQMD-I-710-Air-Monitoring-Study-to-CAC-February-2010.pdf

¹⁹ EPA. Final Regulatory Impact Analysis (RIA) for the NO₂ National Ambient Air Quality Standards (NAAQS). January 2010. See www.epa.gov/ttn/ecas/regdata/RIAs/FinalNO2RIAfulldocument.pdf

emissions in 2035 as compared to 2008 due to improved vehicle technology that lowers the No Build Alternative emissions for this comparison and 2) increases in DPM emissions in some locations for the build alternatives due to shifting freeway/freight corridor locations and increased mobility and capacity on the I-710 freeway as compared to the No Build Alternative. Section 4.3.6 provides a detailed explanation of these effects along with supporting figures and tables.

For incremental air quality impacts, all the Build Alternatives show an increase in impacts at some locations compared to the 2035 No-Build Alternative (Alternative 1). This occurs because of shifting freeway/freight corridor locations and increased mobility / capacity on portions of the I-710 freeway as compared to the No Build Alternative. Alternative 6B/6C shows the minimum increase in impacts amongst the build alternatives because the freight corridor is a zero emissions facility. These results are discussed in further detail in Section 4.3.4 of the main report.

ES.7 Construction Emissions (Criteria Pollutants)

The emissions of criteria pollutants from construction activities (vehicle/equipment exhaust and fugitive dust) were calculated using the Road Construction Emissions Model, Version 6.3.2, developed by Sacramento Metropolitan Air Quality Management District and modified for the SCAQMD area. Emission factors for vehicle exhaust (for both off-road and on-road vehicles/equipment) approved by the SCAQMD for Southern California were used to quantify the exhaust emissions. The construction of the project was analyzed for seven segments (created for preliminary engineering of the project) along the 18-mile length of the Project. However, to have a conservative estimate of peak-day emissions, construction emissions were calculated for a "worst-case" scenario that assumed, among other things, that construction would occur simultaneously along the entire length of the corridor in the shortest possible time period. For additional details and explanation, please refer to Section 4.2 and Appendix B.

Table ES.6 summarizes the comparison of worst-case peak day emissions on any segment with the SCAQMD's thresholds. All criteria pollutant single-segment peak-day emissions are below the SCAQMD threshold except NOx. The single-segment peak-day emissions may be spread out along the entire length of that segment (1.4 to 4.7 miles). Construction phasing could reduce the peak-day emissions. Simultaneous construction along the entire I-710 corridor is improbable but is analyzed in Section 4.2.

Table ES.6 Maximum Single-Segment Peak Day Construction emissions (lbs/day)

Pollut	NO _x	CO	PM ₁₀	$PM_{2.5}$	VOCs	
SCAQMD Thresholds (lbs/day)		100	550	150	55	75
Canatauration	Alt. 5A	>	<	<	<	<
Construction	Alt. 6A	>	<	<	<	<
(worst-case, peak day)	Alt. 6B	>	<	<	<	<
	Alt. 6C	>	<	<	<	<

Notes:

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^{*} Caltrans will make the determination of significance. SCAQMD thresholds presented for information only.

ES.8 Greenhouse Gas Emissions

A combination of the methodologies provided in the California Climate Action Registry's General Reporting Protocol (CCAR GRP), version 3.1 (CCAR 2009) and fuel consumption/efficiency data obtained from EMFAC 2007 and OFFROAD 2007 models, was used to calculate the greenhouse gases (GHG) emissions associated with the project. It should be noted that the GHG emissions were quantified only for the Basin region given the global effect of GHG emissions and the limits of the applicable traffic modeling results.

The total GHG emissions from the project are presented in carbon dioxide equivalents (CO_2e). CO_2e is universal unit of measurement to indicate the global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate the impact of different greenhouse gases on a common basis. Emissions of each GHG were converted to CO_2e by multiplying the methane (CH_4) and N_2O emissions with the respective GWP. Unlike other pollutants with existing control programs, calculated emissions of GHGs increase in future years (approximately 22M tonnes CO_2e /year for all 2035 Alternatives), since current standards are not expected to reduce GHG emissions sufficiently to overcome the effect of large increases in VMT (and VMT-related emissions). We note that certain mobile source GHG-related emission standards, such as the Pavely Standard, have been adopted in the last year and are not incorporated in our analysis. Implementation of these new regulations would reduce the increase in GHG emissions for all 2035 Alternatives.

For the project build alternatives, Table ES.7 below summarizes the results of the traffic-related GHG emissions compared to 2035 Alternative 1 (the No Build Alternative). Note that Alternative 6B reduces GHG emissions by over a half million tons/year in 2035.

Table ES.7 Incremental GHG Emissions using The I-710 Traffic Model Data as Compared to No Build Alternative for SCAB (tons/year)

Greenhouse Gas	Alt. 5A - Alt. 1	Alt. 6A - Alt. 1	Alt. 6B - Alt. 1	Alt. 6C - Alt. 1		
CH ₄	0.016	0.028	0.026	0.028		
N ₂ O	1.1	1.9	1.8	1.9		
CO ₂	300	-120,000	-600,000	-490,000		
Total (CO ₂ e)	670	-120,000	-600,000	-490,000		

ES.9 PM Mortality and Ultrafine Particulates (qualitative assessments)

The analysis of PM mortality and morbidity is a qualitative assessment based on comparative analysis of total PM_{2.5} emissions for the various alternatives. In other words, for the purpose of this qualitative assessment, total PM_{2.5} emissions and near-roadway concentrations (sum of exhaust and entrained dust emissions) are used as a surrogate for potential PM exposure. The total PM_{2.5} emissions in the SCAB and Area of Interest were found to be lower than 2008 baseline emissions for all 2035 Alternatives except at a few locations on the I-710 freeway. I-710 near-roadway modeling concentrations increased above the SCAQMD threshold level for model grid points near the freeway for 2035 Freight Corridor Alternatives (Alts. 6A/6B/6C). Most of these grid points are within 100 meters of the freeway and/or freight corridor. Areas slightly

farther away from the roadways in these locations would have increases below the SCAQMD's threshold level. Consequently, the public's exposure to PM-related morbidity and mortality health risks would generally decrease relative to the 2008 baseline; the exceptions would be some locations near portions of the I-710 freeway and/or freight corridor. Note that if the 2008 entrained road dust emissions from freeways do not increase or only slightly increase in the 2035 Alternatives (consistent with the 2007 AQMP), incremental PM_{2.5} emissions (in this case, essentially the exhaust emissions) and related air quality impacts compared to the 2008 baseline would decrease or be below the SCAQMD threshold levels. For further detail and explanation, please refer to Section 4.5, PM Mortality and Morbidity.

ENVIRON conducted a qualitative analysis of incremental ultrafine particulate (or UFP) impacts by using exhaust PM_{2.5} emissions as a surrogate for UFP exposure. ²⁰ Exhaust I-710 PM_{2.5} emissions for the 2035 Alternatives (Alternatives 1, 5A, 6A, 6B and 6C) were lower than 2008 baseline emissions for the SCAB, Area of Interest, and the I-710 freeway (except a very few locations on the I-710 freeway in Alternative 6A). I-710 freeway near-roadway concentration impacts (annual and maximum 24-hour average PM_{2.5} concentrations) were lower for all 2035 Alternatives compared to 2008, with the exception of a few locations within 100 meters of the I-710 freeway in Alternative 6A. Consequently, the public's exposure to ultrafine particulates should decrease for all 2035 Alternatives relative to the 2008 baseline, with the greatest decreases further from the I-710 freeway and decreases at most locations near the I-710 freeway (and freight corridor, if applicable). Alternatives 6B and 6C had the lowest exhaust PM_{2.5} emissions and modeled concentration impacts of all 2035 alternatives (even 2035 Alternative 1) and would therefore have the lowest project-related ultrafine exposures.

ES.10 Air Quality Conformity

ES.10.1 Project Level Air Quality Conformity

The SCAB, which is the location of the proposed I-710 project, is in nonattainment or attainment-maintenance for one or more Federal transportation-related air quality standards (See Section 4.1 for further details). Therefore a project-level transportation conformity review based on the process described in Federal Clean Air Act Section 176(c) and USEPA regulations at 40 CFR 93 applies.

CO Hot-Spot Analysis: The proposed I-710 Corridor Project is located within an attainment/maintenance area for CO. Based on this designation a project-level conformity analysis is required for CO. In general, the procedures outlined in the "Transportation Project-Level Carbon Monoxide Protocol" (commonly referred to as the "CO Protocol" were applied for the CO impact assessment. Through the interagency consultation process, the approach suggested in the CO Protocol was modified slightly to incorporate the use of the EPA-approved mobile source dispersion model CAL3QHC to model representative worst-case congested intersections throughout the project's Area of Interest (AOI).

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²⁰ The rationale for this choice is that both UFP and exhaust PM_{2.5} emissions are particulates and primarily the result of internal combustion processes. CO is sometimes used as a UFP surrogate. CO emissions decreased on the I-710 Freeway for all 2035 Alternatives.

Based on traffic study data, afternoon (PM) peak-hour data was considered the worst-case scenario and used as the basis for the intersection selection and "hot spot" modeling process. Because traffic conditions (delay) under Alternative 6B were generally worse compared to the other 'build' alternatives, modeling results associated with projected future conditions at 10 selected intersections under Alternative 6B were used to quantitatively assess the potential for traffic-related impacts of the project and its alternatives. Section 4.7 of the main report summarizes the results of this analysis and Appendix H presents the full analysis. Based on the modeling performed using EPA-approved methods, assumptions and tools and the traffic study data, the Project alternatives would not cause CO concentrations to exceed the CO standards or delay the timely attainment of the standards.

PM_{2.5} and PM₁₀ Hot-Spot Analysis: LSA prepared the PM₁₀/PM_{2.5} Qualitative "Hot-Spot" Analyses. Transportation conformity is required under Section 176(c) of the CAA to ensure that federally supported highway and transit project activities are consistent with the purpose of the SIP. Conformity for the purpose of the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant AAQS. As required by the 2006 Final Rule, this qualitative PM_{2.5} and PM₁₀ hot-spot analysis demonstrates that this project meets the CAA conformity requirements to support State and local air quality goals with respect to potential localized air quality impacts.

A qualitative hot spot analysis for particulate matter (PM_{10} and $PM_{2.5}$) was prepared using USEPA's 2006 guidance document. The SCAG Interagency Consultation process was used to determine the appropriate model (EMFAC 2007) and planning assumptions, and the hot spot analysis was reviewed by the Consultation group on January 25, 2011. The analysis shows that new or worsened localized PM_{10} or $PM_{2.5}$ violations due to project implementation are unlikely for the highest-emission year, represented by the opening year and the horizon year 2035. The horizon year encompasses the entire conformity analysis period of the current Regional Transportation Plan.

For reasons summarized in Section 4.8 and detailed in Appendix I, future new or worsened $PM_{2.5}$ and PM_{10} violations of any standards are not anticipated; therefore, the project meets the conformity hot-spot requirements in 40 CFR 93-116 and 93-123 for both $PM_{2.5}$ and PM_{10} .

ES.10.2 Regional Air Quality Conformity

The project is in the 2008 financially constrained Regional Transportation Plan (RTP), which was found to conform by the FHWA/ FTA on June 5, 2008 (Project ID: iC0401; Description: I-710 Corridor user-fee backed capacity enhancement – widen to 5 mixed flow + 2 dedicated lanes for clean technology trucks [each direction], and interchange improvements). The design concept and scope of the project are consistent with the project description in the 2008 RTP. The project is not currently in the SCAG financially constrained 2011 Federal Transportation Improvement Program (FTIP), which was found to be conforming by the FHWA/FTA on December 14, 2010. However, the project will be included in a future amendment to the 2011 Federal Transportation Improvement Program (FTIP) and it is anticipated that it will be found to be conforming by the FHWA/FTA in early 2012. Therefore, once the project listing is included in the conforming RTP and FTIP, the Build Alternatives will be in conformance with the State Implementation Plan (SIP).

ES.11 AQ/HRA Results Summary Overview

The AQ/HRA impacts of I-710 freeway project alternatives were assessed using multiple metrics. A single metric cannot, and should not, be used to evaluate the full AQ/HRA impacts of any project alternative. The results of the different analyses should be considered together to give a fuller and more comprehensive understanding of project AQ/HRA impacts. This section presents a summary overview.

The results of each of the emissions, air quality and health risk impact analyses from the project are summarized above in this Executive Summary. In general, emissions of criteria and air toxic pollutants (note exceptions discussed below) decreased in the 2035 alternatives compared to the 2008 baseline. Emission reductions for the Build alternatives were greatest in the South Coast Air Basin (SCAB) and Area of Interest (including cities and communities along the I-710 Corridor) as increased capacity on the I-710 freeway itself shifts traffic to the I-710 from nearby freeways and local roadways. Even along the I-710, emissions of criteria and air toxic pollutants decreased in the 2035 Build alternatives compared to the 2008 baseline, as federal, state and local air quality regulations, programs, and standards reduced emissions faster than emission increases due to increases in vehicle miles travelled (VMT) in 2035. The exceptions were total PM₁₀ and SO₂ emissions. The increased entrained road dust may be an artifact of the EPA-42 assumption of an infinite silt reservoir on the freeway; if it is an artifact, it should be noted that exhaust PM₁₀ decreases in the SCAB, AOI and along the I-710 freeway. Incremental SO₂ increases in 2035 are much, much less than reductions that will result from recently adopted rules and regulations in major sources of SO₂ such as ocean going vessels and RECLAIM SO_x sources.

The Build alternatives increase capacity on the I-710 freeway itself; although this reduces traffic (and emissions) on local roadways and nearby freeways, it does increase traffic levels on the I-710 freeway itself, potentially increasing air quality and health risk impacts near the I-710. (Ambient concentrations of criteria and air toxic pollutants are a function of both the spatial and temporal distribution of emissions, as well as the distance to receptors and prevailing meteorology.) Full air quality dispersion modeling of the I-710 freeway itself (using the EPA-approved AERMOD model) assessed near-roadway impacts from the I-710 freeway, which is the source with greatest emissions and community concern, ambient criteria pollutant concentrations (except PM₁₀ and PM_{2.5}), cancer risk, and non-cancer hazard indices (chronic and acute) decrease compared to the 2008 baseline, except for a small number of model grid points (mainly in non-residential locations) in Alternative 6A where the proposed freight corridor would be aligned appreciably to the east or west of the I-710 mainline. Total PM₁₀ (and in some cases total PM_{2.5}) incremental concentration impacts are generally less than the SCAQMD's significance thresholds except for certain locations close to (<300 meters) the I-710 freeway. As noted above, the increase in entrained PM emissions on the I-710 freeway may be an artifact of the emission factor methodology used in this study and exhaust PM₁₀ and PM_{2.5} concentrations are typically lower than the 2008 baseline. PM mortality and exposure to ultrafine particulates in 2035 for all alternatives are also expected to be generally less than the 2008 baseline, based on the incremental changes in total and exhaust PM_{2.5} respectively and assumptions about the relationships between PM_{2.5} and mortality/ultrafines.

Alternatives 5A and 6A show areas of increased impacts compared to the No Build Alternative. This is generally the result of closer proximity to modeling grid points (due to the widening of the I-710 and/or presence of the new freight corridor), greater traffic levels, and in the case of diesel particulate matter (DPM), the increase in emissions resulting from improved traffic mobility (average speeds greater than about 20 to 25 mph). Compared to the No-Build Alternative, Alternative 6B shows generally lesser impacts than the other Build alternatives.

A detailed discussion of these topics is provided in Section 4, Environmental Consequences.

1 Introduction

Interstate 710 (I-710, also known as the Long Beach Freeway) is a major north-south interstate freeway connecting the City of Long Beach to central Los Angeles. Within the I-710 Corridor project study area, the freeway serves as the principal transportation connection for goods movement between the Ports of Los Angeles (POLA)/Long Beach (POLB), located at the southern terminus of the freeway, and the BNSF/UPRR railyards in the cities of Commerce and Vernon. The I-710 Major Corridor Study (MCS), undertaken to address the I-710 mobility and safety needs and to explore possible solutions for transportation improvements, was completed in March 2005 and identified a community-based Locally Preferred Strategy (LPS) consisting of ten general purpose lanes next to four separated freight movement lanes. The Los Angeles County Metropolitan Transportation Authority (Metro), the California Department of Transportation (Caltrans), the Gateway Cities Council of Governments (GCCOG), the Southern California Association of Governments (SCAG), POLA, POLB, and the I-5 Joint Powers Authority (JPA), are collectively known as the I-710 Corridor Project funding partners. These agencies are collectively funding the preparation of preliminary engineering and environmental documentation for the proposed I-710 Corridor Project to evaluate improvements along the I-710 Corridor from Ocean Boulevard in the City of Long Beach to State Route 60 (SR-60). The I-710 Funding Partners are committed to conducting this engineering and environmental study effort within the same broad, continuous community participation framework that was used for the MCS.

The environmental impacts of the proposed project will be assessed and disclosed in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans is the Lead Agency for CEQA, and is the lead federal agency for NEPA pursuant to Section 6005 of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (23 U.S.C. 327). Caltrans (the lead agency²¹) and Metro have initiated work on the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the proposed project, the purpose of which is to inform the public and governmental decision-makers of possible environmental effects associated with the proposed project alternatives and to describe the measures that would be undertaken to mitigate those effects.

In support of the EIR/EIS and transportation conformity determinations, ENVIRON conducted air quality and health risk assessments (AQ/HRA) to evaluate the incremental air quality and human health risk impacts associated with the proposed project and project alternatives as compared to the baselines (i.e., 2008 Notice of Preparation baseline for CEQA or 2035 No Federal Action baseline for NEPA). The AQ/HRA for this Project consists of two parts, meeting two separate regulatory requirements:

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²¹ Caltrans is the lead agency under CEQA. Under NEPA, the Federal Highway Administration's (FHWA's) responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being carried out by Caltrans under its assumption of responsibility pursuant to 23 United States Code (USC) 327.

- An analysis of air quality and human health risk impacts for the EIR/EIS document, consistent with CEQA/NEPA requirements.
- "Hot-spot" analyses in support of the transportation conformity determination, consistent with federal and state transportation conformity requirements.

The various analyses and the methodologies used to carry out the analyses follow the April 2010 I-710 AQ/HRA Protocol²² prepared by ENVIRON; the protocol was released in March 2009, with final revisions in April 2010). The Air Quality / Health Risk Assessments (AQ/HRA) Working Group, comprised of Funding Partner representatives, oversaw the development of the I-710 AQ/HRA Protocol. In addition, an Agency Air Technical Working Group (or AATWG), comprised of representatives from the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), South Coast Air Quality Management District (SCAQMD), Federal Highways Administration (FHWA), Cal/EPA Office of Environmental Health Hazard Assessment (OEHHA), U.S. Army Corps of Engineers, Los Angeles District, as well as Funding Partner representatives, was consulted during the preparation of the draft I-710 AQ/HRA Protocol. Briefings were made to the Environmental Subject Working Group, Corridor Advisory Committee, Technical Advisory Committee, and Project Committee. The draft I-710 AQ/HRA Protocol was released for comments in March 2009. Revisions to the I-710 AQ/HRA Protocol, based on comments received in April 2009 and information from initial analyses, are described in the April 2010 Draft Final AQ/HRA Protocol.

1.1 Project Purpose

The purpose of the proposed I-710 Corridor Project (Proposed Project) is to achieve the following within the I-710 corridor:

- Improve air quality and public health
- Improve traffic safety
- Address design deficiencies of the I-710 freeway
- Address projected traffic volumes
- Address projected growth in population, employment, and activities related to goods movement

1.2 Project Study Area

The general I-710 Corridor Project study area includes the portion of the I-710 from Ocean Boulevard in Long Beach to SR-60, a distance of approximately 18 miles. Specific study areas may be established for individual analyses. For example, the traffic study area for the project currently extends one mile east and west of the I-710 and includes freeway to freeway interchanges at I-405, SR-91, I-105, and I-5. Additionally, the traffic study examines intersections and roadway segments of key north/south and east/west arterials from Wilmington

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²² Protocol for the Air Quality and Health Risk Assessments (AQ/HRA) for the I-710 Corridor Environmental Impact Report/ Environmental Impact Statement (EIR/EIS); Prepared for URS Corporation; Prepared by ENVIRON International Corporation; April 26, 2010.

Avenue in the west to Lakewood Boulevard in the east.²³ Given the size of the I-710 Corridor Project and its impact on the region, incremental emission impacts were assessed for the South Coast Air Basin (or SCAB) and an Area of Interest (or AOI), which is a sub-region of the SCAB that includes cities and communities along the I-710 freeway. For the AQ/HRA, the AERMOD dispersion model and a coarse receptor grid was used to determine a zone of impact of the emissions from the I-710 freeway itself, which becomes the general AQ/HRA study area. The project study area is presented in Figure 1.1.

1.3 **Project Baselines**

The AQ/HRA performed for any projects under CEQA/NEPA are conducted for the changes (i.e., increments) in project-related emissions, air quality impacts, and health risks relative to a baseline condition. Therefore, identifying the baseline condition is an important step in the EIR/EIS process. Furthermore, it is important to note that the definition of baseline differs under CEQA and NEPA as discussed below:

- The CEQA Baseline represents existing, current conditions, defined to be the conditions at the time the Notice of Preparation (NOP) was released. Therefore, the CEQA baseline will represent project-specific conditions in the year 2008 (e.g., traffic conditions on the I-710 and selected roadways in the year 2008).
- The NEPA Baseline represents conditions in a future analysis year and where no federal funds were used for the project. In this case, the "No Build Alternative" in the year 2035 (also known as Alternative 1) will represent the NEPA baseline.

Project Alternatives

This section describes the alternatives that were developed by a multidisciplinary technical team to achieve the I-710 Corridor Project purposes. Various committees involved in the I-710 Corridor Project community participation framework reviewed the alternatives. The Alternative Screening process for this Project recommended that three 2035 build alternatives (Alternative 5A, 6A, 6B) be evaluated in the EIR/EIS along with Alternative 1, the 2035 No Build Alternative²⁴. Subsequently in late 2010, the Funding Partners added a fourth build alternative (Alternative 6C). The alternatives are discussed in detail below (Figure ES.2 summarizes the build alternatives).

1.4.1 Alternative 1 – No Build Alternative

The No Build Alternative does not include any improvements within the I-710 Corridor other than those projects that are already planned and committed to be constructed by or before 2035. The projects included in this alternative are based on SCAG's 2008 Regional Transportation Improvement Program (RTIP) project list, including freeway, arterial, and transit improvements within the SCAG region. This alternative also assumes that goods movement to and from the ports make maximum utilization of existing railroad capacity within the I-710 corridor. Alternative

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²³ Freeway Traffic Operations Analysis Report (Draft); Prepared for Los Angeles County Metropolitan Transportation

Authority; Prepared by URS; December 2, 2009.

24 Technical Memorandum – Alternatives Screening Analysis (Final); Prepared for Los Angeles County Metropolitan Transportation Authority; Prepared by URS; May 29, 2009.

1 is the baseline against which the Build Alternatives proposed for the I-710 Corridor will be assessed. The existing I-710 freeway generally consists of eight GP lanes north of I- 405 and 6 GP south of I-405 (four northbound and four southbound).

1.4.2 Alternative 5A – Freeway Widening up to 10 General Purpose (GP) Lanes

Alternative 5A proposes to widen I-710 up to 10 GP lanes (I-710 northbound and I-710 southbound). This alternative will eliminate design deficiencies at the I-405 and SR-91 interchanges, reconfigure some local arterial interchanges throughout the corridor, eliminate freeway access at three locations and shift the freeway centerline at various locations to reduce right-of-way impacts.

In addition to improvements on the freeway mainline and on the interchanges, Alternative 5A also includes Transportation Systems/Transportation Demand Management (TSM/TDM), Transit, and Intelligent Transportation Systems (ITS) improvements. TSM improvements include provision of ramp metering at 13 locations and improved signage will be added throughout the project area. Parking restrictions during peak periods will be implemented on four arterial roadways - Atlantic Boulevard between Pacific Coast Highway and SR-60; Cherry Avenue/Garfield Avenue between Pacific Coast Highway and SR-60: Eastern Avenue between Cherry Avenue and Atlantic Boulevard; and Long Beach Boulevard between San Antonio Drive and Firestone Boulevard. Transit improvements include increased service on all Metro Rapid routes and local bus routes in the study area. Additionally, expansion of existing community bus service will be provided (e.g., Montebello Transit, Compton Renaissance Transit System, and East Los Angeles Shuttle). Rail transit improvements include increased peak period service on the Blue and Green Lines and a station upgrade to the Commerce Metrolink station. Additionally, a new connection between the Green Line Norwalk station and the Metrolink Norwalk station will be provided expanding the existing Metrolink service. ITS improvements include updated fiber optic communications.

1.4.3 Alternative 6A – 10 GP Lanes plus a Four-Lane Freight Corridor

Alternative 6A includes all the components of Alternatives 1 and 5A as described above. In addition, this alternative includes a separated four-lane freight corridor to be used by conventional trucks. It should be noted that trucks using this freight corridor are expected to be newer (post-2007) projected diesel/fossil-fueled trucks (new or retrofitted engines required per new regulations and standards) that will generate fewer emissions than the trucks using I-710 today.

The freight corridor would be an at-grade and/or elevated structure, with two lanes in each direction, between Ocean Boulevard and the intermodal rail yards in the cities of Vernon and Commerce. There would be dedicated ingress and egress points at the following locations:

- Harbor Scenic Dr. (NB ingress only)
- Ocean Blvd. (NB ingress only)
- Pico Ave. to NB FC
- SB FC to Pico Ave.

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- Anaheim St. to NB FC
- SB FC to Anaheim St.
- SB FC to SB I-710 just south of Pacific Coast Hwy
- NB I-710 GP lanes to NB FC (north of I-405 at 208th St.)
- SB FC to SB I-710 GP lanes (north of I-405 at 208th St.)
- NB FC to eastbound (EB) SR-91
- Westbound (WB) SR-91 to SB FC
- NB FC to Patata St.
- Patata St. to SB FC
- SB I-710 GP lanes to FC just south of Bandini Blvd.
- NB FC to I-710 GP lanes just south of Bandini Blvd.
- Washington Blvd. to SB FC
- NB FC to Washington Blvd

1.4.4 Alternative 6B– 10 GP Lanes plus a Zero Emissions Four-Lane Freight Corridor

Alternative 6B includes all the components of Alternative 6A as described above, but would restrict the use of the FC to zero-emission trucks rather than conventionally powered trucks. This proposed zero emission truck technology is assumed to be trucks powered by electric motors in lieu of internal combustion engines and producing zero tailpipe emissions while traveling on the freight corridor. The specific type of electric motor is not defined, but feasible options include linear induction motors or linear synchronous motors. The power systems for these electric propulsion trucks could include, but is not limited to, battery-power, trucks receiving electric power on the FC from electrical power systems embedded in the FC pavement, overhead catenary electrical lines providing power to trucks equipped with a pantograph (a device that collects electric current from overhead lines), or some combination of these systems (e.g., wayside power distribution while traveling along the FC and battery power elsewhere). For purposes of this analysis, the zero-emission electric trucks are assumed to receive electric power while traveling along the FC via an overhead catenary electric power distribution system.

Alternative 6B also includes the assumption that all trucks using the FC will have an automated control system that will steer, brake, and accelerate the trucks under computer control while traveling on the FC. This will safely allow for trucks to travel in "platoons" of 6–8 trucks and increase the capacity of the FC from a nominal 2,350 passenger car equivalents per lane per hour (pces/ln/hr) (as defined in Alternative 6A) to 3,000 pces/ln/hr in Alternative 6B.

The design of the FC will also allow for possible future conversion, or be initially constructed, as feasible (which may require additional environmental analysis and approval), of a fixed-track guideway family of alternative freight transport technologies (e.g., Maglev). However, these fixed-track family of technologies have (for now) been screened out of this analysis, as they

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have been determined to be inferior to electric trucks in terms of cost and ability to readily serve the multitude of freight origins and destinations served by trucks using the I-710 corridor.

1.4.5 Alternative 6C- 10 GP Lanes plus a Zero Emissions Four-Lane Freight Corridor Tolled

Alternative 6C includes all the components of Alternative 6A (including conventionally powered trucks) plus the automated truck element of Alternative 6B as described above, but would toll the trucks using the FC. Tolls would be collecting using electronic transponders (which would require overhead sign bridges and transponder readers like the SR-91 toll lanes currently operating in Orange County, where no cash toll lanes are provided. The toll pricing structure would provide for collection of higher tolls during peak travel periods of \$10 (\$0.625/mi) in a.m. (6:00 a.m.–9:00 a.m.) and p.m. (3:00 p.m.–7:00 p.m.) peak periods and \$5 (\$0.313/mi) in the midday and night periods for a truck trip traveling the entire length of the FC in either the NB or SB direction.

2 Regulatory Setting

2.1 Air Quality Standards

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂). The state of California has its own set of ambient air quality standards that is known as California Ambient Air Quality Standards (CAAQS).

Two types of ambient air quality standards have been established: primary (to protect the public health with an adequate margin of safety) and secondary (to protect the public welfare against adverse non-health-related environmental effects). Primary NAAQS/CAAQS are limits set to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. ^{25,26} Table 2.1 below provides the NAAQS and the CAAQS and also provides the attainment status of South Coast Air Quality Management District (SCAQMD).

Table 2.1 Ambient Air Quality Standards

	Table 2:1 Ambient Air Quality Standards									
	A v a ma arira ar	California	Federal	SCAB Attain	ment Status					
Pollutant	Averaging Period	California Standard Level ¹	Standard Level ²	California Standard ³	Federal Standard⁴					
	1 hour	0.09 ppm (177 μg/m ³)	Revoked	Non-Attainment						
Ozone (O ₃)	8 hour	0.070 ppm (137 μg/m ³)	0.075 ppm (147 μg/m³)	Non-Attainment	Extreme Non-Attainment					
Respirable Particulate	24 hour	50 μg/m³	150 μg/m³	Non-Attainment	Serious Non-Attainment					
Matter (PM ₁₀)	Annual	20 μg/m³	Revoked	Non-Attainment						
Fine Particulate	24 hour		35 μg/m ³		Non-Attainment					
Matter (PM _{2.5})	Annual	12 μg/m³	15 μg/m ³	Non-Attainment	Non-Attainment					
Carbon	1 hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	Attainment	Attainment / Maintenance					
Monoxide (CO)	8 hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	Attainment	Attainment / Maintenance					
Nitrogen Dioxide	1 hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m³) ⁵	Non-Attainment	N/A – See discussion below					
(NO ₂)	Annual	0.03 ppm (56 μg/m³)	0.053 ppm (100 μg/m³)	Non-Attainment	Attainment					
Lead (Pb)	30 day average	1.5 μg/m³		Non-Attainment ⁷						

http://www.epa.gov/air/criteria.html.

http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm

	A	O a life and in	Federal	SCAB Attair	ment Status	
Pollutant	Averaging California Period Standard Level ¹		Standard Level ²	California Standard ³	Federal Standard⁴	
Rolling 3 Lead (Pb) month average ⁶		0.15 μg/m ³		Non-Attainment		
Sulfur Diovido	1 hour	0.25 ppm (655 μg/m³)	0.075 ppm (197 μg/m³)	Attainment	Attainment	
Sulfur Dioxide (SO ₂)	3 hour ⁸		0.5 ppm (1310 μg/m ³)		Attainment	
	24 hour	0.04 ppm (105 μg/m ³)		Attainment		
Hydrogen Sulfide (H ₂ S)	1 hour	0.03 ppm (42 μg/m ³)		Unclassified		
Vinyl Chloride	24 hour	0.01 ppm (26 μg/m ³)		N/A		
Sulfates	24 hour	25 μg/m³		Attainment		
Visibility-Reducing Particles	N/A	Extinction coefficient of 0.23 per kilometer (visibility of ten miles or more due to particles when relative humidity is less than 70%)		Unclassified		

Notes:

--- means not applicable.

N/A means not available.

¹ California standards based on CARB website (http://www.arb.ca.gov/research/aags/caags/caags.htm).

New federal 1-hour NO₂ standard: On January 22, 2010, EPA promulgated a new 1-hour NO₂ standard. The new standard was set at 100 ppb, expressed as the 3-year average of the 98th percentile of the annual distribution of daily maximum 1-hour average concentrations. Unlike most criteria pollutant standards, this standard specifically focused on near-roadway exposure as well as regional exposure. EPA included this near-roadway standard after their review of the latest health effects studies linking higher short-term NO2 levels near roadways with adverse

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² Federal standards based on USEPA website (http://epa.gov/air/criteria.html). Note that some federal standards include a level (such as the concentrations shown in the Table) and a form (often a statistical form or based on excluding a certain number of exceedences of the standard level over a given number of years). Exceedences of the standard level are not necessarily violations or exceedences of the standard

³ California standard attainment status based on CARB website (www.arb.ca.gov/desig/adm/adm.htm).

⁴ Federal standard attainment status based on USEPA and CARB websites (www.epa.gov/air/oaqps/greenbk/index.html and www.arb.ca.gov/desig/adm/adm.htm). Note that SCAQMD submitted an attainment redesignation request for PM₁₀ in January 2010.

New EPA standard effective January 22, 2010.

⁶ Final rule signed October 15, 2008. The 1978 lead standard (1.5 μg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

⁷ Only LA County area within SCAB is in non-attainment.

⁸ This is a secondary standard.

health impacts. EPA is also requiring near-roadway (<50 meters) monitoring for urban areas with high populations and heavily trafficked roads, such as Los Angeles County, by no later than January 2013.

On February 18, 2010, SCAQMD staff gave a presentation²⁷ on the preliminary results of their I-710 near-roadway monitoring study to the I-710 Corridor Project Corridor Advisory Committee (CAC). This study included two month-long intensive monitoring periods (Feb/Mar 2009 and Jul/Aug 2009). The SCAQMD made numerous measurements²⁸, including 1-hour average NO₂ levels. Those three sites were at a "background" station (Del Amo site), and two sites downwind of the I-710 freeway (on 15 meters downwind and another 80 meters downwind). Both downwind monitors were between the I-710 freeway and the Los Angeles River. SCAQMD's conclusions included: concentrations of NO₂ (and UFPs) were higher 15 meters downwind of the I-710 freeway then 80 meters downwind or upwind of the freeway; and the 1-hr daily maximum NO₂ concentrations can be higher than the new NAAQS level, but concentrations are mostly driven by regional levels. (Note that the new standard is based on the 98th percentile of monitored daily maximums and that exceedences of the NAAQS level does not necessary mean a violation of the standard.) SCAQMD staff has also noted that NO2 concentrations have historically been declining (based on more stringent vehicle exhaust regulations) and are expected to decrease in the future (based on recently adopted vehicle regulations and reductions required for the SCAB to attain the ozone standard). SCAQMD has projected 1-hour daily maximum NO₂ levels below 80 ppb by 2023 (the expected attainment deadline for the 100 ppb standard).

Table 2.2 below discusses the health effects of the various criteria pollutants.

Table 2.2 Criteria Pollutants, Their Precursors, and Related Health Effects 29

Pollutant	Health Effects
(NO _x), oxides of sulfur (SO _x) are precursors of PM _{2.5} and PM ₁₀ .	Respirable particulates (PM _{2.5} and PM ₁₀) pose a serious health hazard, alone or in combination with other pollutants. More than half of the smallest particles inhaled get deposited in the lungs and can cause permanent lung damage. Respirable particles have been found to increase morbidity and mortality via the following adverse health effects: decreased lung function, aggravated asthma, exacerbation of lung and heart disease symptoms, chronic bronchitis and irregular heartbeats. In addition, respirable particles can act as a carrier of absorbed toxic substance. ³⁰

²⁷ SCAQMD. Presentation to the I-710 Corridor Project Community Advisory Committee (CAC). February 18, 2010. Presentation can be found at: www.metro.net/projects_studies/I710/images/AQMD-I-710-Air-Monitoring-Study-to-CAC-February-2010.pdf

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Measurements included: continuous UFP particle number, black carbon, PM_{2.5} mass, NOx, CO, wind speed, wind direction, temperature, relative humidity; 24-hour samples of PM10 mass, total suspended particulate lead, and organic/elemental carbon (1-in-2 day); daily PM_{2.5} mass (FRM daily samples); and VOC air toxics (4 samples per day)

day).

29 SCAQMD Final 2007 Air Quality Management Plan, June 2007, (http://www.aqmd.gov/aqmp/07aqmp/aqmp/Complete_Document.pdf).

EPA National Center for Environmental Assessment, particle pollution health affects http://www.epa.gov/air/particlepollution/health.html.

Criteria Pollutants, Their Precursors, and Related Health Effects 29 Table 2.2

Pollutant	Health Effects
Ozone Ozone is not a directly emitted pollutant from project sources; volatile organic compounds (VOCs) and NO _x are precursors of ozone.	Elevated ozone concentrations have been shown to induce airway irritation, cause airway inflammation, induce wheezing and difficulty breathing, aggravates preexisting respiratory conditions such as asthma, and can lead to permanent lung damage after repeated exposure to elevated concentrations. ³¹
Carbon Monoxide (CO)	Carbon monoxide is a colorless and odorless gas that is known to cause aggravation of various aspects of coronary heart disease, dizziness, fatigue, impairment to central nervous system functions, and possible increased risk to fetuses.
Sulfur Dioxide (SO ₂)	Sulfur dioxide is known to cause irritation in the respiratory tract, shortness of breath, and can injure lung tissue when combined with fine PM. It also reduces visibility and the level of sunlight.
Nitrogen Dioxide (NO ₂)	Long-term exposure to nitrogen dioxide has the potential to decrease lung function and worsen chronic respiratory symptoms and diseases in sensitive population. It has also been associated with cardiopulmonary mortality and emergency room asthma visits. USEPA recently adopted a 1-hour federal standard to address short-term exposure impacts (e.g., adverse respiratory effects), particularly near major roadways.

2.2 **Transportation Conformity**

Important Note: The project-level CO hot-spot analyses for the project can be found in Appendix H of this report. The PM₁₀ and PM_{2.5} Conformity determinations are presented in a separate report prepared by LSA;³² that report can be found in Appendix I.

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund. authorize, or approve Federal actions to support programs or projects that are not first found to conform to State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity of highway and transit projects with the Clean Air Act takes place on two levels first, at the regional level and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity is concerned with how well the region is meeting the standards set for CO, NO₂, O₃, and PM. At the regional level, Regional Transportation Plans (RTP) are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the RTP is in

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³¹ EPA National Center for Environmental Assessment, ground level ozone health affects http://www.epa.gov/air/ozonepollution/health.html. ³² Need reference

conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis. The I-710 Corridor Project is included in the 2008 RTP as project 1C0401 and has been considered within the RTP's regional conformity analysis. The project has also been included in the Federal Transportation Improvement Plan (2011 FTIP) as project LA0B952, which has also been deemed to conform to the SIP.

Conformity at the project-level also requires "hot spot" analysis if an area is "nonattainment" or "maintenance" for CO and/or particulate matter. A region is a "nonattainment" area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as nonattainment areas but have recently met the standard and have been re-designated by EPA to attainment with a maintenance SIP are called "maintenance" areas. "Hot spot" analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In the South Coast Air Basin, projects must not cause violations of the CO standard, and the project must not cause any increase in the number and severity of PM₁₀/PM_{2.5} standard violations. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

2.3 Mobile Source Air Toxics

The Federal Highway Administration (FHWA) has developed an interim guidance and its update³³ for analyzing mobile source air toxic (MSAT) emissions to meet NEPA requirements. The FHWA developed a tiered approach for analyzing MSAT in NEPA documents, depending on specific project circumstances. The FHWA has identified three levels of analysis:

- No analysis for projects with no potential for meaningful MSAT effects;
- Qualitative analysis for projects with low potential MSAT effects; or
- Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

In March 2001, EPA issued its first MSAT rule, 40 CFR Parts 80 and 86 – Control of Emissions of Hazardous Air Pollutants From Mobile Sources; Final Rule, March 2001 (http://www.epa.gov/EPA-AIR/2001/March/Day-29/a37.htm), which identified 21 MSAT as being hazardous air pollutants that required regulation. A subset of six MSAT was identified as having the greatest influence on human health. In February 2007 EPA issued a second MSAT rule, which generally supported the findings in the first rule and recommended that acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases, formaldehyde, naphthalene, and polycyclic organic matter as having the greatest influence on health. As presented in the I-710 EIR/EIS AQ/HRA protocol (released March 2009) and agreed on by the AQ/HRA Working Group and the Agency Air Technical Working Group (AATWG), the

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³³ Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents, FHWA, September, 2009.

I-710 AQ/HRA evaluates the six priority MSAT identified in the first MSAT rule. The September 2009 FHWA guidance references the newest seven MSAT. The Lead Agency confirmed use of original six priority MSAT as the protocol was completed and the analyses were well underway before the new guidance was issued. Thus, the six priority MSAT analyzed in the I-710 AQ/HRA are:

- Diesel exhaust (particulate matter and organic gases)
- Benzene
- 1,3-Butadiene
- Acetaldehyde
- Formaldehyde
- Acrolein

2.4 Greenhouse Gases

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHG related to human activity that include carbon dioxide (CO₂), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s,s s 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. Assembly Bill 1493 ("the Pavley Standard") requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by EPA in December 2007³⁴. However, in January 2009, President Barack Obama issued a directive to the USEPA to reconsider California's request for the waiver. On June 30, 2009 the EPA granted the waiver with a provision specifying that CARB may not hold a manufacturer liable or responsible for any noncompliance caused by the emission debits generated by a manufacturer for the 2009 model year. This waiver allowed California to implement the Pavley standards.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05 that mandates a reduction in California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a scoping plan, which includes market mechanisms, and adoption

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³⁴ California v. Environmental Protection Agency, 9th Cir. Jul. 25, 2008, No. 08-70011.

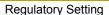
and enforcement of regulations to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Several GHG regulations have been adopted and implemented by CARB based on the programs defined in the scoping plan. Some of the regulations that affect the on-road vehicles include 1) the Pavley standard discussed above 2) the low carbon fuel standard that requires a progressive reduction of the full fuel-cycle carbon intensity starting 2010, 3) heavy duty vehicle GHG emissions reduction measure that reduces GHG emissions by adopting an aerodynamic truck design and the 4) tire pressure regulation that requires automotive service providers to check and inflate each vehicle's tires to the recommended tire pressure rating at the time of performing any maintenance or repair service. Other key programs in AB-32 include the renewable fuel portfolio standard (Executive Order S-14-08) that mandates retail suppliers of electric services to increase procurement from renewable energy resources to 33% by 2020 and the cap and trade regulation adopted on October 20, 2011 that sets a statewide limit on sources responsible of 85% of California's greenhouse gas emissions.

Climate change and GHG reduction is a concern at the federal level. In 2002, President George W. Bush set a national policy goal of reducing the GHG emission intensity of the US economy by 18% by 2012. However, no legislation or regulations were enacted to achieve this goal. Rather, the EPA administered a variety of voluntary programs and partnerships with industries producing and utilizing synthetic GHGs to reduce emissions of these potent GHGs. In 2007, California, in conjunction with several environmental organizations and several other states, sued to force the EPA to regulate GHG as a pollutant under the Clean Air Act³⁵. The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the authority to regulate GHG. On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks, which will take effect in 2012. The EPA and the National Highway Traffic Safety Administration (NHTSA) adopted this standard in April, 2010³⁶. Further in August, 2011 EPA and NHTSA adopted CO₂ emissions and fuel economy standards for medium and heavy duty vehicles, which would have the potential to reduce GHG emissions by nearly 250 million metric tons and save ~500 million barrels of oil over the life of vehicles sold during 2014 to 2018.³⁷

The Natural Resources Agency coordinated the preparation of amendments the CEQA guidelines to address the analysis and mitigation of greenhouse gas emissions. These amendments became effective on March 18, 2010. The amendments clarified the following³⁸

- Lead agencies must analyze the greenhouse gas emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions. (See CEQA Guidelines § 15064.4.)
- When a project's greenhouse gas emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (See CEQA Guidelines § 15126.4(c).)

³⁸ Available at http://www.opr.ca.gov/s ceqaandclimatechange.php (accessed October, 2011)



 $^{^{\}rm 35}$ Massachusetts vs. Environmental Protection Agency et al., 549 U.S. 497 (2007)

³⁶ Available at http://www.epa.gov/oms/climate/regulations/420f10014.htm (accessed October, 2011)

Available at http://www.epa.gov/otaq/climate/documents/420f11031.pdf (accessed October, 2011)

- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (See CEQA Guidelines § 15126.2(a).)
- Lead agencies may significantly streamline the analysis of greenhouse gases on a project level by using a programmatic greenhouse gas emissions reduction plan meeting certain criteria. (See CEQA Guidelines § 15183.5(b).)
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives. (See CEQA Guidelines, Appendix F.)

This Report includes a special analysis of traffic-related GHG emissions of the project alternatives. Other guideline items above will be addressed in the DEIR/DEIS or related technical reports. Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, Caltrans has created and is implementing its December 2006 Climate Action Program³⁹. In July 2011, Caltrans revised its Standard Environmental Reference (SER) to include analysis of GHG emissions. The I-710 Corridor Project AQ/HRA Protocol had already included the analysis of traffic-related GHG emissions as a special Project analysis; results of this analysis can be found in Section 4.4.

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³⁹ Caltrans Climate Action Program available at www.dot.ca.gov/hg/tpp/offices/ogm/key reports files/State Wide Strategy/Caltrans Climate Action Program.pdf

3 Affected Environment

3.1 Climate

The project lies in the Los Angeles County area. The period of May through October is warm to hot and dry with average high temperatures of 74–84°F and lows of 58–66°F, however temperatures frequently exceed 90 °F and occasionally reach 100°F in inland areas (away from the moderating effect of the ocean). The period of November through April is mild and somewhat rainy with average high temperatures of 68-73°F and lows of 48-53°F, but temperatures can occasionally drop to the low 40s or be as high as 80 °F for a few days during winter. The area averages 15 inches (381.00 mm) of precipitation annually, which mainly occurs during the winter and spring (November through April) with generally light rain showers, but sometimes as heavy rainfall and thunderstorms. The coast gets slightly less rainfall, while the mountains get slightly more.

Wind speed and direction play a major role in the dispersion of pollutants in the atmosphere. Since the project is 18 miles long, it is difficult to characterize the wind speed and direction using a single meteorological station. Figure 3.1 presents wind roses for four representative meteorological stations along the I-710 freeway. (For further discussion of how these stations were identified and used in the AQ/HRA analyses, see Appendix D, Attachment 1).

Ambient Air Quality in the Project Area

3.2.1 **Monitoring Network**

CARB and SCAQMD have the primary responsibility for maintaining and operating a network of ambient air quality monitoring stations in the SCAB. The locations of monitors within this network, which are sited within the southern part of Los Angeles County, are shown on Figure 3.2. In addition, the Port of Los Angeles and the Port of Long Beach have recently developed and begun implementing (since February 2005 at the POLA and October 2006 at the POLB) their own program to monitor criteria pollutants⁴⁰ in the San Pedro Bay area.⁴¹ However, the air quality monitoring data from the POLA/POLB monitors were not used in the analysis as they are not SCAQMD approved monitors and/or were not proximate to the modeled sources.

3.2.2 Recent Monitoring Data

Because of the central locations of these stations within the I-710 corridor project area (see Figure 3.3), the presentation and discussion of existing air quality in the project area focuses on air quality measurements at the CARB/SCAQMD North Long Beach, Lynwood, and Los Angeles-North Main Street stations. Measurements obtained at these stations during the most recent three years of available data are summarized in Table 3.1. These results are consistent with the overall attainment challenges within the entire South Coast Air Basin (see discussion of air quality in the 2007 AQMP). 42 For informational purposes monitoring data for the years 2003 to 2005 are provided in Table 3.2.



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⁴⁰ Including NO₂, SO₂, O₃, CO, PM₁₀, and PM_{2.5}.

Additional information is available online at http://caap.airsis.com/, including a map of the San Pedro Ports monitoring network (http://caap.airsis.com/MapView.aspx), as well as reports of both historical and real-time data.

42 See Chapter 2 of the 2007 AQMP, available online at: http://www.aqmd.gov/aqmp/07aqmp/draft/07aqmp.pdf.

Table 3.1 Summary of 2006-2008 Ambient Air Monitoring Results, for the Los Angeles-North Main Street, North Long Beach, and Lynwood¹

	Long Bodon, and Lynwood	LA-No	orth Main	Street	Nort	h Long Be	ach		Lynwood	d
Pollutant	Ambient air quality	2006	2007	2008	2006	2007	2008	2006	2007	2008
	1-hour maximum	3	3	3	4	3*	3	8	8	6*
CO (nnm)	Days of federal exceedances (> 35 ppm)	0	0	0	0	0*	0	0	0	0
	Days of state exceedances (> 20 ppm)	0	0	0	0	0*	0	0	0	0
CO (ppiii)	8-hour maximum	2.6	2.2	2.1	3.4	2.6*	2.6	6.4	5.1	4.3*
CO (ppm) O ₃ (ppm) NO ₂ (ppm)	Days of federal exceedances (> 9 ppm)	0	0	0	0	0*	0	0	0	0
	Days of state exceedances (> 9 ppm)	0	0	0	0	0*	0	0	0	0
	1-hour maximum	0.11	0.115	0.109	0.08	0.099	0.093	0.09	0.102	0.078*
	Days of state exceedances (> 0.09 ppm)	8	3	3	0	1	0	0	1	0*
O (ppm)	8-hour maximum	0.79	0.102	0.09	0.058	0.073	0.074	0.066	0.077	0.060*
O ₃ (ppiii)	Days of federal exceedances (> 0.08 ppm) ^{2,3}	0	2	1	0	0	0	0	0	0*
	Days of federal exceedances (> 0.075 ppm) ^{2,3}		3	3		0	0		1	0*
	Days of state exceedances (> 0.07 ppm)	4	6	7	0	1	1	0	2	0*
	1-hour maximum	0.11	0.10	0.12	0.10	0.11	0.13	0.14	0.10	0.12*
	Days of State exceedances (> 0.25 ppm) 4	0	0	0	0	0	0	0	0	0
NO ₂ (ppm)	Annual average	0.0288	0.0299	0.0275	0.0215	0.0207	0.0208	0.0306	0.0291	0.0301*
	Exceedance of federal standard (> 0.0534 ppm)	No	No	No	No	No	No	No	No	No*
NO ₂ (ppm)	Exceedance of state standard (> 0.030 ppm) 4			No			No			Yes*
	1-hour maximum	0.03	0.01	0.01	0.03	0.11	0.09	-		
	Days of state exceedances (> 0.25 ppm)	0	0	0	0	0	0	1		-
	24-hour maximum	0.006	0.003	0.002	0.01	0.011	0.012	-		-
SO ₂ (ppm)	Days of federal exceedances (> 0.14 ppm) ⁵	0	0	0	0	0	0	1		-
	Days of state exceedances (> 0.04 ppm)	0	0	0	0	0	0	1		-
	Annual average	0.0019	0.0009	0.0003	0.0012	0.0027	0.0022	-		-
	Exceedance of federal standard (> 0.03 ppm)	No	No	No	No	No	No			
	24-hour maximum ⁶	59	78	66*	78	75	62	1		ŀ
PM ₁₀	Days of federal exceedances (> 150 μg/m ³) ⁶	0	0	0	0	0	0			
(μg/m ³)	Days of state exceedances (> 50 μg/m³) ⁶	3	5	2*	6	5	1			
	Annual average ^{6,7}	30.3	33.3	30.9*	31.1	30.2	29.1			
	Exceedance of state standard (> 20 μg/m³) ⁶	Yes	Yes	Yes*	Yes	Yes	Yes			-

Table 3.1 Summary of 2006-2008 Ambient Air Monitoring Results, for the Los Angeles-North Main Street, North Long Beach, and Lynwood¹

		LA-North Main Street			Nort	h Long Be	ach	Lynwood		
Pollutant	Ambient air quality	2006	2007	2008	2006	2007	2008	2006	2007	2008
	24-hour maximum	56.2	64.2	78.3	58.5*	82.9	57.2	55.0	49.0	44.2
DM	Days of federal exceedances (> 35 μg/m ³) ⁸	11	20	10	5*	12	8	4	4	3
PM _{2.5} (μg/m ³)	Annual average	15.6	16.8	15.7	14.2*	14.6	14.2	16.7	15.9	15.5
(μg/III)	Exceedance of federal standard (> 15 μg/m ³)	Yes	Yes	Yes	No*	No	No	Yes	Yes	Yes
	Exceedance of state standard (> 12 μg/m³)	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	Yes	Yes
	Monthly-average maximum	0.02	0.04	0.02	0.01	0.02	0.01	0.02	0.03	0.03
Lead	Exceedance of state standard (> 1.5 μg/m³)	No	No	No	No	No	No	No	No	No
(μ g /m³)	Quarterly-average maximum	0.01	0.03	0.02	0.01	0.01	0.01	0.02	0.02	0.02
1	Exceedance of federal standard (> 0.15 μg/m ³) ⁹	No	No	No	No	No	No	No	No	No

Notes:

¹ Source: http://www.aqmd.gov/smog/historicaldata.htm (accessed September 2011) for Los Angeles-North Main Street, North Long Beach, and Lynwood stations. Key: "*" refers to data points corresponding to less than 12 full months of data, and that therefore may not be representative. "–" means that the data was unavailable.

² The federal 1-hour ozone standard was revoked and replaced by the 8-hour standard, effective June 15, 2005.

³ EPA revised the federal 8-hour ozone standard from 0.08 ppm to 0.075 ppm effective May 27, 2008. Attainment of this standard is based on the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year.

⁴ The California Air Resources Board revised the NO₂ 1-hour state standard from 0.25 ppm to 0.18 ppm and established a new annual standard of 0.030 ppm effective March 20, 2008.

⁵ Federal SO₂ standards also include a 3-hour average 0.50 ppm threshold. This threshold was not exceeded.

⁶ After exclusion of a number of measurements affected by exceptional events in accordance with the EPA Exceptional Event Rule (see table footnotes at http://www.aqmd.gov/smog/AQSCR2007/aq07card.pdf).

⁷ EPA revoked the federal annual PM₁₀ standard effective December 17, 2006.

⁸ EPA revised the federal 24-hour PM_{2.5} standard from 65 μg/m³ to 35 μg/m³, effective December 17, 2006. Attainment of this standard is based on the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area.

⁹ ÉPA revised the federal lead standard (effective October 15, 2008) from a quarterly average of 1.5 μg/m³ to a rolling 3-month average of 0.15 μg/m³.

Table 3.2 Summary of 2003-2005 Ambient Air Monitoring Results, for the Los Angeles-North Main Street, North Long Beach, and Lynwood¹

	Long Beach, and Lynwood	LA-No	orth Main	Street	Nortl	h Long Be	ach		Lynwood	
Pollutant	Ambient air quality	2003	2004	2005	2003	2004	2005	2003	2004	2005
	1-hour maximum	6	4	4	6	4	4	12	10	7
	Days of federal exceedances (> 35 ppm)	0	0	0	0	0	0	0	0	0
CO (ppm)	Days of state exceedances (> 20 ppm)	0	0	0	0	0	0	0	0	0
СО (ррііі)	8-hour maximum	4.6	3.2	3.1	4.7	3.4	3.5	7.3	6.7	5.9
	Days of federal exceedances (> 9 ppm)	0	0	0	0	0	0	0	0	0
	Days of state exceedances (> 9 ppm)	0	0	0	0	0	0	0	0	0
	1-hour maximum	0.152	0.110	0.121	0.099	0.090	0.091	0.081	0.084	0.111
	Days of state exceedances (> 0.09 ppm)	11	7	2	1	0	0	0	0	1
O ₃ (ppm)	8-hour maximum	0.088	0.092	0.098	0.071	0.075	0.068	0.063	0.072	0.081
O ₃ (ppiii)	Days of federal exceedances (> 0.08 ppm) ^{2,3}	2	1	1	0	0	0	0	0	0
	Days of federal exceedances (> 0.075 ppm) ^{2,3}									
	Days of state exceedances (> 0.07 ppm)		7	2		0	0		0	1
	1-hour maximum	0.16	0.16	0.13	0.14*	0.12	0.14	0.13	0.10	0.11
	Days of State exceedances (> 0.25 ppm) 4	0	0	0	0*	0	0	0	0	0
NO ₂ (ppm)	Annual average	0.0338	0.0328	0.0278	0.0288*	0.0280	0.0241	0.0312	0.0301	0.0312
	Exceedance of federal standard (> 0.0534 ppm)	No	No	No	No*	No	No	No	No	No
	Exceedance of state standard (> 0.030 ppm) 4									
	1-hour maximum	0.05*	0.08	0.07	0.03	0.04	0.04			
	Days of state exceedances (> 0.25 ppm)	0*	0	0	0	0				
	24-hour maximum	0.006*	0.015	0.010	0.008	0.012	0.010			
SO ₂ (ppm)	Days of federal exceedances (> 0.14 ppm) ⁵	0*	0	0	0	0	0			
	Days of state exceedances (> 0.04 ppm)	0*	0	0	0	0	0			
	Annual average	-	1	1		1	-	1	1	1
	Exceedance of federal standard (> 0.03 ppm)	-	1	1		1	-	1	-	
PM ₁₀	24-hour maximum ⁶	81	72	70	63	72	66	-	-	
(μ g /m³)	Days of federal exceedances (> 150 μg/m ³) ⁶	0	0	0	0	0	0	1	1	

Table 3.2 Summary of 2003-2005 Ambient Air Monitoring Results, for the Los Angeles-North Main Street, North Long Beach, and Lynwood¹

		LA-North Main Street		North Long Beach			Lynwood			
Pollutant	Ambient air quality	2003	2004	2005	2003	2004	2005	2003	2004	2005
PM _{2.5} (μg/m ³)	Days of state exceedances (> 50 μg/m³) ⁶	6	5	4	4	4	5			
	Annual average ^{6,7}	34.6	32.7	29.6	32.8	33.1	29.6			
	Exceedance of state standard (> 20 μg/m³) ⁶	Yes	Yes	Yes	Yes	Yes	Yes	-		
PM _{2.5} (μg/m ³)	24-hour maximum	83.7	75	73.7	115.2	66.6	53.9	54.8	55.8	54.6
	Days of federal exceedances (> 65 μg/m ³) ⁸	5	2	2	3	1	0	0	0	0
	Annual average	21.3	19.6	18.1	18.0	17.6	16.0	20.2	18.5	17.5
	Exceedance of federal standard (> 15 μg/m ³)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Exceedance of state standard (> 12 μg/m³)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lead (μg/m³)	Monthly-average maximum	0.15	0.03	0.02	0.10	0.02	0.01	0.04	0.03	0.03
	Exceedance of state standard (> 1.5 μg/m³)	No	No	No	No	No	No	No	No	No
	Quarterly-average maximum	0.15	0.03	0.02	0.05	0.01	0.01	0.04	0.03	0.03
	Exceedance of federal standard (> 0.15 μg/m ³) ⁹	No	No	No	No	No	No	No	No	No

Notes:

⁹ EPA revised the federal lead standard (effective October 15, 2008) from a quarterly average of 1.5 μg/m³ to a rolling 3-month average of 0.15 μg/m³.

¹ Source: http://www.aqmd.gov/smog/historicaldata.htm (accessed September 2011) for Los Angeles-North Main Street, North Long Beach, and Lynwood stations. Key: "*" refers to data points corresponding to less than 12 full months of data, and that therefore may not be representative. "—" means that the data was unavailable.

² The federal 1-hour ozone standard was revoked and replaced by the 8-hour standard, effective June 15, 2005.

³ EPA revised the federal 8-hour ozone standard from 0.08 ppm to 0.075 ppm effective May 27, 2008. Attainment of this standard is based on the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year.

⁴ The California Air Resources Board revised the NO₂ 1-hour state standard from 0.25 ppm to 0.18 ppm and established a new annual standard of 0.030 ppm effective March 20, 2008.

⁵ Federal SO₂ standards also include a 3-hour average 0.50 ppm threshold. This threshold was not exceeded.

⁶ After exclusion of a number of measurements affected by exceptional events in accordance with the EPA Exceptional Event Rule (see table footnotes at http://www.aqmd.gov/smog/AQSCR2007/aq07card.pdf).

⁷ EPA revoked the federal annual PM₁₀ standard effective December 17, 2006.

⁸ EPA revised the federal 24-hour PM_{2.5} standard from 65 μ g/m³ to 35 μ g/m³, effective December 17, 2006. Attainment of this standard is based on the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area.

3.3 Asbestos Impacts during Construction

The project is located in Los Angeles County, which is among the counties listed as containing serpentine and ultramafic rock. However, the project site is not located within an area known to contain naturally occurring asbestos (NOA). Therefore, the impact from NOA during project construction would be minimal to none.

4 Environmental Consequences

4.1 Introduction

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Site preparation and roadway construction would involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2 , NO_x , VOCs and some soot particulate (PM_{10} and $PM_{2.5}$) in exhaust emissions.

During project operations, CO, SO_2 , NO_x , VOCs, PM_{10} and $PM_{2.5}$ emissions will be released in the form of exhaust emissions, running evaporative losses, tire wear, and brake wear due to traffic movement on the freeway. Emissions of PM_{10} and $PM_{2.5}$ will also occur in the form of re-entrained dust due to movement of traffic on paved roadways. Toxic air contaminants such as Diesel Particulate Matter, Benzene, Acrolein, Acetaldehyde, Formaldehyde, 1,3-butadiene will also be emitted from the gasoline and diesel fueled traffic moving on the freeway and other roadways during project operations. This section discusses the air quality and health risk impacts associated with the project construction and operation.

NOTE: Multiple metrics are used to assess the AQ/HRA impacts of the project alternatives. A single metric cannot, and should not, be used to evaluate the full AQ/HRA impacts of any project alterative. The results of the different analyses should be considered together to give a fuller and more comprehensive understanding of project alternative AQ/HRA impacts.

As mentioned earlier, the project is a joint venture of several agencies associated with transportation and goods movement in the greater Los Angeles area and the subject of great interest to the local communities and other stakeholders involved in the I-710 Corridor Project. Metro, Caltrans and the other Funding Partners recognized that stakeholders wanted special analyses beyond the standard Caltrans analyses typically done for roadway/freeway projects (as described in Caltrans' Standard Environmental Reference at www.dot.ca.gov/ser/vol1/sec3/physical/ch11air/chap11.htm). Thus, additional special project analyses over and above the standard analyses done for freeway projects were conducted because of the unique goods movement component of the project and the air quality purpose of the project.

Table 4.1 below presents a summary of the analyses that were conducted for this project. The table denotes the standard Caltrans SER analyses ("standard") and special I-710 project-only analyses ("special").

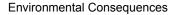


Table 4.1 I-710 EIR/EIS AQ/HRA Analysis Metrics

	Analysis Type	Pollutants	Reporting Unit	Reporting Format	
1	STANDARD (for long-term construction projects) Criteria Pollutant Mass Emissions - Construction	NO _x , VOC, PM ₁₀ , PM _{2.5} , CO, SO ₂	lbs/day	Summary tables showing mass emissions for Alternatives 5A and 6A/B.	
2	STANDARD Criteria Pollutant Mass Emissions – Traffic	NO _x , VOC, PM ₁₀ , PM _{2.5} , CO, SO ₂	lbs/day	Summary tables showing incremental mass emission changes for the I-710 (standard), area of interest (special), and SCAB (special) Spatial emission figures	
				for select criteria pollutants (special)	
3	SPECIAL ANALYSIS Criteria Pollutant Concentrations – Traffic activity on the I-710 and Freight Corridor (AERMOD Modeling)	NO ₂ (1-hr, annual), PM ₁₀ (24-hr, annual), PM _{2.5} (24-hr), CO (1-hr, 8-hr)	ppm, ug/m ³	Incremental concentration change tables and figures	
4	STANDARD Mobile Source Air Toxic (MSAT) Emissions – Traffic	6 priority MSAT: 1. DPM (incl. organics) 2. Acetaldehyde 3. Acrolein 4. Benzene 5. 1,3-Butadiene	lbs/hr and lbs/yr	Summary tables showing incremental mass emission changes for the I-710 (standard), area of interest (special) and SCAB (special)	
		6. Formaldehyde		Spatial emission figures for DPM (special)	
5	SPECIAL ANALYSIS MSAT health risk assessment based on AERMOD modeling - Traffic activity on the I-710 and Freight Corridor	Cancer Risk, Chronic and Acute Hazard Indices, Cancer Burden	Cancer risk: # in a million All others: unitless	Tables and figures showing incremental changes	
6	SPECIAL ANALYSIS* Greenhouse Gas Emissions – Traffic	CH ₄ , N ₂ O, CO ₂	tons/year of CO₂ equivalent	Summary tables showing incremental mass emission changes for SCAB	
7	SPECIAL ANALYSIS PM Mortality Impacts	Total PM _{2.5} as a surrogate for mortality impacts	Qualitative analysis	Qualitative analysis	
8	SPECIAL ANALYSIS Ultrafine particulates (particulates less than 0.1μ in diameter)	Exhaust PM _{2.5} as a surrogate for ultrafine particulates	Qualitative analysis	Qualitative analysis	
9	STANDARD (Transportation Conformity)	CO, PM _{2.5} , PM ₁₀	ppm, μg/m³	Incremental concentration change, tables and figures	

^{*} After approval of the I-710 Corridor Project AQ/HRA Protocol (released March 2009), Caltrans included analysis of GHGs as part of its standard analyses in July 2011.



4.2 Construction Impacts

4.2.1 Construction Emission Estimation Methodology

The emissions of criteria pollutants from construction activities were calculated using the Road Construction Emissions Model, Version 6.3.2 (construction emission model) developed by Sacramento Metropolitan Air Quality Management District (SMAQMD). The model can be used to estimate both vehicle/equipment exhaust and fugitive dust. The methodology used for estimating fugitive dust emissions is a simplified method that is based on the maximum area disturbed per day. The vehicle exhaust emissions are estimated using the equipment activity data and emission factors derived from OFFROAD and EMFAC model runs. However, the emission factors from OFFROAD and EMFAC used in the model are specific to Sacramento area. Therefore, the emission factors in the construction emission model for vehicle exhaust were replaced with the emission factors developed by SCAQMD to quantify the exhaust emissions. The construction of the project was analyzed for seven segments (created for preliminary engineering of the project) along the 18-mile length of the Project. Construction may or may not occur on different segments (or parts of these segments) over the same time interval and is expected to take place over several years (8 to 15). However, to have a conservative estimate of peak-day emissions, construction emissions were calculated for a "worst-case" scenario that assumed, among other things, that construction would occur simultaneously in the seven segments over a short period of time (7.3 years). Details about the assumptions, method, and results of this "worst-case" construction scenario can be found in Appendix B.

4.2.2 Criteria Pollutant Emission Estimates

Table 4.2 below summarizes the peak-day emissions of criteria pollutants for all four Build alternatives for the worst-case construction scenario. All criteria pollutant single-segment peak-day emissions are below the SCAQMD threshold except NOx. The single-segment peak-day emissions may be spread out along the entire length of that segment (1.4 to 4.7 miles). Construction phasing and additional mitigation measures, if feasible, could reduce peak-day emissions.

Table 4.2 Criteria Pollutant Mass Emissions for Construction (Peak Day)

Pollutant	Peak Day (All Segments Total) (lbs/day) Alt. 5A Alt. 6A/B/C		(Maxin Se	ak Day num Single gment) os/day) Alt. 6A/B/C	SCAQMD CEQA Threshold Ibs/day
NO _x	1,364	1,510	287	287	100
CO	986	1,001	177	177	550
PM ₁₀	435	482	69	69	150
Exhaust	25	27	4	4	-
Fugitive dust	410	455	65	65	-
PM _{2.5}	117	129	21	21	55
Exhaust	52	57	11	11	-
Fugitive dust	65	72	10	10	-
ROG	193	213	40	40	75

Notes

Emissions are from construction equipment/activities

No green construction equipment

Values for exhaust and fugitive dust are not peak values, but represent the constituents of PM_{10} and $PM_{2.5}$ on the peak day

Assumed that all seven segments are constructed simultaneously (Maximum construction duration 87.4 months)

All Numbers are rounded to an integer value

4.3 Operation Impacts

4.3.1 Criteria Pollutant Emissions-Traffic

Mass emissions of criteria pollutants (NO_x, VOC, PM₁₀, PM_{2.5}, CO, SO_x) from traffic were calculated for the I-710 freeway to determine the impact of the proposed project on the surrounding area. In addition, the SCAB mass emissions and mass emissions for the Area of Interest (AOI) were also evaluated to determine the impact of the proposed I-710 project on a regional scale. Figure 4.1 presents the SCAB, AOI, Project study area and I-710 freeway. Six different scenarios were analyzed; baseline year 2008, No Build Alternative in 2035 (Alternative 1), Alternative 5A, Alternative 6A, Alternative 6B, and Alternative 6C.

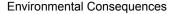
4.3.2 Emission Estimation Methodology

There are two main steps in quantification of emissions from freeway/roadway traffic as presented below:

- Calculating the vehicle activity for various vehicle types in terms of speed and vehicle miles traveled (VMT); and
- Identifying emission factors for the various vehicle types.

I-710 Traffic Model Output

The vehicle activity data was obtained from I-710 Traffic Model runs, which is based on the Southern California Association of Governments (SCAG) regional traffic model. Traffic was



modeled using the SCAG model by Cambridge Systematics, Inc. for all the six project scenarios. Four different peak time periods were evaluated in the model: AM (6 AM - 9 AM), Mid-day (9 AM - 3 PM), PM (3 PM - 7 PM) and Night time (7 PM - 6 AM). The I-710 Traffic Model is composed of a series of traffic links that represent the flow of traffic from one geographic point to another. The output of the I-710 Traffic Model is in the form of traffic flows and an average speed for each traffic link amongst other parameters. This model output data will be hereinafter referred to as "The I-710 Traffic Model data."

Post-Processed Traffic Data

The I-710 Traffic Model modeling results were further post processed using actual traffic counts at specific locations on and around the I-710 freeway to provide refined traffic data for the I-710 mainline freeway, freight corridor, and certain other roadway segments and intersections. Note that these post-processed results cannot be applied to estimate regional mass emissions. Post-processed traffic data were used in the AERMOD modeling of the I-710 Corridor to make the air quality and health risk impacts analyses of the I-710 freeway (mainline and freight corridor) emissions consistent with the refined traffic impact analysis. This data will be hereinafter referred to as "post-processed" traffic data.

Emission Factors

EMFAC2007 version 2.3 (EMFAC) was used to develop emission factors for the various criteria pollutants⁴³. The EMFAC model was run for both the baseline year 2008 and build-out year 2035. EMFAC has a variety of user options, which allow the user to analyze on-road emissions under different conditions. For the I-710 project the following options were used;

- Operation Parameters
 - Geographic area chosen: South Coast Air Basin.
 - Calendar Year: Baseline year 2008; 2035 analysis year for the No Build Alternative,
 Alternative 5A, Alternative 6A, Alternative 6B, and Alternative 6C.
 - Season: Annual average season was used which represents an average of all monthly inventories.
 - Temperature: 60° F was chosen and represents an average annual temperature.
 - Relative Humidity: 40%.

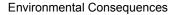
Method

The project domain resides with the SCAB and as such the "Simple-Average" option was used as the calculation, which uses area averaging to calculate average parameters for temperature, speed, relative humidity and I/M.

Modes

⁴³ EMFAC2011 was released by CARB on September 19, 2011, after emissions had been calculated. In addition, EMFAC 2007 is the emission factor model used in the most recent AQMP (2007 AQMP). Emission factors in this analysis have been adjusted for currently adopted non-GHG rules, as in EMFAC2011. See Section 4.3.2.4.







The model was run in the "EMFAC" mode to generate emission factors in grams of pollutant emitted per vehicle activity [grams per vehicle mile travelled and grams/hr].

Appendix C presents more details on the emission calculations methodology, presents tables providing the emission factors, emission calculations and the EMFAC input/output file.

EMFAC Adjustments for 2035 Emission Factors

EMFAC2007 does not account for rules and regulations enacted by the California Air Resources Board after 2007. Two notable regulations not captured in EMFAC are those designed to reduce NO_x and diesel particulate matter (DPM). The Statewide Bus and Truck Rule and Drayage Truck Rule will require fleets to reduce DPM and NO_x emissions. Additionally, the Ports of Los Angeles and Long Beach have enacted the Clean Port Truck Program (CPTP) mandating trucks that operate within the Ports to reduce DPM emissions by meeting set standards during phase in years. Therefore, adjustments were made to EMFAC emission factors to account for the Statewide Bus and Truck Rule and CPTP. Based on a comparison made between the CPTP and the Drayage rule it was determined that the CPTP is more stringent that the Drayage Rule and hence no adjustments were made for Drayage rule. Appendix C describes the adjustments in detail. It should also be noted that none of the other air quality improvement concepts or projects proposed by the ports Clean Air Action Plan (e.g., control measures for ocean going vessels (OGVs), cargo handling equipment, drayage trucks, etc.) are accounted for in the analysis herein.

4.3.3 Summary of Criteria Pollutant Emission Estimates - Traffic

The incremental emissions of criteria pollutants for SCAB, AOI and the I-710 freeway as compared to the 2008 baseline are presented in Tables 4.3a through 4.3c. These emissions were calculated using the I-710 Traffic model data. The SCAQMD CEQA regional mass emission significance thresholds have also been provided as additional information in Table 4.3a. All criteria pollutants, except total PM_{10} and SO_2 , show decreases for the 2035 alternatives when compared to the 2008 baseline. These results indicate that reduction in emissions, due to improved vehicle technology, are far greater than the increase in emissions, resulting from VMT increases in 2035.

Total PM₁₀ emissions consist of vehicle exhaust emissions and entrained road dust emissions. In this project, entrained road dust emissions were calculated using the latest EPA AP-42 equation, which was approved in February 2011 (see Appendix C for more details). This equation assumes that entrained dust emissions are directly proportional to vehicle miles travelled, thereby indicating that roads have an infinite silt reservoir. The SCAQMD used a different approach in their 2007 AQMP. Based on their analysis, heavily-traveled freeways and arterial roadways have a finite silt reservoir and that additional traffic (VMT) in future years will NOT increase entrained PM on these roads. After the I-710 Corridor Project emission calculations were completed, SCAQMD has proposed a modified methodology for entrained PM emissions as part of their 2012 AQMP development. In SCAQMD's proposed methodology, 2008 PM₁₀ and PM_{2.5} estimates will be lower, particularly PM_{2.5} estimates. Most importantly, future year entrained PM will remain constant unless the roadway is lengthened. The EPA



methodology used in this project is conservative; thus it can reasonably be stated that the entrained dust emissions maybe overstated and actual PM emissions would likely more closely reflect the exhaust PM emissions. The exhaust portion of PM_{10} emissions for all 2035 alternatives follow a trend similar to other criteria pollutants; it decreases from the 2008 baseline PM_{10} exhaust emissions. Total $PM_{2.5}$ emissions for Alternative 6A as compared to 2008 baseline, on the I-710 freeway, also increase for the same reasons previously explained for the total PM_{10} emissions. The increase in the entrained $PM_{2.5}$, for this alternative on the I-710 freeway, was higher than the decrease seen in the exhaust $PM_{2.5}$ emissions.

SO₂ emissions are formed by the conversion of fuel sulfur into oxides of sulfur during the combustion process. As a result SO₂ exhaust emissions are extremely sensitive to changes in fuel sulfur content. California already has ultra-low sulfur fuel standards in place. So, there will be no significant change in the fuel sulfur content from 2008 to 2035. However, increases in VMTs in 2035 directly translates to increase fuel usage, which in turn results in greater SO₂ emission in the SCAB, AOI and I-710 freeway. The primary factor driving the reduction in emissions of other criteria pollutants, improvements in vehicle technology, is not a significant player for SO₂ exhaust emissions because these emissions are only sensitive to changes in fuel sulfur content. Therefore, the SO₂ emissions for all 2035 alternatives show similar increases of about 0.65 tons/day. It should be noted that the SCAQMD has recently adopted amendments to its SO_x RECLAIM rule that will further reduce SO_x emissions by about 5.4 tons/day by 2019 (3 tons/day in 2013, 4 tons/day in 2014 and 5 tons/day in 2017). In addition, implementation of CARB rules and the Ports' Clean Air Action Plan is projected to reduce SO_x emissions from other goods movement sources (e.g. ocean-going vessel) over 20 tons/day. Most SO_x RECLAIM and ocean-going vessel emission reductions will occur upwind of the I-710 study area. These SO_x reductions from non-traffic related sources (e.g., ships, refineries) are not accounted for in this study.

Figures 4.2 through 4.6 show the change in NO_x emissions for 2035 alternatives as compared to the 2008 baseline and 2035 Build Alternatives as compared to the 2035 No Build Alternative. These gridded mass emission figures have been plotted by adding the NO_x emissions from links or part of links present in a grid size of 0.25 miles by 0.25 miles. The NO_x emissions, for all 2035 alternatives as compared to 2008 baseline, decrease on the freeways, arterials and roadways in the AOI in spite of the increase in the VMT. This occurs due to the improvement in vehicle technology driven by state and local programs/regulations.

A comparison of the NO_x emissions for Alternatives 6A, 6B and 6C to the No Build Alternative (Figures 4.4 to 4.6) shows additional reductions in emissions on I-605, I-105, I-110 and CA-91 due to shifting of trucks from these freeways to the I-710 freight corridor. We do however observe fewer reductions in NO_x emissions for these alternatives in the northern section of the I-710 freeway and CA-60 where the freight corridor ends and trucks move off the I-710. The comparison of Alternative 6A to the No Build Alternative baseline (Figure 4.4) shows a lower level of NO_x emission reductions (compared to 2008) along the I-170 freeway due to increased flow of trucks with the introduction of the freight corridor. This effect disappears for Alternatives 6B and 6C when the freight corridor is a zero-emissions roadway.

Figures 4.7 to 4.11 present gridded mass emission plots for total and exhaust $PM_{2.5}$ emissions. These plots were made following the methodology described above for the NO_x mass emission plots. Total $PM_{2.5}$ emissions are a sum of the vehicle exhaust emissions 44 and entrained dust emissions. The comparison of total $PM_{2.5}$ mass emissions in the 2035 alternative to 2008 baseline shows decreases in emissions on the freeways, arterials and local roadways near the I-710. These emissions also decrease on the I-170 freeway for all alternatives except Alternative 6A. As described earlier for Alternative 6A, the increase in the $PM_{2.5}$ entrained dust emissions as compared to 2008 baseline far exceeds the decreases seen in the exhaust $PM_{2.5}$ emissions along the I-710 freeway. The exhaust $PM_{2.5}$ mass emissions plots comparing the 2035 alternatives to the 2008 baseline show decreases on the I-710 freeway as well. These follow a trend similar to the NO_x plots.

Total $PM_{2.5}$ emissions for the build alternatives compared to the No Build Alternative show increased in emissions on the I-710 freeway. This is due to the increased mobility and capacity of the freeway, which results in increased exhaust and entrained dust emissions. For Alternatives 6A, 6B and 6C we do see decreases in emissions on sections of nearby freeways particularly the I-605 due to shifting of the trucks to the I-710 with the introduction of the freight corridor. Once again as in the case of NO_x emissions there, emissions on CA-60 and the northern section of the I-710 are greater for these freight corridor build alternatives compared to the No Build Alternatives as the freight corridor ends and the trucks get onto the mainlines of these two freeways; however changes compared to the 2008 baseline show decreases in total and entrained $PM_{2.5}$ on the CA-60.

The criteria pollutant emissions for the I-710 freeway were also estimated using the post processed traffic data. These emissions were used to model the criteria pollutant concentration impacts of the I-710 freeway in the AOI as discussed in the subsequent section. The incremental criteria pollutant emissions from the I-710 freeway as compared to the 2008 baseline calculated using post processed traffic data (Table 4.4) were found to show similar trends as the incremental emissions calculated using the I-710 Traffic Model data (Table 4.3c).

⁴⁴ Vehicle PM exhaust emissions include brake and tire wear also.



Table 4.3a Incremental Criteria Pollutant Mass Emissions within the SCAB Compared to 2008 Baseline

	Alt.1 vs	. 2008	Alt 5A vs	s. 2008	Alt. 6A v	s. 2008	Alt. 6B v	s. 2008	Alt. 6C v	s. 2008	SCAQMD CEQA Mass
Pollutant	lb/day	% Change	Emission Thresholds (lb/day)								
NO _x	-870,000	-84%	-870,000	-84%	-870,000	-84%	-880,000	-85%	-880,000	-85%	55
со	-2,000,000	-70%	-2,000,000	-70%	-2,000,000	-70%	-2,000,000	-70%	-2,000,000	-70%	550
PM ₁₀ (Total)	23,000	15%	23,000	15%	24,000	15%	23,000	15%	23,000	15%	150
PM ₁₀ (Exhaust)	-9,500	-16%	-9,400	-16%	-9,400	-16%	-9,800	-17%	-9,700	-16%	-
PM ₁₀ (Entrained)	33,000	34%	33,000	34%	33,000	34%	33,000	35%	33,000	34%	-
PM _{2.5} (Total)	-2,300	-3%	-2,300	-3%	-2,200	-3%	-2,500	-4%	-2,400	-4%	55
PM _{2.5} (Exhaust)	-10,000	-24%	-10,000	-24%	-10,000	-24%	-11,000	-24%	-11,000	-24%	-
PM _{2.5} (Entrained)	8,100	34%	8,100	34%	8,100	34%	8,100	35%	8,100	34%	-
ROG	-170,000	-70%	-160,000	-70%	-170,000	-70%	-170,000	-71%	-170,000	-71%	55
SO ₂	1,300	33%	1,300	33%	1,300	33%	1,200	32%	1,300	32%	150

For Alternative 6B and 6C, trucks have zero exhaust emissions while they are traveling on the freight corridor. Entrained dust (both PM_{10} and $PM_{2.5}$) emissions occur in all alternatives.

Emissions based on I-710 Traffic Model data.

Numbers are rounded to two significant digits.

Table 4.3b Incremental Criteria Pollutant Mass Emissions within the Area of Interest (AOI) Compared to 2008 Baseline

	Alt.1 vs	s. 2008	Alt 5A v	rs. 2008	Alt. 6A	/s. 2008	Alt. 6B	/s. 2008	Alt. 6C	/s. 2008
Pollutant	lb/day	% Change								
NO _x	-200,000	-82%	-200,000	-82%	-200,000	-82%	-200,000	-84%	-200,000	-83%
СО	-510,000	-74%	-510,000	-74%	-510,000	-74%	-510,000	-74%	-510,000	-74%
PM ₁₀ (Total)	1,800	5%	1,900	5%	2,100	6%	1,800	5%	1,800	5%
PM ₁₀ (Exhaust)	-3,400	-24%	-3,400	-24%	-3,300	-24%	-3,600	-26%	-3,600	-26%
PM ₁₀ (Entrained)	5,200	23%	5,300	23%	5,400	24%	5,500	24%	5,400	24%
PM _{2.5} (Total)	-2,000	-12%	-1,900	-12%	-1,900	-11%	-2,100	-13%	-2,100	-13%
PM _{2.5} (Exhaust)	-3,200	-31%	-3,200	-31%	-3,200	-30%	-3,400	-33%	-3,400	-32%
PM _{2.5} (Entrained)	1,300	23%	1,300	23%	1,300	24%	1,300	24%	1,300	24%
ROG	-43,000	-74%	-43,000	-74%	-44,000	-74%	-44,000	-75%	-44,000	-75%
SO ₂	160	18%	160	18%	160	18%	140	15%	150	16%

For Alternative 6B and 6C, trucks have zero exhaust emissions while they are traveling on the freight corridor. Entrained dust (both PM_{10} and $PM_{2.5}$) emissions occur in all alternatives.

Emissions based on I-710 Traffic Model data.

Numbers are rounded to two significant digits.

Table 4.3c Incremental Criteria Pollutant Mass Emissions for the I-710 Freeway Compared to 2008 Baseline

	Alt.1 vs	s. 2008	Alt 5A v	rs. 2008	Alt. 6A	/s. 2008	Alt. 6B	/s. 2008	Alt. 6C	vs. 2008
Pollutant	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change
NO _x	-13,000	-72%	-13,000	-70%	-11,000	-60%	-15,000	-83%	-14,000	-80%
CO	-19,000	-71%	-17,000	-66%	-16,000	-60%	-18,000	-69%	-18,000	-68%
PM ₁₀ (Total)	230	12%	580	31%	1,300	68%	1,000	54%	920	49%
PM ₁₀ (Exhaust)	-300	-34%	-190	-22%	-10	-1%	-330	-39%	-290	-33%
PM ₁₀ (Entrained)	530	51%	770	75%	1,300	127%	1,400	132%	1,200	118%
PM _{2.5} (Total)	-170	-18%	-40	-4%	230	24%	0	0%	0	-1%
PM _{2.5} (Exhaust)	-300	-43%	-230	-33%	-90	-13%	-340	-49%	-300	-44%
PM _{2.5} (Entrained)	130	51%	190	75%	320	127%	330	132%	300	118%
ROG	-1,500	-69%	-1,500	-67%	-1,300	-60%	-1,600	-74%	-1,600	-73%
SO ₂	15	38%	23	59%	36	93%	13	33%	15	40%

For Alternative 6B and 6C, trucks have zero exhaust emissions while they are traveling on the freight corridor. Entrained dust (both PM_{10} and $PM_{2.5}$) emissions occur in all alternatives.

Emissions based on I-710 Traffic Model data.

Numbers are rounded to two significant digits. Emission changes of 1% or smaller are presented as zero emission changes.

Table 4.4 Incremental Criteria Pollutant Mass Emissions Compared to 2008 Baseline for the I-710 freeway (using Post-Processed Traffic Data)

	Alt. 1 v	s. 2008	Alt. 5A v	s. 2008	Alt. 6A v	rs. 2008	Alt. 6B v	/s. 2008	Alt. 6C	vs. 2008
Pollutant	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change
NO _x	-18,000	-73%	-17,000	-72%	-16,000	-65%	-20,000	-84%	-20,000	-82%
CO	-19,000	-71%	-17,000	-65%	-16,000	-59%	-18,000	-69%	-18,000	-68%
PM ₁₀ (Total)	120	5%	400	19%	1,100	48%	800	34%	680	29%
PM ₁₀ (Exhaust)	-470	-43%	-360	-33%	-190	-17%	-540	-49%	-500	-45%
PM ₁₀ (Entrained)	590	48%	800	65%	1,300	106%	1,300	108%	1,200	95%
PM _{2.5} (Total)	-320	-26%	-190	-16%	70	5%	-190	-16%	-200	-17%
PM _{2.5} (Exhaust)	-460	-52%	-390	-43%	-260	-29%	-520	-58%	-490	-55%
PM _{2.5} (Entrained)	150	48%	200	65%	320	106%	330	108%	290	95%
ROG	-1,700	-69%	-1,700	-68%	-1,500	-60%	-1,800	-73%	-1,800	-73%
SO ₂	17	40%	24	58%	37	89%	12	29%	14	34%

For Alternative 6B and 6C, trucks have zero exhaust emissions while they are traveling on the freight corridor. Entrained dust (both PM_{10} and $PM_{2.5}$) emissions occur in all alternatives.

Emissions based on I-710 Traffic Model data, post-processed to incorporate traffic count information and detailed I-710 geometrics information.

Numbers are rounded to two significant digits

4.3.4 I-710 Near-Roadway Air Quality Impacts (modeled)

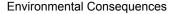
Emissions released from vehicles on the I-710 freeway are mixed and diluted in ambient air and ultimately transported away from the freeway. The simulation of the release and transport of emissions from the I-710 traffic in order to estimate the concentrations of the criteria pollutants at specified locations (called 'modeling grid points' and/or 'receptors')⁴⁵ is performed through air dispersion modeling.

IMPORTANT NOTE: Modeling of the quantities and effects of project traffic-related air pollution was performed using emissions data calculated only for the I-710 mainline and for certain alternatives, the freight corridor, using post-processed traffic data as described above. This was done because of several reasons, including 1) I-710 Traffic Model link data does not have information on all local roads (it is aggregated for certain origins and destinations) appropriate for near-roadway modeling, 2) post-processed data would not be available for other roadways. and 3) it was anticipated that the greatest impacts would be on the I-710 freeway and freight corridor because the project Build Alternatives would result in higher traffic levels/emissions on the I-710. The modeling results do not reflect changes in emissions on the other nearby freeways, local arterials and other local roadways. Based on the emissions analysis of the build alternatives, emissions of criteria pollutants generally decrease on these nearby freeways, arterials and roadways as traffic shifts to the I-710 as seen in Figures 4.2 through 4.6. **The** modeling results presented account for the impacts from increased traffic on the I-710 for the build alternatives but do not account for any decreases in ambient concentrations related to reduced traffic on nearby freeways, arterials, and roadways for the build alternatives as mobility improves on the I-710. In addition, the modeling assumes weekday traffic levels/patterns for every day of the year, including weekends and holidays. These assumptions are conservative and will generally yield a conservative estimate of incremental air quality and health impacts. These results should ONLY be used to compare the relative impacts of the alternatives.

For this study, the USEPA's AERMOD dispersion model 46 was used to model the criteria pollutant concentrations that would result from traffic-related emissions on the I-710 freeway and for certain alternatives, the freight corridor. These analyses are consistent with the EPA's Guidance for Quantitative PM analyses with minor modifications. For example, freeway traffic emissions were represented in AERMOD as a series of volume sources, which is accepted practice for modeling mobile sources in a dispersion model (ENVIRON, 2006b,c,d,e,f,g, 2007a,b, 2008). Appropriately sized and positioned volume sources were placed along the I-710 Corridor using Geographic Information Systems (GIS) tools. Hourly-resolution meteorological surface data, such as wind speed and direction, and upper air data were also employed in the AERMOD analysis of pollutant transport and dispersion. A unique aspect of the project is that the I-710 freeway is 18 miles in length, and meteorological conditions vary based on the receptor location over that distance. Therefore, a "Sphere of Influence" approach was used and

http://www.epa.gov/scram001/dispersion_prefrec.htm





⁴⁵ Receptors' in a modeling context can mean the model grid points where air quality and health risk are calculated. In a more general context, a 'receptor' can be a resident, worker, etc. 'Sensitive receptors' are schools, day care centers, senior centers, etc.

the I-710 Corridor was broken into four reasonably representative meteorological zones. Meteorological data for a station in each zone was processed using AERMET, the USEPA meteorological preprocessor program for AERMOD. More details on the air dispersion modeling using AERMOD are presented in Appendix D.

As guidance to lead agencies, the SCAQMD has established CEQA significance thresholds for concentration impacts for NO_2 (1-hr and annual average), CO (1-hr and 8-hr), PM_{10} (24-hr and annual average), and $PM_{2.5}$ (24-hr average). Caltrans, the CEQA Lead Agency for the I-710 Corridor Project, has not adopted the SCAQMD significance thresholds but has stated they will use them as part of their overall significance determinations. Therefore, the concentration impacts for only these criteria pollutants and corresponding averaging periods were calculated and reported.

Since the SCAB is in attainment/maintenance for both NO₂ and CO for the National Ambient Air Quality Standards, the incremental impacts are added to the background ambient air concentration. (Note that SCAQMD is in non-attainment for the California Ambient Air Quality Standards for NO₂). Since the project area is 18 miles long, a single background monitoring station cannot be used as a representative station for all the receptors in the modeling domain. Therefore, ENVIRON identified three different SCAQMD ambient air monitoring stations closer to the I-710 freeway that were used to determine the background concentrations. As stated earlier the project area has been divided into four meteorological zones; therefore a background ambient air monitor was selected for each meteorological zone. However, it should be noted that there are no SCAQMD monitoring stations in zone 1. Hence, data from the ambient air monitoring station for zone 2 was used to represent zone 1. Table 4.5 below presents the ambient air monitoring stations and the associated data for the years 2006 through 2008.

Table 4.5 Background Concentrations for NO₂ and CO

			N	O ₂	C	0		Maxin	num NO ₂			Maxim	um CO	
Station	Met Zone	Year	Max Conc. in 1-hour	Annual Avg. AAM Conc.	Max Conc. in 1-hour	Max Conc. in 8-hour	Cond	lax c. in 1- our	Ann Avg. Coi	AAM	Coi	Max nc. in hour	Cor	lax nc. in nour
			ppm	ppm	ppm	ppm	ppm	μg/m³	ppm	μg/m³	ppm	μg/m³	ppm	μg/m³
North		2006	0.10	0.0215	4	3.4								
Long	1, 2*	2007	0.11	0.0207	3**	2.6**	0.13	244.6	0.0215	40.5	4	4582	3.4	3895
Beach		2008	0.13	0.0208	3	2.6								
		2006	0.14	0.0306	8	6.4								
Lynwood	3	2007	0.10	0.0291	8	5.1	0.14	263.4	0.0306	57.6	8	9165	6.4	7332
		2008	0.12**	0.0301**	6**	4.3**								
Los		2006	0.11	0.0288	3	2.6								
Angeles -	4	2007	0.10	0.0299	3	2.2	0.12	225.8	0.0299	56.3	3	3437	2.6	2979
N. Main St.		2008	0.12	0.0275	3	2.1								

AAM = Annual Arithmetic Mean.

Conc = Concentration

Max = Maximum

^{*} The North Long Beach station has been used for meteorological zones 1 and 2, because there are no AQMD monitors located in meteorological zone 1

^{**} Data points corresponding to less than 12 full months of data, and therefore may not be representative. These values have been excluded from the calculations of the maximums.

Tables 4.6a through 4.6e provide the calculated maximum incremental concentration impacts for the various alternatives as compared to the 2008 baseline for NO_2 and CO. Because the SCAB is designated an attainment area for these pollutants, ENVIRON calculated the maximum concentration impact; background plus increment concentration change was calculated for each modeling grid point and the maximum concentration in the modeling domain was chosen.

NOTE: The SCAQMD CEQA threshold levels⁴⁷ are presented for information only. Caltrans has not adopted these significance threshold levels, but has stated that it will use them as part of its significance determination.

Table 4.6a Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 1 as compared to 2008 Baseline

Pollutant	Averaging Time	Incremental Impact	Maximum (Incremental + Background) Concentration Impact	SCAQMD CEQA Threshold level	National Ambient Air Quality Standards
		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
Nitrogen	1-hour	-81.2	145	339	188
Dioxide (NO ₂)	Annual	-0.6	55.6	56.0	100
Carbon	1-hour	-211	8,950	23,000	40,000
Monoxide (CO)	8-hour	-36	7,300	10,000	10,000

Table 4.6b Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 5A as compared to 2008 Baseline

Pollutant	Averaging Time	Incremental Impact	Maximum (Incremental + Background) Concentration Impact	SCAQMD CEQA Threshold level	National Ambient Air Quality Standards
		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
Nitrogen	1-hour	-79.4	146	339	188
Dioxide (NO ₂)	Annual	-0.6	55.7	56.0	100
Carbon	1-hour	-203	8,960	23,000	40,000
Monoxide (CO)	8-hour	-34	7,300	10,000	10,000

⁴⁷ SCAQMD CEQA threshold levels are from SCAQMD Air Quality Significance Thresholds (revision March 2011) available at http://www.aqmd.gov/ceqa/handbook/signthres.pdf. National Ambient Air Quality Standards accessed at http://www.epa.gov/air/criteria.html, September 2011.



Table 4.6c Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 6A as compared to 2008 Baseline

Pollutant	Averaging Time	Incremental Impact	Maximum (Incremental + Background) Concentration Impact	SCAQMD CEQA Threshold Level	National Ambient Air Quality Standards
		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
Nitrogen	1-hour	-70.1	156	339	188
Dioxide (NO2)	Annual	4.8	62.4	56.0	100
Carbon	1-hour	-241	8,920	23,000	40,000
Monoxide (CO)	8-hour	-37	7,300	10,000	10,000

Table 4.6d Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 6B as compared to 2008 Baseline

Pollutant	Averaging Time	Incremental Impact	Maximum (Incremental + Background) Concentration Impact	SCAQMD CEQA Threshold Level	National Ambient Air Quality Standards
		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
Nitrogen	1-hour	-84.5	141	339	188
Dioxide (NO ₂)	Annual	-0.7	55.6	56.0	100
Carbon	1-hour	-254	8,910	23,000	40,000
Monoxide (CO)	8-hour	-40	7,290	10,000	10,000

Table 4.6e Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 6C as compared to 2008 Baseline

Pollutant	Averaging Time	Incremental Impact	Maximum (Incremental + Background) Concentration Impact	SCAQMD CEQA Threshold Levels	National Ambient Air Quality Standards
		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
Nitrogen	1-hour	-83.9	142	339	188
Dioxide (NO ₂)	Annual	-0.7	55.6	56.0	100
Carbon	1-hour	-254	8,910	23,000	40,000
Monoxide (CO)	8-hour	-39	7,290	10,000	10,000

The CO and NO₂ incremental impacts decrease for all 2035 alternatives (except for Alternative 6A) as compared to the 2008 baseline. The 2035 ambient concentration levels calculated by adding the incremental impacts to existing background concentrations were found to be below the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air

Quality Standards (NAAQS) for most alternatives. Only the calculated annual NO $_2$ ambient concentration for Alternative 6A exceeds the CAAQS level, and at only one receptor, which is ~10 meter from the center of the freight corridor. Factors/assumptions that contribute to the exceedance of the CAAQS at this receptor include 1) an annual average background concentration (57.6 μ g/m 3) is greater than the CAAQS level (56 μ g/m 3); 2) the analysis used a conservative assumption that all NO $_x$ is converted to NO $_2$; and 3) ignoring the reductions in NO $_x$ occurring due to reduced traffic on local roadways and nearby freeways, and 4) no one is expected to be exposed for a year that close to the freight corridor. Calculated maximum 1-hour NO $_2$ concentration levels (maximum of the sum of the current background plus modeled incremental concentration change) are well below the new 1-hour NO $_2$ standard level of 100 ppb (or 188 μ g/m 3) as reductions in vehicle emissions from adopted regulations and fleet turnover reduce emissions faster than the rate of increase in vehicle miles travelled. The large reductions in NO $_2$ concentrations in the 2035 alternatives are consistent with EPA 48 and SCAQMD projections of reductions in future NO $_2$ levels.

Because the SCAB is a non-attainment area for both PM_{10} and $PM_{2.5}$, the thresholds for PM_{10} and $PM_{2.5}$ are incremental (i.e., background levels are not added to incremental impacts). Tables 4.7a through 4.7e present the calculated maximum incremental concentration impacts for PM_{10} and $PM_{2.5}$ for the various alternatives as compared to the 2008 baseline.

NOTE: The SCAQMD CEQA threshold levels⁴⁹ are presented for information only. Caltrans has not adopted these significance threshold levels, but has stated that it will use them as part of its significance determination.

NOTE: All impacts greater than the SCAQMD Threshold level(s) are the result of entrained road dust emissions, which are calculated assuming that an infinite amount of dust is available on the roadways. Exhaust emissions do not result in impacts above this level, except at a few grid points next to freeway/freight corridor in Alternative 6A.

Table 4.7a Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 1 as compared to 2008 Baseline

Pollutant	Averaging	Maximum Incremental Impact	SCAQMD CEQA Threshold level					
	Time	(µg/m³)	(μg/m³)					
Total PM ₁₀	24-hour	19.6*	2.5					
TOTAL FIVI10	Annual	13.9*	1.0					
Total PM _{2.5}	24-hour	0.036	2.5					

^{*}Impacts above the SCAQMD's threshold levels are in areas close (300 meters or less) to the mainline and/or freight corridor. Maximum impacts occur within 50 meters.

Environmental Consequences

⁴⁸ EPA. Final Regulatory Impact Analysis (RIA) for the NO₂ National Ambient Air Quality Standards (NAAQS). January 2010. See www.epa.gov/ttn/ecas/regdata/RIAs/FinalNO2RIAfulldocument.pdf

⁴⁹ SCAQMD CEQA threshold levels are from SCAQMD Air Quality Significance Thresholds (revision March 2011) available at www.aqmd.gov/ceqa/handbook/signthres.pdf. National Ambient Air Quality Standards accessed at www.epa.gov/air/criteria.html, September 2011.

Table 4.7b Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 5A as compared to 2008 Baseline

Pollutant	Averaging Time	Maximum Incremental Impact	SCAQMD CEQA Threshold level		
	rime	(µg/m³)	(µg/m³)		
Total PM ₁₀	24-hour	60.5*	2.5		
TOTAL FIVI ₁₀	Annual	35.6*	1.0		
Total PM _{2.5}	24-hour	15.5*	2.5		

*Impacts above the SCAQMD's threshold levels are in areas close (300 meters or less) to the mainline and/or freight corridor. Maximum impacts occur within 50 meters.

Table 4.7c Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 6A as compared to 2008 Baseline

Pollutant	Averaging Time	Maximum Incremental Impact	SCAQMD CEQA Threshold level
	rime	(µg/m³)	(µg/m³)
Total PM ₁₀	24-hour	78.7*	2.5
TOTAL FIVI ₁₀	Annual	44.4*	1.0
Total PM _{2.5}	24-hour	21.0*	2.5

Impacts above the SCAQMD's threshold levels are in areas close (300 meters or less) to the mainline and/or freight corridor. Maximum impacts occur within 50 meters.

Table 4.7d Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 6B as compared to 2008 Baseline

Pollutant	Averaging Time	Maximum Incremental Impact	SCAQMD CEQA Threshold level	
	Time	(µg/m³)	(µg/m³)	
Total PM ₁₀	24-hour	74.4*	2.5	
TOTAL FIVI ₁₀	Annual	42.5*	1.0	
Total PM _{2.5}	24-hour	15.3*	2.5	

Impacts above the SCAQMD's threshold levels are in areas close (300 meters or less) to the mainline and/or freight corridor. Maximum impacts occur within 50 meters.

Table 4.7e Incremental Concentration Impacts from I-710 Freeway Traffic for Alternative 6C as compared to 2008 Baseline

Pollutant	Averaging Time	Maximum Incremental Impact	SCAQMD CEQA Threshold level
	Time	(μg/m³)	(µg/m³)
Total DM	24-hour	64.2*	2.5
Total PM ₁₀	Annual	34.9*	1.0
Total PM _{2.5}	24-hour	13.1*	2.5

*Impacts above the SCAQMD's threshold levels are in areas close (300 meters or less) to the mainline and/or freight corridor. Maximum impacts occur within 50 meters.

Figures 4.12 through 4.16, Figures 4.17 through 4.21 and Figures 4.22 through 4.26 show annual PM₁₀ isopleths, 24-hr PM₁₀ "bubble" plots of and 24-hr PM_{2.5} "bubble" plots respectively for the comparison of 2035 alternatives to 2008 baseline. Each of these figures show plots for both exhaust and total PM impacts. The bubble plots present the maximum incremental 24-hr concentration at each modeling grid points over the entire year (i.e. increments on other days would be smaller or more negative). Please note that the maximum incremental 24-hr concentration at one modeling point may not occur on the same day as the maximum incremental 24-hr concentration on another modeling point. All the build alternatives show an increase in the total PM₁₀ and total PM_{2.5} impacts as compared to 2008 baseline that are greater than the SCAQMD incremental thresholds at several receptors. It should however be noted that the total PM mass emissions were calculated as a sum of the exhaust and entrained dust emissions. ENVIRON used EPA's AP-42 methodology to estimate the entrained dust emissions, which assumes an infinite volume of silt reservoir. As discussed previously, the SCAQMD 2007 AQMP approach would show no increases due to VMT increases (finite silt reservoir). Therefore, the number of modeling points above the SCAQMD threshold would decrease if a more realistic finite silt reservoir were assumed. A look at the incremental impact isopleths and bubble plots for exhaust PM-only impacts are below the SCAQMD's significance threshold for almost all modeling grid points, the exception being some modeling grid points in very close proximity to the I-710 freeway or freight corridor.

All the build alternatives show an increase in near-roadway impacts compared to the No-Build Alternative. This occurs due to the increased mobility and capacity of the I-710 freeway in the build alternatives as compared to the No Build Alternative, which in turn results in more traffic and greater mass emissions. Alternatives 6B and 6C show the minimum increase (compared to 2035 No-Build) in impacts amongst the build alternatives because the freight corridor is a zero emissions roadway. Figures 4.27 through 4.30, Figures 4.31 through 4.34 and Figures 4.35 through 4.38 show annual PM₁₀ isopleths, 24-hr PM₁₀ bubble plots and 24-hr PM_{2.5} bubble plots respectively for the comparison of build alternatives to the No Build alternative. These figures show a side by side comparison of the calculated impacts for exhaust PM and total PM. As in the case of the comparison to the 2008 baseline, the number of modeling grid points above the SCAQMD significance threshold for exhaust PM is lower than the modeling grid points above SCAQMD significance threshold for total PM.

4.3.5 MSAT Analyses

MSAT Emissions

Toxic air contaminants (TACs) emissions are components of total organic gas (TOG) emissions (gas-phase TACs) and PM₁₀/PM_{2.5} emissions (particle-phase TACs), which are both quantified using EMFAC as described above. Emissions of individual TACs were calculated by applying speciation profiles from the CARB speciation database⁵¹ to total TOG and PM₁₀/PM_{2.5} emissions. See Section 2.3 for a discussion of how the six priority MSAT were determined for this analysis. In summary, the six priority MSAT analyzed in the I-710 AQ/HRA are:



 $^{^{50}}$ The "bubble" plots are a new way of presenting maximum incremental changes in 24-hour PM $_{10}$ and PM $_{2.5}$ concentrations. See text for more information.

51 Available at http://www.arb.ca.gov/ei/speciate/speciate.htm.

- Diesel exhaust (particulate matter and organic gases)
- Benzene
- 1,3-Butadiene
- Acetaldehyde
- Formaldehyde
- Acrolein

Tables 4.8a through 4.8c present the incremental MSAT emission calculations using the I-710 Traffic model data for the various alternatives as compared to 2008 baseline. Emissions of all 6 MSAT decrease for all 2035 alternatives compared to the 2008 baseline, despite increases in VMT in 2035. Figures 4.39 through 4.43 present the change in Diesel Particulate Matter (DPM) emissions for build alternatives as compared to the 2008 baseline and the No Build Alternative. These gridded emission figures have been plotted by adding the DPM emissions from links or part of links present in a grid size of 0.25 miles by 0.25 miles. The DPM emissions for the build alternatives compared to 2008 baseline generally decrease on the freeways, arterials and roadways in the AOI in spite of the VMT increases. This happens because of improvement in vehicle technology that occur due to implementation of state and local programs/regulations.

A comparison of the build alternatives to the No Build Alternative shows decreases in emissions on CA-91, I-605, I-110, I-105 and I-5. This is due to the shifting of trucks to the I-710 freeway, which has greater capacity and mobility than in the No Build Alternative. The build alternatives also show an increase in the DPM emissions on I-405, CA-60, I-10 and the north end of I-710. The increase in I-405 can be attributed to the movement of trucks from the I-405 onto the I-710. Increases in emissions on the north end of I-710, including CA-60 and I-5, occur when the trucks on I-710 get off the freeway. For Alternative 5A and Alternative 6A, comparisons to the No Build Alternative the DPM emissions on I-710 increase due to larger number of trucks on this freeway. This increase in DPM emissions is more prominent than the increases seen in NO_x emissions (Figures 4.2 to 4.6) for the same scenario. This can be attributed to nature of the emissions factor versus speed curve. The 2035 DPM emission factors, although small, progressively increase for average speeds above 20 mph (Figure C.1 of Appendix C). The 2035 NO_x emissions factors however decrease dramatically between 5 mph and 50 mph and then increase slightly at speeds greater than 50mph. This unique behavior of the DPM emission factor results in the relatively larger emission increases seen on the I-710 freeway for Alternative 5A and Alternative 6A. These increases in DPM emissions on the I-710 freeway are not found for the comparisons of Alternative 6B and Alternative 6C to the No Build Alternative because these alternatives have zero-emission freight corridors.

The MSAT emissions were also calculated for the I-710 using the post processed traffic data. The incremental MSAT emissions for the I-710 freeway calculated using post processed traffic data shown in Table 4.9 were found to be similar to emissions calculated using the I-170 Traffic Model data (Table 4.8c). MSAT emissions calculated from post processed traffic data were used to conduct MSAT health risk assessment as discussed in Section 4.3.6.

Table 4.8a Incremental MSAT Emissions within the SCAB Compared to 2008 Baseline

Mobile Source Air Alt.		s. 2008	Alt 5A vs. 2008		Alt. 6A vs. 2008		Alt. 6B vs. 2008		Alt. 6C vs. 2008	
Toxic	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change
DPM	-23,000	-78%	-23,000	-78%	-23,000	-77%	-23,000	-78%	-23,000	-78%
Benzene	-3,000	-87%	-3,000	-87%	-3,000	-87%	-3,000	-87%	-3,000	-87%
Acetaldehyde	-600	-92%	-600	-92%	-600	-92%	-600	-92%	-600	-92%
Formaldehyde	-2,300	-89%	-2,300	-89%	-2,300	-89%	-2,300	-89%	-2,300	-89%
1,3- butadiene	-700	-88%	-700	-88%	-700	-88%	-700	-88%	-700	-88%
Acrolein	-160	-87%	-160	-87%	-160	-87%	-160	-87%	-160	-87%

For Alternative 6B and 6C, trucks have zero exhaust emissions while they are traveling on the freight corridor. Emissions based on I-710 Traffic Model data. Numbers are rounded to two significant digits.

Table 4.8b Incremental MSAT Emissions within the Area of Interest (AOI) Compared to 2008 Baseline

Mobile Source Air		vs. 2008	08 Alt 5A vs. 2008		Alt. 6A vs. 2008		Alt. 6B vs. 2008		Alt. 6C vs. 2008	
Toxic	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change
DPM	-5,500	-79%	-5,400	-79%	-5,400	-77%	-5,600	-81%	-5,600	-80%
Benzene	-760	-89%	-760	-89%	-760	-89%	-760	-89%	-760	-89%
Acetaldehyde	-150	-93%	-150	-93%	-150	-93%	-150	-93%	-150	-93%
Formaldehyde	-580	-90%	-580	-90%	-580	-90%	-580	-90%	-580	-90%
1,3- butadiene	-180	-89%	-180	-89%	-180	-89%	-180	-89%	-180	-89%
Acrolein	-41	-89%	-41	-89%	-41	-89%	-41	-89%	-41	-89%

Notes:

For Alternative 6B and 6C, trucks have zero exhaust emissions while they are traveling on the freight corridor. Emissions based on I-710 Traffic Model data. Numbers are rounded to two significant digits.

Table 4.8c Incremental MSAT Emissions on the I-710 Freeway Compared to 2008 Baseline

Mobile Source Air Alt.1		vs. 2008	Alt 5A vs. 2008		Alt. 6A vs. 2008		Alt. 6B vs. 2008		Alt. 6C vs. 2008	
Toxic	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change
DPM	-390	-65%	-350	-57%	-230	-38%	-460	-76%	-430	-71%
Benzene	-22	-90%	-21	-88%	-21	-87%	-21	-87%	-21	-87%
Acetaldehyde	-5	-94%	-4	-93%	-4	-93%	-4	-93%	-4	-93%
Formaldehyde	-17	-91%	-16	-90%	-16	-89%	-16	-89%	-16	-89%
1,3- butadiene	-5	-90%	-5	-89%	-5	-88%	-5	-88%	-5	-88%
Acrolein	-1	-90%	-1	-88%	-1	-87%	-1	-87%	-1	-87%

For Alternative 6B and 6C, trucks have zero exhaust emissions while they are traveling on the freight corridor. Emissions based on I-710 Traffic Model data.

Table 4.9 Incremental MSAT Emissions on the I-710 Freeway Compared to 2008 Baseline (post-processed traffic data)

Mobile Source Air	Alt.1 vs. 2008		Alt 5A	Alt 5A vs. 2008		Alt. 6A vs. 2008		Alt. 6B vs. 2008		Alt. 6C vs. 2008	
Toxic	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change	lb/day	% Change	
DPM	-570	-68%	-530	-63%	-410	-49%	-660	-79%	-630	-75%	
Benzene	-19	-89%	-19	-87%	-18	-87%	-18	-87%	-18	-87%	
Acetaldehyde	-4	-94%	-4	-93%	-4	-92%	-4	-92%	-4	-92%	
Formaldehyde	-15	-91%	-14	-89%	-14	-89%	-14	-89%	-14	-89%	
1,3- butadiene	-4	-90%	-4	-88%	-4	-87%	-4	-87%	-4	-87%	
Acrolein	-1	-89%	-1	-87%	-1	-87%	-1	-87%	-1	-87%	

Notes:

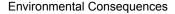
For Alternative 6B and 6C, trucks have zero exhaust emissions while they are traveling on the freight corridor. Emissions based on I-710 Traffic Model data, post-processed to incorporate traffic count information and detailed I-710 geometrics information.

4.3.6 MSAT Health Risk Assessment

The next step in the MSAT analysis was to calculate the health risks associated with the emissions of the MSAT near the I-710 freeway (where the greatest impacts would be expected). The health risk assessment (HRA) for the Project was conducted using a methodology that is consistent with Office of Environmental Health Hazard Assessment (OEHHA)⁵² Air Toxics Hot Spots Program Risk Assessment Guidelines and SCAQMD Rule 1401/212 risk assessment guidance.⁵³ The ambient air concentrations of the various MSAT were calculated using the methodology used for calculating the concentrations of criteria pollutants as discussed in Section 4.3.4 above. The most recent toxicity values (cancer potency slope factor, chronic reference exposure level and acute reference exposure level) as published by OEHHA were used in the HRA. The HRA was a multi-pathway risk assessment, which means that all the applicable pathways for a particular MSAT were evaluated while calculating the health risks. Calculated health metrics are incremental cancer risk (in number per million), incremental hazard index (chronic and acute, unitless), and cancer burden. Appendix E presents more details on the HRA.

IMPORTANT NOTE: Similar to the criteria pollutant impacts modeling, the MSAT results do not reflect changes in emissions on the other nearby freeways, local arterials, and local roadways. Based on the emission analysis of the Build Alternatives, emissions of criteria pollutants (including TOG and PM) generally decrease on these nearby freeways, arterials, and roadways as traffic shifts to the I-710. Since MSAT are components of TOG and PM, emissions of MSAT are expected to follow a similar trend. The modeling results presented are conservative in that they account for impacts from increased traffic on the I-710 for the Build Alternatives but do not account for any decreases in ambient MSAT concentrations related to reduced traffic on nearby freeways, arterials, and roadways for the Build Alternatives as mobility improves on the I-710 and traffic decreases on these other roadways. All analyses assume weekday traffic levels/patterns for every day of the year, including weekends and holidays. All incremental cancer risk calculations are based on residential cancer risk assumptions, including 70-year ambient outdoor exposure (24/7/365). (Worker cancer risk is generally lower, since it assumes only work shift exposure for 40 years.) All of these assumptions will exaggerate the impacts of the project alternatives, yielding a conservative estimate of health impacts. These results should ONLY be used to compare the relative impacts of the alternatives.

Tables 4.10a through 4.10e present the incremental health risk impacts for the various alternatives as compared to the 2008 baseline. All the alternatives (except Alternative 6A) show a decrease in cancer risk as compared to the 2008 baseline non-residential modeling grid points. This is further evidenced in Figures 4.44 to 4.48 that present the cancer risk isopleths. The increase in cancer risk for Alternative 6A is above the SCAQMD CEQA threshold at a few receptors (15 modeling grid points). These modeling grid points do not lie in residential areas



⁵² Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, August 2003.

⁵³ South Coast Air Quality Management District, Risk Assessment Procedures for Rules 1401 and 212. Version 7.0. July 2005.

and are mostly located near the freight corridor or near industrial areas at the end of the freight corridor (Figure 4.46). Chronic hazard index and acute hazard index decrease for all 2035 alternatives (except Alternative 6A and Alternative 6B) as shown in Tables 4.10a through 4.10e. The increases in chronic and acute hazard indices seen for Alternative 6A and Alternative 6B are below the SCAQMD CEQA thresholds. The incremental cancer risk, chronic hazard index, and the acute hazard index for the all 2035 alternatives (including Alternative 6A) as compared to 2008 baseline decrease at all sensitive receptors (e.g., schools, daycare centers, senior centers, etc.) located within 5km of the centerline of I-710 freeway.

Table 4.10a Maximum Health Impacts Associated With MSAT Emissions from I-710 Freeway Traffic for Alternative 1 Compared to 2008

Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Risk in 1 million)	SCAQMD Threshold (Risk in 1 million)
Cancer risk	Residential	-6	10
Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Hazard Index)	SCAQMD Threshold (Hazard Index)
Chronic Noncancer Hazard Index	Residential	-0.004	1.0
Acute Noncancer Hazard Index	Residential	-0.017	1.0

Note:

See assumptions and limitations described in the text IMPORTANT NOTE above.

To be conservative, health risk impacts were estimated based on the residential exposure scenario.

Table 4.10b Maximum Health Impacts Associated With MSAT Emissions from I-710 Freeway Traffic for Alternative 5A Compared to 2008

Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Risk in 1 million)	SCAQMD Threshold (Risk in 1 million)
Cancer risk	Residential	-6	10
Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Hazard Index)	SCAQMD Threshold (Hazard Index)
Chronic Noncancer Hazard Index	Residential	-0.004	1.0
Acute Noncancer Hazard Index	Residential	-0.016	1.0

Note:

See assumptions and limitations described in the text IMPORTANT NOTE above.

To be conservative, health risk impacts were estimated based on the residential exposure scenario.

Table 4.10c Maximum Health Impacts Associated With MSAT Emissions from I-710 Freeway Traffic for Alternative 6A Compared to 2008

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Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Risk in 1 million)	SCAQMD Threshold (Risk in 1 million)				
Cancer risk	Residential	462*	10				
Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Hazard Index)	SCAQMD Threshold (Hazard Index)				
Chronic Noncancer Hazard Index	Residential	0.279	1.0				
Acute Noncancer Hazard Index	Residential	0.079	1.0				

Notes:

See assumptions and limitations described in the text IMPORTANT NOTE above.

To be conservative, health risk impacts were estimated based on the residential exposure scenario.

Table 4.10d Maximum Health Impacts Associated With MSAT Emissions from I-710 Freeway Traffic for Alternative 6B Compared to 2008

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Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Risk in 1 million)	SCAQMD Threshold (Risk in 1 million)
Cancer risk	Residential	-7	10
Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Hazard Index)	SCAQMD Threshold (Hazard Index)
Chronic Noncancer Hazard Index	Residential	-0.005	1.0
Acute Noncancer Hazard Index	Residential	0.102	1.0

Note:

See assumptions and limitations described in the text IMPORTANT NOTE above.

To be conservative, health risk impacts were estimated based on the residential exposure scenario.

^{*} Only 15 grid points show incremental increases above 10 in a million. These grid points are **NOT** in residential areas and are generally located very near the freight corridor. The incremental cancer risk and incremental hazard indices decreased at all sensitive receptors in the modeling domain.

Table 4.10e Maximum Health Impacts Associated With MSAT Emissions from I-710 Freeway Traffic for Alternative 6C Compared to 2008

	3		
Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Risk in 1 million)	SCAQMD Threshold (Risk in 1 million)
Cancer risk	Residential	-7	10
Health Impact	Receptor Type/Exposure Scenario	Maximum Incremental Risk Impact from Project Emissions (Hazard Index)	SCAQMD Threshold (Hazard Index)
Chronic Noncancer Hazard Index	Residential	-0.005	1.0
Acute Noncancer Hazard Index	Residential	-0.0001	1.0

Note:

See assumptions and limitations described in the text IMPORTANT NOTE above.

To be conservative, health risk impacts were estimated based on the residential exposure scenario.

Figures 4.45 through 4.48 present the incremental cancer risk isopleths for the build alternatives as compared to the No Build Alternative. At grid receptors close to the I-710 (mainline and/or freight corridor), the build alternatives show an increase in maximum incremental cancer risk, chronic hazard index and acute hazard index when compared to the No Build Alternative. This occurs because of two factors

- Total I-710 mass emissions in 2035 are lower than that in 2008 due to improved vehicle technology and implementation of state and local programs/regulations. As a result, the mass emissions for the No Build Alternative, which is used as the baseline for this comparison, is low.
- Increased mobility and capacity on I-710 freeway for the build alternatives results greater VMTs and traffic speeds that translate to an increase in DPM emissions on the I-710 when compared to the No Build Alternative. DPM is one of the key pollutants used for the health risk assessment. As mentioned Section 4.3.5.1 the DPM emission factor versus average vehicle speed curve is unique and differs from other pollutants. 2035 DPM emission factors increase progressively for speeds above 20 to 25 mph. So the increased mobility on the I-710, which leads to higher speeds, contributes significantly to the higher DPM emissions on the I-710 freeway for the build alternatives as compared to the No Build Alternative.

4.4 Greenhouse Gas Emissions

A combination of the methodologies provided in the California Climate Action Registry's General Reporting Protocol (CCAR GRP), version 3.0 (CCAR 2008) and fuel consumption/efficiency data obtained from EMFAC 2007 and OFFROAD 2007 models, was used to calculate the GHG emissions associated with the Project. It should be noted that the GHG emissions were quantified only for the SCAB region given the global effect of GHG emissions and the limits of the applicable traffic modeling results.

The total GHG emissions from the project were reported in carbon dioxide equivalents (CO_2e). CO_2e is universal unit of measurement to indicate the global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate the impact of different greenhouse gases on a common basis. Emissions of each GHG were converted to CO_2e by multiplying the methane (CH_4) and N_2O emissions with the respective GWP. Additional details on the methodology and detailed emission calculation tables can be found in Appendix F. NOTE: The incremental GHG emissions for the 2035 alternatives as compared to 2008 baseline are all ~22,000,000 tonnes CO_2e /year. Our analysis does not include the effect of the Pavely Standard or other adopted state GHG reduction regulations. These would reduce 2035 GHG emissions for all alternatives. To focus on the impact of the Project Build alternatives, Table 4.11 below summarizes the results of the traffic-related GHG emissions compared to the No Build Alternative. Note that Alternative 6B reduces GHG emissions by over a half million tons/year in 2035.

Table 4.11 Incremental GHG Emissions using The I-710 Traffic Model
Data as Compared to No Build Alternative for SCAB

Greenhouse	Alt. 5A - Alt. 1	Alt. 6A - Alt. 1	Alt. 6B - Alt. 1	Alt. 6C - Alt. 1			
Gas	tonnes/year	tonnes/year	tonnes/year	tonnes/year			
CH₄	0.016	0.028	0.026	0.028			
N ₂ O	1.1	1.9	1.8	1.9			
CO ₂	300	-120,000	-600,000	-490,000			
Total (CO ₂ eq)	670	-120,000	-600,000	-490,000			

4.5 PM Mortality and Morbidity

Respirable particulate matter (RPM) is a public health concern as it is known to impact both the respiratory and cardiovascular systems. RPM deposition in the lungs and penetration into the bloodstream (for the smallest particles) triggers a range of inflammation responses and exacerbates health problems such as asthma and chronic bronchitis. Individuals susceptible to higher health risks from exposure to airborne PM include children, the elderly, smokers, and people of all ages with low pulmonary/cardiovascular function. Information about the biological mechanisms by which exposure to ambient particles adversely affects the respiratory and cardiovascular systems may be found in an ARB 2002 review (ARB 2002b).

Numerous published epidemiological reports substantiate a correlation between the inhalation of ambient PM and increased cases of mortality/morbidity from heart and/or lung diseases. OEHHA is in the process of developing guidance on assessing health impacts from PM exposure. In recent studies (ARB 2002b, 2006h and 2006i, 2009), ARB reviewed and summarized the non-toxic health effects (i.e., mortality and morbidity) of PM exposure and presented a health effect model attempting to quantify these impacts based on concentration-response functions. ⁵⁴ This ARB model has been used, for example, to estimate

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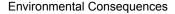
⁵⁴ That is, concentration-response functions are used to predict the effect of changes in ambient PM concentrations on health effects such as premature deaths, cardiac and respiratory hospitalizations, asthma and other lower *Footnote continues on next page...*

the number of cases of disease and premature deaths linked to PM and ozone exposure from ports and goods movement activity in California (ARB 2006h).

Although the ARB model has also been used to quantitatively assess project-specific incremental levels of public mortality and morbidity (see for example Chapter 3.2 of the POLB Middle Harbor Redevelopment Project, POLB 2009), such calculations are subject to significant uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, concentration-response functions, 55 baseline rates of mortality and morbidity that are entered into concentration response functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as SO₂, NO₂, CO, and O₃ that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions. Health risk estimates derived in the presence of significant uncertainty tend to rely on very conservative assumptions that may greatly overestimate the potential adverse health effects. As stated by ARB in a 2006 study of DPM exposure from ports and goods movement in California (ARB 2006a): "Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted. Risk assessment is thus best understood as a tool for comparing risks from various sources, usually for purposes of prioritizing risk reduction, and not as literal prediction of the community incidence of disease from exposure"⁵⁶.

In light of the uncertainty in quantifying PM mortality and morbidity (particularly for a freeway project such as the I-710), our analysis of PM mortality and morbidity is a qualitative assessment based on comparative analysis of total PM_{2.5} emissions for the various alternatives. In other words, for the purpose of this qualitative assessment, total PM_{2.5} emissions are used as a potential surrogate for PM exposure. Calculations show that, in general, total I-710 PM_{2.5} emissions (sum of exhaust and entrained road dust emissions) are expected to be lower for each of 2035 Alternatives (1, 5A, 6A, 6B and 6C) than 2008 baseline emissions (except for some quarter-mile areas along the I-710 freeway itself); the same is true for total PM_{2.5} emissions within the SCAB. Consequently, the public's exposure within the Area of Interest to PM-related morbidity and mortality health risks should decrease relative to the 2008 baseline, with the greatest risk reductions in 2035 Alternatives 6B and 6C. As seen in Figures 4.22 through 4.26 (maximum 24-hour average) and Figures 4.49 through 4.53 (annual average), incremental total PM_{2.5} concentration impacts from the I-710 freeway (and freight corridor, if applicable) for all of the 2035 alternatives compared to 2008 impacts are below the SCAQMD's significance threshold levels; the exception is there are areas next to the freight corridor (model grids less than about 50 meters from the corridor) with increases above the SCAQMD's significance threshold levels. As can be seen in those figures, these very near-roadway

provided by OEHHA in a 2003 report (OEHHA 2003).



respiratory symptoms, lost work/school days, etc. ⁵⁵ Concentration-response functions may be location-specific, since the composition of particulate matter varies significantly by region, and not all types of particulate matter are expected to have the same health effects. Therefore, the application of concentration-response functions obtained from epidemiologic studies conducted e.g. outside of California may introduce significant errors in estimating impacts in the South Coast Air Basin. ⁵⁶ Additional discussion and explanation of the sources and level of uncertainty in health risk assessments are

increases are solely because of increases in entrained roadway dust from the 2008 baseline. If those increases in roadway dust are an artifact, then the impacts would be more similar to those shown in the exhaust PM_{2.5} figures. Figures 4.35 through 4.38 (maximum 24-hour average) and Figures 4.54 through 4.57 (annual average) show that I-710 near-roadway total PM_{2.5} concentrations compared to the 2035 Alternative 1 (No-Build Alternative) were about the same for Alternative 5A, were lower than Alternatives 6A, 6B and 6C, with Alternative 6A having greater near-roadway concentrations than the other alternatives compared to Alternative 1. Similar to the comparisons to the 2008 baseline, the appreciable adverse impacts occurred along the roadways (< 100 meters) and almost all were due to increases in entrained road dust. The near-roadway modeling confirms the conclusion of the emissions analyses for the Area of Interest: the exposure of people along the I-710 freeway to PM-related morbidity and mortality health risks should decrease relative to the 2008 baseline with the exception of some locations near the roadways (particularly for Alternative 6A). To the extent that increases in entrained road dust in the 2035 alternatives may be overestimated, the exposure would be even lower for those very near to the roadways (see discussion of ultrafine particulates below, which uses exhaust PM_{2.5} (rather than total PM_{2.5}) as a surrogate).

4.6 Ultrafine Particulates – Qualitative Analysis

As scientific studies and environmental regulations are expanding, their focus on the smaller particles in ambient air (total suspended particulate to PM_{10} to $PM_{2.5}$) has grown. An increasing interest in particles of size < 0.1 microns, referred to as ultrafine particulate matter or ultrafine particulates (UFP or UFPs) is also developing. Although UFPs generally contribute to a small mass fraction of ambient PM, they are orders of magnitude more numerous than PM_{10} and $PM_{2.5}$ particles. Their number concentrations range from 10 to 40×10^3 UFPs/cm³ in urban air and 40 to 1000×10^3 UFPs/cm³ near highways. UFPs are not currently regulated in the U.S. However, the SCAQMD recommended in its 2007 Air Quality Management Plan (2007 AQMP) that UFP be specifically addressed in PM and air toxics control strategies.

Fuel combustion in motor vehicles is a major source of UFP, and consequently UFP emissions are concentrated near highways and other roadways. Studies have shown that UFP number concentrations decrease sharply with distance from emission sources as a result of particle growth and accumulation processes; for instance Zhu et al. (Zhu 2002) reported that UFP concentration measurements were equal to background concentrations 300 meters downwind of Interstate 405 near the Los Angeles National Cemetery. Thus, high ambient UFP levels are very localized and exhibit large geographical and temporal variations. Concerns about public exposure to UFP (especially in areas near freeways) are due to the fact that UFPs and the contaminants they contain are relatively easily transported into the body. This is because (i) smaller particles can be inhaled and deposited deeper into the lungs than larger particles, and (ii) the high surface area/mass ratio of UFPs can facilitate adsorption and result in higher content of trace metals and other toxic organic compounds.

There has been increasing interest among the scientific community in roadway impacts to air quality specific to I-710 (Kozawa et al, 2009, Arhami et al 2009, Moore et al 2009). SCAQMD also conducted a series of near roadway ambient air monitoring studies, which examined traffic

impacts on concentrations of a host of pollutants, including UFP.⁵⁷ ⁵⁸ On February 18, 2010, AQMD reported preliminary findings of a study conducted along I-710. AQMD collected ambient air samples along I-710 in two one-month intensive campaigns (February-March 2009 and July-August 2009). Samples were collected from one background location upwind of the freeway and two locations downwind of the freeway at 15m and 80 m. Air pollutant species measured included UFP count, black carbon (BC), PM₁₀, PM_{2.5}, NOx, CO, TSP lead and VOC. Preliminary results indicate that ambient air near I-710 (15m) was enriched in UFP. Similar to the results published by Zhu et al, UFP was significantly higher at the monitoring site closest (15m) to the roadway and dropped off with distance (80 m). Both downwind monitoring sites were significantly higher than the upwind background measurement site. There was no significant difference in UFP count during winter vs. summer.

Information on UFP is limited at this time and is an area of active research. For example, physical transient behaviors such as particle growth and accumulation complicate the task of elucidating UFP concentration-response functions. Also, the existing state of knowledge does not yet support the derivation of reliable UFP emission models that account for the particulate growth and accumulation phases. Dispersion modeling of UFPs would also require additional information on the rate of UFP coagulation and absorption so that concentrations can be calculated. Given the lack of information to quantify emissions, dispersion, exposure, and health response to exposure, we could not quantify UFP emissions from the proposed project. However, we have conducted a qualitative analysis by using PM_{2.5} exhaust emissions, and exposure as a surrogate for UFP exposure. ⁵⁹ The I-710 PM_{2.5} exhaust emissions in 2035 are expected to be lower for each of Alternatives 1, 5A, 6A, 6B and 6C compared to the 2008 baseline emissions; the same is true for PM_{2.5} exhaust emissions within the SCAB. Consequently, we expect that the public's exposure to UFP in 2035 would decrease relative to the 2008 baseline. In addition, because I-710 freeway (mainline and freight corridor) PM_{2.5} exhaust emissions are lower for Alternative 6B and 6C than for Alternative 1, we also expect that implementation of the Project under Alternative 6B and/or 6C would decrease the public's health risk due to UFP, relative to the No Build Alternative. As seen in Figures 4.22 through 4.26 (maximum 24-hour average) and Figures 4.49 through 4.53 (annual average), exhaust PM_{2.5} concentration impacts from the I-710 freeway (and freight corridor, if applicable) are lower than 2008 impacts for all 2035 alternatives (with the exception of 5 model grid point right next to the freight corridor in Alternative 6A). Figures 4.35 through 4.38 (maximum 24-hour average) and Figures 4.54 through 4.57 (annual average) show that I-710 near-roadway exhaust PM_{2.5} concentrations for the 2035 Alternatives 6B and 6C were generally higher than the 2035 Alternative 1 (No-Build Alternative), which was lower than incremental concentration impacts in the 2035 Alternatives 5A and 6A. The near-roadway modeling confirms the conclusion of the emissions analyses: the implementation of the Project under Alternative 6B and/or 6C would

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⁵⁷ Ospital, J, "Health Studies & Near Roadway Issues," South Coast Air Quality Management District, December 2009.

<sup>2009.

58</sup> SCAQMD. Presentation to the I-710 Corridor Project Community Advisory Committee (CAC). "Preliminary Results From the AQMD I-710 Air Monitoring Study," South Coast Air Quality Management District, February 18, 2010, www.metro.net/projects_studies/1710/images/AQMD-I-710-Air-Monitoring-Study-to-CAC-February-2010.pdf.

The rationale for this choice is that both UFP and PM_{2.5} emissions are primarily the result of internal combustion processes.

decrease the public's health risk due to UFP, relative to the Alternative 1 (No Build Alternative), even near the I-710 freeway and freight corridor.

Lastly, some technical analyses have used CO concentrations as a surrogate for UFP particle number impacts. As seen in Tables 4.3a through 4.3c, calculated CO emissions for all of the 2035 Alternatives decrease more sharply than exhaust PM_{2.5} emissions in the Area of Interest and along the I-710 freeway compared to the 2008 baseline. Near-roadway modeling of the I-710 freeway (and freight corridor, if applicable) shows no increases in 1-hour or 8-hour CO concentrations in any 2035 alternative compared to the 2008 baseline. The relative reductions among the 2035 alternatives are essentially the same as for exhaust PM_{2.5}, although all reductions are proportionally larger. Therefore, use of CO as a surrogate for UFP particle number impacts would be similar to those when exhaust PM_{2.5} is used as a surrogate, only public exposure to UFP would decrease even further compared to 2008, even for those in close proximity to the I-710 freeway and/or freight corridor.

4.7 Carbon Monoxide "Hot-Spot" Analysis

Transportation conformity review at the project-level is required if the area in which a project is proposed is nonattainment or maintenance for CO and/or particulate matter. Requirements in 40 CFR 93.116 include that a transportation project must not cause or contribute to new CO violations, or increase the frequency or severity of any existing violations, or delay timely attainment of any NAAQS or any required interim emission reductions or other milestones in nonattainment and maintenance areas. The proposed I-710 project is located within an attainment/maintenance area for CO. Based on this designation a project-level hot-spot analysis is required for CO.

In general, the procedures outlined in the "Transportation Project-Level Carbon Monoxide Protocol" (commonly referred to as the "CO Protocol" were applied for the CO impact assessment. Through the interagency consultation process, the approach suggested in the CO Protocol was modified slightly to incorporate the use of the EPA-approved mobile source dispersion model CAL3QHC to model representative worst-case congested intersections throughout the project's Area of Interest (AOI).

Based on traffic study data, afternoon (PM) peak-hour data were considered the worst-case scenario and used as the basis for the intersection selection and "hot spot" modeling process. Because traffic conditions (delay) under Alternative 6B were generally worse compared to the other 'build' alternatives, modeling results associated with projected future conditions at 10 selected intersections under Alternative 6B were used to quantitatively assess the potential for traffic-related impacts of the project and its alternatives. Table 4.12 summarizes the results of the hot-spot modeling. Appendix H presents the details of the CO hot-spot analysis.

Table 4.12 Maximum Predicted CO Concentrations

Intersection	Averaging Period	2008 Existing	2035 Alt. 1 No-Build	2035 Alt. 6B
#157 Corfield Ave at Coas Ave	1-hour	7.6	7	7
#157 Garfield Ave at Gage Ave	8-hour	5.4	5.0	5.0
#26 Willow St. at Santa Fe Ave	1-hour	7.4	6.9	6.9
#20 Willow St. at Santa Fe Ave	8-hour	5.2	4.9	4.9
#34 Del Amo Blvd at Santa Fe Ave	1-hour	7.5	6.9	6.9
#34 Del Allio Bivu al Salita Fe Ave	8-hour	5.3	4.9	4.9
#44 Alondra Blvd at Garfield Ave	1-hour	7.4	6.8	6.8
#44 Alondra Bivd at Garneld Ave	8-hour	5.2	4.8	4.8
#155 Wilmington at 223rd	1-hour	7.4	6.9	7
#155 Willington at 22510	8-hour	5.2	4.9	5.0
#38 Del Amo Blvd at Lakewood Blvd	1-hour	7.7	6.9	6.9
#30 Del Allio Biva al Lakewood Biva	8-hour	5.4	4.9	4.9
#23 Pacific Coast Hwy at Cherry Ave	1-hour	7.4	7	6.9
#23 Facilic Coast riwy at Cherry Ave	8-hour	5.2	5.0	4.9
#60 Firestone Blvd at Atlantic Ave	1-hour	7.4	6.9	6.9
#60 Firestone Bivd at Atlantic Ave	8-hour	5.2	4.9	4.9
#119 Mardlow at Charry Ava	1-hour	7.3	6.8	6.8
#148 Wardlow at Cherry Ave	8-hour	5.2	4.8	4.8
#110 Occan Dlvd @ Coldon Shart St	1-hour	7.4	6.9	6.9
#140 Ocean Blvd @ Golden Short St.	8-hour	5.2	4.9	4.9

Background value of 6 ppm was added to the 1-hour concentrations for existing and 2035 and then the EPA default persistence factor 0.7 was applied

The 1-hour and 8-hour NAAQS for CO are 35 ppm and 9 ppm respectively.

The hot spot analysis assessed the potential for localized CO impacts due to the project and whether the project alternatives would either cause violation of the CO ambient air quality standards, or exacerbate the air quality conditions to delay the progress of meeting attainment of the standard. Based on the modeling performed using EPA-approved methods, assumptions and tools and the traffic study data, the project or its alternatives would not cause CO concentrations to exceed the CO standards or delay the timely attainment of the standards.

4.8 PM₁₀/PM_{2.5} Qualitative "Hot-Spot" Analyses

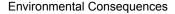
LSA prepared the $PM_{10}/PM_{2.5}$ Qualitative "Hot-Spot" Analyses. Transportation conformity is required under Section 176(c) of the CAA to ensure that federally supported highway and transit project activities are consistent with the purpose of the SIP. Conformity for the purpose of the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant AAQS. As required by the 2006 Final Rule, this qualitative $PM_{2.5}$ and PM_{10} hot-spot analysis demonstrates that this project meets the CAA

conformity requirements to support State and local air quality goals with respect to potential localized air quality impacts.

It is not expected that changes to $PM_{2.5}$ and PM_{10} emissions levels associated with the proposed project would result in new violations of the federal air quality standards for the following reasons:

- Based on the local monitoring data, the 24-hour PM_{2.5} concentrations within the project area would be reduced to 29 percent below the federal standard by 2015 and 76 percent below the federal standard by 2035.
- Based on the local monitoring data, the annual average PM_{2.5} concentrations within the project area would be reduced to 27 percent below the federal standard by 2015 and 76 percent below the federal standard by 2035.
- With the exception of 2007, the ambient PM₁₀ concentrations have not exceeded the 24-hour or annual federal standard.
- Based on the projected PM₁₀ concentrations listed in the 2007 AQMP, the 24-hour PM₁₀ concentrations would be 49 percent below the federal standard by 2015 and 85 percent below the federal standard by 2035.
- The project would increase the regional PM_{2.5} emissions by up to 24 percent when compared to the existing conditions. This increase is less than 76 percent reduction in regional PM_{2.5} concentrations by 2035. If re-entrained dust is excluded from the calculations, all of the project alternatives would reduce the PM_{2.5} emissions when compared to the existing conditions.
- The project would increase the regional PM₁₀ emissions by up to 68 percent when compared to the existing conditions. This increase is less than 85 percent reduction in regional PM₁₀ concentrations by 2035. If re-entrained dust is excluded from the calculations, all of the project alternatives would reduce the PM₁₀ emissions when compared to the existing conditions.

For these reasons, future new or worsened $PM_{2.5}$ and PM_{10} violations of any standards are not anticipated; therefore, the project meets the conformity hot-spot requirements in 40 CFR 93-116 and 93-123 for both $PM_{2.5}$ and PM_{10} .



5 Summary AQ/HRA Results Comparison for Project Alternatives

This Chapter summarizes the comparison of results among the Project Alternatives. The comparisons presented in this chapter generally reflect a comparison of peak impacts, regardless of location or time. They do not reflect broader impact differences throughout the Basin, I-710 Study Area of Interest and/or along the I-710 freeway itself. For example, incremental DPM emissions can be lower in many areas while the peak location can show an incremental increase in DPM emissions. A comprehensive comparison of alternatives should consider both peak incremental impacts (summarized below) and broader impacts (presented in Chapter 4 and referenced below).

5.1 Construction Emissions Comparison

As stated in Section 4.2.1, the peak day construction emissions are based on an assumption that the worst case construction scenario would occur, simultaneous construction of seven project segments over the project's 18 mile length. However, it is highly improbable that construction would be occurring over multiple segments (much less all segments) on any given day. In addition, emissions from one segment would have a minimal or no localized impact on people near the other segments. Thus, peak day emissions for the segment with the greatest peak day emissions were also calculated. Table 5.1 summarizes the construction emissions results. Details can be found in Section 4.2 and Appendix B.

Table 5.1 Peak-Day Construction Emissions

POLLUTANT	PEAK DAY (All Segments Total) (lbs/day)		(Single S	CDAY Segment) (day)	SCAQMD CEQA Threshold* (lbs/day)
	<u>Alt. 5A</u>	Alt. 6A/B/C	<u> Alt. 5A</u>	Alt. 6A/B/C	
NO _x	1364	1510	287	287	100
СО	986	1001	177	177	550
PM ₁₀	435	482	69	69	150
Exhaust	25	27	4	4	_
Fugitive Dust	410	455	65	65	
PM _{2.5}	117	129	21	21	55
Exhaust	52	57	11	11	_
Fugitive Dust	65	72	10	10	
ROG	193	213	40	40	75

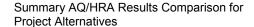
Notes:

No green construction equipment

Values for exhaust and fugitive dust are not peak values, but represent the constituents of PM₁₀ and PM_{2.5} on the peak day

Assumed that all seven segments are constructed simultaneously (Maximum construction duration 87.4 months)

All Numbers are rounded to an integer value







^{*}The SCAQMD significance thresholds are presented for information only. Caltrans has not adopted them but has stated that it will use them as part of its significance determination. Emissions are from construction equipment/activities

<u>Summary:</u> Peak-day construction emissions for Alternatives 6A/6B/6C are similar to those for Alternative 5A. Construction of the freight corridor would require additional days of construction, but do not affect peak day emissions appreciably. Peak-day emissions of all pollutants in any single segment are less than the SCAQMD's significance thresholds, except for NOx. The segment peak-day emissions are the same for Alternative 5A and Alternatives 6A/6B/6C because peak-day emissions occur during freeway mainline widening and/or location shifting. Construction phasing and staging may further reduce peak-day emissions. The emission calculations do not account for Metro's recently adopted Green Construction Policy.

5.2 Traffic Criteria Pollutant Emissions Results Comparisons

Tables 5.2a and 5.2b compare emission estimates from each of the project alternatives against the 2008 Baseline inventory and Alternative 1 emission estimates, respectively. These comparisons are performed for each of the criteria pollutants and for the three project study areas (SCAB, I-710 Study Area of Interest (AOI) and the I-710 Freeway itself, which can include the freight corridor); see Figure 4.1. Details can be found in Section 4.3.3, Figures 4.2-4.11, and Appendix C.

Table 5.2a Comparison of Incremental Criteria Pollutant Emissions for All Alternatives compared to 2008, for all Study Areas***

		•	SCAQMD CEQA Mass				
Pollutant	Study Area	Alt.1 vs. 2008	Alt 5A vs. 2008	Alt. 6A vs. 2008	Alt. 6B vs. 2008	Alt. 6C vs. 2008	Emission Thresholds**
		(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
	SCAB	-870,000	-870,000	-870,000	-880,000	-880,000	55
NO _x	AOI	-200,000	-200,000	-200,000	-200,000	-200,000	_
	I710	-13,000	-13,000	-11,000	-15,000	-14,000	-
	SCAB	-2,000,000	-2,000,000	-2,000,000	-2,000,000	-2,000,000	550
CO	AOI	-510,000	-510,000	-510,000	-510,000	-510,000	_
	I710	-19,000	-17,000	-16,000	-18,000	-18,000	
	SCAB	23,000	23,000	24,000	23,000	23,000	150
PM ₁₀ (Total)	AOI	1,800	1,900	2,100	1,800	1,800	
	I710	230	580	1,300	1,000	920	
DIA	SCAB	-9,500	-9,400	-9,400	-9,800	-9,700	
PM ₁₀ (Exhaust)	AOI	-3,400	-3,400	-3,300	-3,600	-3,600	-
(<i>1710</i>	-300	-190	-10	-330	-290	
514	SCAB	33,000	33,000	33,000	33,000	33,000	
PM ₁₀ (Entrained)	AOI	5,200	5,300	5,400	5,500	5,400	
(=:::: 4	1710	530	770	1,300	1,400	1,200	

			Comparis	SCAQMD CEQA Mass			
Pollutant	Study Area	Alt.1 vs. 2008	Alt 5A vs. 2008	Alt. 6A vs. 2008	Alt. 6B vs. 2008	Alt. 6C vs. 2008	Emission Thresholds**
		(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
	SCAB	-2,300	-2,300	-2,200	-2,500	-2,400	55
PM _{2.5} (Total)	AOI	-2,000	-1,900	-1,900	-2,100	-2,100	
	I710	-170	-40	230	0	0	
DIA	SCAB	-10,000	-10,000	-10,000	-11,000	-11,000	
PM _{2.5} (Exhaust)	AOI	-3,200	-3,200	-3,200	-3,400	-3,400	-
(1710	-300	-230	-90	-340	-300	
DM	SCAB	8,100	8,100	8,100	8,100	8,100	
PM _{2.5} (Entrained)	AOI	1,300	1,300	1,300	1,300	1,300	
(=:::::::::::::::::::::::::::::::::::::	1710	130	190	320	330	300	
	SCAB	-170,000	-160,000	-170,000	-170,000	-170,000	55
ROG	AOI	-43,000	-43,000	-44,000	-44,000	-44,000	
	I710	-1,500	-1,500	-1,300	-1,600	-1,600	-
	SCAB	1,300	1,300	1,300	1,200	1,300	150
SO ₂	AOI	160	160	160	140	150	
	I710	15	23	36	13	15	-

^{*} Numbers rounded to 2 significant figures. Emission changes of 1% or smaller are presented as zero emission changes.

Each of the alternatives will result in lower NO_x , CO, $PM_{2.5}$ (except Alternative 6A along the I-710 freeway) and ROG emissions for all study areas when compared to the 2008 baseline emissions (CEQA baseline). The greatest reductions from the 2008 baseline occur in Alternatives 6B and 6C, which include a zero-emissions freight corridor.

Total traffic-related PM emissions consist of exhaust emissions (which includes direct brake and tire wear) and entrained emissions (particulate matter from roadways lifted into the air by vehicle motion). For entrained PM emissions, this study used the latest EPA methodology (January 2011) with local inputs. This methodology increases entrained emissions as a direct function of vehicle miles travelled (VMT). Thus, each of the 2035 alternatives show an increase (~34%) in entrained PM emissions compared to the 2008 baseline. This increase offsets reductions in exhaust PM emissions in future years (as engine and control technology outpaces the effect of the increase in VMT). For PM_{2.5}, exhaust emission decreases are great enough that total PM_{2.5}emissions still decrease for all study areas (except for Alternative 6A, along the I-710 freeway). But for PM₁₀, calculated increases in entrained emissions are much greater than exhaust PM₁₀ reductions, resulting in large calculated increases in PM₁₀ emissions in all study areas for all 2035 alternatives compared to 2008.

^{**} The SCAQMD significance thresholds are presented for information only. Caltrans has not adopted them but has stated that it will use them as part of its significance determination.

NOTE ON TOTAL PM EMISSION RESULTS: After the I-710 Corridor Project emission calculations were completed, SCAQMD has proposed a modified methodology for entrained PM emissions⁶⁰ as part of their 2012 AQMP development, consistent with their approach used in the 2007 AQMP. In SCAQMD's proposed methodology, 2008 PM₁₀ and PM_{2.5} estimates will be lower, particularly PM_{2.5} estimates. Most importantly, future year entrained PM will remain constant unless the roadway is lengthened. Thus, actual PM impacts for the project alternatives (compared to the 2008 baseline) will be more similar to the exhaust PM impacts reflected in tables 5.2a and 5.2b than the results presented for total PM impacts.

Exhaust PM_{2.5} and PM₁₀ emissions decrease for each 2035 alternative in each study area, compared to 2008. The greatest decreases are in Alternative 6B, followed by Alternative 6C and Alternative 1 (No-Build) having similar decreases, then Alternative 5A, and Alternative 6A having the least decreases.

Incremental SO_2 emissions for each alternative increase in the SCAB (compared to the 2008 baseline); the greatest increase is along the I-710 freeway and smallest increase in the AOI. Alternative 6A has the greatest increase along the I-710 freeway. This increase results from forecasted increases in VMT; the 2008 baseline already reflects the requirement for trucks to use ultralow sulfur diesel fuels in California that was adopted before 2008. SO_2 emissions for all 2035 alternatives show similar increases of about 0.65 tons/day. It should be noted that the SCAQMD has recently adopted amendments to its SO_x RECLAIM rule that will further reduce SO_x emissions by about 5.4 tons/day. In addition, implementation of CARB rules and the Ports' Clean Air Action Plan is projected to reduce SO_x emissions from other goods movement sources (e.g. ocean-going vessel) over 20 tons/day. Most SO_x RECLAIM and ocean-going vessel emission reductions will occur upwind of the I-710 Study Area of Interest.

The comparison of the 2035 build alternatives (Alternatives 5A, 6A, 6B, and 6C) compared to Alternative 1 (NEPA baseline) is presented in Table 5.2b. In this comparison, the impacts of general VMT increases from 2008 are eliminated, although smaller VMT differences among the 2035 Alternatives remain.

⁶⁰ See www.aqmd.gov/gb comit/stmpradvgrp/2012AQMP/meetings/2011/dec15/PavedRoadDust.pdf

Table 5.2b Comparison of Incremental Criteria Pollutant Emissions for All Build Alternatives compared to Alternative 1 (No-Build), for all Study Areas*

7.2	terriatives	Comparison with 2035 Alternative 1					
Pollutant	Study Area	Alt. 5A vs. Alt. 1	Alt. 6A vs. Alt. 1	Alt. 6B vs. Alt. 1	Alt. 6C vs. Alt. 1		
		lbs/day	lbs/day	lbs/day	lbs/day		
	SCAB	0	0	-4,600	-3,600		
NO _x	AOI	0	0	-4,000	-3,200		
	I710	300	2,000	-2,000	-1,500		
	SCAB	0	0	0	0		
CO	AOI	0	0	-1,900	0		
	I710	1,400	2,900	650	930		
	SCAB	0	0	0	0		
PM ₁₀ (Total)	AOI	0	0	0	0		
	I710	360	1,100	790	690		
DIA	SCAB	0	0	0	0		
PM ₁₀ (Exhaust)	AOI	0	0	-240	-170		
(Exhausi)	1710	110	290	-35	9		
51440	SCAB	0	0	0	0		
PM10 (Entrained)	AOI	0	0	0	0		
(Littiaineu)	<i>1710</i>	250	780	830	680		
	SCAB	0	0	0	0		
PM _{2.5} (Total)	AOI	0	0	0	0		
	I710	130	400	170	160		
DIA	SCAB	0	0	0	0		
PM _{2.5} (Exhaust)	AOI	0	0	-200	-140		
(Extraust)	<i>1710</i>	74	210	-37	0		
5140.5	SCAB	0	0	0	0		
PM2.5 (Entrained)	AOI	0	0	0	0		
(Littraineu)	<i>1710</i>	61	190	200	170		
	SCAB	0	0	0	0		
ROG	AOI	0	-220	-530	-470		
	I710	30	190	-110	-82		
	SCAB	0	0	0	0		
SO ₂	AOI	0	0	-24	-19		
	1710	8	21	-2	1		

^{*} Numbers rounded to 2 significant figures. Emission changes of 1% or smaller are presented as zero emission changes.

For the SCAB and I-710 Study Area of Interest, the incremental impacts of Alternative 5A and Alternative 6A for ALL pollutants compared to 2035 Alternative 1 is essentially zero (less than a

1% difference). NOx, PM₁₀ exhaust, PM_{2.5} exhaust generally decrease in Alternative 6B and 6C (compared to Alternative 1) in these study areas, but in general, the differences are small or less than 1%. Note that SOx emissions, which increased in all 2035 alternatives compared to 2008, are essentially the same for the build alternatives compared to Alternative 1.

Along the I-710 freeway (including the freight corridor, if applicable), only Alternative 6B and Alternative 6C show decreases in emissions (mostly NOx and ROG) compared to Alternative 1 (No-Build). Otherwise, all build alternatives have increased emissions along the I-710 freeway compared to Alternative 1, with the greatest increases for Alternative 6A and then Alternative 5A.

<u>Summary:</u> Exhaust emissions decrease for all 2035 alternatives in all study areas compared to 2008 (the exception is SO_2 – see discussion above). Entrained PM emissions, particularly PM_{10} , increase in all 2035 alternatives, resulting in increases in total PM_{10} for all 2035 alternatives in all study areas. Exhaust emissions are essentially the same (or have a slight decrease) for all 2035 build alternatives compared to Alternative 1 for both the SCAB and I-710 Study AOI.

Emissions for the 2035 build alternatives generally increase compared to Alternative 1 along the I-710 freeway (and freight corridor, if applicable), although some of them decrease for Alternative 6B and, to a lesser extent, Alternative 6C. The recently proposed SCAQMD entrained PM emissions methodology⁶¹ would both decrease the absolute value of 2008 entrained PM emissions and would hold entrained PM levels constant in future years unless a roadway is lengthened. Thus, total PM impacts would likely be smaller and more similar to exhaust PM impacts.

NOTE: Figures 4.2 through 4.11 present incremental impacts of NOx, total $PM_{2.5}$ and exhaust $PM_{2.5}$ spatially throughout the I-710 Study Area of Interest. This information augments the tabular results of total emission changes in the AOI and I-710 Freeway study areas, highlighting spatial variations of incremental emission impacts.

5.3 I-710 Near-Roadway Air Quality Impacts Comparisons

As can be seen in the previous section, the greatest emission impacts occur along the I-710 freeway. This occurs as the increased VMT (all alternatives) and increased capacity (build alternatives) increases emissions along the I-710 freeway, although improved mobility and less traffic on local roadways can decrease emissions in the larger AOI and SCAB study areas. To address this, air quality impacts (incremental criteria pollutant concentration impacts) resulting from emissions from the I-710 freeway (including freight corridor) were modeled using the EPA-approved AERMOD dispersion model. Table 5.3a presents a summary of the NO₂ and CO modeling results. For NO₂ and CO, the incremental impacts calculated using AERMOD were added to nearby monitored concentrations and the maximum sum of these values is reported in Table 5.3a as the maximum impact. Details can be found in Section 4.34, Figures 4.12-4.38, and Appendix D.

⁶¹ See www.aqmd.gov/gb comit/stmpradvgrp/2012AQMP/meetings/2011/dec15/PavedRoadDust.pdf



Table 5.3a Comparison of I-710 Freeway Near-Roadway NO₂ and CO Concentration Impacts for All 2035 Alternatives Compared to 2008

impacts for All 2000 Atternatives compared to 2000							
S	cenario		n Dioxide (μg/m³)	Carbon Monoxide (CO) (μg/m³)			
	1-hour	Annual	1-hour	8-hour			
Alternative 1 vs.	Incremental Impact	-81	-1	-211	-36		
2008 Baseline	Maximum Impact*	145	56	9,000	7,300		
Alternative 5A	Incremental Impact	-79	-1	-203	-34		
vs. 2008 Baseline	Maximum Impact*	146	56	9,000	7,300		
Alternative 6A	Incremental Impact	-70	5	-241	-37		
vs. 2008 Baseline	Maximum Impact*	156	62	8,900	7,300		
Alternative 6B	Incremental Impact	-84	-1	-254	-40		
vs. 2008 Baseline	Maximum Impact*	141	56	8,900	7,300		
Alternative 6C	Incremental Impact	-84	-1	-254	-39		
vs. 2008 Baseline	Maximum Impact*	142	56	8,900	7,300		
SCAQMD CEQA T	hreshold Level**	339	56	23,000	10,000		
National Ambient A	National Ambient Air Quality Standard Level			40,000	10,000		

Maximum Impact is the maximum concentration (background + project incremental) in the modeling domain.

The SCAB is in attainment of the federal standards (NAAQS) for these pollutants. The maximum impacts for all alternatives are less than the applicable SCAQMD local significance threshold, CAAQS and NAAQS except for Alternative 6A (maximum NO_2 level exceeds the CAAQS, which is the SCAQMD's threshold). As noted in Section 4.3.4, only the calculated annual NO_2 ambient concentration for Alternative 6A exceeds the CAAQS level, and at only one receptor location, which is ~10 meters from the center of the freight corridor.

Table 5.3b presents a summary of the incremental PM_{10} and $PM_{2.5}$ modeling results compared to 2008. The SCAB is a designated non-attainment area for these pollutants, both of the CAAQS and NAAQS⁶².

^{**}The SCAQMD significance thresholds are presented for information only. Caltrans has not adopted them but has stated that it will use them as part of its significance determination.

⁶² SCAQMD submitted a request for attainment redesignation for the PM₁₀ NAAQS in December 2010; EPA has not taken action on that request.

Table 5.3b Comparison of I-710 Freeway Near-Roadway Incremental PM₁₀ and PM_{2.5} Concentration Impacts for All 2035 Alternatives Compared to 2008

	Maximum Incremental Impacts (μg/m³)							
Scenario		PI	PM _{2.5}					
Cochano	To	tal	Exhaust		Total	Exhaust		
	24-Hour	Annual	24-Hour	Annual	24-Hour	24-Hour		
Alternative 1 vs. 2008 Baseline	20	14	-0.1	-0.01	0	-0.1		
Alternative 5A vs. 2008 Baseline	61	36	5.7	3.1	15	2.0		
Alternative 6A vs. 2008 Baseline	79	44	6.3	3.6	21	3.9		
Alternative 6B vs. 2008 Baseline	74	43	2.3	1.8	15	1.2		
Alternative 6C vs. 2008 Baseline	64	35	2.2	1.7	13	1.0		
SCAQMD CEQA Threshold Level*	2.5	1	2.5**	1**	2.5	2.5**		

^{*} The SCAQMD significance thresholds are presented for information only. Caltrans has not adopted them but has stated that it will use them as part of its significance determination.

Peak incremental total PM_{10} and $PM_{2.5}$ impacts for the alternatives compared to 2008 are very high. Figures 4.12 through 4.26 show that impacts above the SCAQMD's local significance threshold all occur within 100 to 300 meters of the I-710 freeway (mainline and/or freight corridor). These increases are partly due to the spatial shifting of the mainline and/or freight corridor into new locations (and thus baseline concentrations are much, much lower). Peak incremental exhaust PM_{10} and $PM_{2.5}$ impacts for all alternatives compared to 2008 are much lower. Figures 4.12 through 4.26 show that exhaust PM impacts above the SCAQMD's local significance threshold (compared to total PM impacts) are much less prevalent in all project alternatives, and are almost completely absent in Alternative 6B and Alternative 6C.

All 2035 build alternatives have increases in CO and NO_2 concentrations in certain locations along the I-710 freeway compared to 2035 Alternative 1 (No-Build). This is consistent with the increased number of vehicles expected on the I-710 in the build alternatives. These increases are greatest along the I-710 freeway, particularly where the freeway mainline is shifted and/or the freight corridor is constructed. Near these locations, decreases in CO and NO_2 are seen (as traffic is shifted from those areas). The pattern is similar to the one seen in the exhaust $PM_{2.5}$ and PM_{10} concentrations in the build alternatives compared to Alternative 1 (see discussion below).

The comparison of the 2035 build alternatives to Alternative 1 (No-Build) is based on analysis of the modeling results shown in Figures 4.27 - 4.30 (annual average PM_{10}), Figures 4.31 - 4.34 (24-hour average PM_{10}), Figures 4.35 - 4.38 (24-hour average $PM_{2.5}$), and Figures 4.54 - 4.57 (annual average $PM_{2.5}$). Drawing from the local roadways, there is more traffic on the I-710 in

^{**} Thresholds would refer to total PM and are provided for exhaust-only PM for comparison purposes only.

the build alternatives than in the no-build alternative (Alternative 1). In the EPA method, VMT increases will result in greater entrained PM emissions (and related impacts) on the widened freeway and along freight corridor as trucks move into those lanes in the build alternatives; this is seen for all build alternatives. For PM₁₀, these entrained PM increases offset even the reduced exhaust emissions in Alternatives 6B and 6C (zero-emission freight corridor), resulting in increases in total PM₁₀ all along the I-710 freeway (greatest in Alternative 6A and least in Alternative 5A). These increases can range as far as 300 meters from the freeway.

For PM_{2.5}, these entrained PM emission increases are more similar to the changes in exhaust PM (which can decrease as a result of greater mobility in the build alternatives or increase as a result of higher traffic levels than in Alternative 1). As a result, total PM_{2.5} levels in the build alternatives are greater than in Alternative 1 at some locations along the I-710, generally within 100 meters of the roadway. The greatest impacts are seen in Alternative 6A compared to Alternative 1; the fewest in Alternative 5A.

If only exhaust PM is considered, the results of comparing the build alternatives to Alternative 1 yield similar conclusions as above, although the incremental impacts are, of course, lower. For Alternatives 6B and 6C, only a few modeling receptors next to the I-710 roadway show any $PM_{2.5}$ increases compared to Alternative 1.

Summary: The incremental emissions analysis (Section 5.2) showed that the study area with the greatest impacts was along the I-710 freeway (including freight corridor, if applicable). AERMOD dispersion modeling was conducted to assess near-roadway impacts along the I-710. Principally, none⁶³ of the 2035 alternatives is expected to result in an exceedence of the CAAQS or NAAQS for NO₂ and CO. Incremental total PM₁₀ and PM_{2.5} impacts of the 2035 alternatives (compared to 2008) are above the SCAQMD's significance threshold within 100 to 300 meters of the I-710 freeway mainline and/or freight corridor, with the extent of impacts smallest in Alternative 1 (impacts mostly south of the I-105). Incremental exhaust PM₁₀ and PM_{2.5} impacts (compared to 2008) were much smaller, with no impacts greater than the SCAQMD's significance threshold for Alternatives 1, 6B, and 6C. Consistent with movement of traffic to the I-710 freeway from the local roadways in the build alternatives, criteria pollutant concentrations right along the I-710 are often higher in the build alternatives compared to the no-build alternative (Alternative 1). This is especially the case for total PM concentrations because entrained PM emission changes are directly proportional to increases in VMT (EPA method, not with the proposed SCAQMD/CARB method). The level and extent of the increases is smaller for total PM_{2.5} (<100 meters, fewer locations) than for total PM₁₀ (up to 300 meters along most of the length of the freeway), and for exhaust PM_{2.5}, smallest for Alternatives 6B and 6C (compared to Alternative 1) with 6 or fewer model receptor grids showing any appreciable increases.

⁶³ The exceedence of the NO₂ CAAQS at one grid receptor less than 10 meters from the freight corridor for Alternative 6A should be considered in light of the model's ability (or lack of ability) to calculate impacts that close to the source.



5.4 Mobile Source Air Toxics (MSAT) Emissions Results Comparisons Summary

Table 5.4a presents an analysis of MSAT incremental emissions for each of the alternatives compared with the 2008 base year inventory for all study areas. Table 5.4b presents a similar comparative analysis incremental emissions of each of the 2035 build alternatives compared to Alternative 1 (No-Build). Details can be found in Section 4.3.5, Figures 4.39-4.43, and Appendix C.

Table 5.4a Comparison of Incremental Air Toxics Emissions for All Alternatives compared to 2008, for all Study Areas

	Study Area	Comparison to 2008 Baseline					
Mobile Source Air Toxic Name		Alt. 1 vs. 2008	Alt. 5A vs. 2008	Alt. 6A vs. 2008	Alt. 6B vs. 2008	Alt. 6C vs. 2008	
		lb/day	lb/day	lb/day	lb/day	lb/day	
Diesel	SCAB	-23,000	-23,000	-23,000	-23,000	-23,000	
Particulate	AOI	-5,500	-5,400	-5,400	-5,600	-5,600	
Matter	1710	-390	-350	-230	-460	-430	
Benzene	SCAB	-3,000	-3,000	-3,000	-3,000	-3,000	
	AOI	-760	-760	-760	-760	-760	
	1710	-22	-21	-21	-21	-21	
Acetaldehyde	SCAB	-600	-600	-600	-600	-600	
	AOI	-150	-150	-150	-150	-150	
	1710	-5	-4	-4	-4	-4	
Formaldehyde	SCAB	-2,300	-2,300	-2,300	-2,300	-2,300	
	AOI	-580	-580	-580	-580	-580	
	1710	-17	-16	-16	-16	-16	
1,3- butadiene	SCAB	-700	-700	-700	-700	-700	
	AOI	-180	-180	-180	-180	-180	
	I710	-5	-5	-5	-5	-5	
Acrolein	SCAB	-160	-160	-160	-160	-160	
	AOI	-41	-41	-41	-41	-41	
	I710	-1	-1	-1	-1	-1	

Table 5.4b Comparison of Incremental Air Toxics Emissions for All Alternatives Compared to Alternative 1 (No-Build), for all Study Areas*

Compared to Alternative 1 (No-Build), for all Study A					
Mobile Source Air Toxic Name	Study Area	Alt. 5A vs. Alt. 1	Alt. 6A vs. Alt. 1	Alt. 6B vs. Alt. 1	Alt. 6C vs. Alt. 1
TOXIO Humo		lbs/day	lbs/day	lbs/day	lbs/day
	SCAB	0	96	-140	-94
Diesel Particulate Matter	AOI	27	110	-130	-82
Matter	1710	44	160	-71	-38
	SCAB	0	0	0	0
Benzene	AOI	0	-1.4	-1.4	-1.3
	1710	0.4	0.6	0.6	0.6
	SCAB	0	0	0	0
Acetaldehyde	AOI	0	-0.2	-0.2	-0.1
	1710	0.04	0.06	0.06	0.06
Formaldehyde	SCAB	0	0	0	0
	AOI	0	-0.9	-0.9	-0.8
	1710	0.3	0.4	0.4	0.4
1,3- butadiene	SCAB	0	0	0	0
	AOI	0	-0.3	-0.3	-0.3
	1710	0.1	0.1	0.1	0.1
	SCAB	0	0	0	0
Acrolein	AOI	0	-0.07	-0.07	-0.07
	1710	0.02	0.03	0.03	0.03

^{*} Numbers rounded to 2 significant figures. Emission changes of 1% or smaller are presented as zero emission changes.

<u>Summary:</u> In every instance (all alternatives, all study areas), decreases in incremental MSAT emissions compared to 2008 were calculated. Reductions in DPM (the main risk driver) were approximately 78% (SCAB), 77% to 81% (AOI), and 38% to 76% along the I-710 freeway. Compared to 2008, reductions were greatest for Alternative 6B with Alternative 6C, Alternative 1, Alternative 5A, and Alternative 6A, following in descending order.

Compared to Alternative 1, DPM emissions (the main risk driver) increased for Alternative 6A in all study areas, whereas Alternative 5A DPM emissions were similar in the SCAB and I-710 Study AOI and increased along the I-710. Alternative 6B and Alternative 6C DPM emissions decreased in all study areas, with the greatest decreases in Alternative 6B.

5.5 I-710 Near-Roadway Incremental Health Risk Impacts Comparisons

As with criteria air pollutants, the greatest air toxic emission impacts occur along the I-710 freeway. This occurs as the increased VMT (all alternatives) and increased capacity (build

alternatives) increases emissions along the I-710 freeway, although improved mobility and less traffic on local roadways can decrease emissions in the larger AOI and SCAB study areas. To address this, incremental health risk impacts (cancer risk and non-cancer acute and chronic hazard indices) resulting from emissions from the I-710 freeway (including freight corridor) were modeled. Table 5.5 compares maximum relative health impacts between each of the Alternatives and the 2008 base year.

Table 5.5 Comparison of Incremental MSAT Health Risk Impacts for All Alternatives Compared to 2008

(All analyses based on worst-case residential scenario impacts)

Health Impact	Alt. 1 vs. 2008	Alt. 5A vs. 2008	Alt. 6A vs. 2008	Alt. 6B vs. 2008	Alt. 6C vs. 2008	SCAQMD Significance Threshold*
Cancer Risk (Risk in 1 million)	-6	-6	462**	-7	-7	10 in 1 million
Chronic Non-Cancer Hazard Index (unitless)	-0.004	-0.004	0.279	-0.005	-0.005	1.0 (Hazard Index)
Acute Non-Cancer Hazard Index (unitless)	-0.017	-0.016	0.079	0.102	-0.0001	1.0 (Hazard Index)

^{*} The SCAQMD significance thresholds are presented for information only. Caltrans has not adopted them but has stated that it will use them as part of its significance determination.

All 2035 alternatives (compared to 2008) show decreases in cancer risk (including 6A for residential areas) and hazard indices far below the SCAQMD's significance thresholds. Cancer risk and hazard indices decrease throughout the modeling domain for all 2035 alternatives except for Alternative 6A in non-residential areas very near to the I-710 (mainline and/or freight corridor).

All 2035 build alternatives have increases in cancer risk in certain locations along the I-710 freeway compared to 2035 Alternative 1 (No-Build Alternative). Figures 4.44 through 4.48 show that Alternative 5A and Alternative 6A have large areas with greater cancer risk (compared to Alternative 1), including very large increases right along the I-710 freeway (mainline and/or freight corridor). Some of these increases are due to location shifting of the mainline or addition of the freight corridor; this can be seen when areas of greater and lower incremental impacts are seen in the same location such as in Figure 4.46 (e.g., paired increases/decreases around Washington Boulevard and at the I-710/I1-5). Alternative 6B and Alternative 6C (compared to Alternative 1) generally show lower levels of cancer risk until the freight corridor ends near the railyards. This is because trucks leaving the zero-emission freight corridor are analyzed as if they switch from zero emission technologies to conventional technologies (albeit cleaner than the 2008 truck fleet). Impacts in those areas would be reduced (compared to Alternative 1) if the trucks continued to use zero-emission technologies.

^{**} Only 15 grid points show incremental increases above 10 in a million. These grid points are **NOT** in residential areas and are generally located very near the freight corridor. The incremental cancer risk and incremental hazard indices <u>decreased</u> at all sensitive receptors in the modeling domain.

<u>Summary:</u> The incremental emissions analysis (Section 5.2) showed that the study area with the greatest MSAT emissions impacts was along the I-710 freeway (including freight corridor, if applicable). AERMOD dispersion and health risk modeling was conducted to assess near-roadway impacts along the I-710. Compared to 2008, cancer risk and hazard indices decrease throughout the modeling domain for all 2035 alternatives except Alternative 6A in non-residential areas very near to the I-710 (mainline and/or freight corridor).

All 2035 build alternatives have increases in cancer risk in certain locations along the I-710 freeway compared to 2035 Alternative 1 (No-Build Alternative). Until the freight corridor ends near the railyards, Alternative 6B and Alternative 6C have lower cancer risk impacts (compared to Alternative 1) while the other alternatives have greater cancer risk impacts. Cancer risk impacts north of Washington Boulevard are greater for all build alternatives, even for Alternatives 6B and 6C because it is assumed that trucks not on the freight corridor do not have zero-emission technologies.

5.6 Greenhouse Gas (GHG) Emissions Results Comparisons Summary

GHG emissions for the 2035 alternatives compared to 2008 are all approximately 22,000,000 tonnes CO₂e/year higher than the existing baseline, representing a 31% increase over 2008 as the effect of increases in VMT outweigh any improvement in the vehicle fleet. The analysis does not include the effect of recent Pavely Standard or other adopted state GHG reduction regulations, which would reduce 2035 GHG emissions for all alternatives.

Table 5.6 below summarizes the results of the traffic-related GHG emissions for all 2035 Build Alternatives compared to Alternative 1 (No Build Alternative). Details can be found in Section 4.4 and Appendix F.

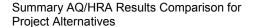
Table 5.6 Incremental Traffic GHG Emissions in SCAB as Compared to Alternative 1 (No Build)

Greenhouse Gas	Alt. 5A vs. Alt. 1	Alt. 6A vs. Alt. 1	Alt. 6B vs. Alt. 1	Alt. 6C vs. Alt. 1
	tonnes/year	tonnes/year	tonnes/year	tonnes/year
CH₄	0.016	0.028	0.026	0.028
N ₂ O	1.1	1.9	1.8	1.9
CO ₂	300	-120,000	-600,000	-490,000
Total (CO ₂ eq)	670	-120,000	-600,000	-490,000

Note that Alternative 6B reduces GHG emissions by over a half million tons/year in 2035. With the exception of Alternative 5A, total greenhouse gas emissions are expected to be lower for all 2035 build alternatives when compared to Alternative 1. Alternative 5A is predicted to have slightly higher GHG emissions compared to Alternative 1.

5.7 AQ/HRA Alternatives Comparison Summary

As discussed in Chapter 4, multiple metrics were used to assess the AQ/HRA impacts of the project alternatives. A single metric cannot, and should not, be used to evaluate the full AQ/HRA impacts of any project alterative. The results of the different analyses should be considered





together to give a fuller and more comprehensive understanding of project alternative AQ/HRA impacts. A full list of the I-710 EIR/EIS/AQ/HRA Analysis metrics can be found in Table 4.1; many of these analyses go beyond standard Caltrans' analyses. The preceding sections of this Chapter summarized the results of the quantitative analyses as part of a comparison among the project alternatives. All project alternatives, including Alternative 1 (No-Build), have locations of greater impacts, depending on the air quality metric used. In summary, the analyses show that:

- Criteria and air toxic exhaust emissions are generally lower (sometimes as much as 80%⁺ lower) in the 2035 alternatives compared to 2008. The greatest reductions are in the SCAB and I-710 Study Area of Interest. The smallest reductions are along the I-710 freeway.
 - For the SCAB and I-710 Study Area of Interest, the incremental emission changes for all 2035 build alternatives (compared to 2035 Alternative 1) are essentially zero (less than a 1% difference) or slightly decreases (Alternatives 6B and 6C only).
 - Along the I-710 freeway (including the freight corridor, if applicable), only Alternative 6B and Alternative 6C show decreases in emissions (mostly NO_x and ROG) compared to Alternative 1 (No-Build). Otherwise, all build alternatives have increased emissions along the I-710 freeway compared to Alternative 1, with the greatest increases for Alternative 6A and then Alternative 5A.
- Entrained PM₁₀ and PM_{2.5} emissions increase for all alternatives (compared to 2008) and in all study areas. These increases can be greater than the calculated incremental exhaust emission decreases, leading to the conclusion that total PM₁₀ emissions increase in all study areas for 2035 project alternatives (and I-710 freeway PM_{2.5} emissions for Alternative 5A) compared to 2008.
 - After the I-710 Corridor Project emission calculations were completed, SCAQMD has proposed a modified methodology for entrained PM emissions as part of their 2012 AQMP development. In SCAQMD's proposed methodology, 2008 PM₁₀ and PM_{2.5} estimates will be lower, particularly PM_{2.5} estimates. Most importantly, future year entrained PM will remain constant unless the roadway is lengthened. Thus, actual PM impacts for the project alternatives (compared to the 2008 baseline) will be more similar to the exhaust PM impacts than the results presented for total PM impacts.
- I-710 Freeway Near-Roadway Impacts: All alternatives (compared to 2008 or Alternative 1) showed greater criteria and air toxics emissions impacts along the I-710 freeway than in the I-710 Study AOI or SCAB. This was anticipated, because widening and/or building a freight corridor would attract more traffic to the I-710 freeway and reduce traffic (and emissions) on local roadways and other freeways. An additional dispersion modeling (AERMOD) assessment of near-roadway air quality and health risk impacts along the I-710 freeway was conducted to assess these impacts.

For near-roadway impacts from I-710 freeway emissions (compared to 2008, unless noted):

- Principally, none⁶⁴ of the 2035 alternatives is expected to result in an exceedence of the CAAQS or NAAQS for NO₂ and CO.
- All 2035 alternatives had near-freeway (<300 meters) total PM₁₀ and PM_{2.5} impacts, with the least impacts for Alternative 1.
- Alternatives 5A and 6A had incremental exhaust PM₁₀ and PM_{2.5} impacts greater than the SCAQMD's significance threshold (although lower impacts than incremental total PM₁₀ and PM_{2.5}).
- Alternatives 1, 6B and 6C had no incremental exhaust PM₁₀ and PM_{2.5} impacts greater than the SCAQMD's significance threshold.⁶⁵
- Compared to 2008, cancer risk and hazard indices decrease throughout the modeling domain for all 2035 alternatives except Alternative 6A in non-residential areas very near to the I-710 (mainline and/or freight corridor).
- Compared to Alternative 1, Alternative 6B and Alternative 6C have lower cancer risk impacts until the freight corridor ends near the railyards, while the other alternatives have greater cancer risk impacts. Cancer risk impacts north of Washington Boulevard are greater for all build alternatives (compared to Alternative 1), even for Alternatives 6B and 6C, because it is assumed that trucks not on the freight corridor do not have zero-emission technologies.
- The greatest GHG reductions (compared to Alternative 1) occurred for Alternatives 6B and 6C with decreases of 600,000 and 490,000 MTCO₂e/year, respectively.
- PM_{2.5} Mortality/Morbidity and Ultrafine Particulates
 - Special I-710 Corridor Project qualitative analyses were conducted for PM_{2.5} mortality/morbidity and ultrafine particulates, using total PM_{2.5} and exhaust PM_{2.5} impacts, respectively, as surrogates. Details can be found in Section 4.5 and 4.6, respectively.
 - The public's exposure to PM-related morbidity and mortality health risks would generally decrease relative to the 2008 baseline in all parts of the I-710 Study Area of Interest; the exceptions would be some locations near portions of the I-710 freeway and/or freight corridor (<100 meters).
 - The public's exposure to ultrafine particulates should decrease for all 2035 Alternatives relative to the 2008 baseline, with the greatest decreases further from the I-710 freeway and decreases at most locations near the I-710 freeway (and freight corridor, if applicable).
 - Alternatives 6B and 6C had the lowest exhaust PM_{2.5} emissions and modeled concentration impacts of all 2035 alternatives (even 2035 Alternative 1).

⁶⁴ The exceedence of the NO₂ CAAQS at one grid receptor less than 10 meters from the freight corridor for Alternative 6A should be considered in light of the model's ability to calculate impacts that close to the source.

⁶⁵ For annual average PM₁₀, there were 6 or fewer model receptor grids right next to the freeway that showed increases above the SCAQMD's significance threshold for Alternatives 6B and 6C, compared to 2008.

- Regional and Project-Level Conformity
 - Regional and project-level conformity with state and national conformity requirements was conducted. Details can be found in Sections ES.10, 4.7, 4.8, and Appendices H and I. The I-710 Corridor Project is expected to demonstrate conformity with all state and national conformity requirements.

References

- 40 CFR Parts 80 and 86, Control of Emissions of Hazardous Air Pollutants from Mobile Sources, (http://www.epa.gov/EPA-AIR/2001/March/Day-29/a37.htm)
- Arhami, M., M. Sillanpaa, et al. (2009). "Size-segregated inorganic and organic components of PM in the communities of the Los Angeles harbor." Aerosol Science and Technology 43(2): 145-160.
- California Air Resources Board (CARB), 2002b, Air Resources Board Staff Report: Public Hearing to Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates, May 3, 2002.
- ---, 2006a, Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach Final Report.
- ---, 2006h, Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach Final Report.
- ---, 2006i, Proposed Emission Reduction Plan for Ports and Goods Movement in California Appendix A Quantification of the Health Impacts and Economic Valuation of Air Pollution from Ports and Goods Movement in California.
- ---, 2009, Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California, Staff report, December 7, (http://www.arb.ca.gov/research/health/pm-mort/pm-mort final.pdf)
- ---, California Ambient Air Quality Standards (CAAQS), (http://www.arb.ca.gov/desig/adm/adm.htm)
- ---, California Ambient Air Quality Standards (CAAQS), April 1, 2008, (http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm)
- ---, Speciation Database, (http://www.arb.ca.gov/ei/speciate/speciate.htm)
- California Department of Transportation, 2006, Climate Action Program at Caltrans, (http://www.dot.ca.gov/docs/ClimateReport.pdf)
- ENVIRON International Corporation (ENVIRON), 2006, Meteorological Data Selection and Processing Methodology for 2006 BNSF Designated Rail Yards, Prepared for BNSF Railyards and submitted to the California ARB.
- ---, 2006b, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Commerce/Mechanical Rail Yard, November 2.
- ---, 2006c, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Commerce/Eastern Intermodal Rail Yard, November 13.

References 71 $\in N \vee I R \cap N$

- ---, 2006d, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Watson/Wilmington Rail Yard, December 1.
- ---, 2006e, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Los Angeles/Hobart Rail Yard, December 1.
- ---, 2006f, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Richmond Rail Yard, November 2.
- ---, 2006g, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Stockton Rail Yard, December 8.
- ---, 2007a, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF San Bernardino Rail Yard, January 18.
- ---, 2007b, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Barstow Rail Yard, December 20.
- ---, 2008, Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF San Diego Rail Yard, February 4.
- ---, 2010, Protocol for the Air Quality and Health Risk Assessments (AQ/HRA) for the I-710 Corridor Environmental Impact Report/ Environmental Impact Statement (EIR/EIS), April 26.
- FHWA, Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents, FHWA, September, 2009
- Kozawa, K. H., S. A. Fruin, et al. (2009). "Near-road air pollution impacts of goods movement in communities adjacent to the Ports of Los Angeles and Long Beach." Atmospheric Environment 43(18): 2960-2970.
- Los Angeles County Metropolitan Transportation Authority, I-710 Major Corridor Study Final Report, (http://www.metro.net/projects_programs/final_report.htm)
- ---, Notice of Preparation, (http://www.metro.net/projects_studies/I710/images/ 710_NOP.pdf)
- Massachusetts v. Environmental Protection Agency et al., 549 U.S. 497 (2007).
- Moore, K., M. Krudysz, et al. (2009). "Intra-community variability in total particle number concentrations in the San Pedro Harbor area (Los Angeles, California)." Aerosol Science and Technology 43(6): 587-603.
- Office of Environmental Health Hazard Assessment (OEHHA), 2003, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, (http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf)
- Port of Long Beach (POLB), 2009, Middle Harbor Redevelopment Project, Final Environmental Impact Statement (FEIS)/Final Environmental Impact Report (FEIR) and Application Summary Report (ASR), April.

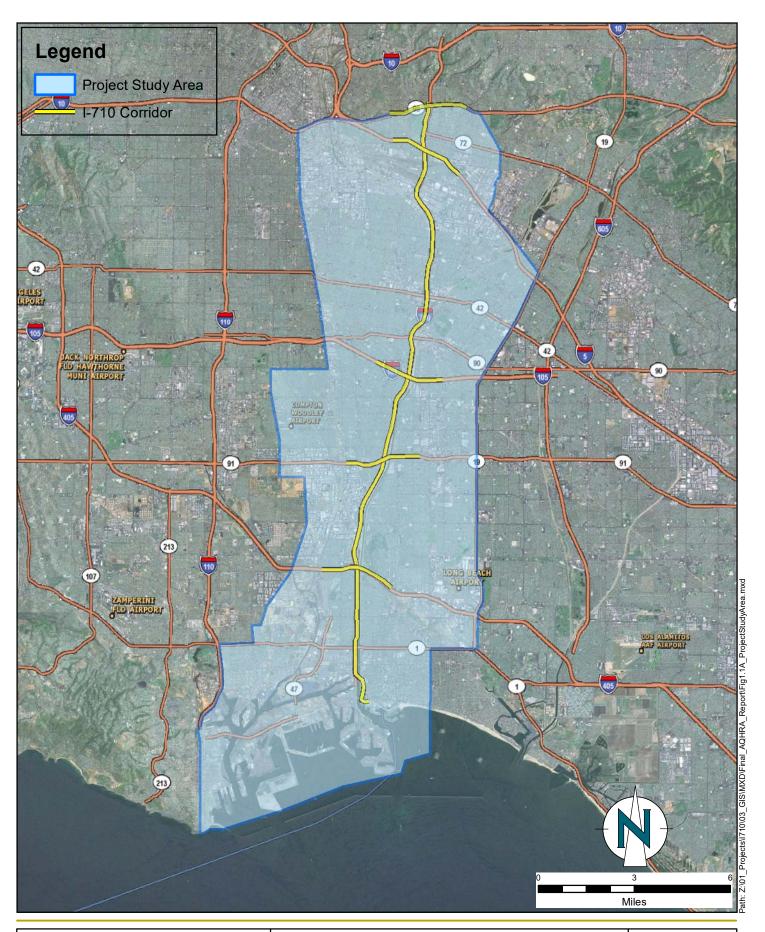
References 72 ENVIRON

- San Pedro Bay Ports Clean Air Action Plan (CAAP), Map of San Pedro Ports Monitoring Network, (http://caap.airsis.com/MapView.aspx)
- South Coast Air Quality Management District (SCAQMD), 2005, Risk Assessment Procedures for Rules 1401 and 212, Version 7.0., (http://www.aqmd.gov/prdas/Risk%20Assessment/RiskAssessment.html)
- South Coast Air Quality Management District (SCAQMD), Summary of 2006-2008 Ambient Air Monitoring Results for the Los Angeles-North Main Street, North Long Beach, and Lynwood Stations. (http://www.agmd.gov/smog/historicaldata.htm)
- ---, 2007a, Draft 2007 Air Quality Management Plan, (http://www.aqmd.gov/aqmp/07aqmp/draft/07aqmp.pdf)
- ---, 2007b, Final 2007 Air Quality Management Plan, (http://www.aqmd.gov/aqmp/07aqmp/aqmp/Complete_Document.pdf)
- ---, Presentation to the I-710 Corridor Project Community Advisory Committee (CAC).
 "Preliminary Results From the AQMD I-710 Air Monitoring Study," South Coast Air Quality Management District, February 18, 2010,
 (www.metro.net/projects_studies/I710/images/AQMD-I-710-Air-Monitoring-Study-to-CAC-February-2010.pdf)
- United States Environmental Protection Agency, AERMOD dispersion model guidance, (http://www.epa.gov/scram001/dispersion_prefrec.htm)
- ---, Exceptional Event Rule, (see table footnotes at (http://www.aqmd.gov/Smog/AQSCR2007/aq07card.pdf)
- ---, Federal Standard Attainment Status, (http://www.epa.gov/air/oagps/greenbk/ index.html)
- ---, Ground Level Ozone Health Effects, (http://www.epa.gov/air/ozonepollution/ health.html)
- ---, List of Mobile Source Air Toxics (MSAT), (http://www.epa.gov/otag/regs/toxics /toxicfrm.pdf)
- ---, National Ambient Air Quality Standards (NAAQS), (http://www.epa.gov/air/ criteria.html)
- ---, Particle Pollution Health Effects, (http://www.epa.gov/air/particlepollution/health.html)
- ---, Final Regulatory Impact Analysis (RIA) for the NO₂ National Ambient Air Quality Standards (NAAQS). January 2010. (www.epa.gov/ttn/ecas/regdata/RIAs/FinalNO2RIAfulldocument.pdf)
- URS, 2009, Draft Report Freeway Traffic Operations Analysis Report, Prepared for the Los Angeles County Metropolitan Transportation Authority, December 2
- ---, 2009, Technical Memorandum Alternatives Screening Analysis, Prepared for the Los Angeles County Metropolitan Transportation Authority, May 29

References 73 $\in N \vee I R \cap N$

Zhu Y., Hinds, W.C., Kim, S. and Sioutas, C., 2002, Concentration and Size Distribution of Ultrafine Particles Near a Major Highway, *Journal of Air and Waste Management Association*, 52: 1032-1042.

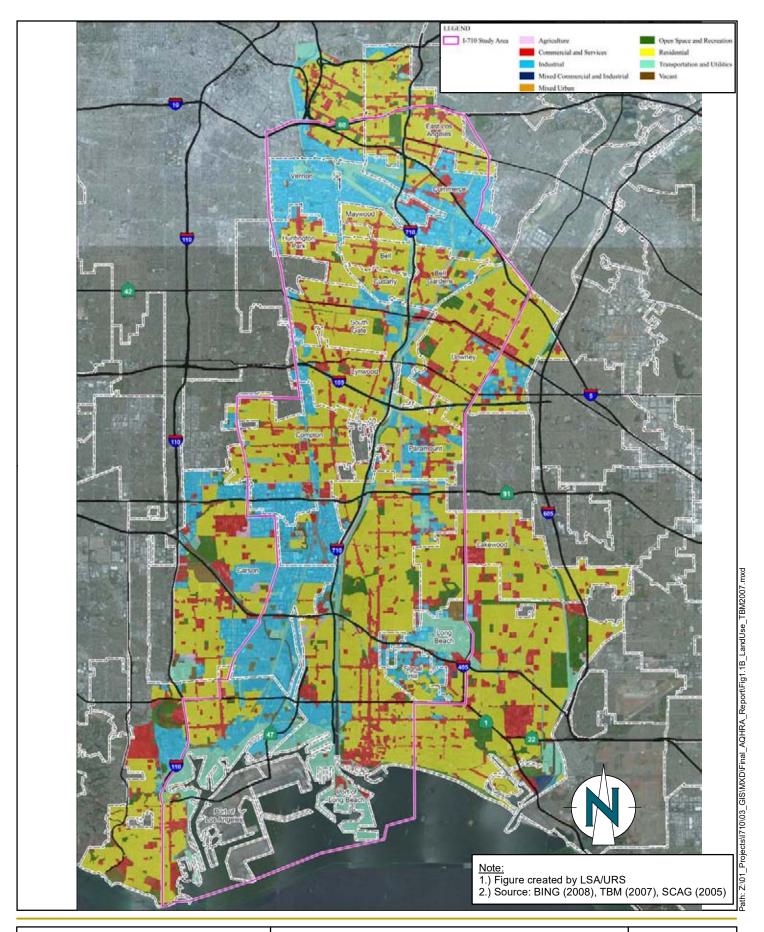
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Project Study Area

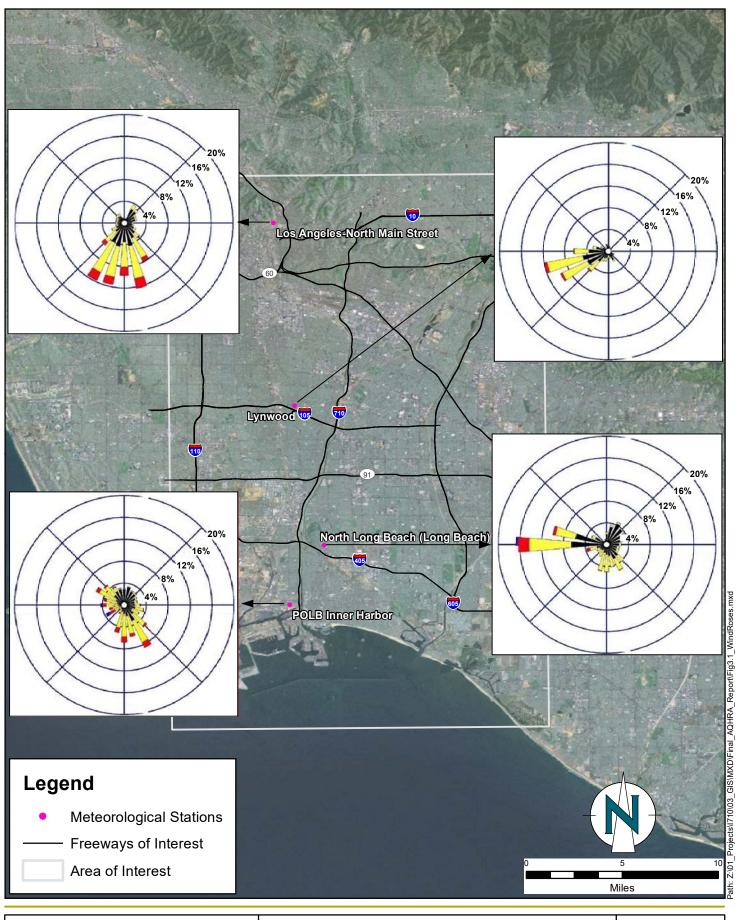
Figure **1.1A**PROJECT: 05-18574E4





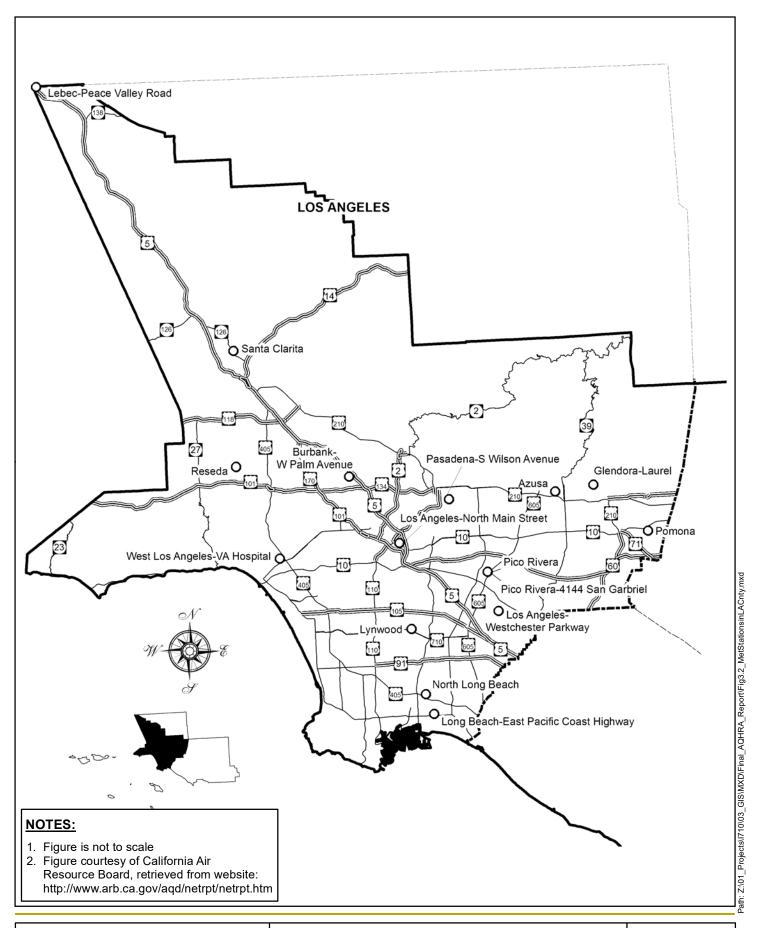
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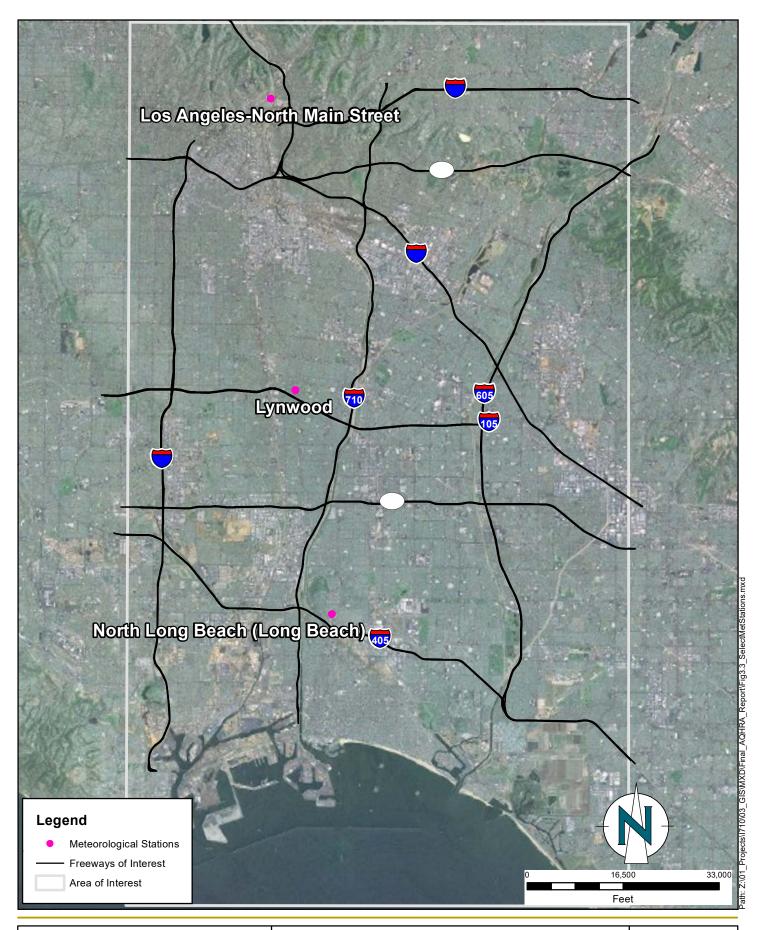
Wind Roses for Four Representative Meteorological Stations Figure **3.1** PROJECT: 05-18574E4



Date: 1/26/2012

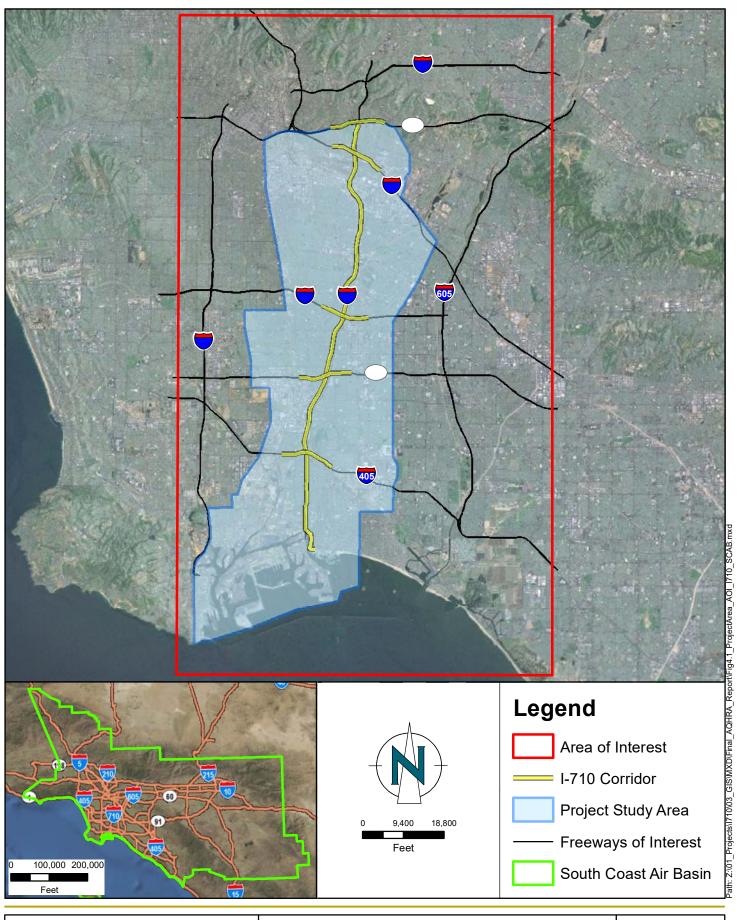
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South Coast Air Basin Monitoring Stations in the Southern Part of Los Angeles County Figure 3.2 PROJECT: 05-18574E4





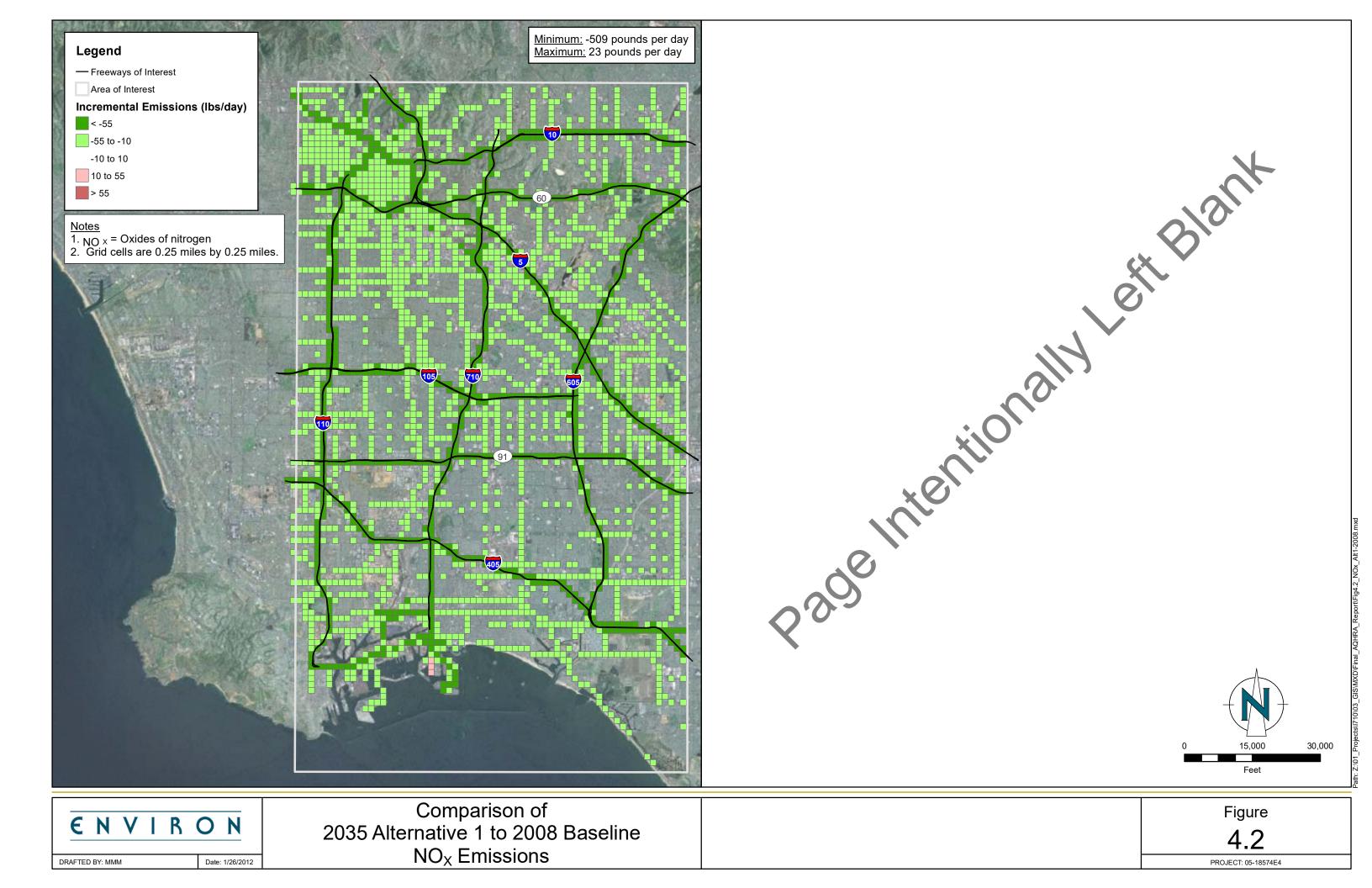
Location of the North Long Beach, Lynwood, and Los Angeles-North Main Street Monitors within the I-710 Project Area of Interest Figure **3.3** PROJECT: 05-18574E4

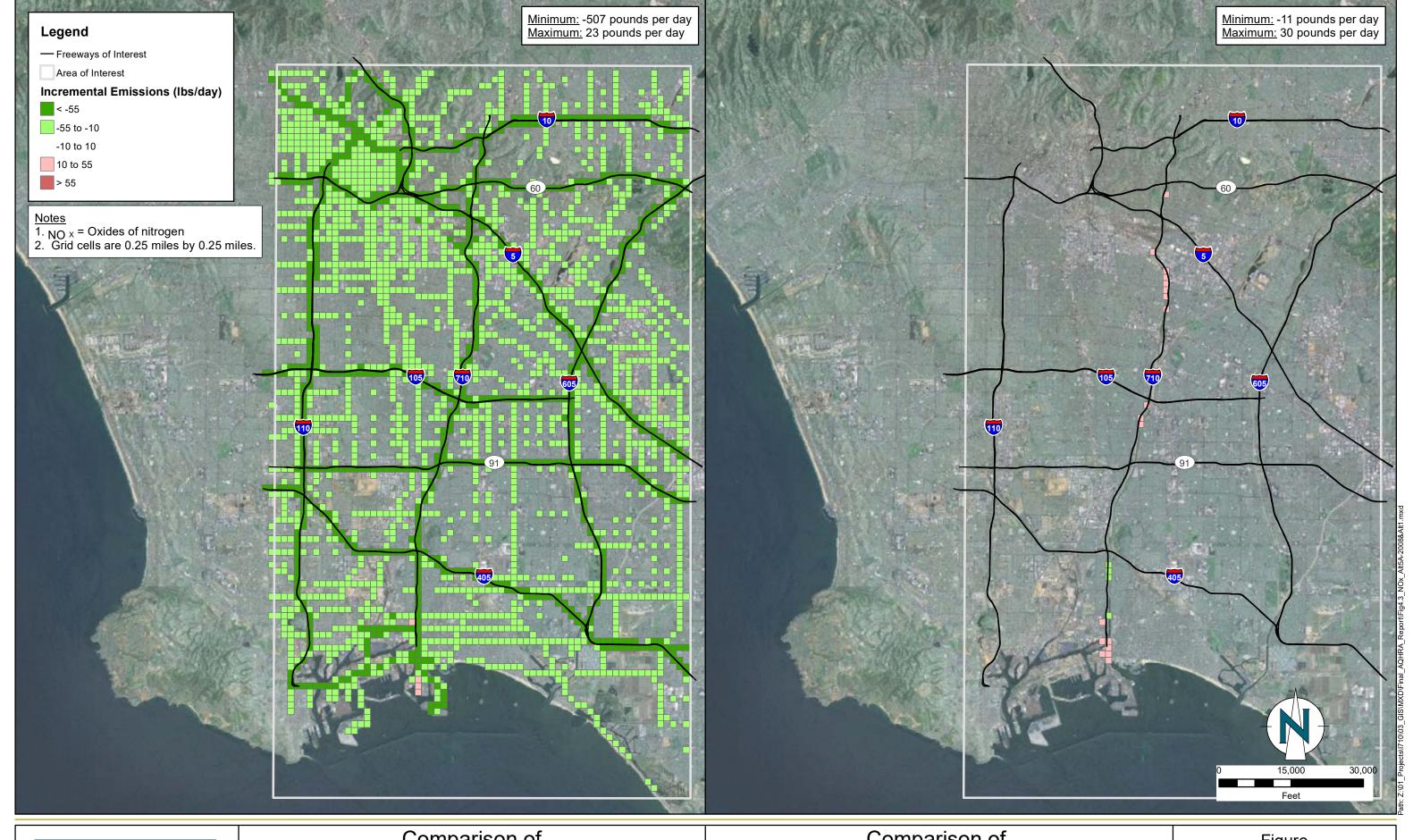




Project Study Area within Area of Interest

Figure **4.1**



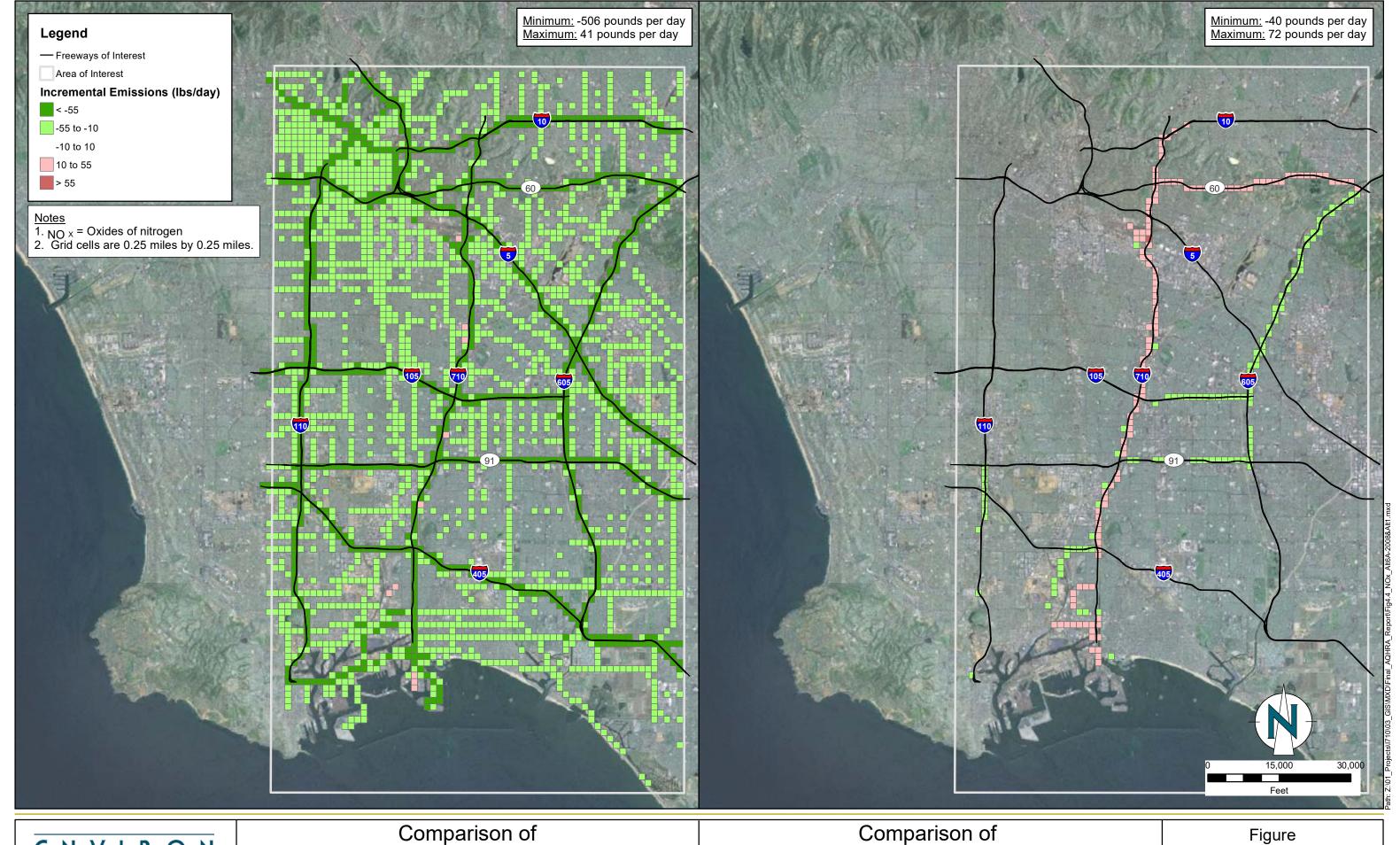




Comparison of 2035 Alternative 5A to 2008 Baseline NO_X Emissions

Comparison of 2035 Alternative 5A to 2035 Alternative 1 NO_X Emissions

Figure 4.3



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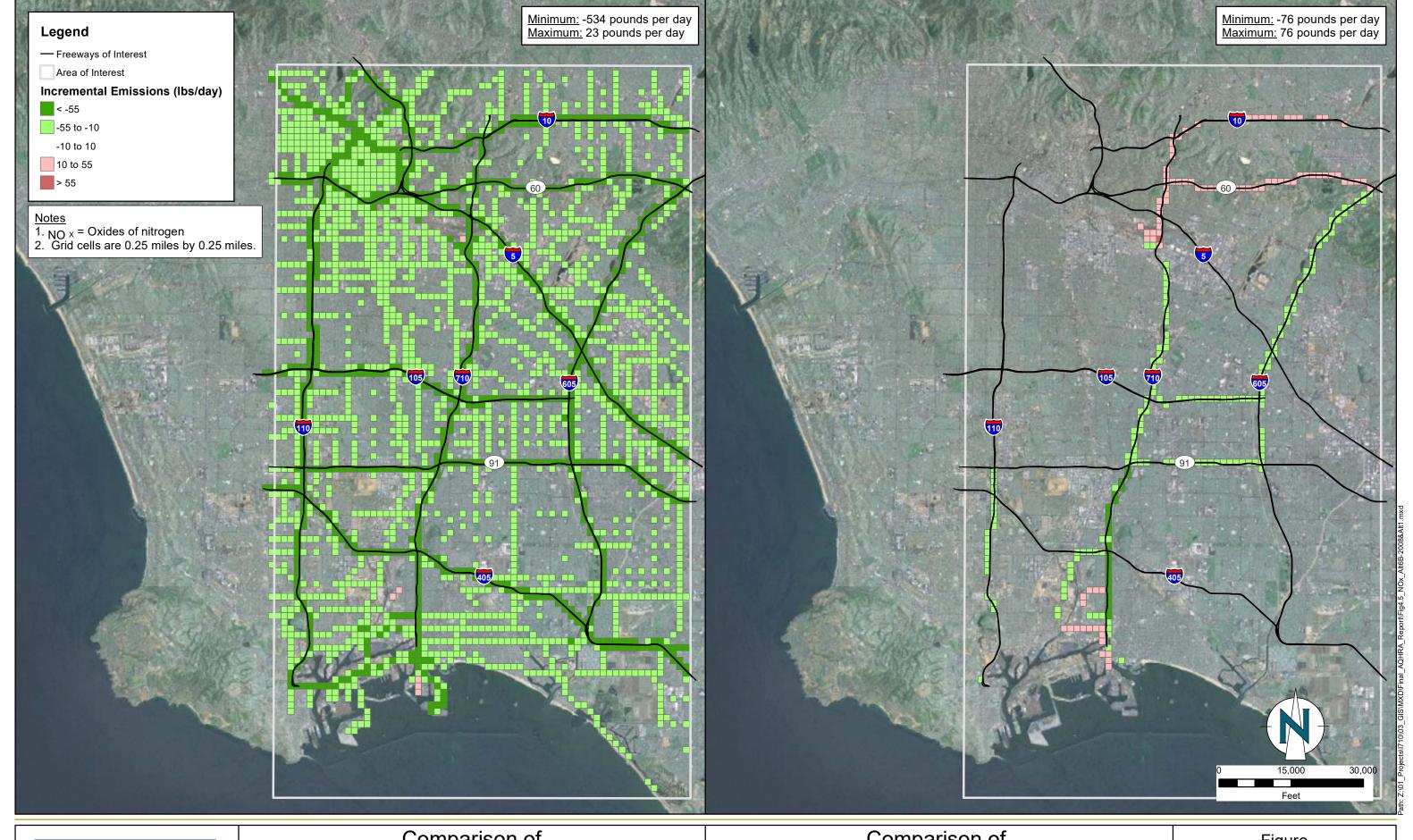
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Comparison of 2035 Alternative 6A to 2008 Baseline NO_X Emissions

Comparison of 2035 Alternative 6A to 2035 Alternative 1 NO_X Emissions

Figure **4.4**

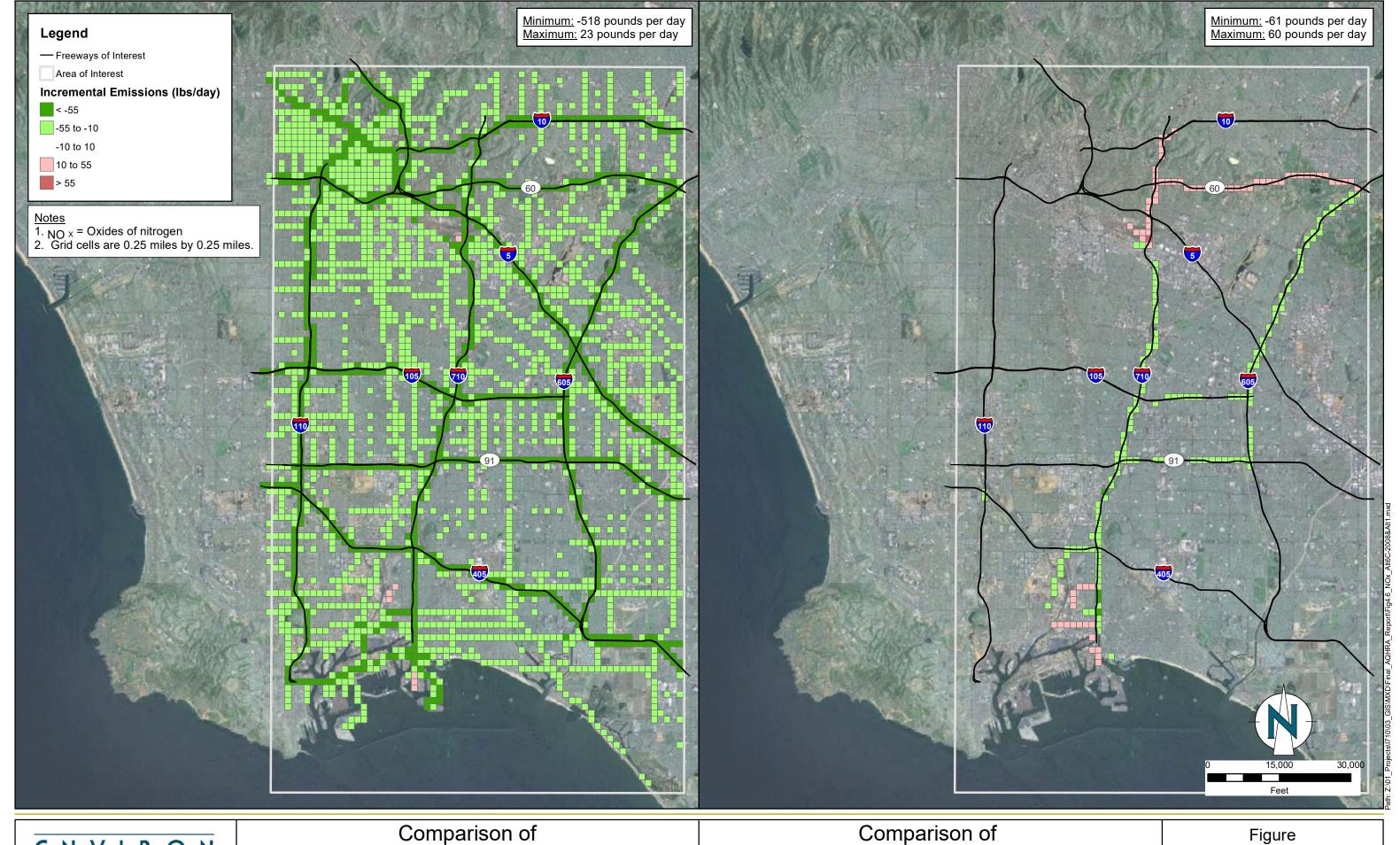




Comparison of 2035 Alternative 6B to 2008 Baseline NO_X Emissions

Comparison of 2035 Alternative 6B to 2035 Alternative 1 NO_X Emissions

Figure 4.5



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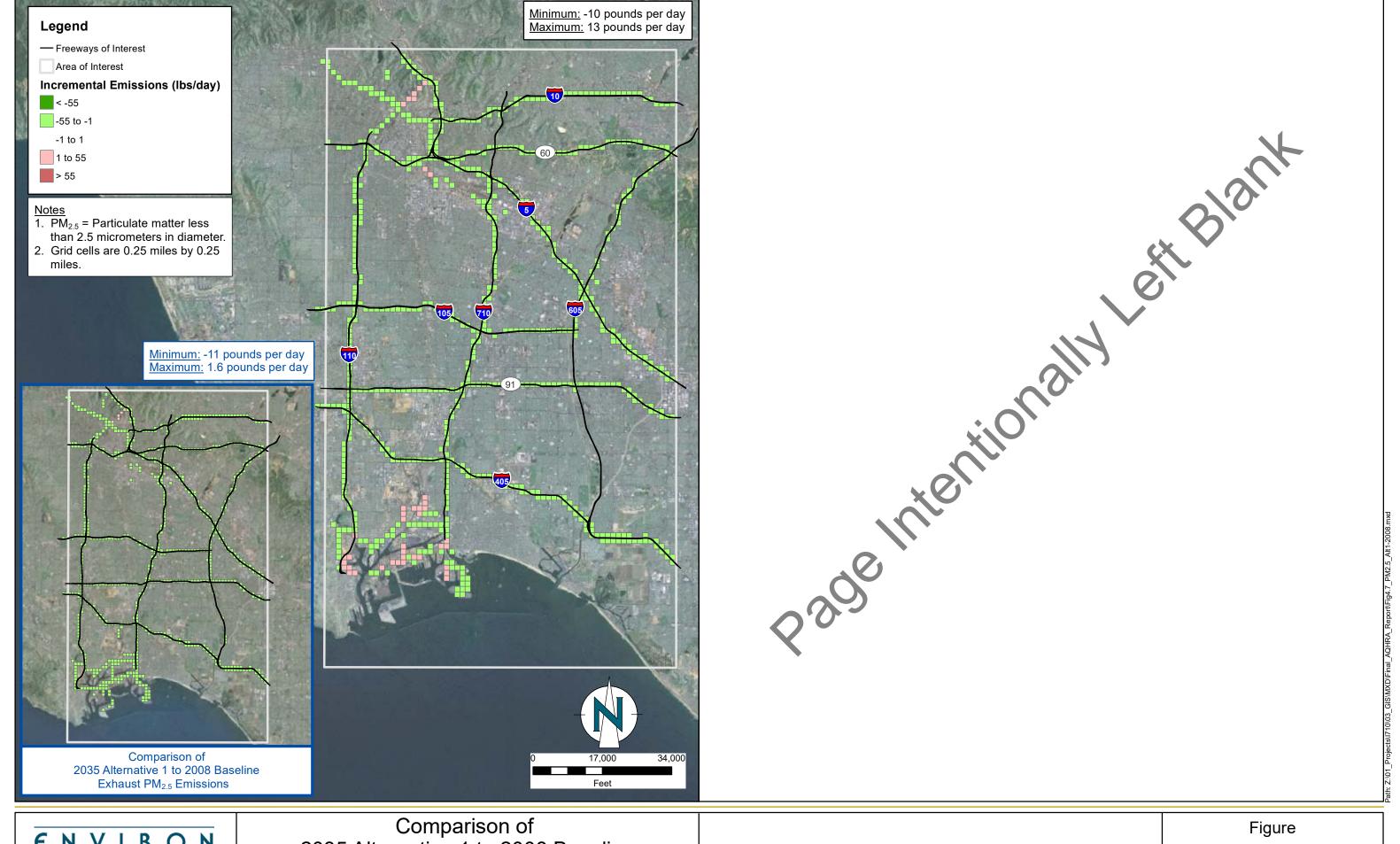
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Comparison of 2035 Alternative 6C to 2008 Baseline NO_X Emissions

Comparison of 2035 Alternative 1 NO_X Emissions

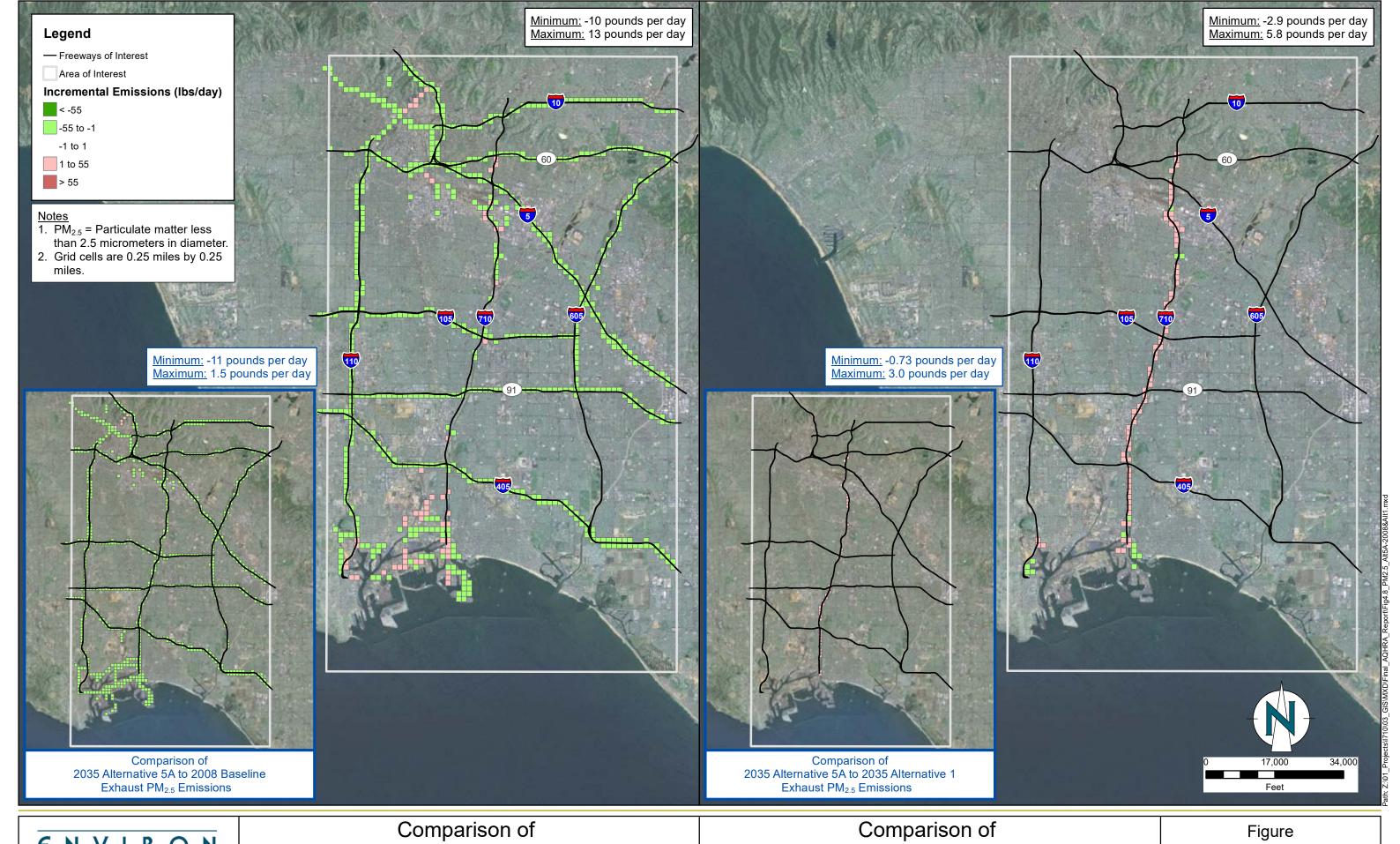
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2035 Alternative 1 to 2008 Baseline Total PM_{2.5} Emissions

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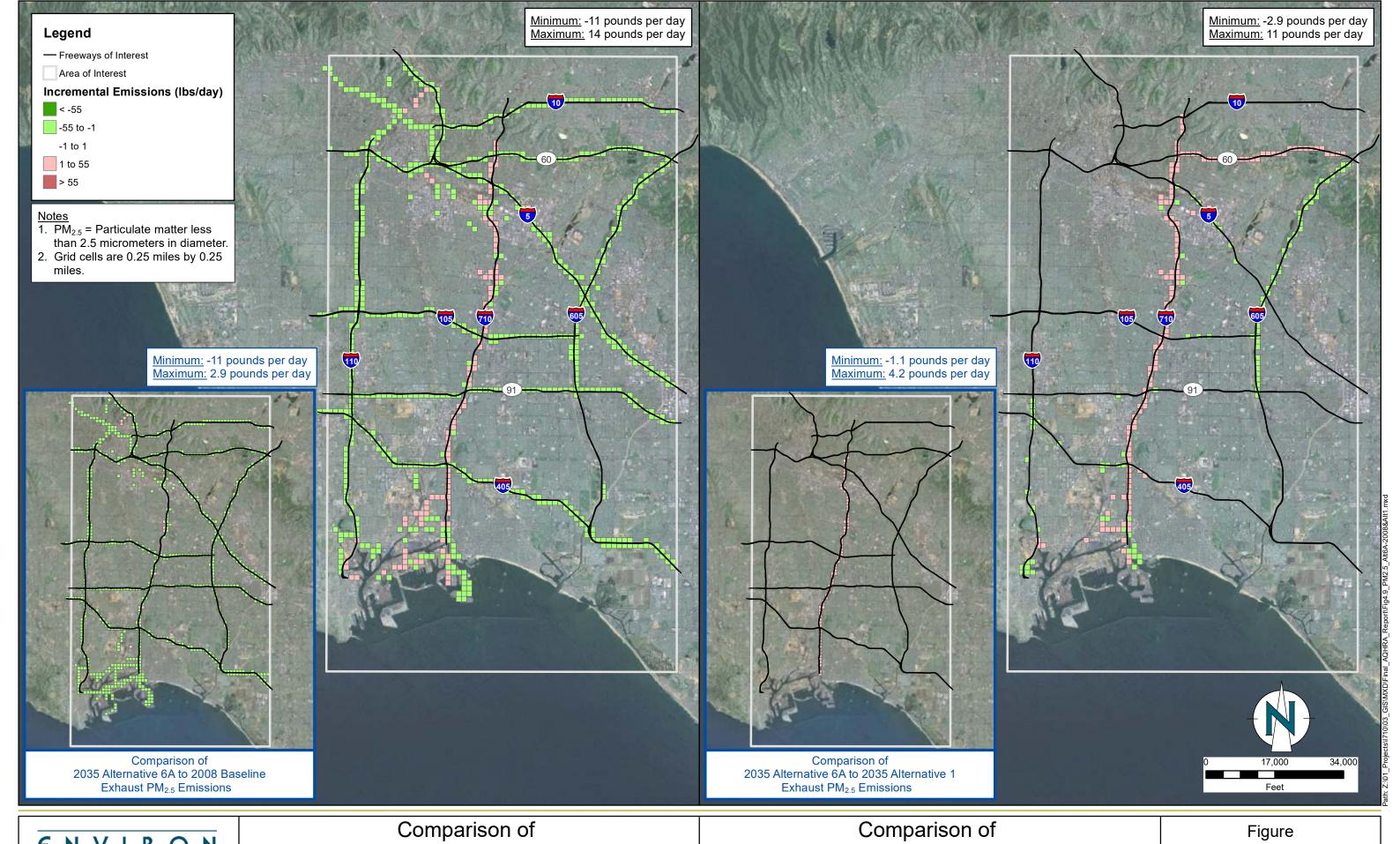


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Comparison of 2035 Alternative 5A to 2008 Baseline Total PM_{2.5} Emissions

2035 Alternative 5A to 2035 Alternative 1
Total PM_{2.5} Emissions

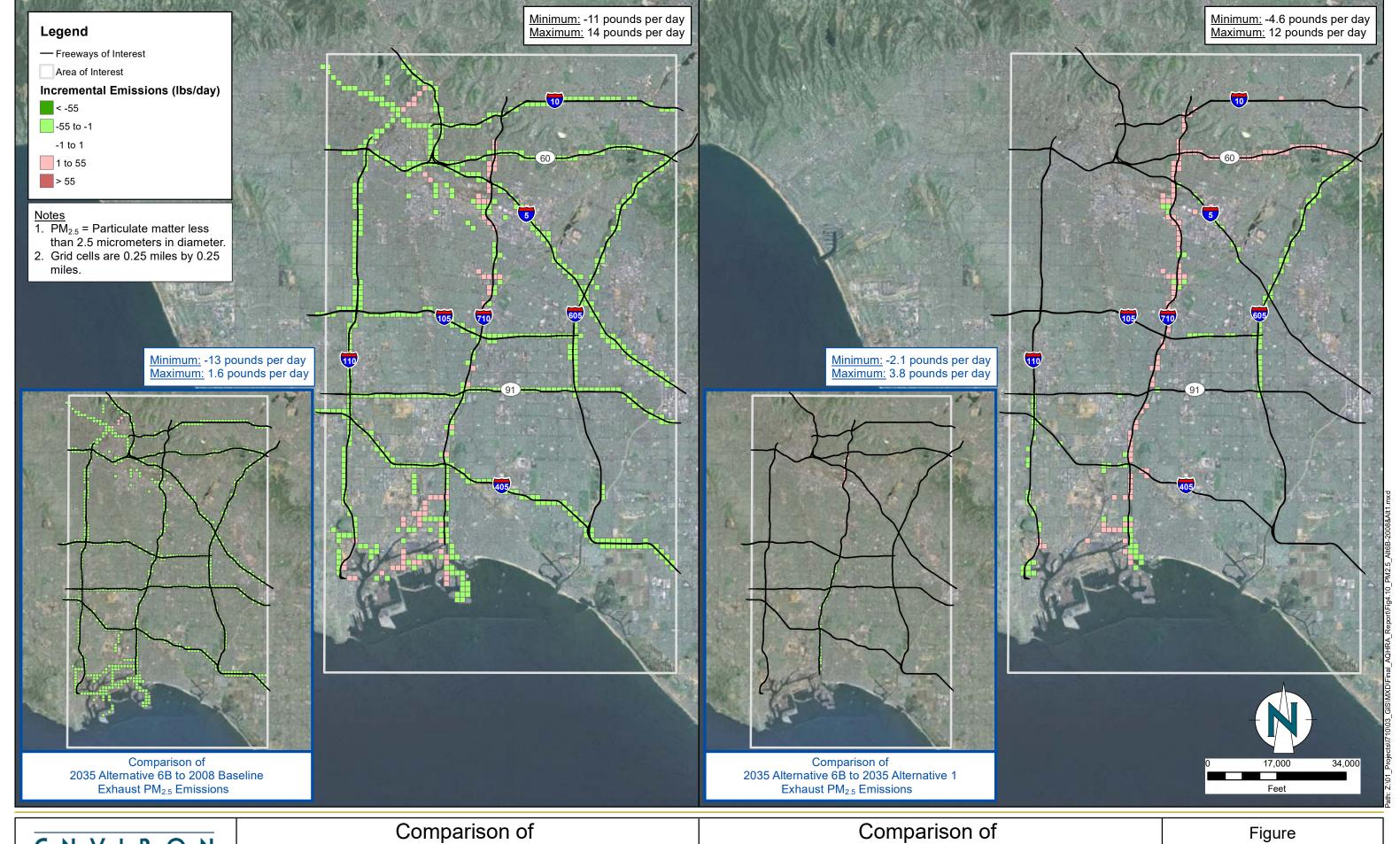
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Comparison of 2035 Alternative 6A to 2008 Baseline Total PM_{2.5} Emissions

2035 Alternative 6A to 2035 Alternative 1
Total PM_{2.5} Emissions

Figure 4.9





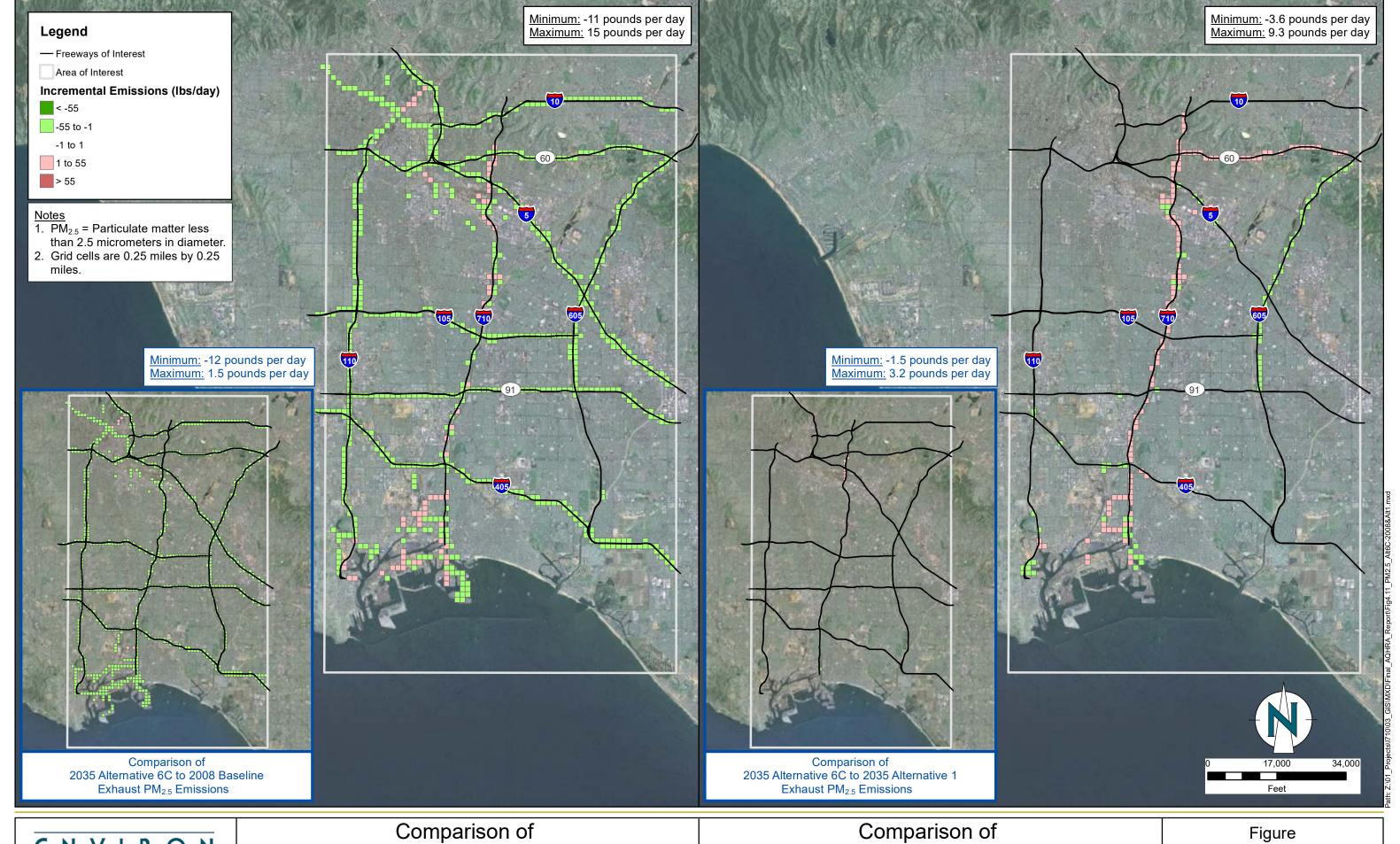
Comparison of 2035 Alternative 6B to 2008 Baseline Total PM_{2.5} Emissions

2035 Alternative 6B to 2035 Alternative 1
Total PM_{2.5} Emissions

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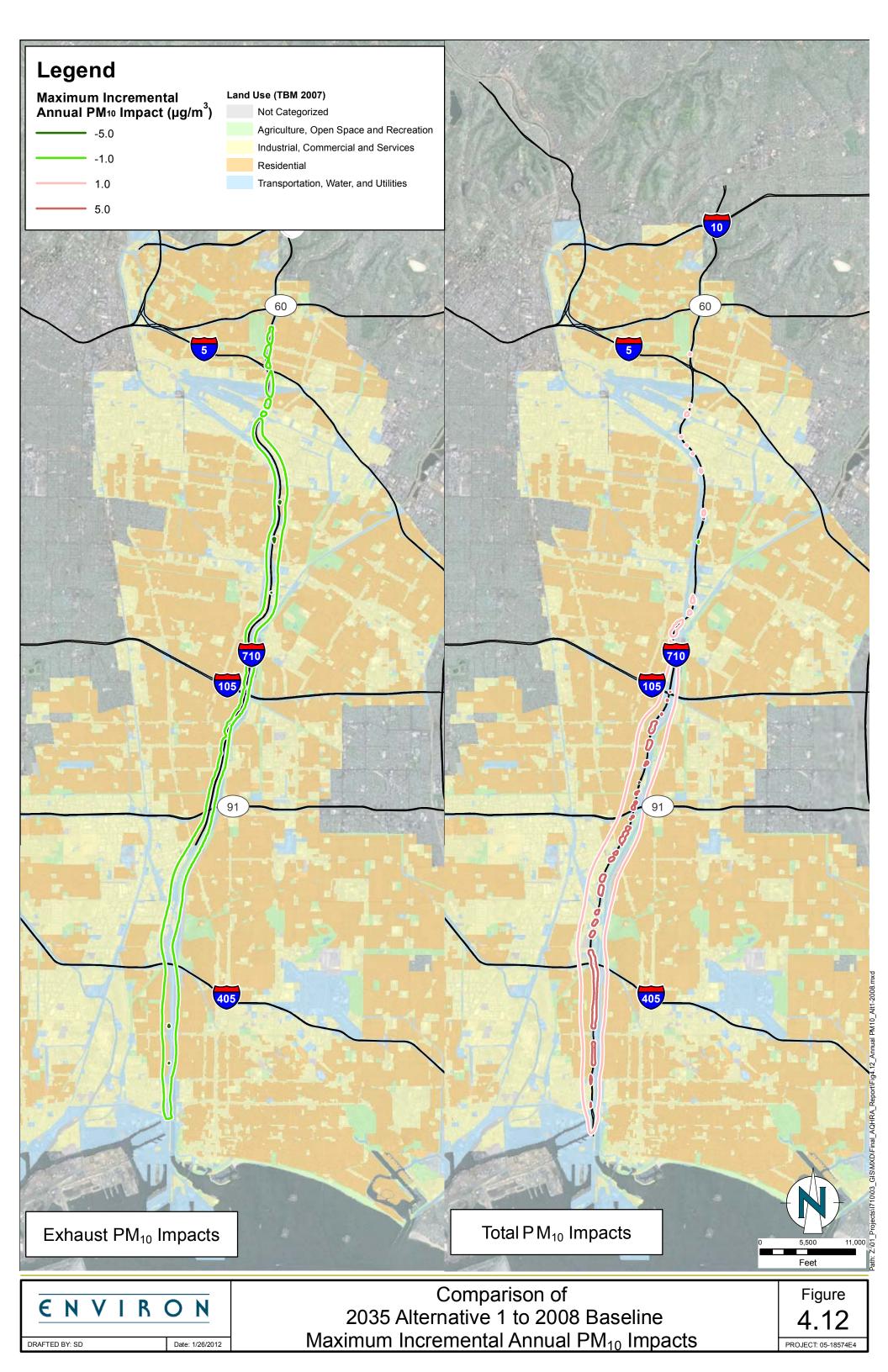


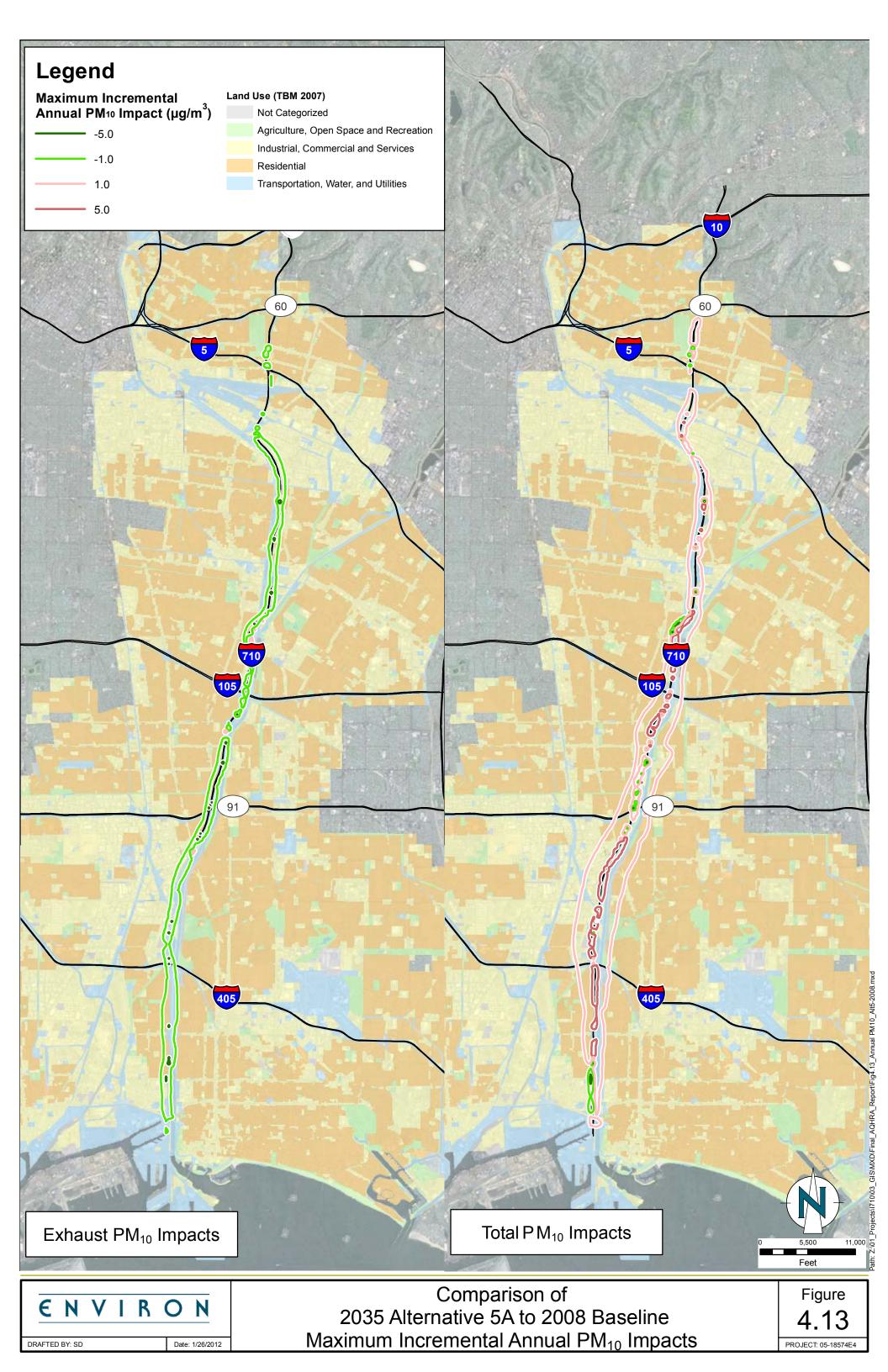
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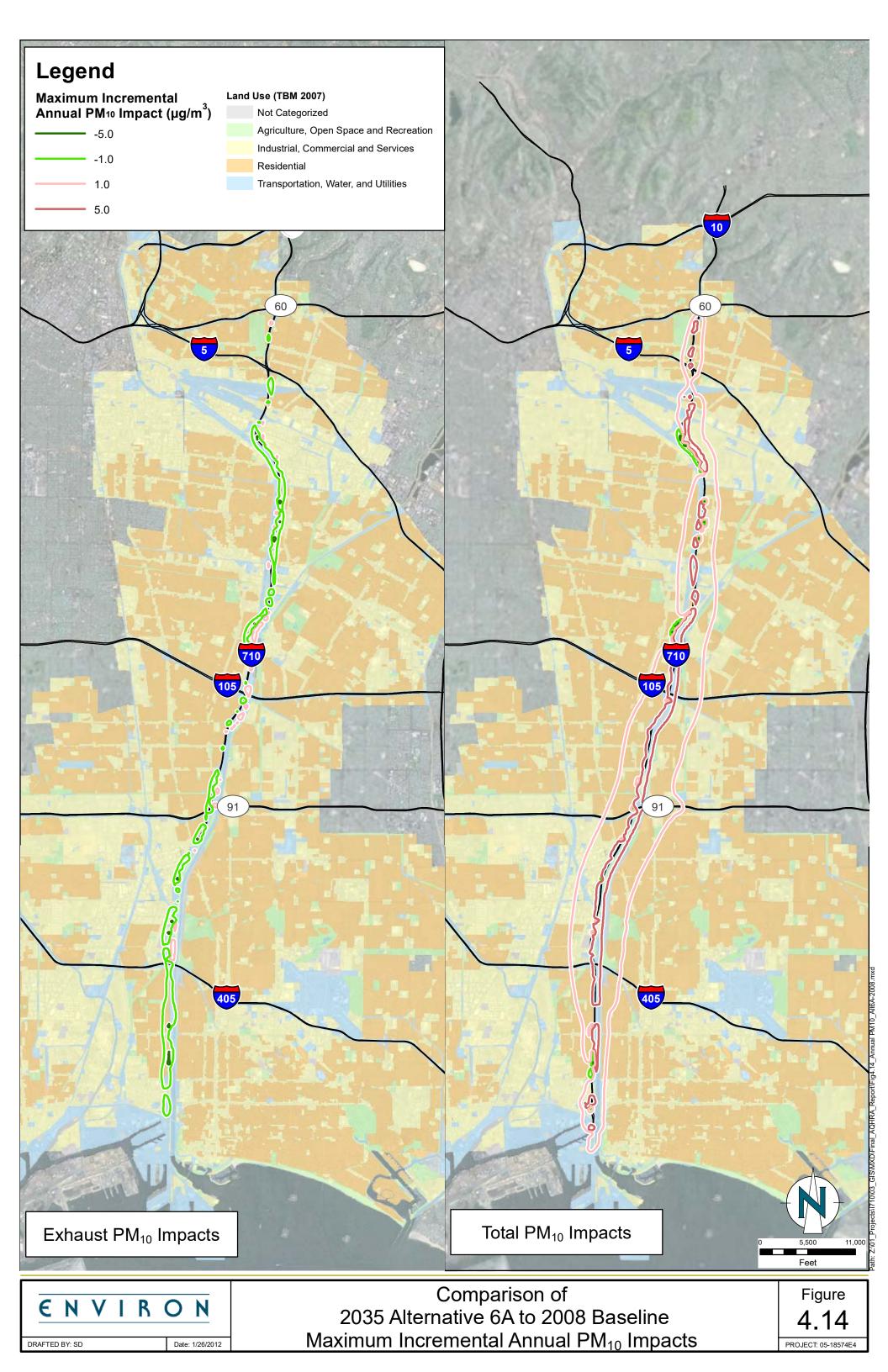
Comparison of 2035 Alternative 6C to 2008 Baseline Total PM_{2.5} Emissions

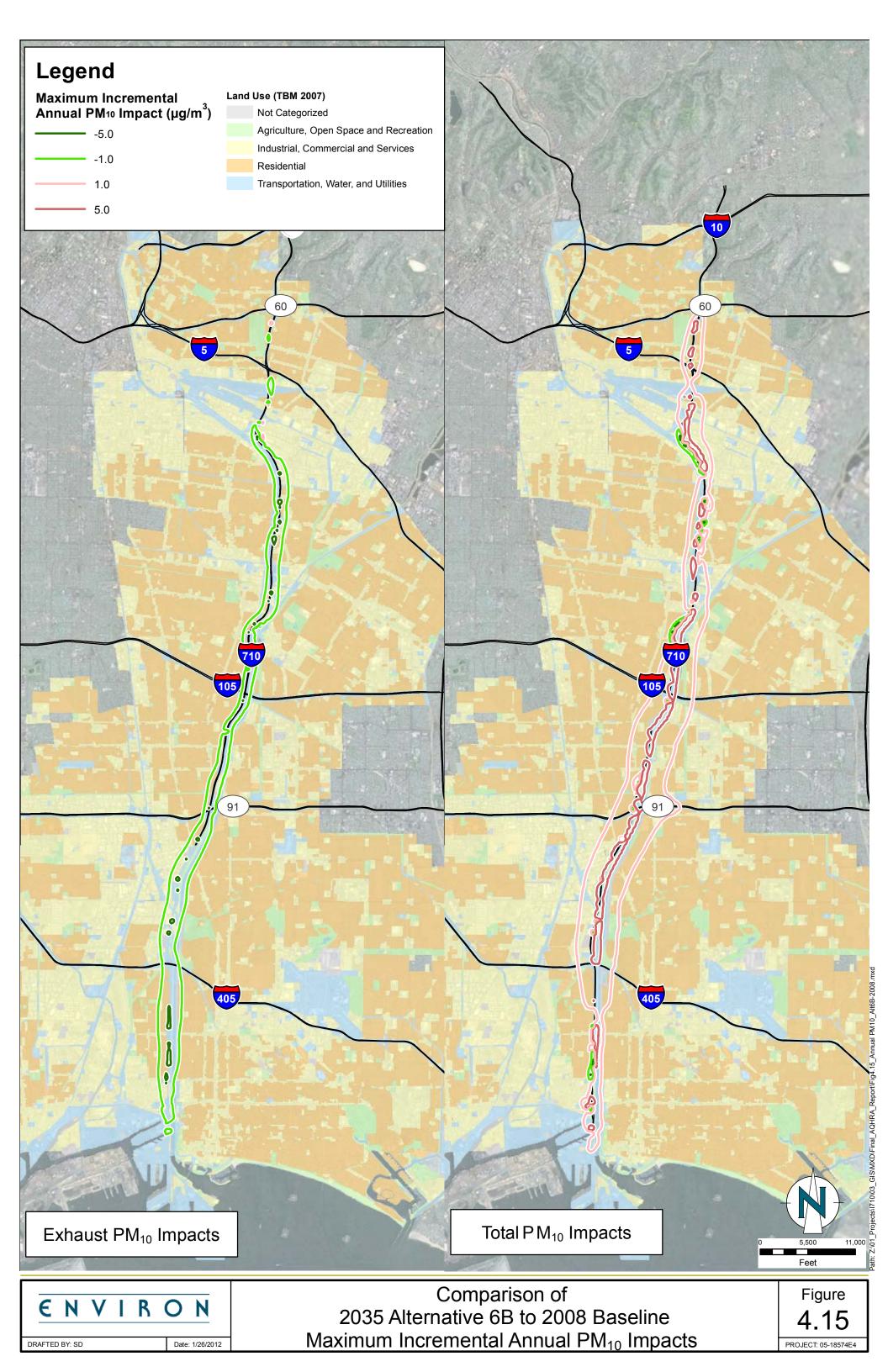
2035 Alternative 6C to 2035 Alternative 1
Total PM_{2.5} Emissions

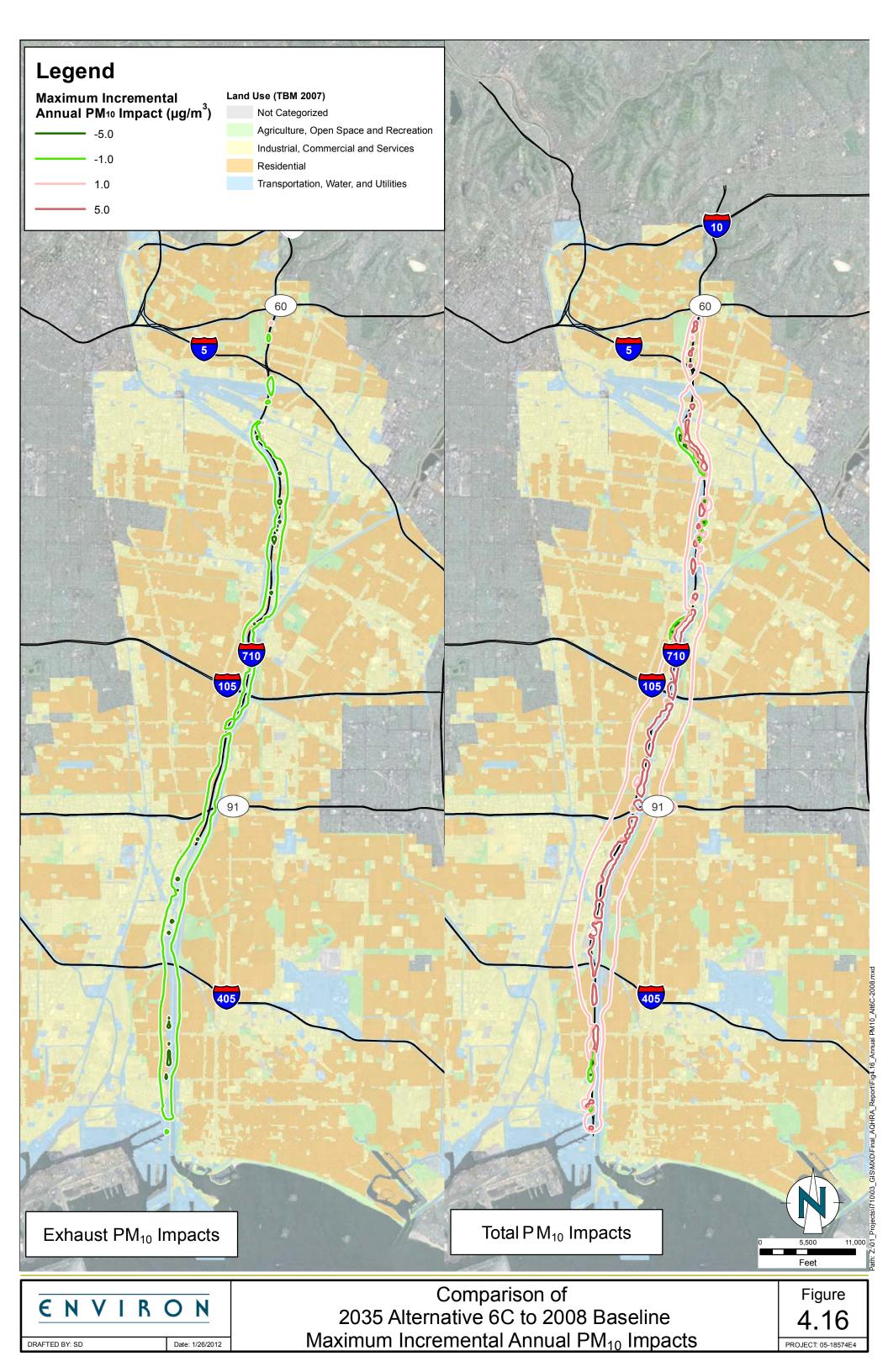
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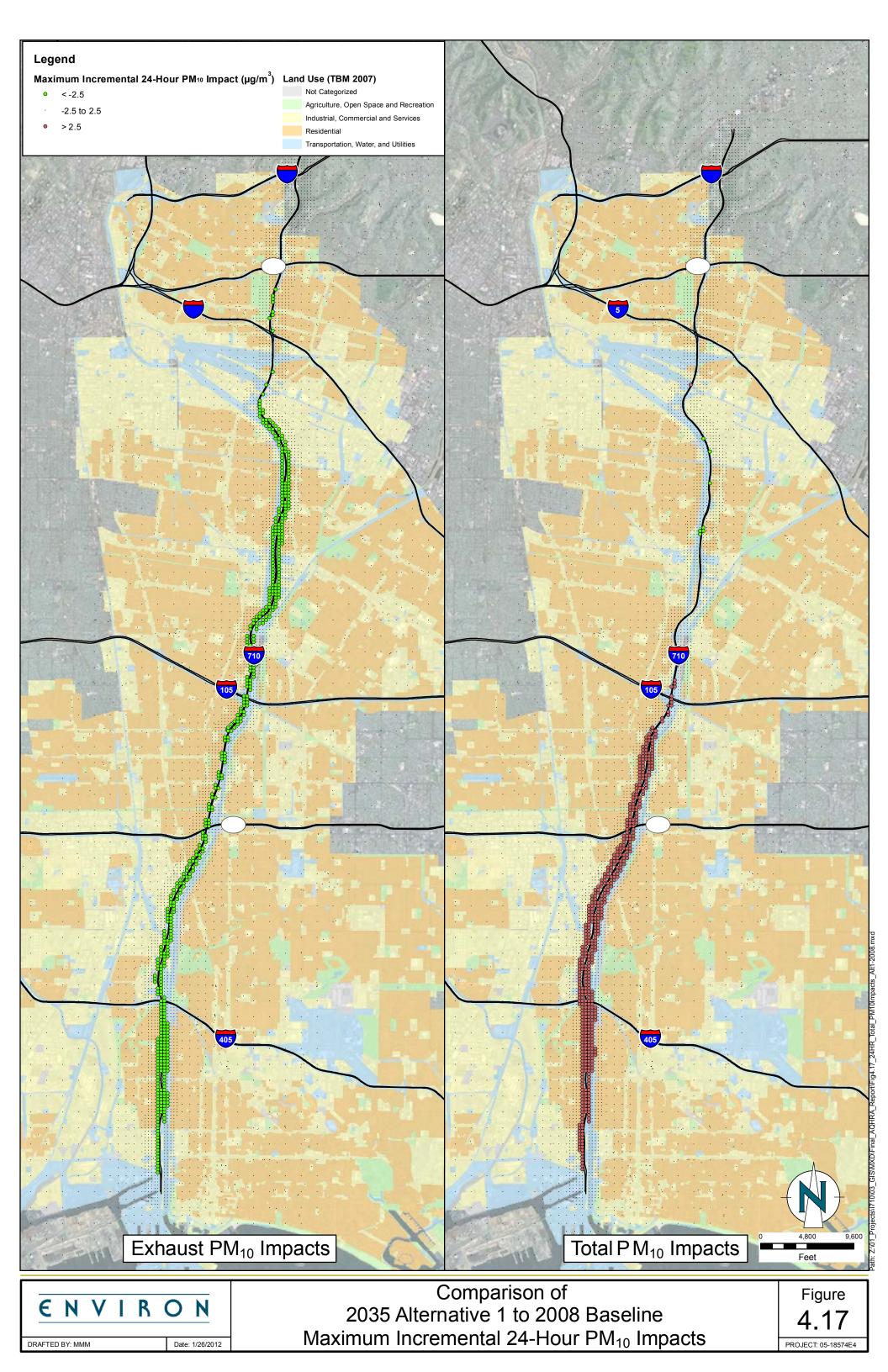


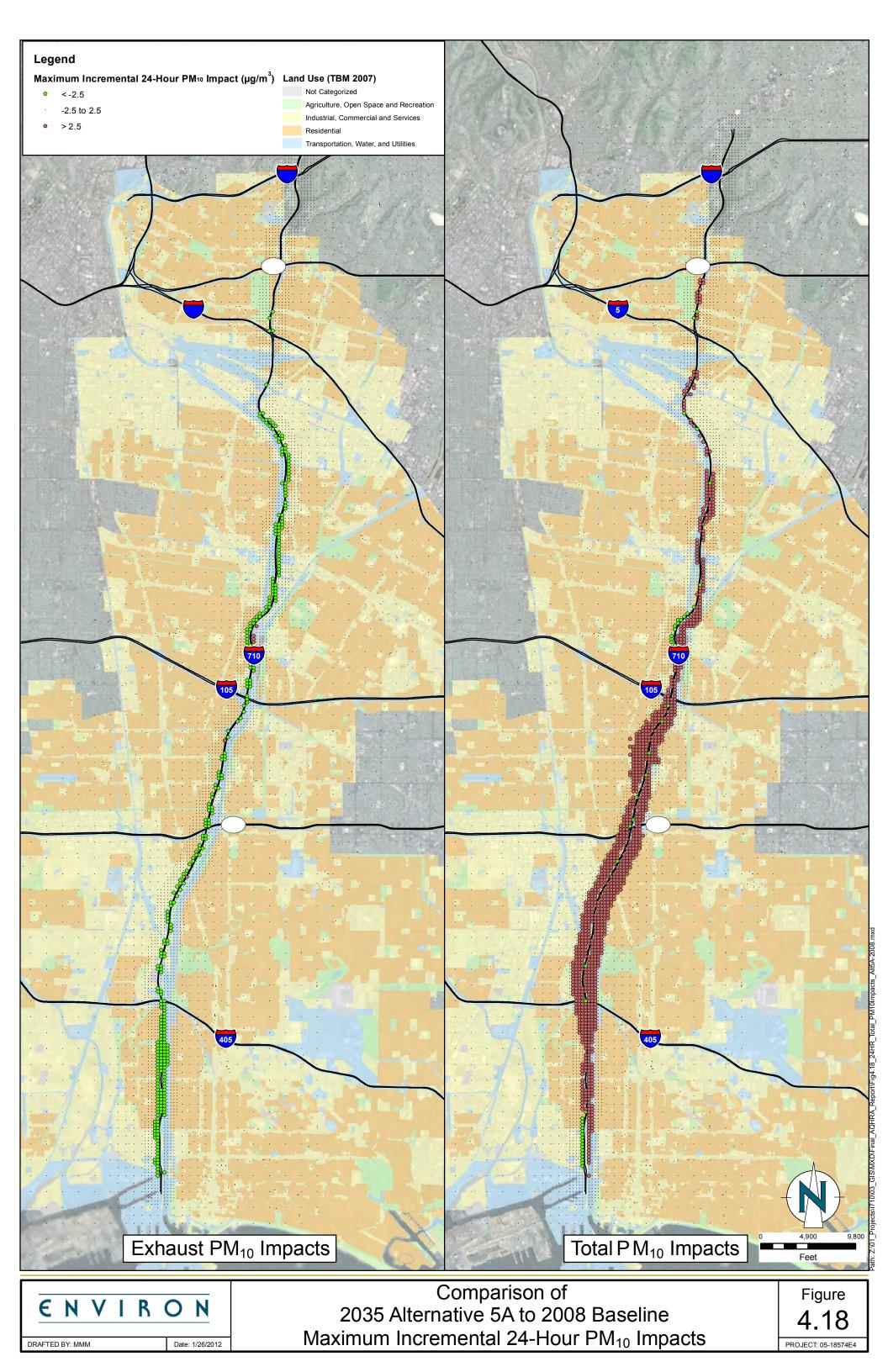


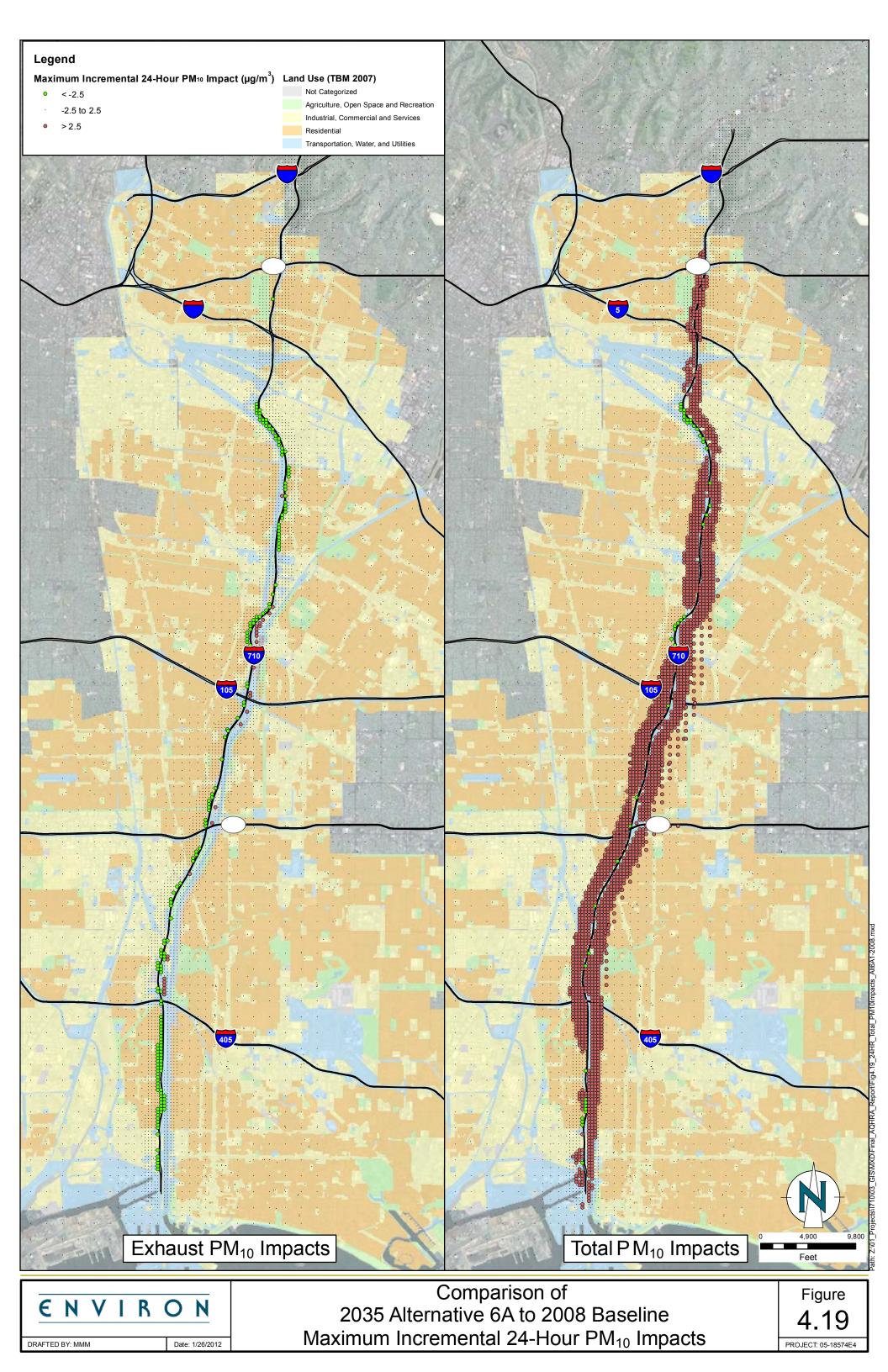


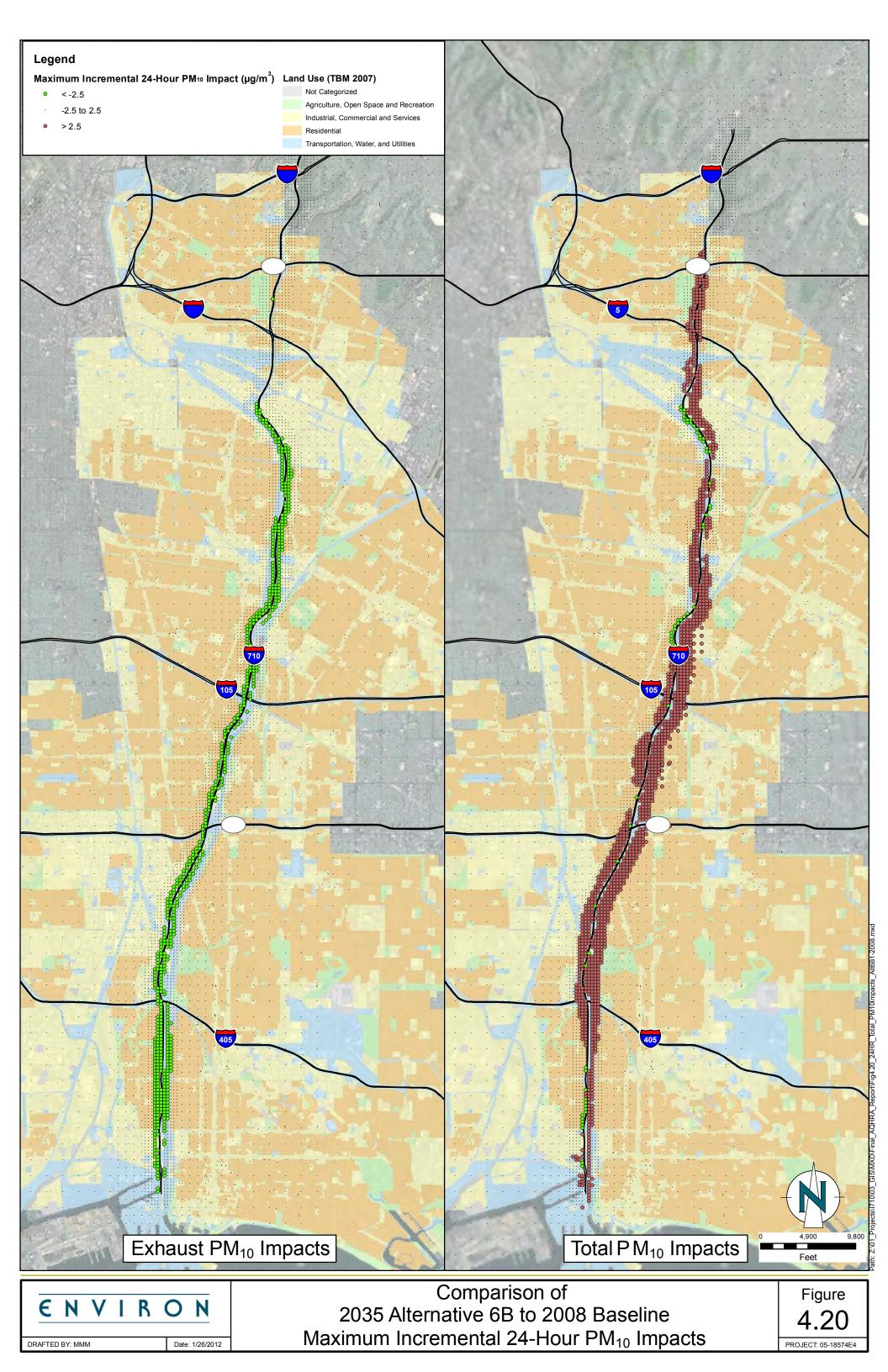


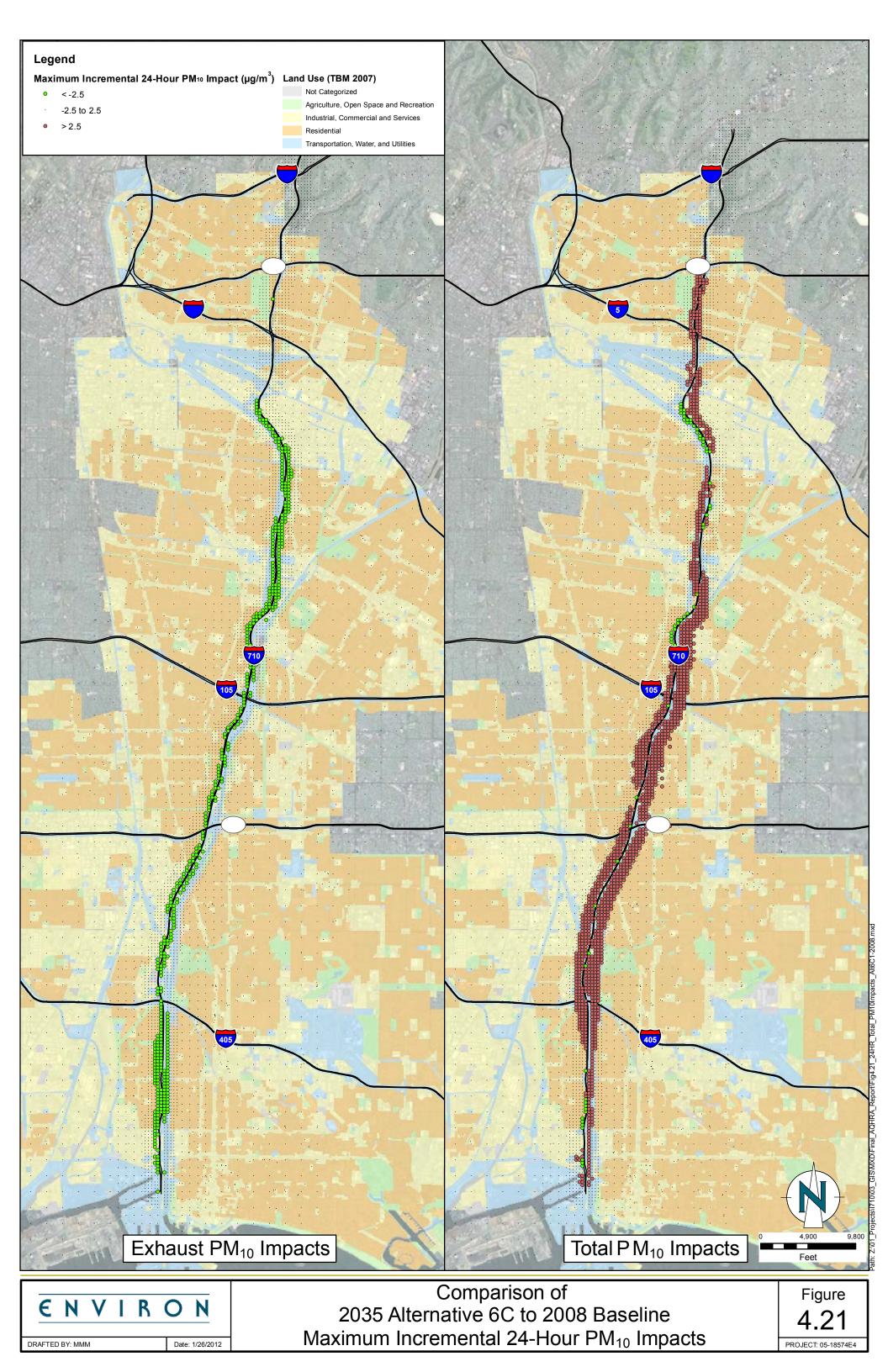


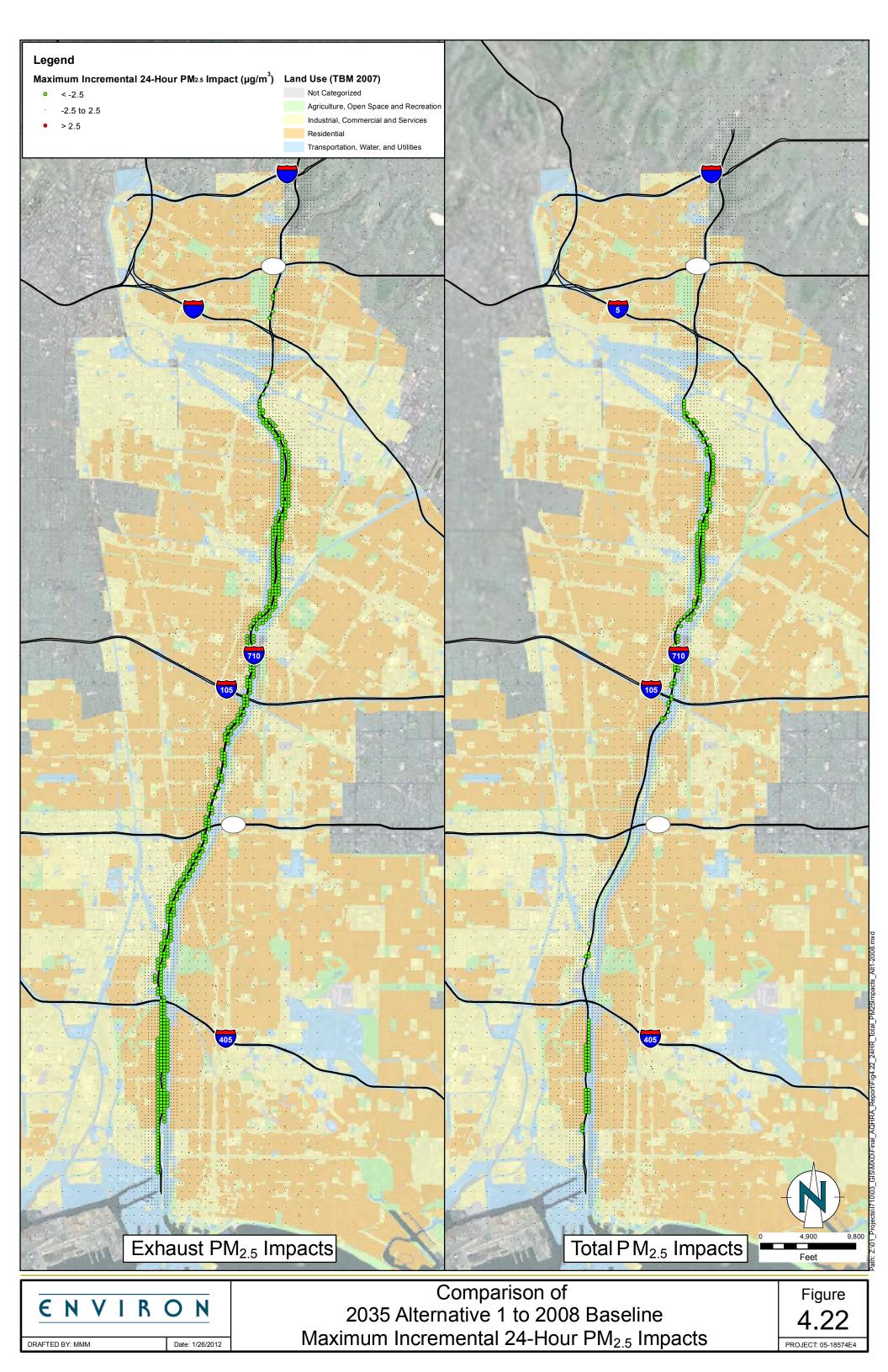


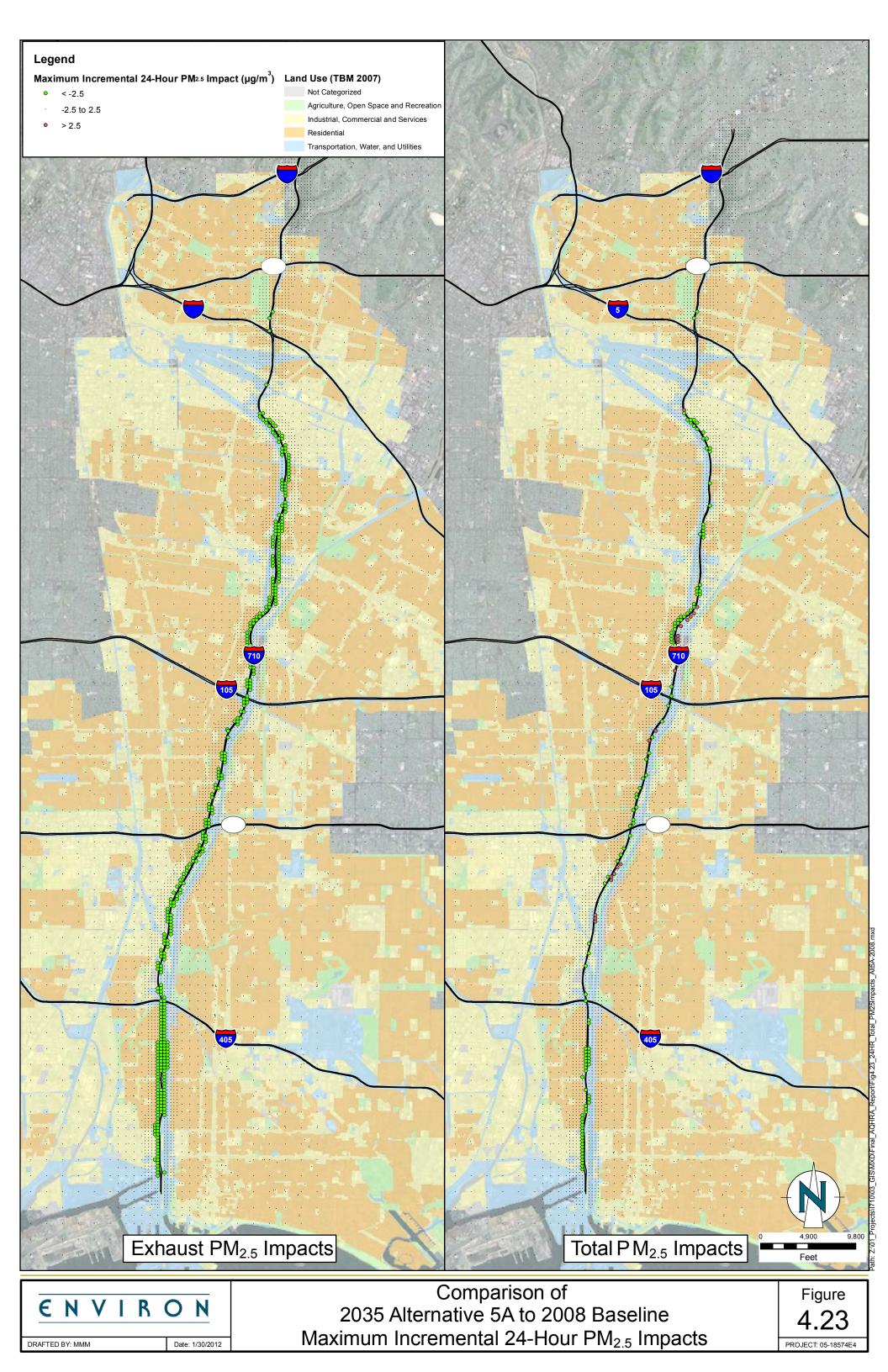


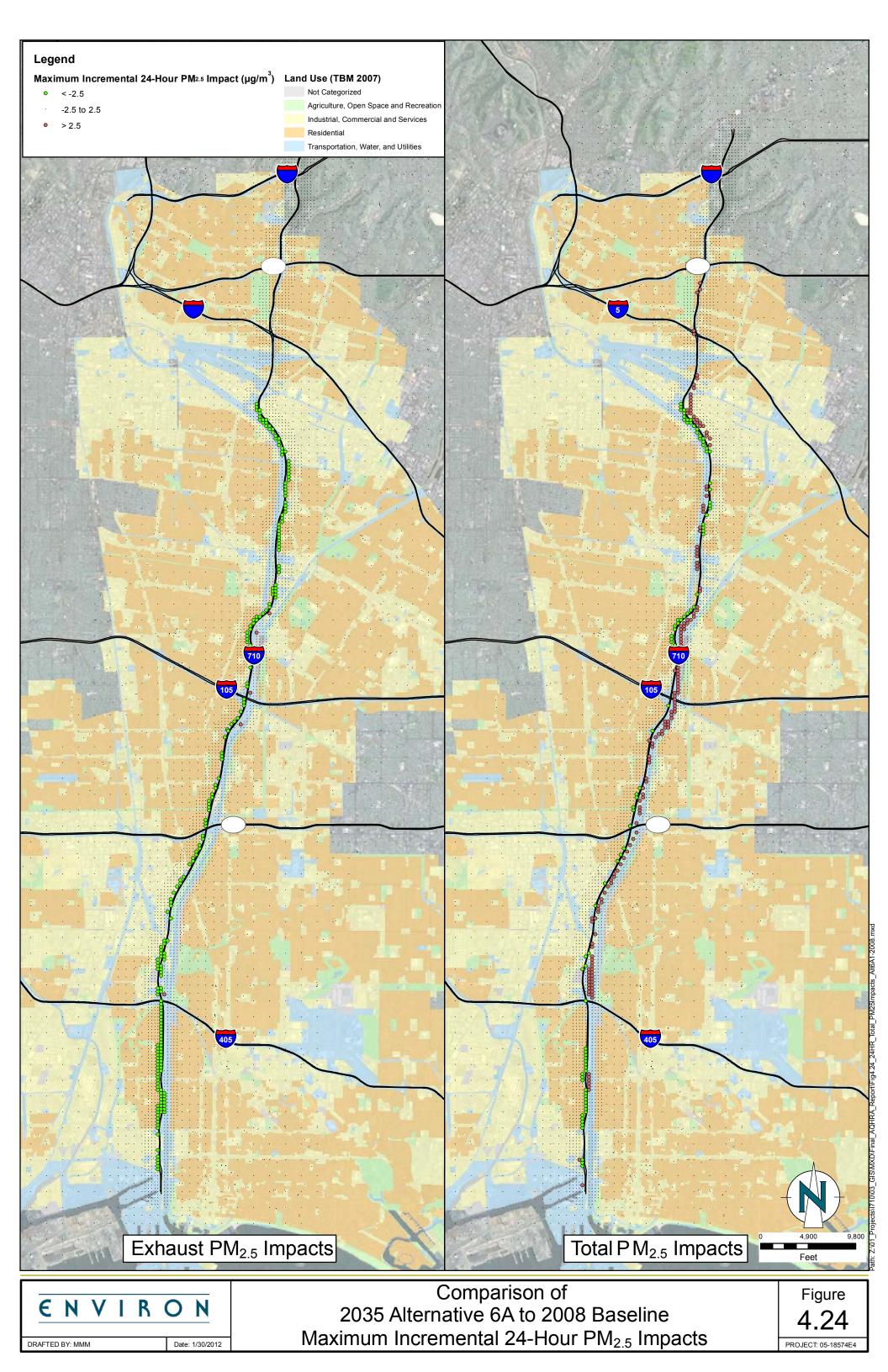


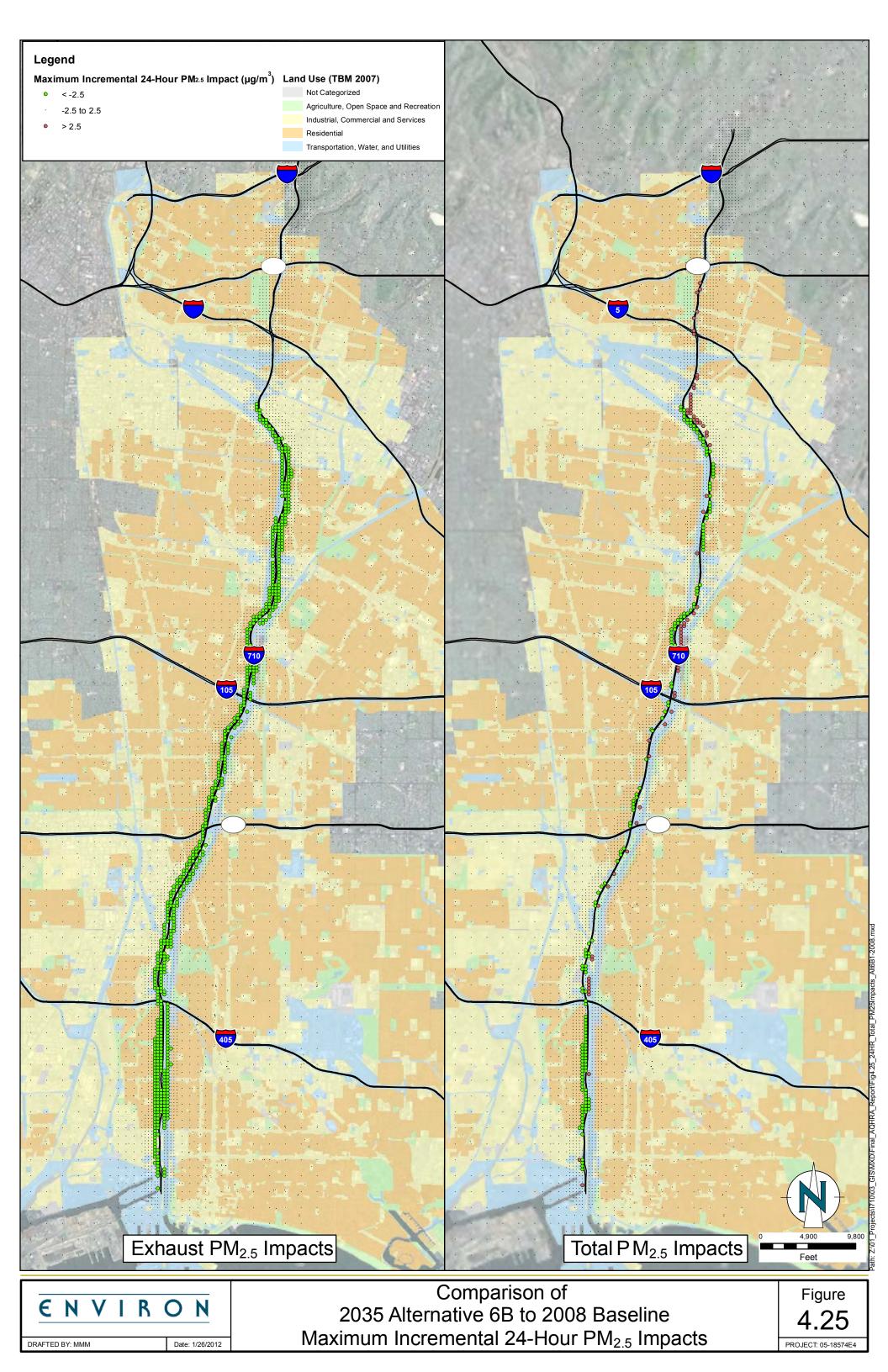


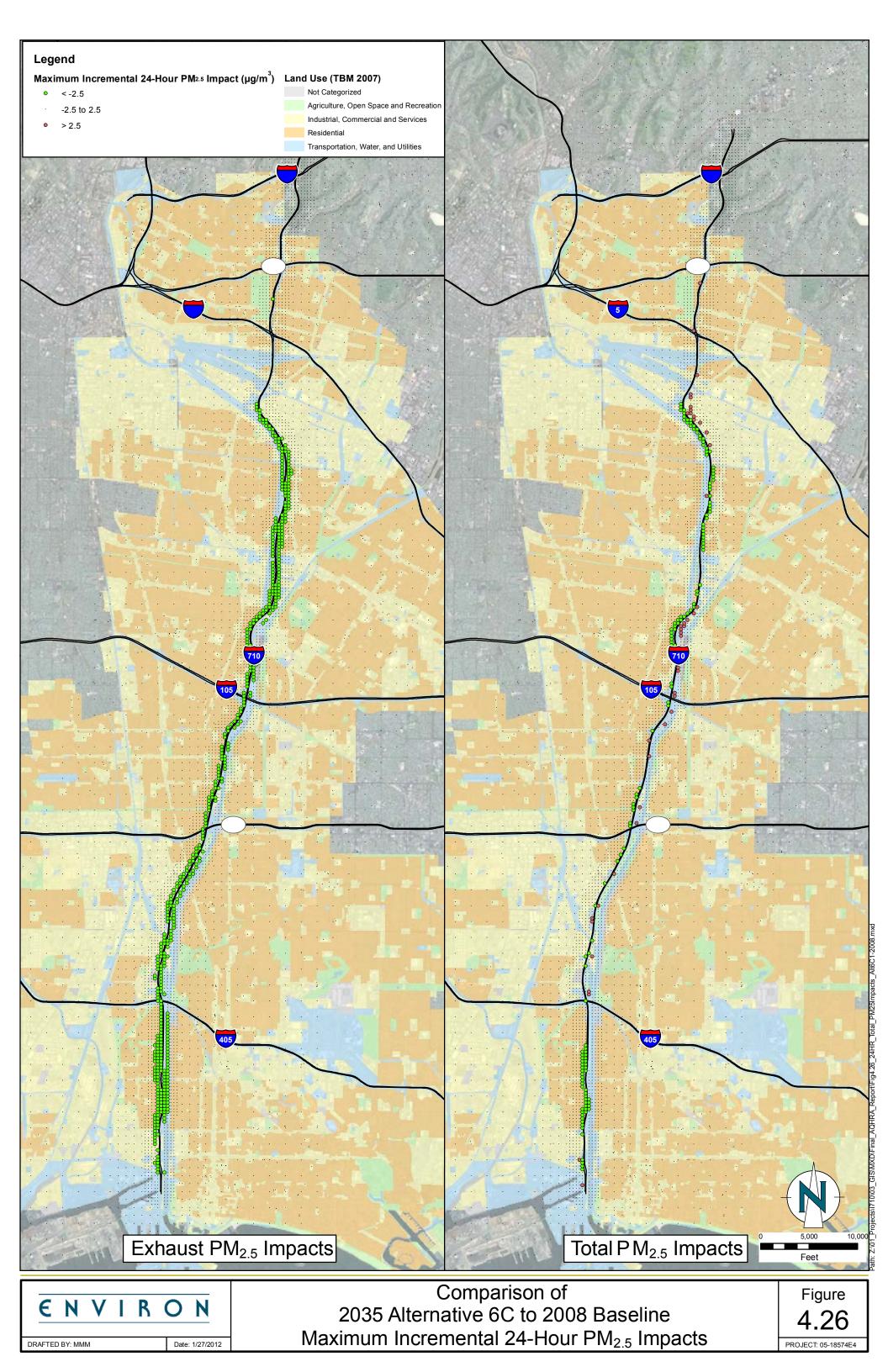


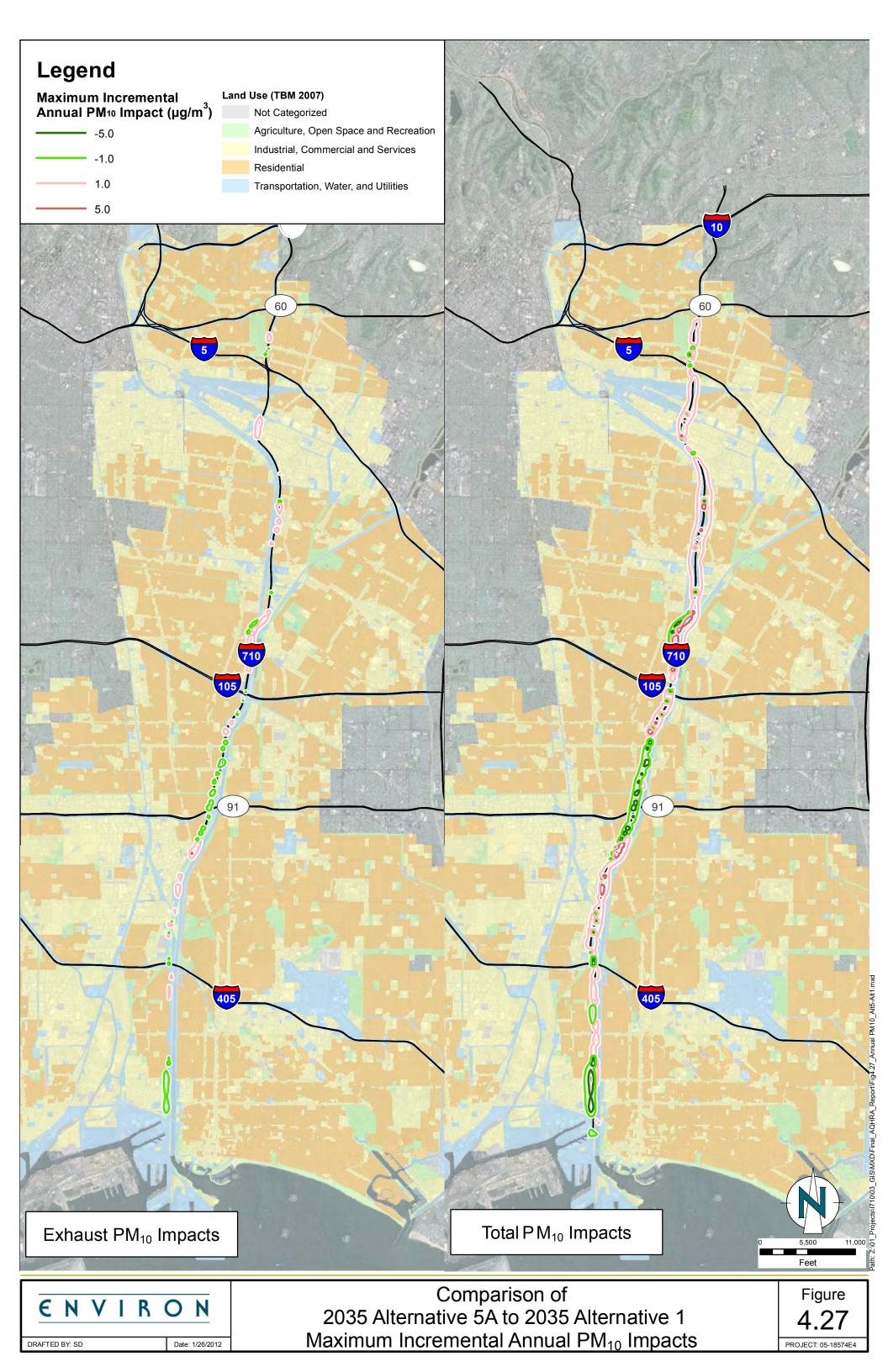


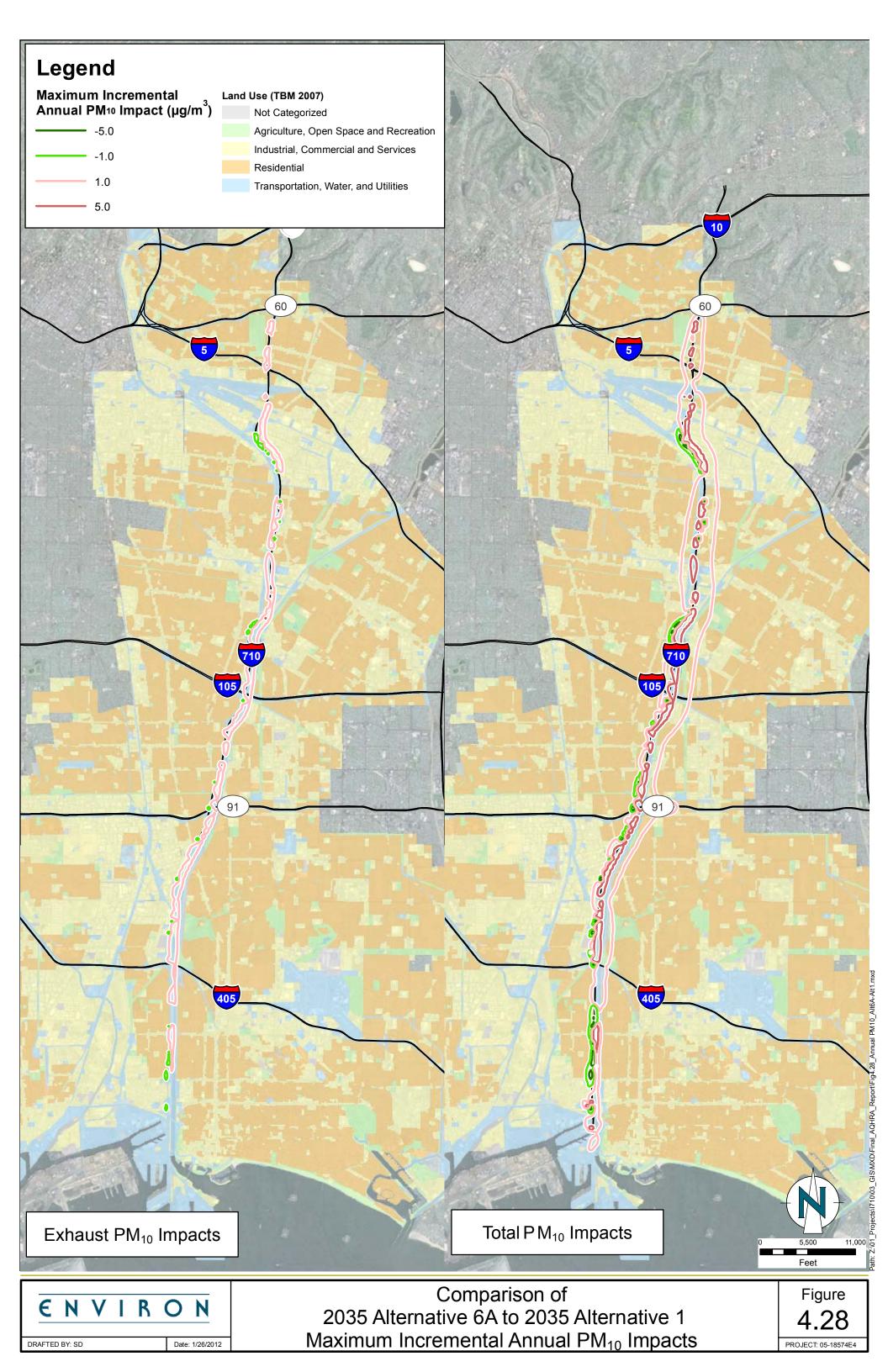


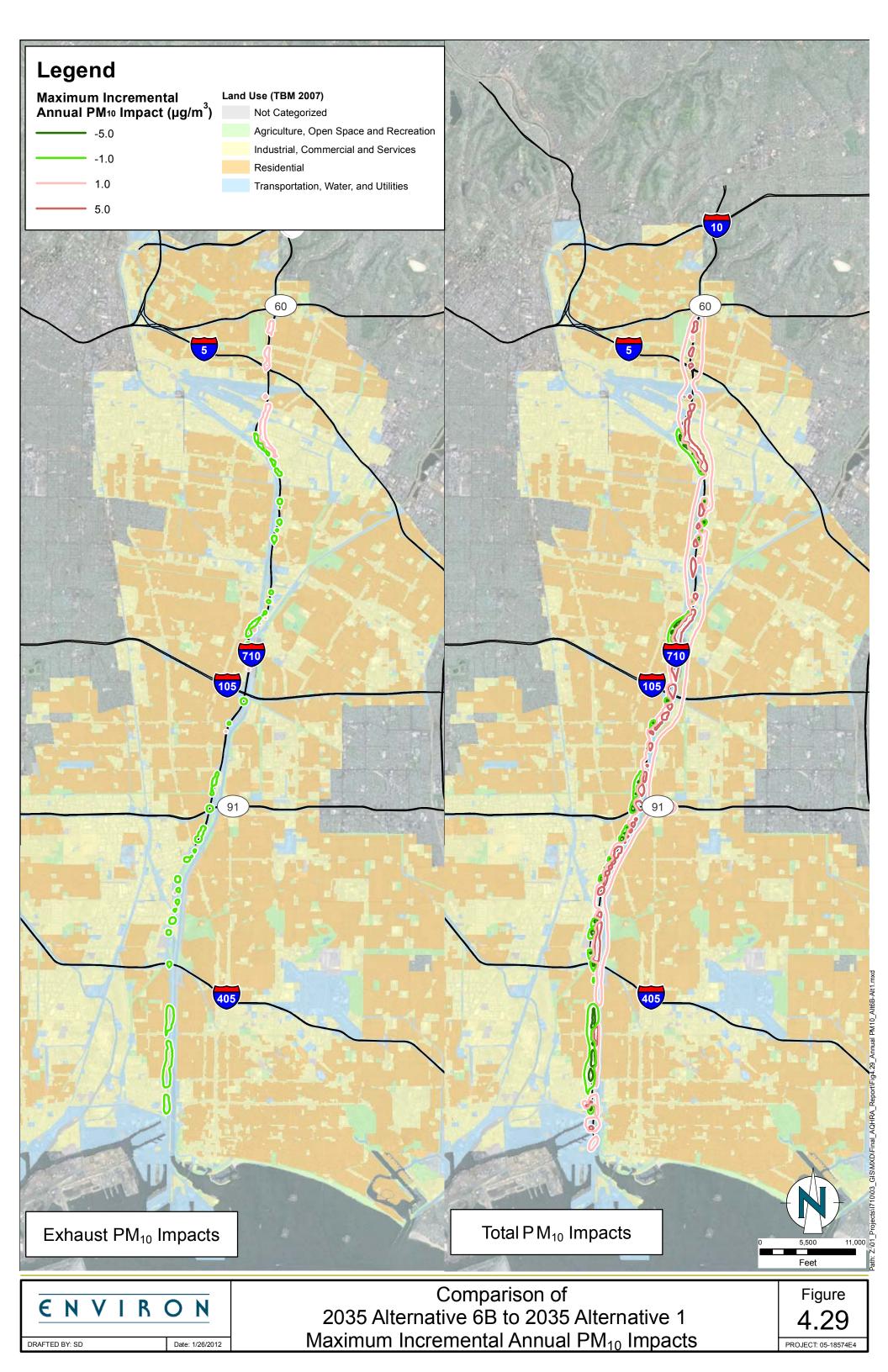


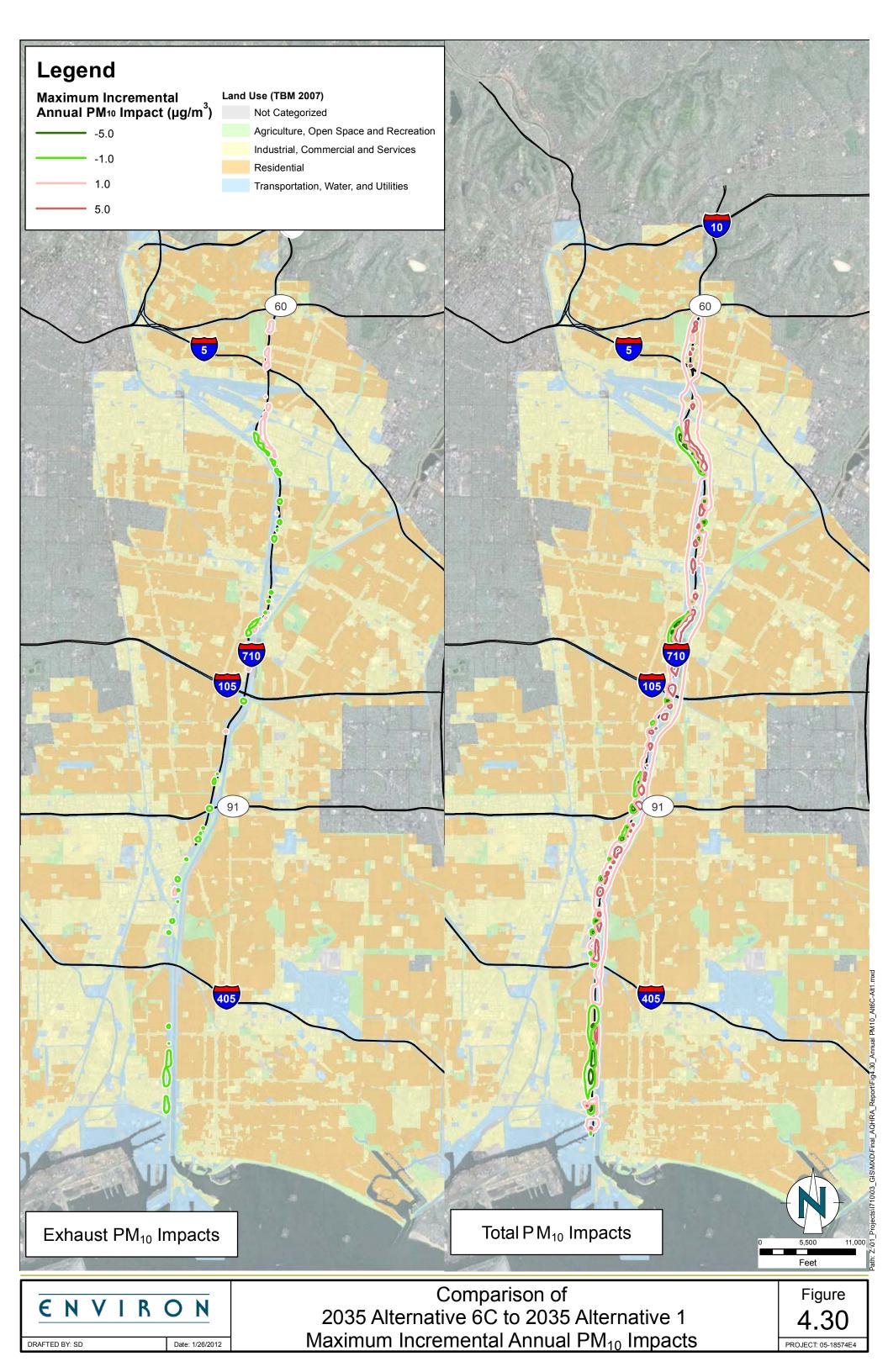


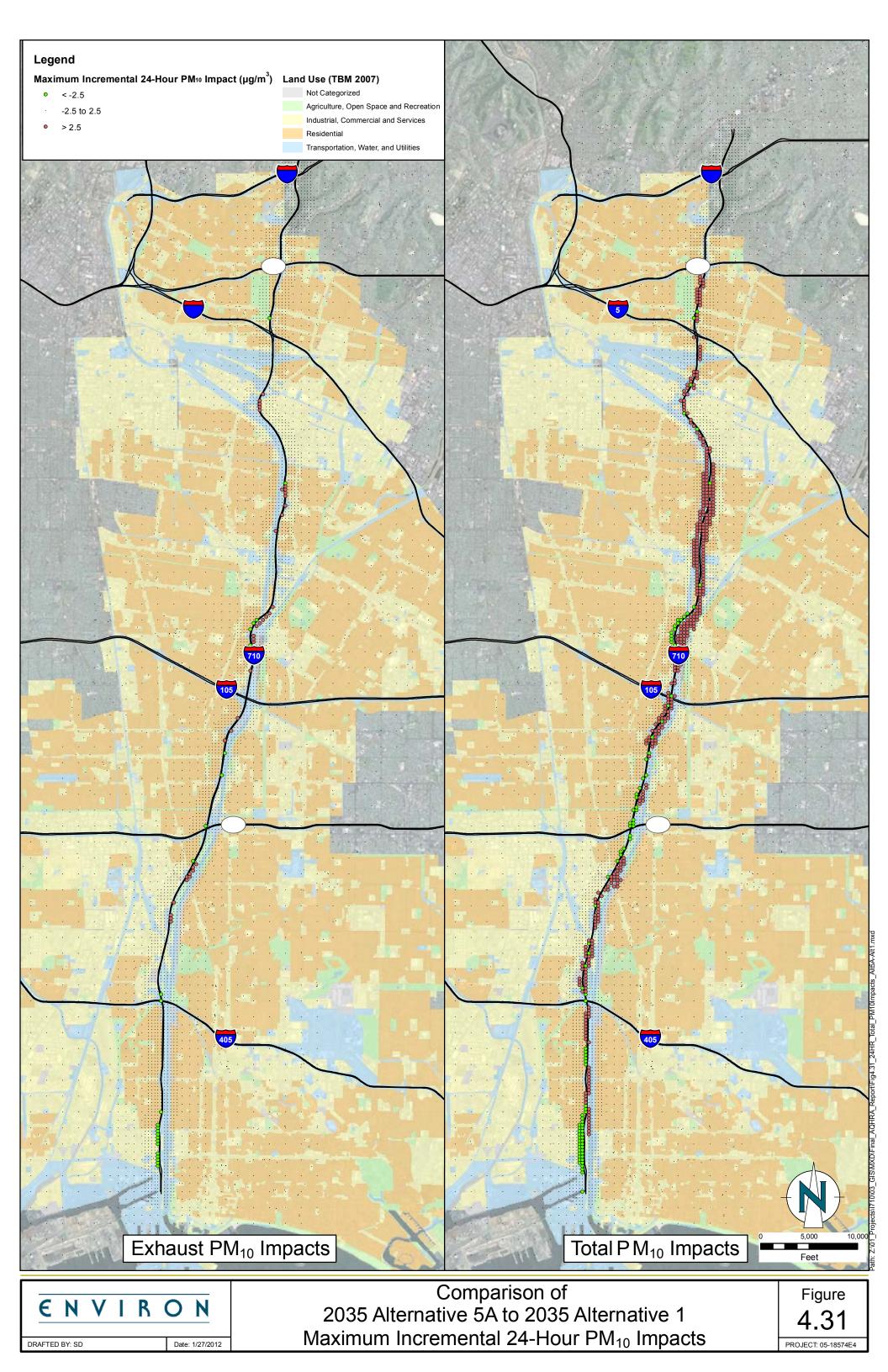


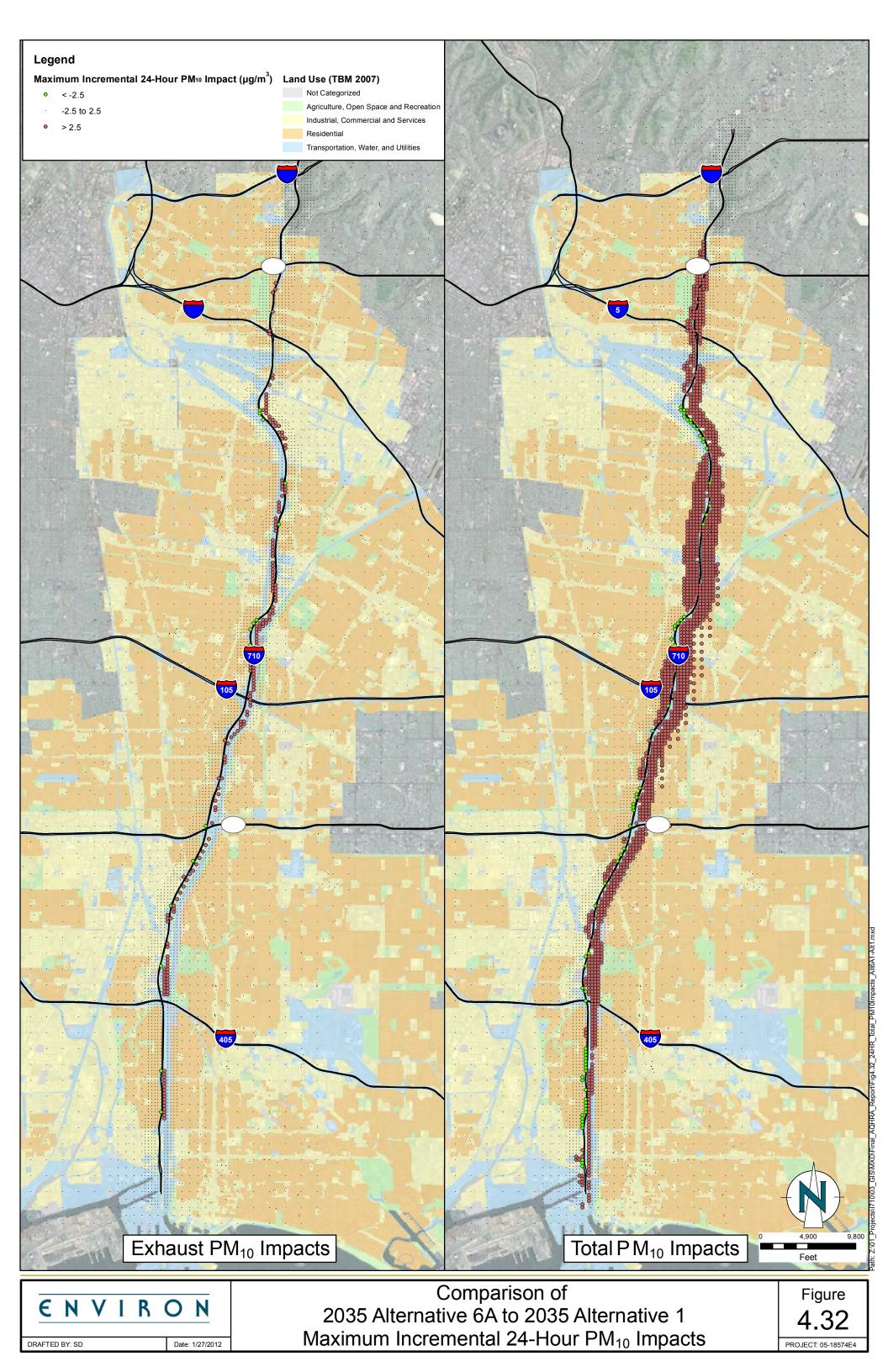


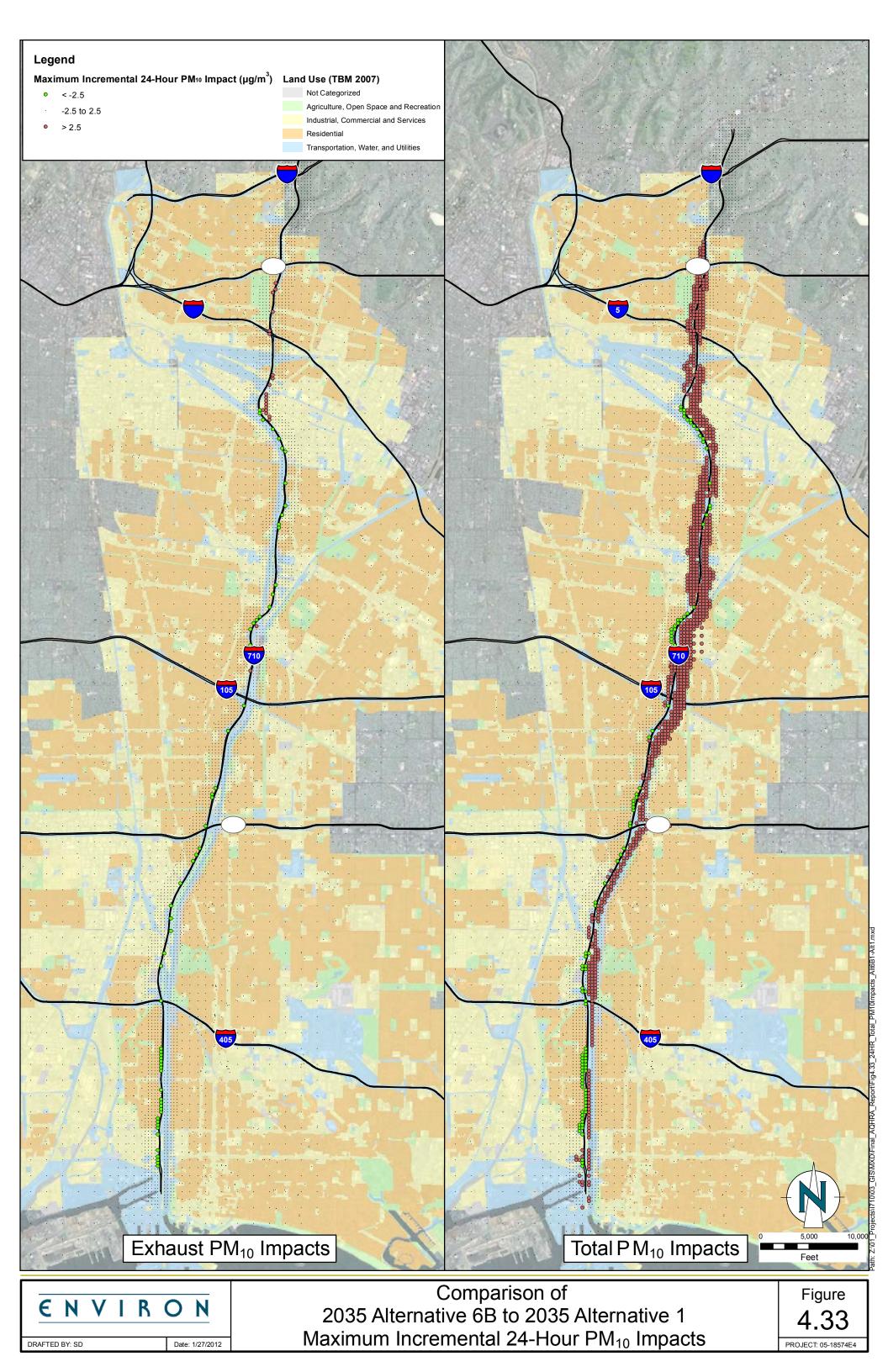


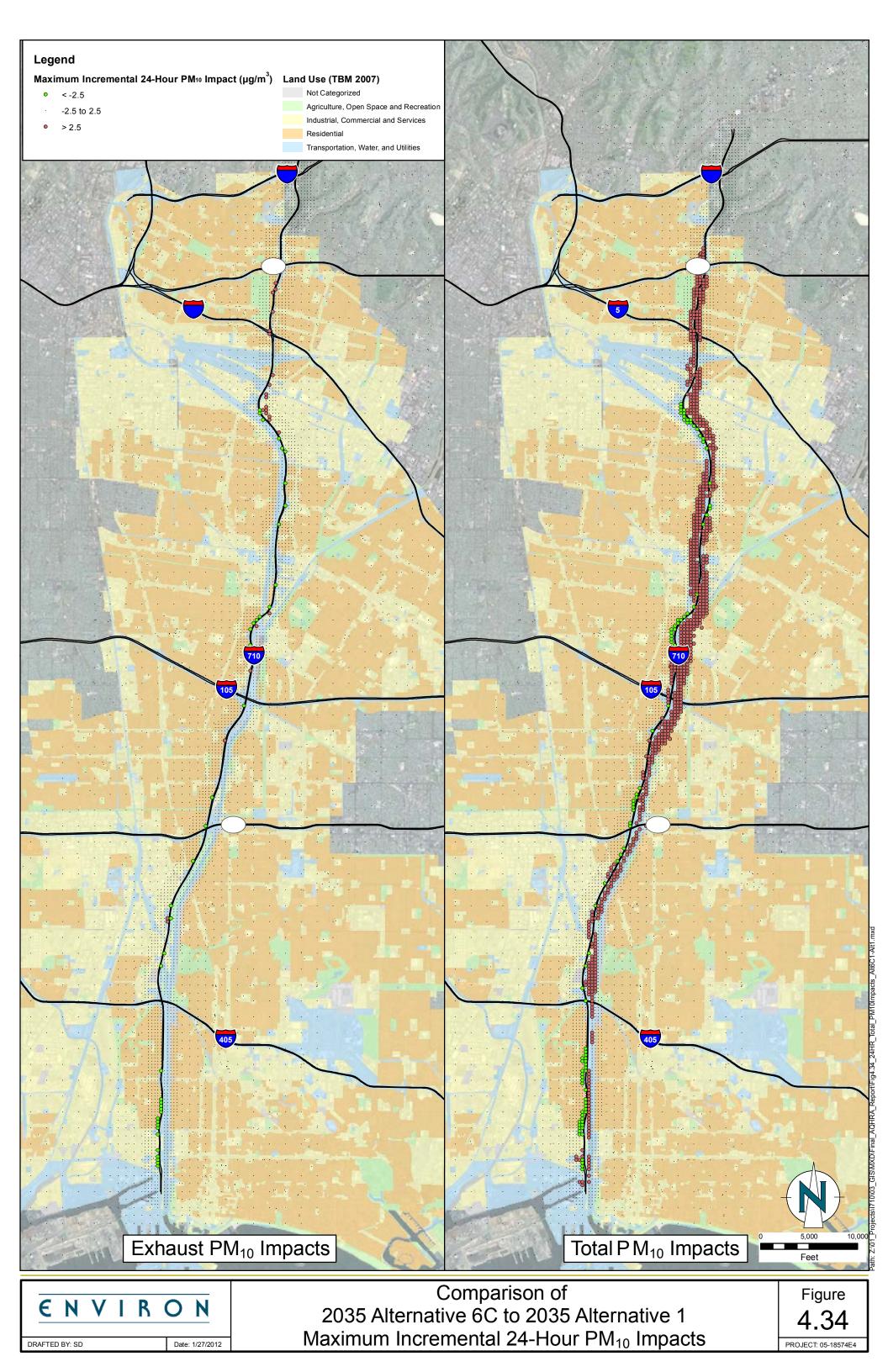


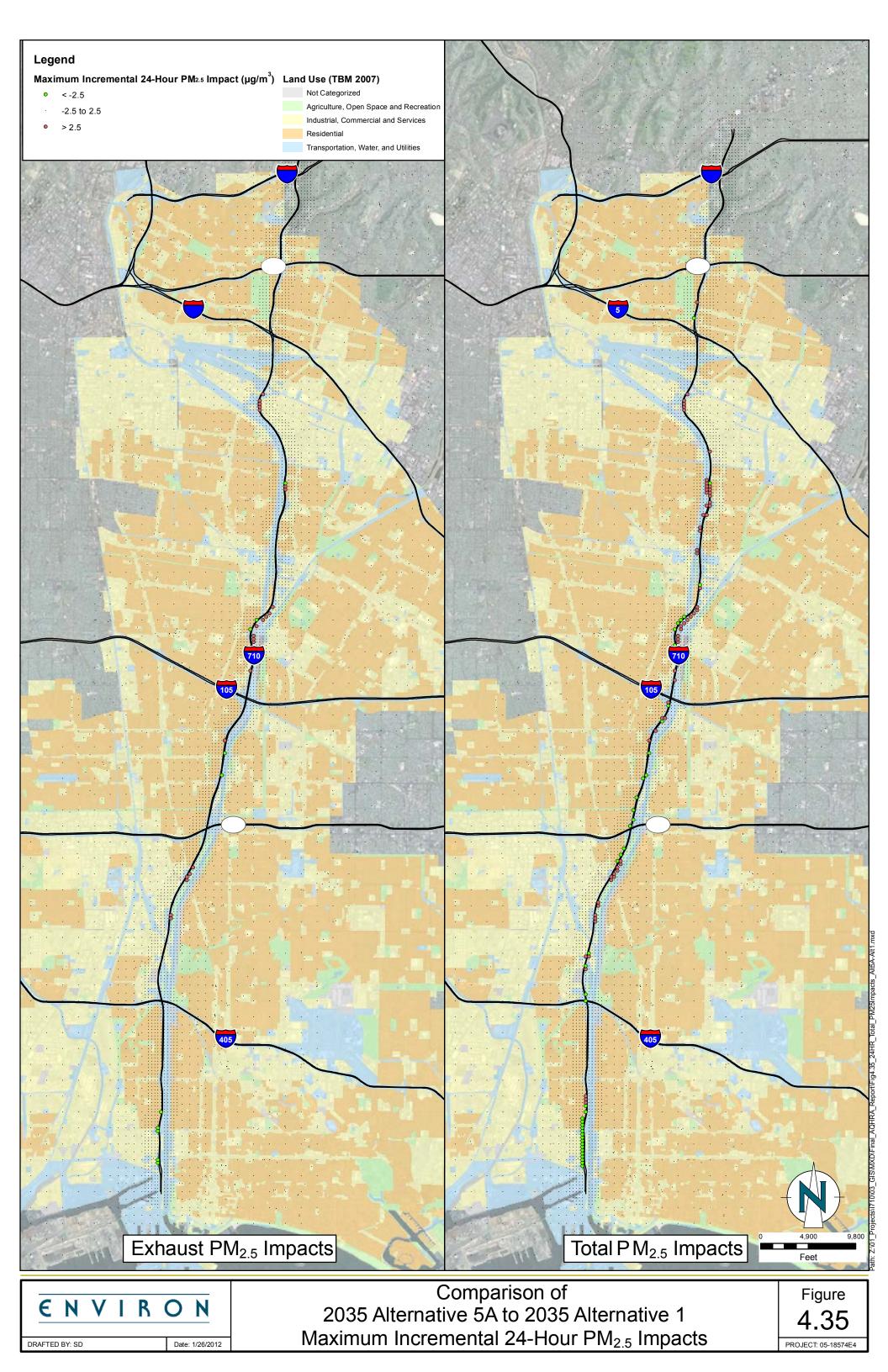


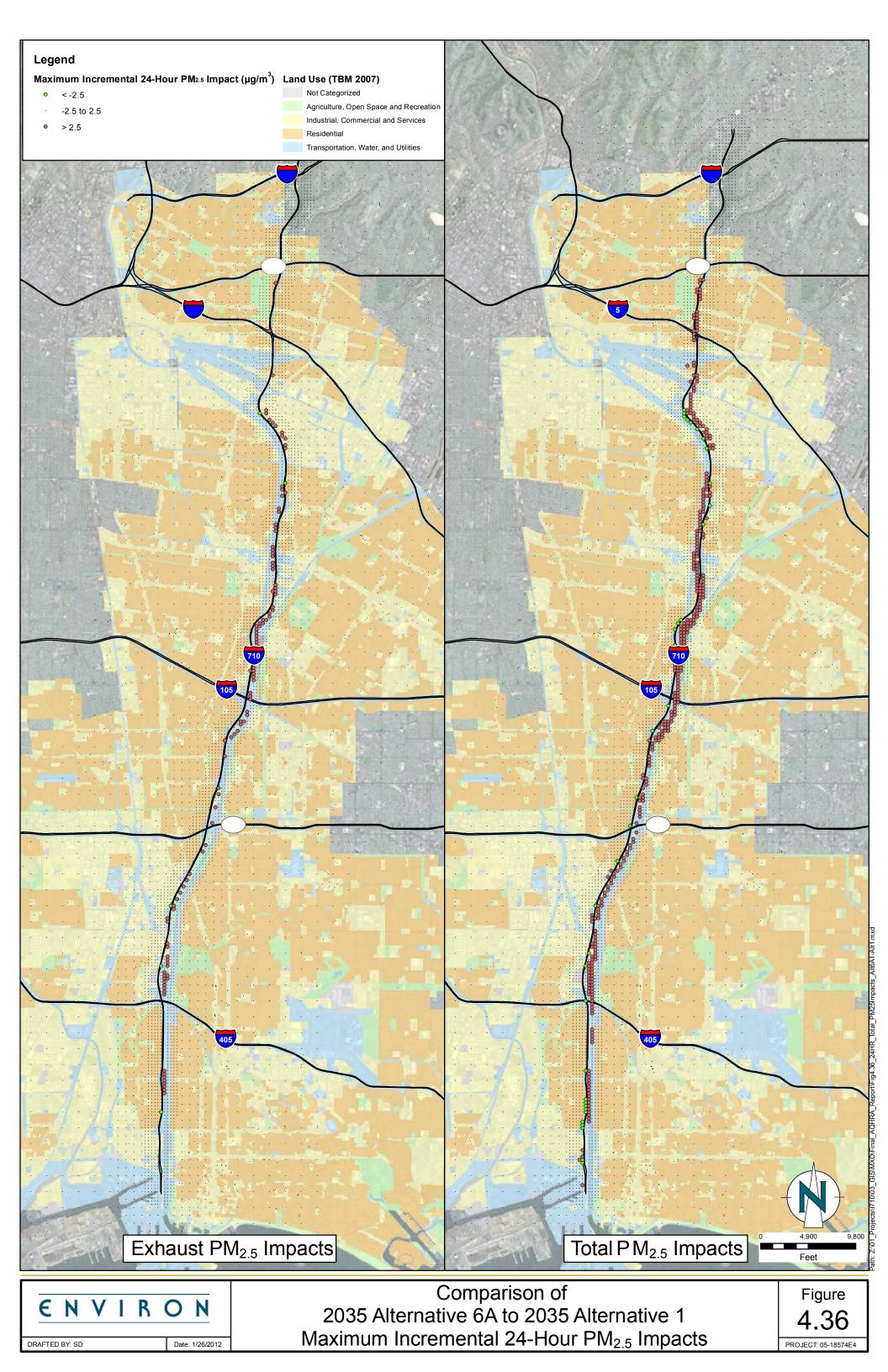


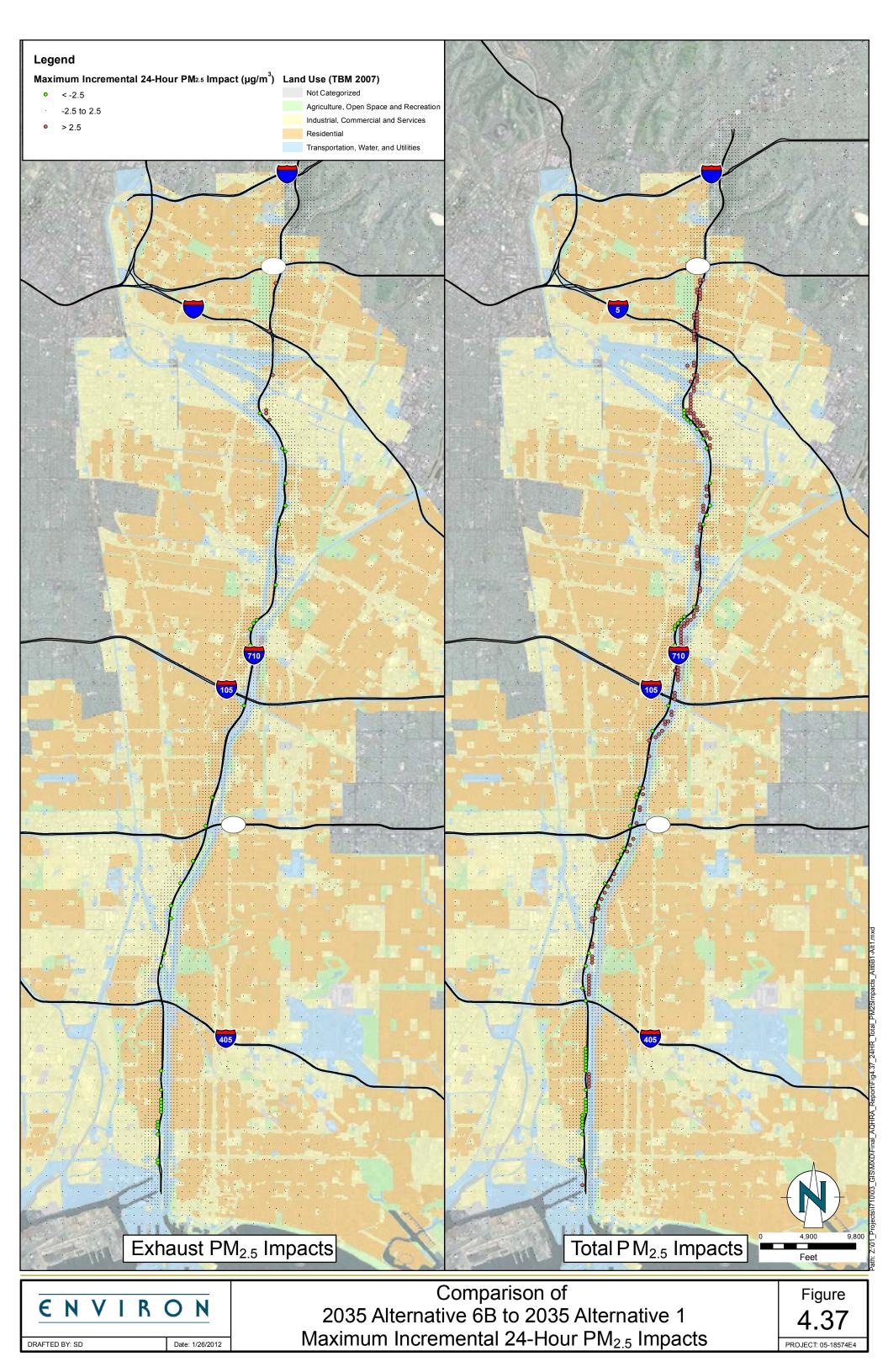


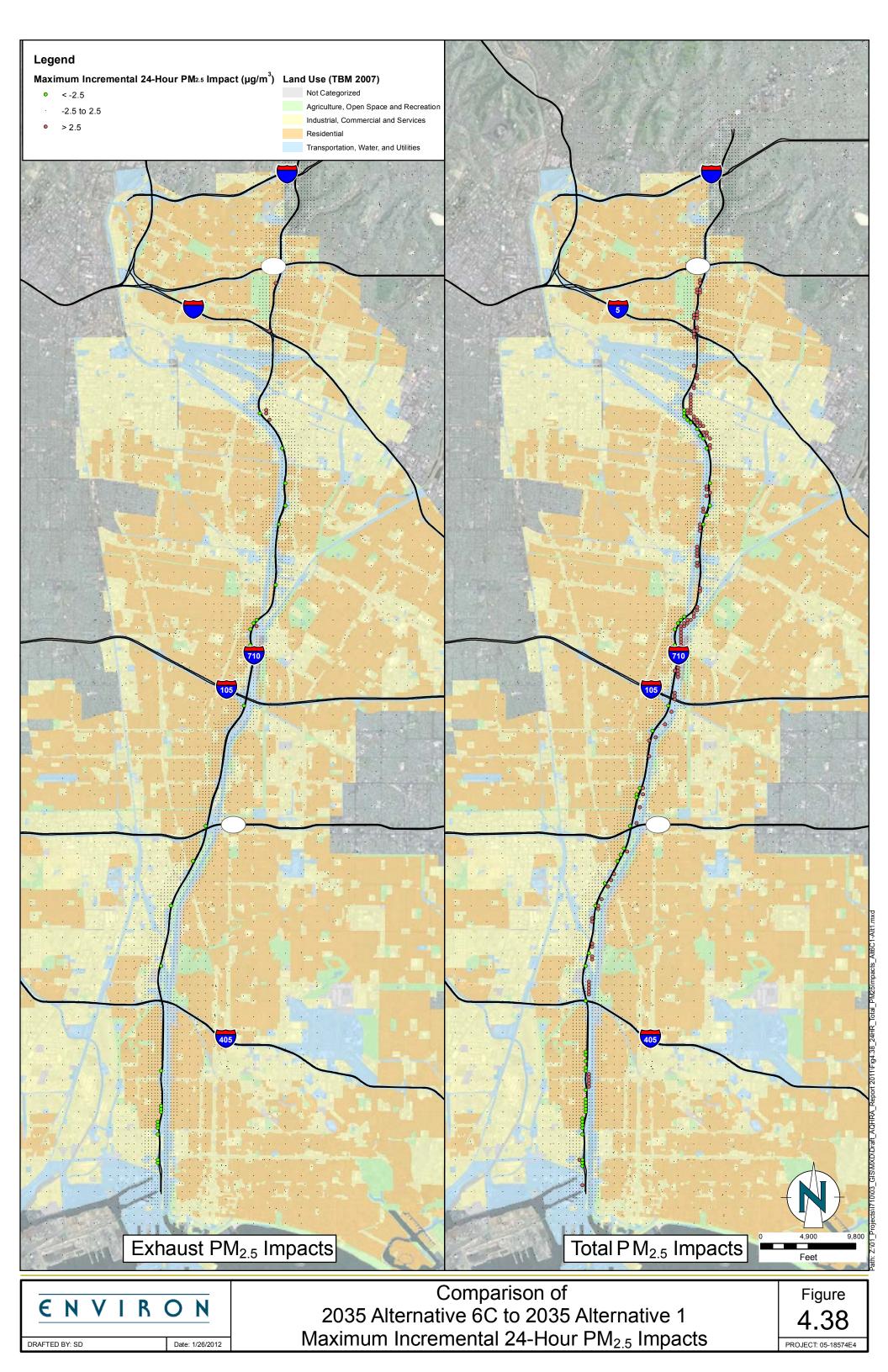


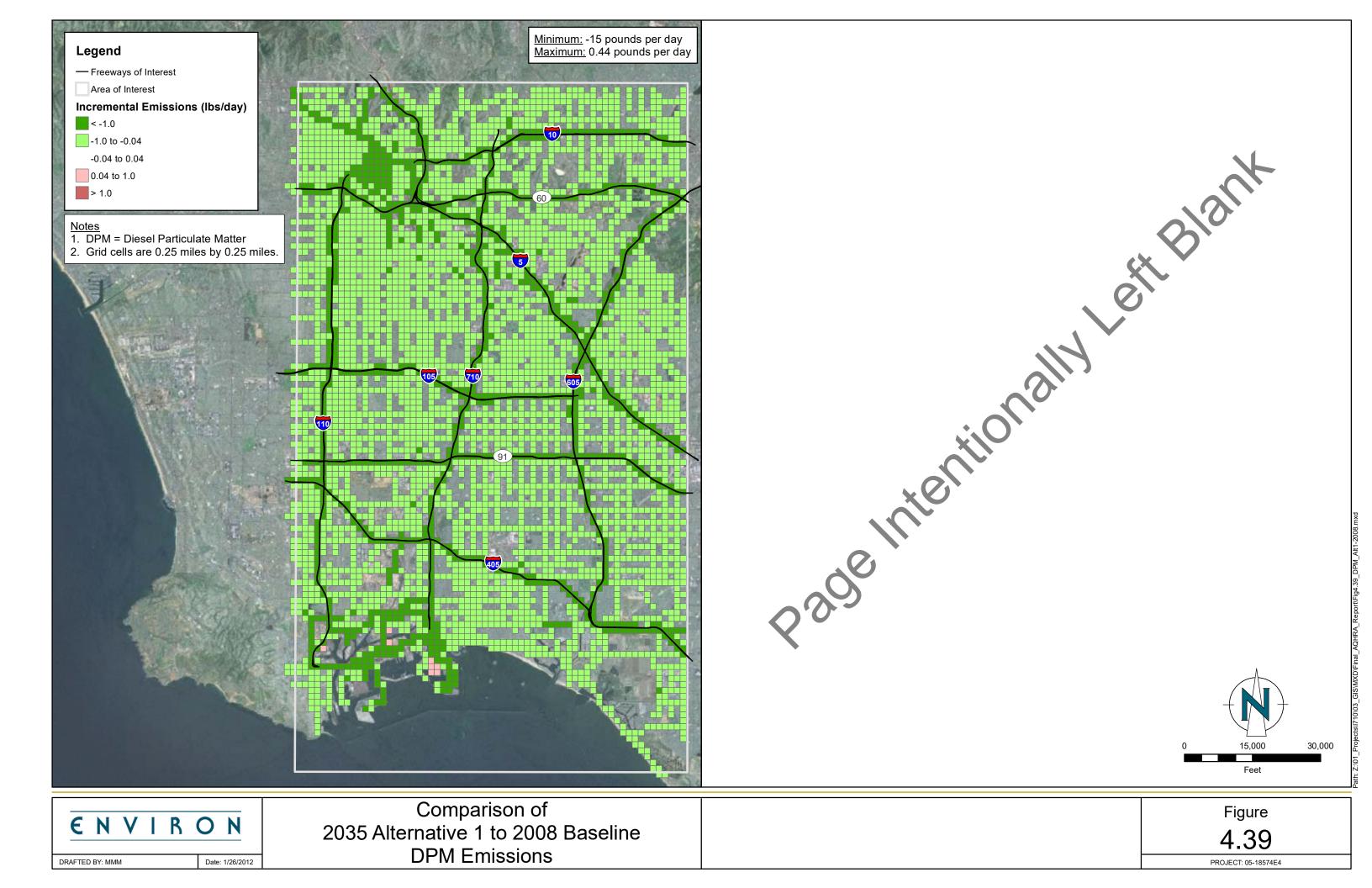


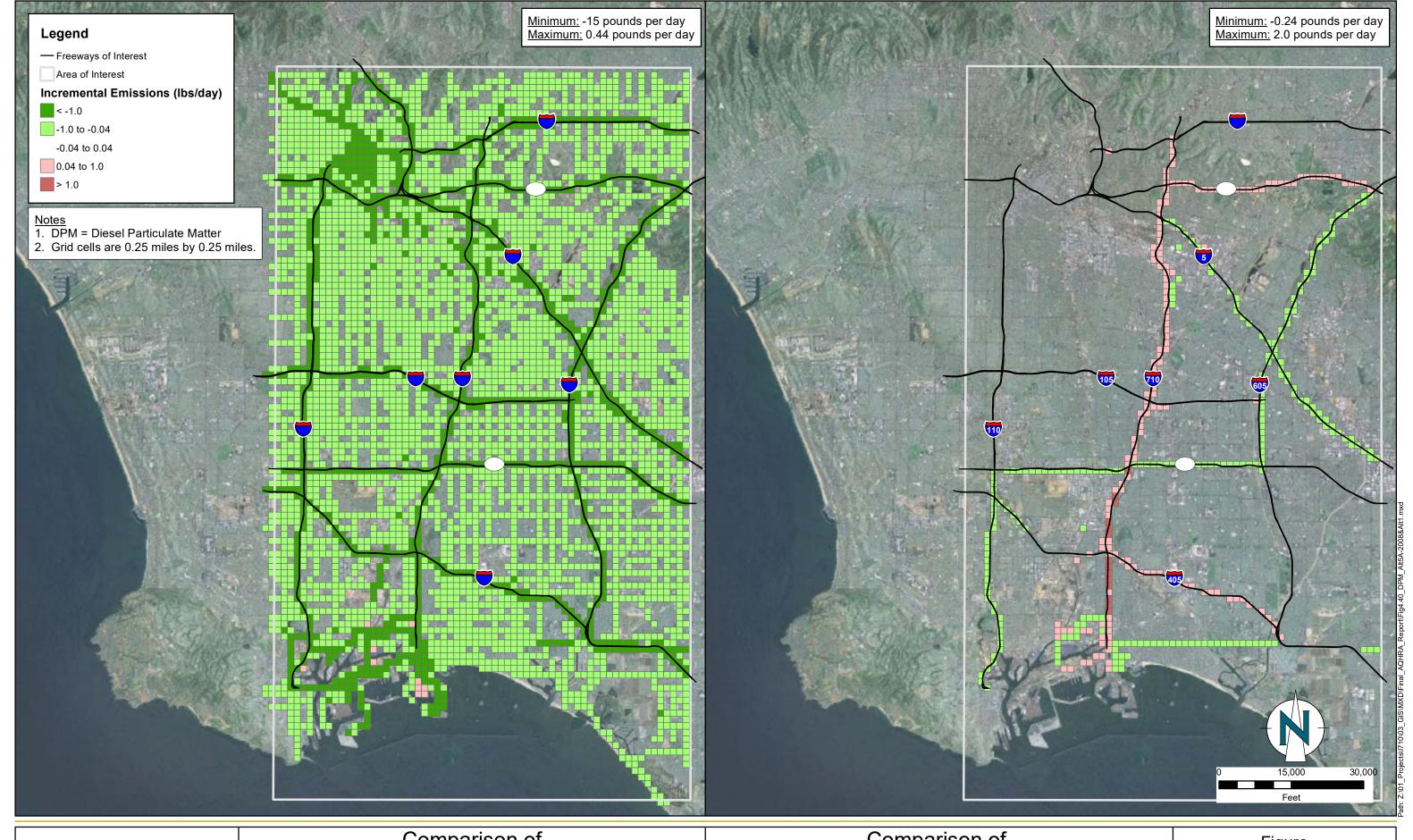








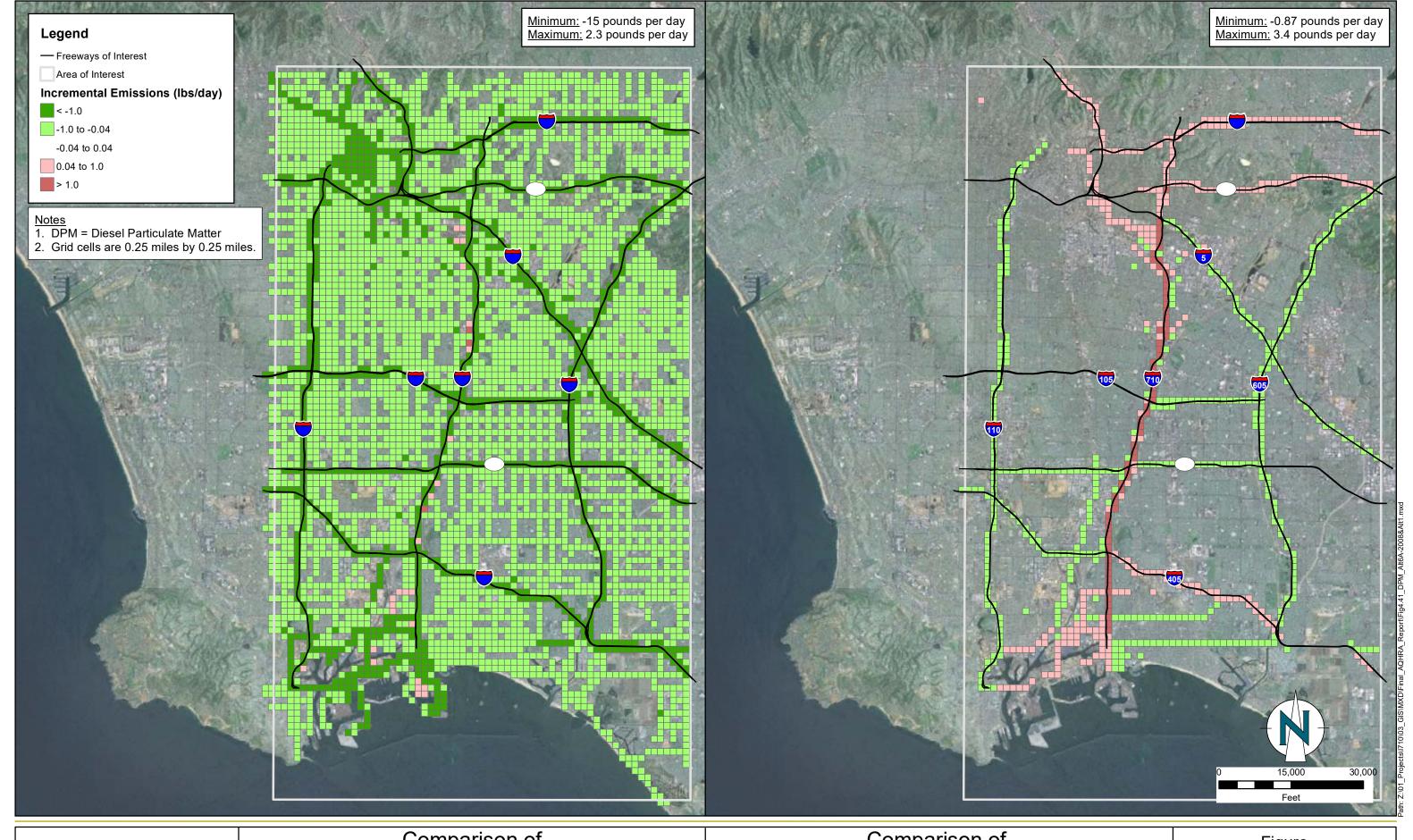






Comparison of 2035 Alternative 5A to 2008 Baseline DPM Emissions Comparison of 2035 Alternative 5A to 2035 Alternative 1 DPM Emissions

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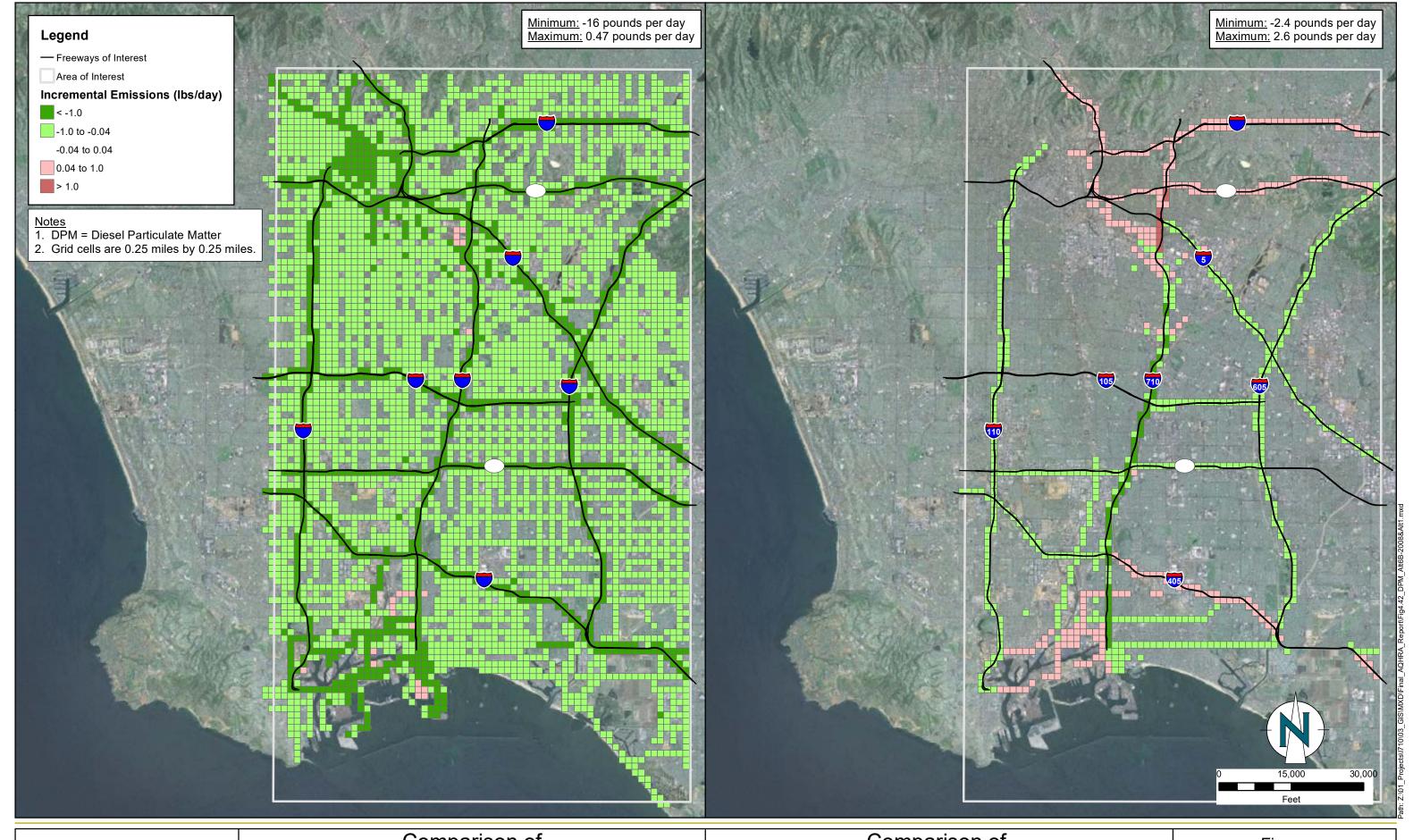




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Comparison of 2035 Alternative 6A to 2008 Baseline DPM Emissions Comparison of 2035 Alternative 6A to 2035 Alternative 1 DPM Emissions

Figure **4.41**

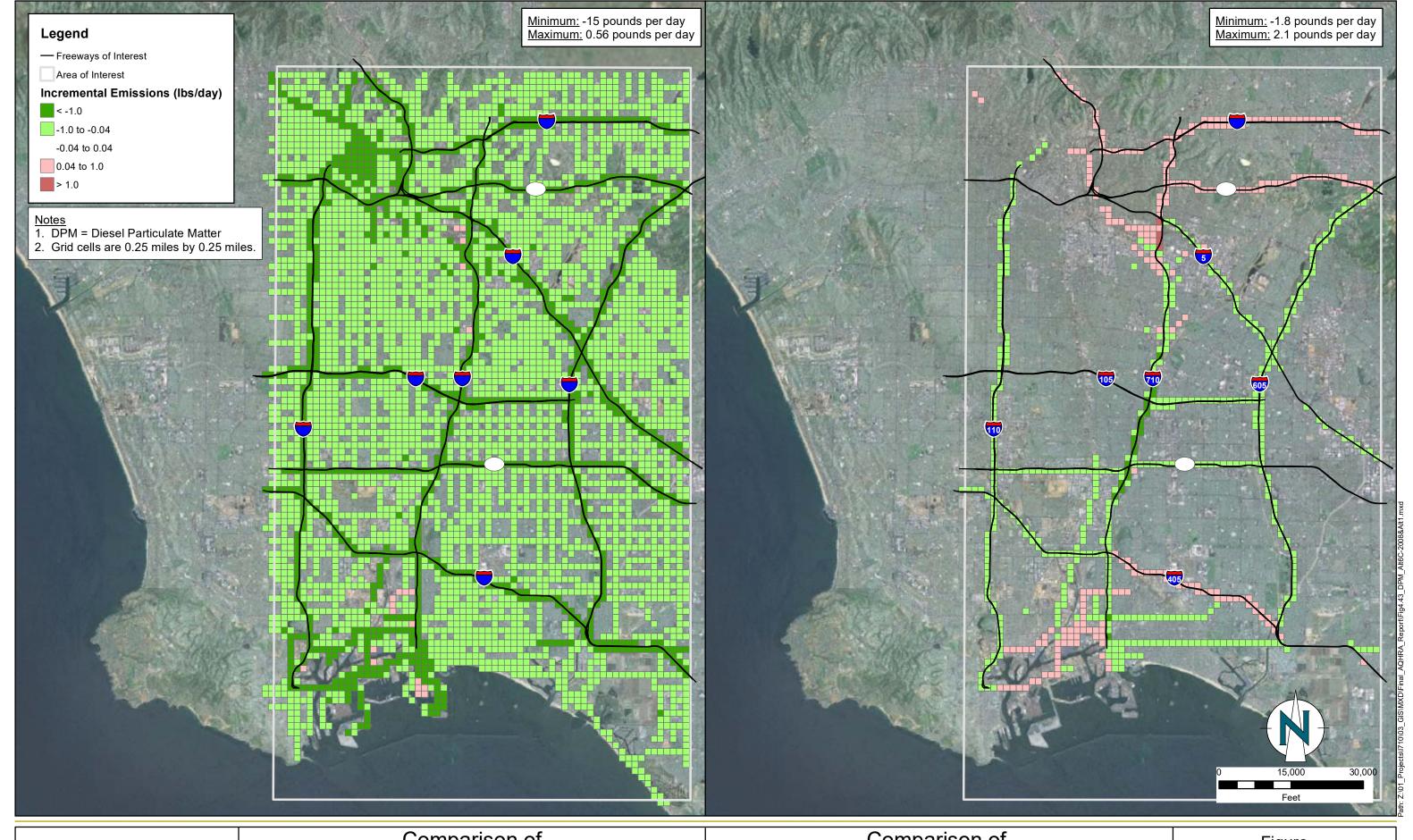




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Comparison of 2035 Alternative 6B to 2008 Baseline DPM Emissions Comparison of 2035 Alternative 6B to 2035 Alternative 1 DPM Emissions

Figure 4.42

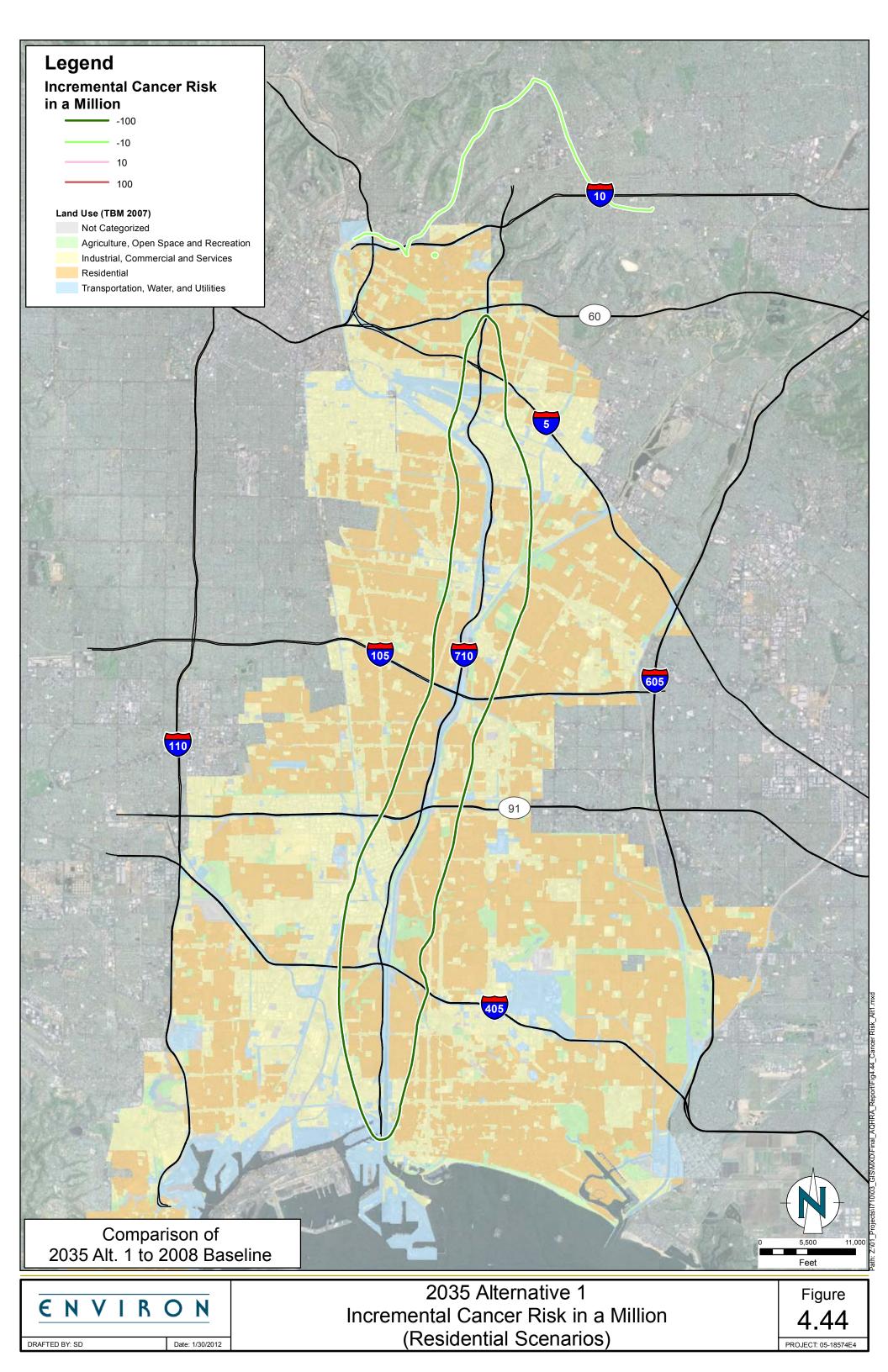


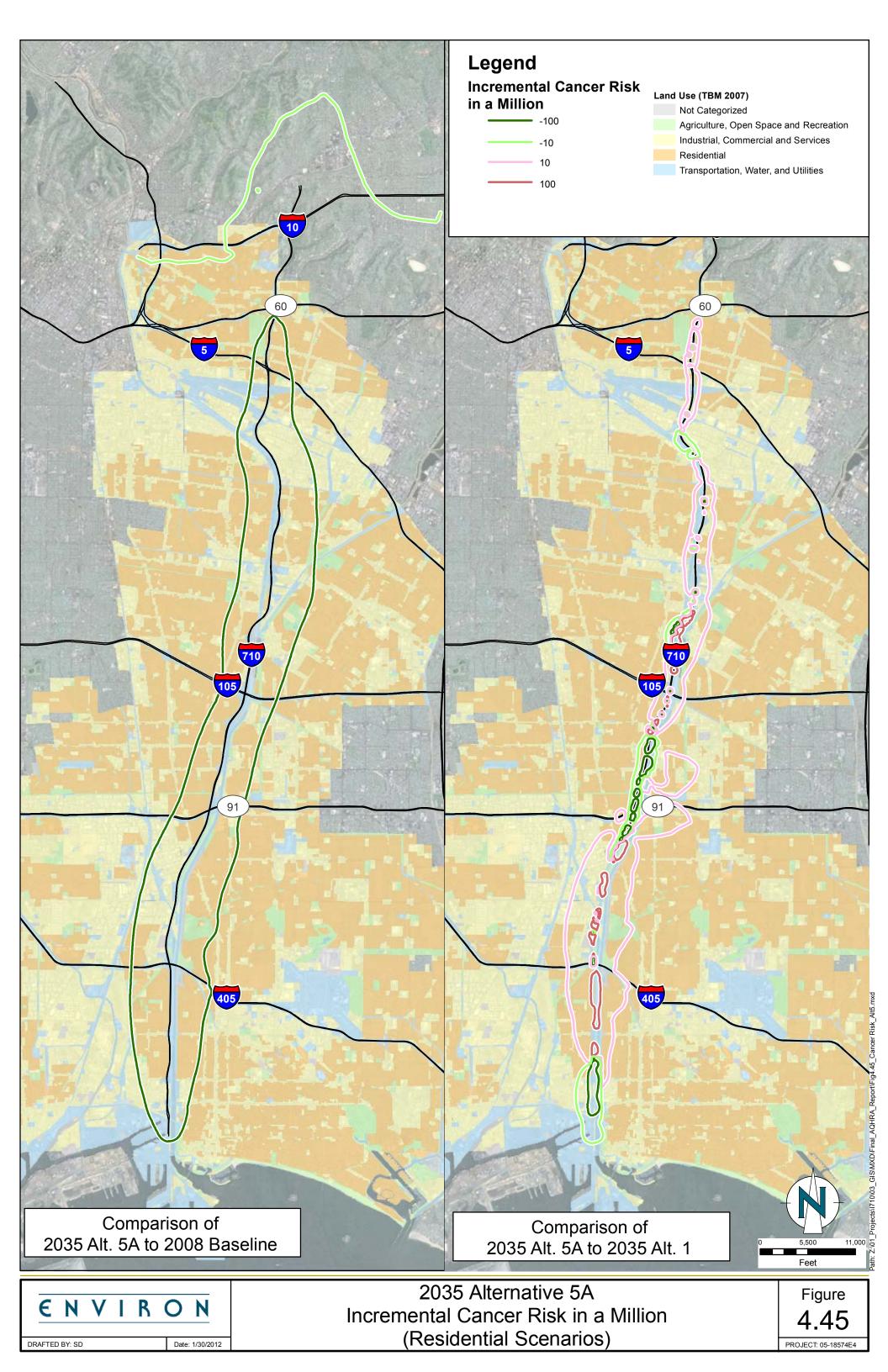


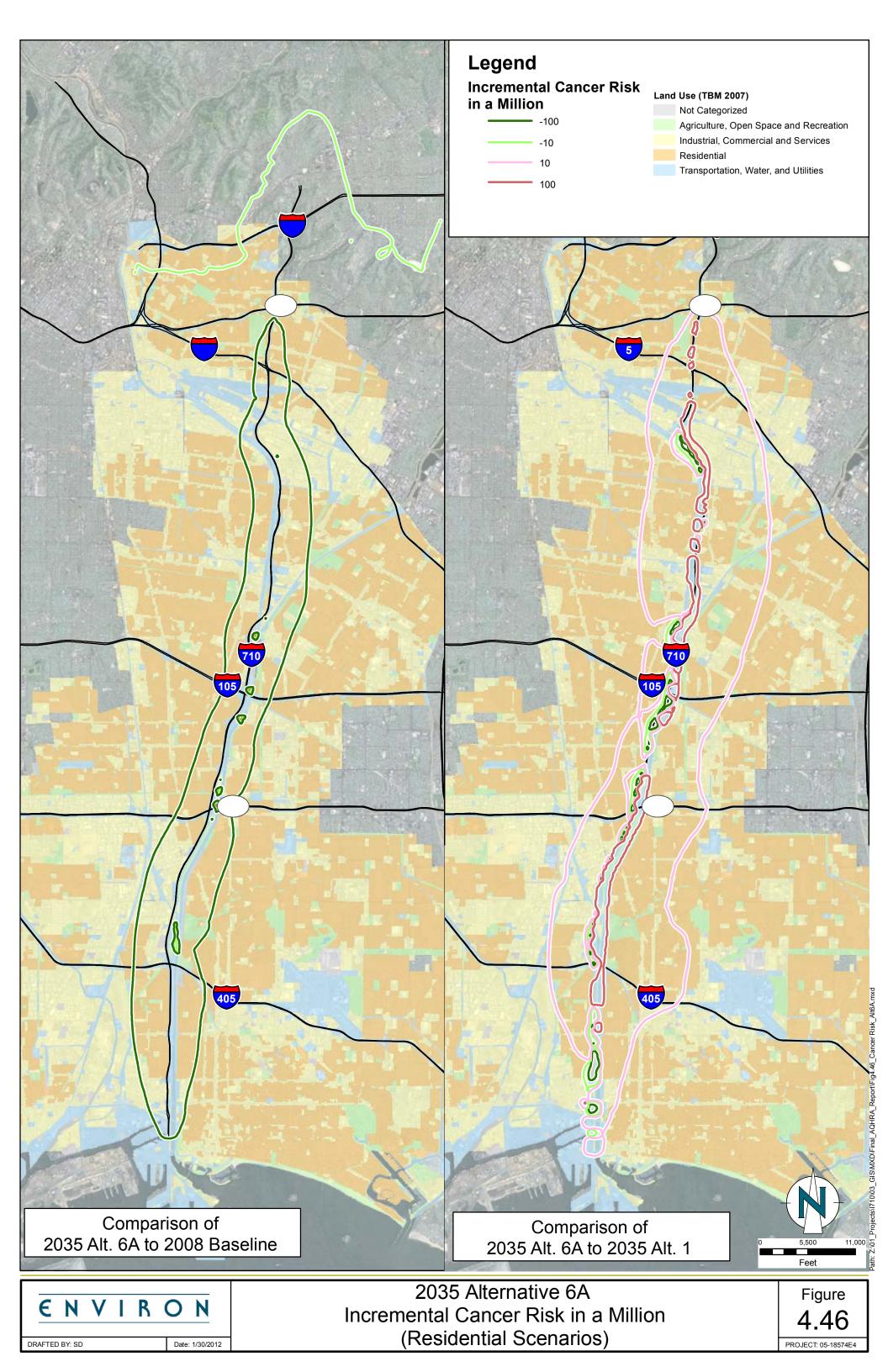
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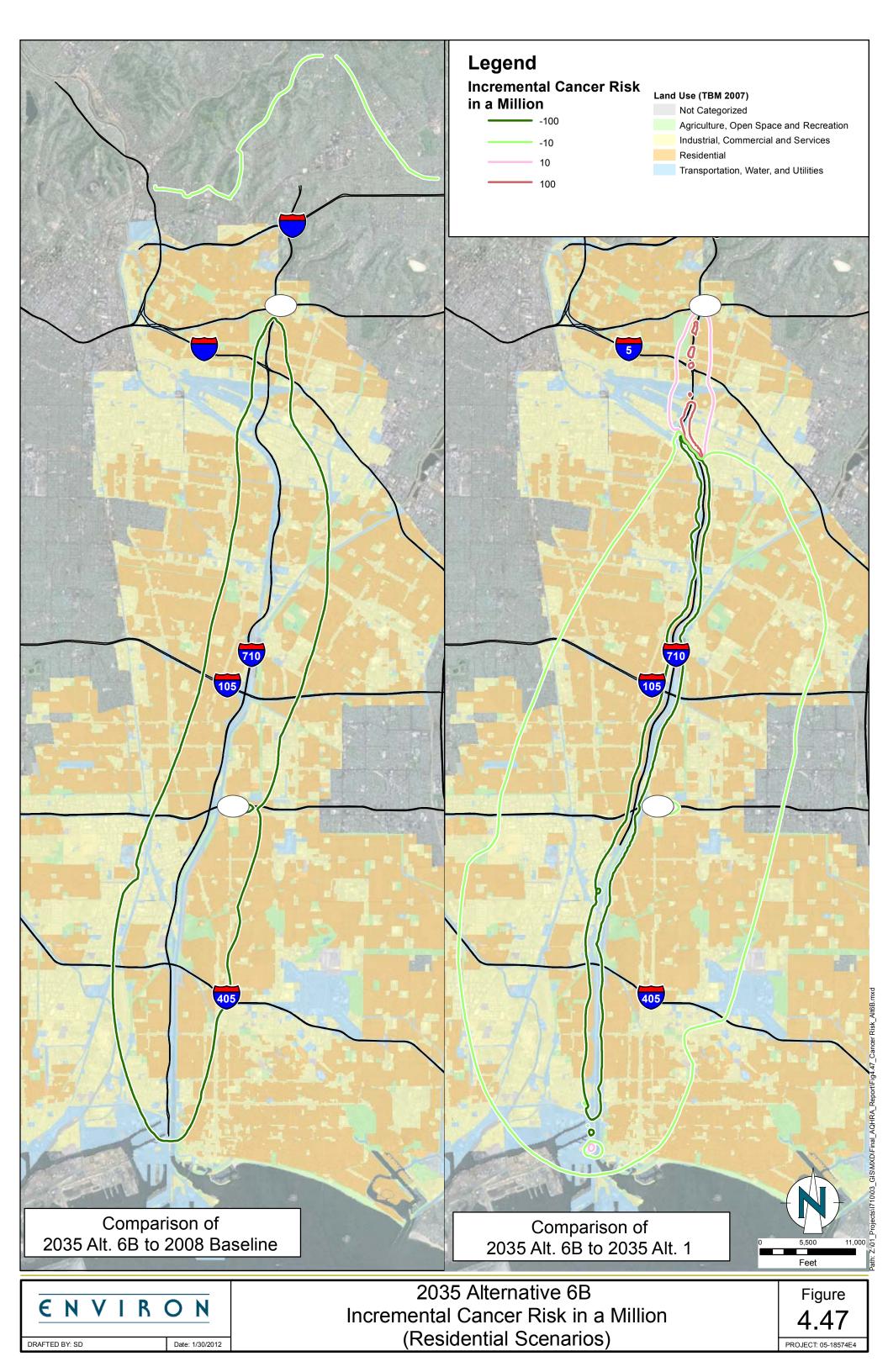
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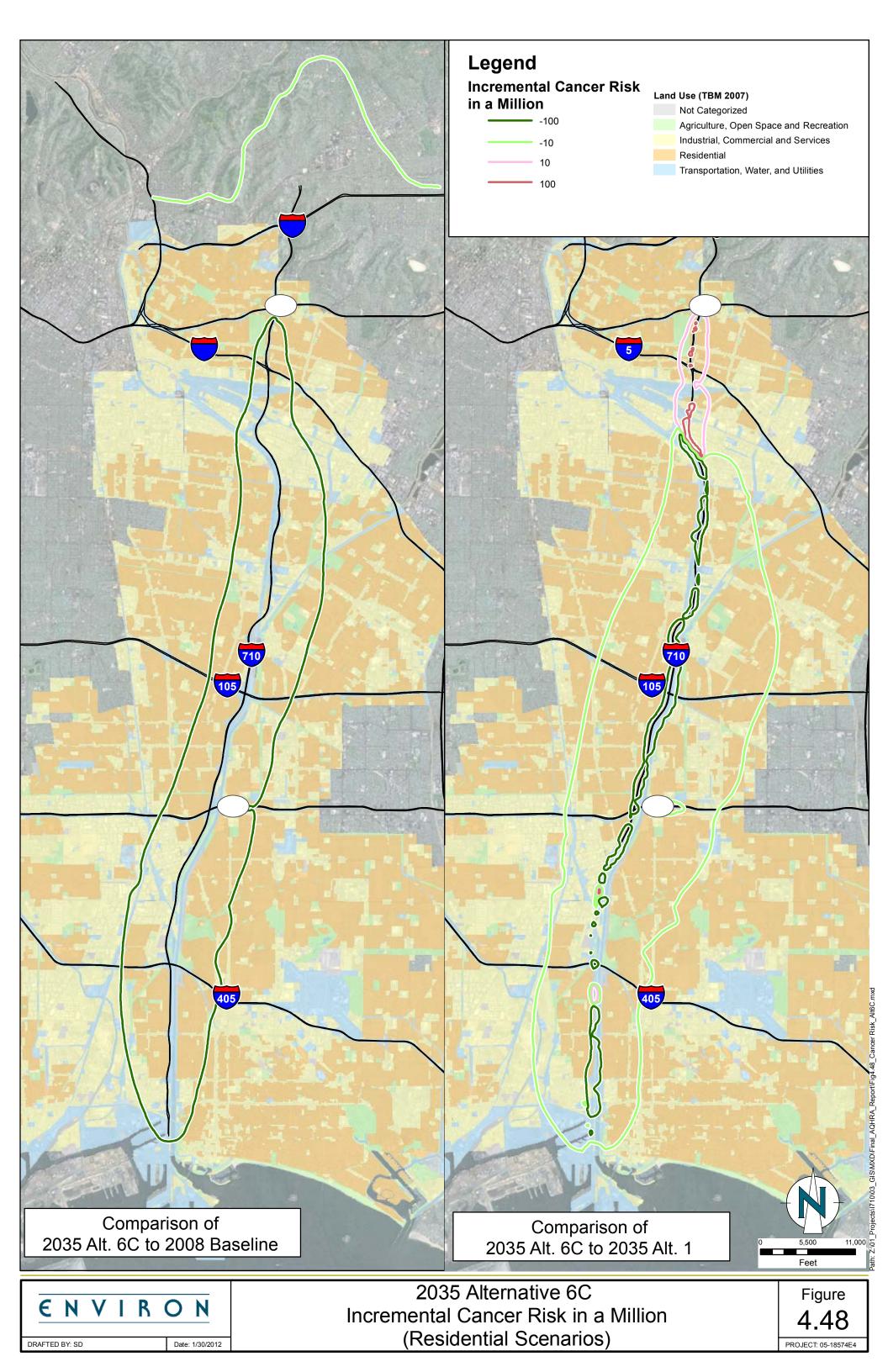
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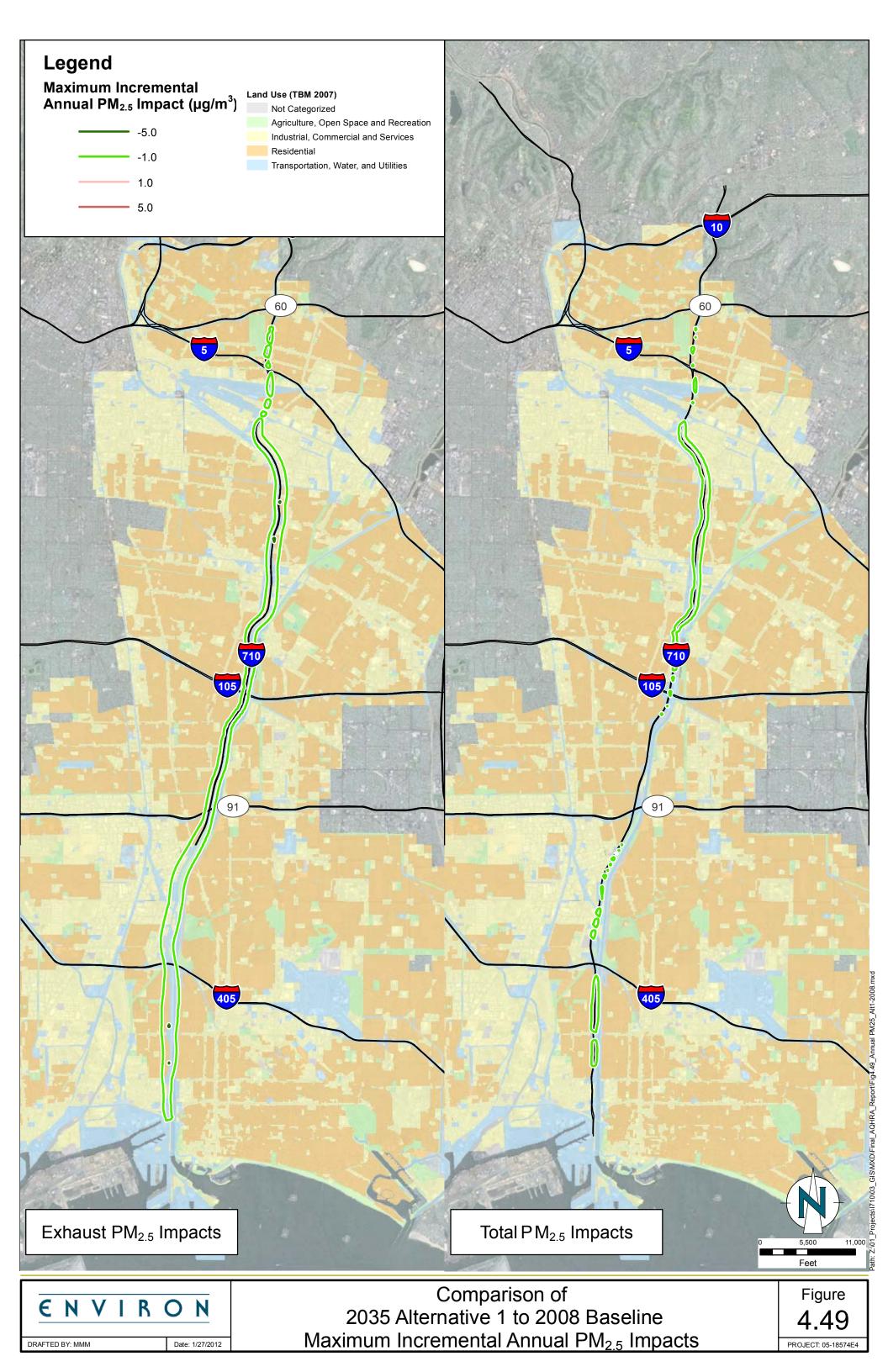


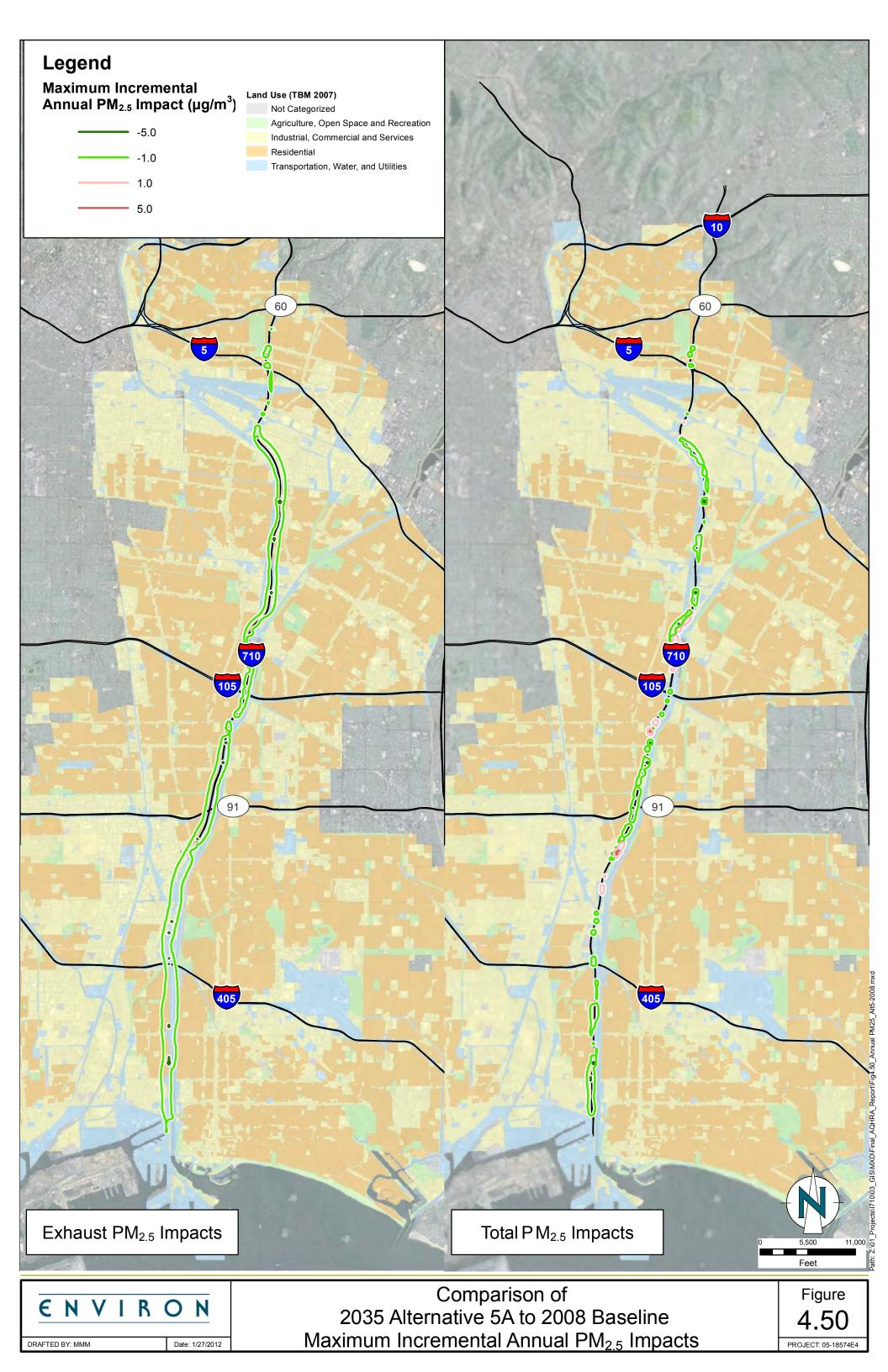


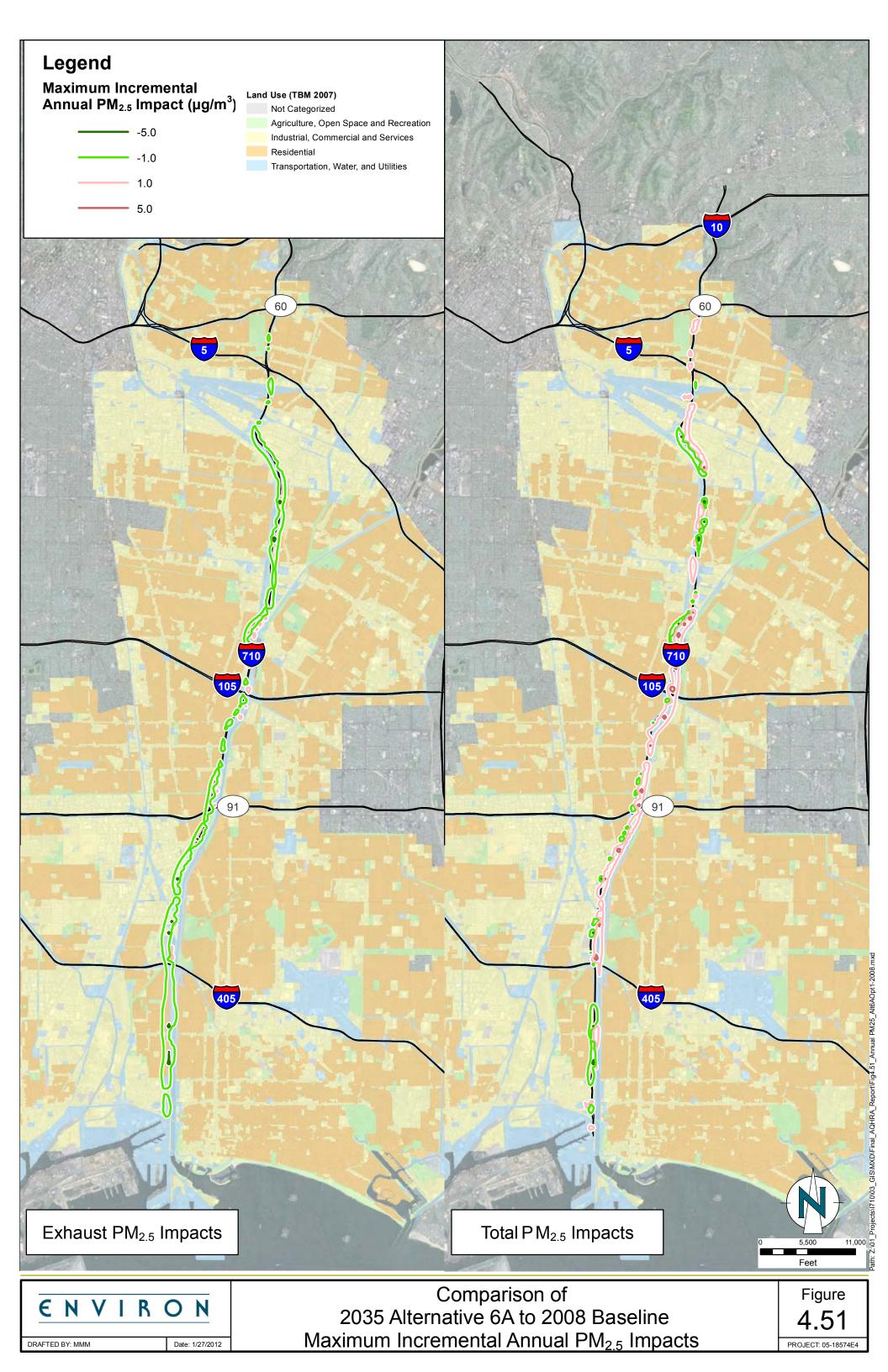


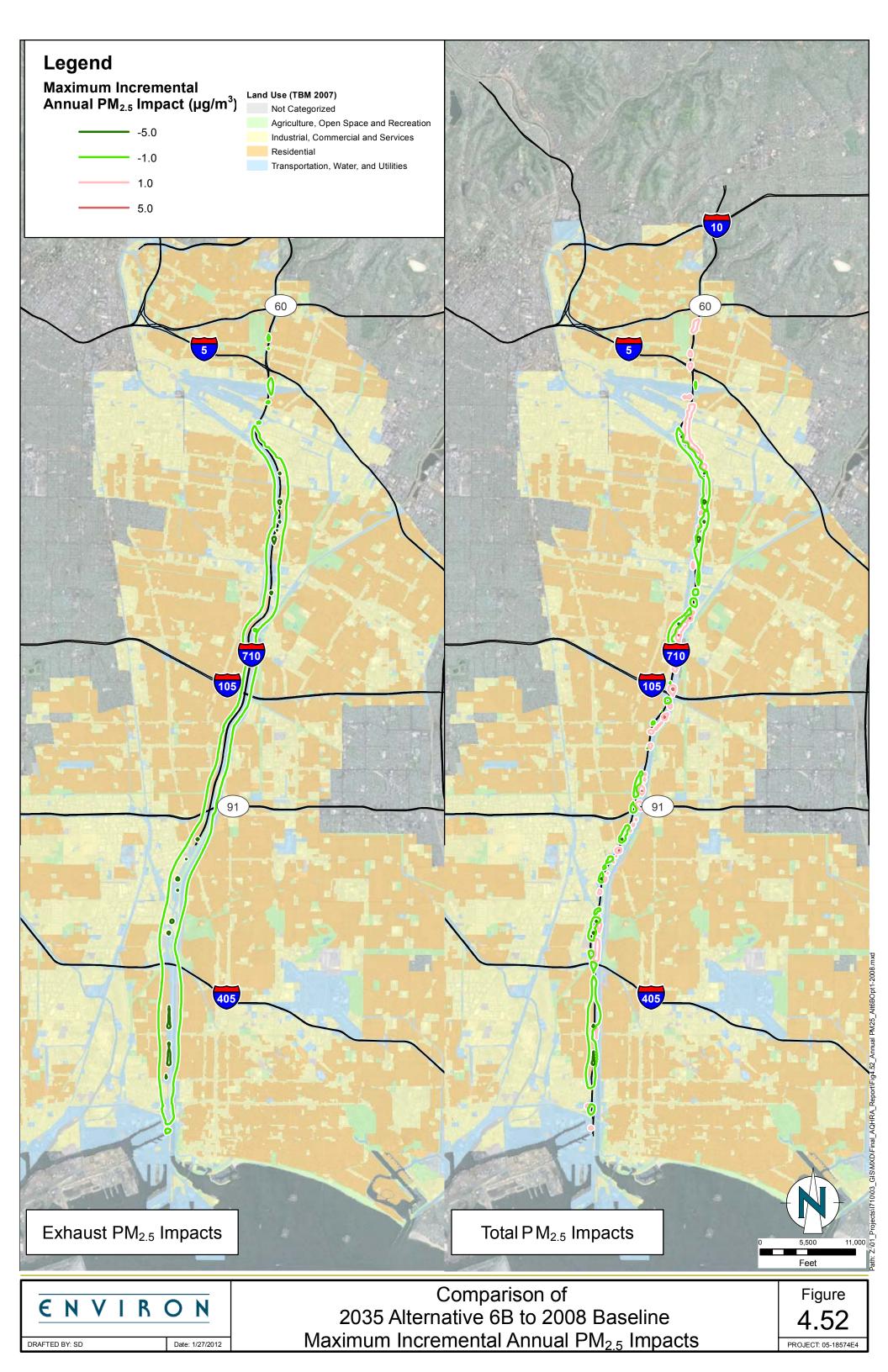


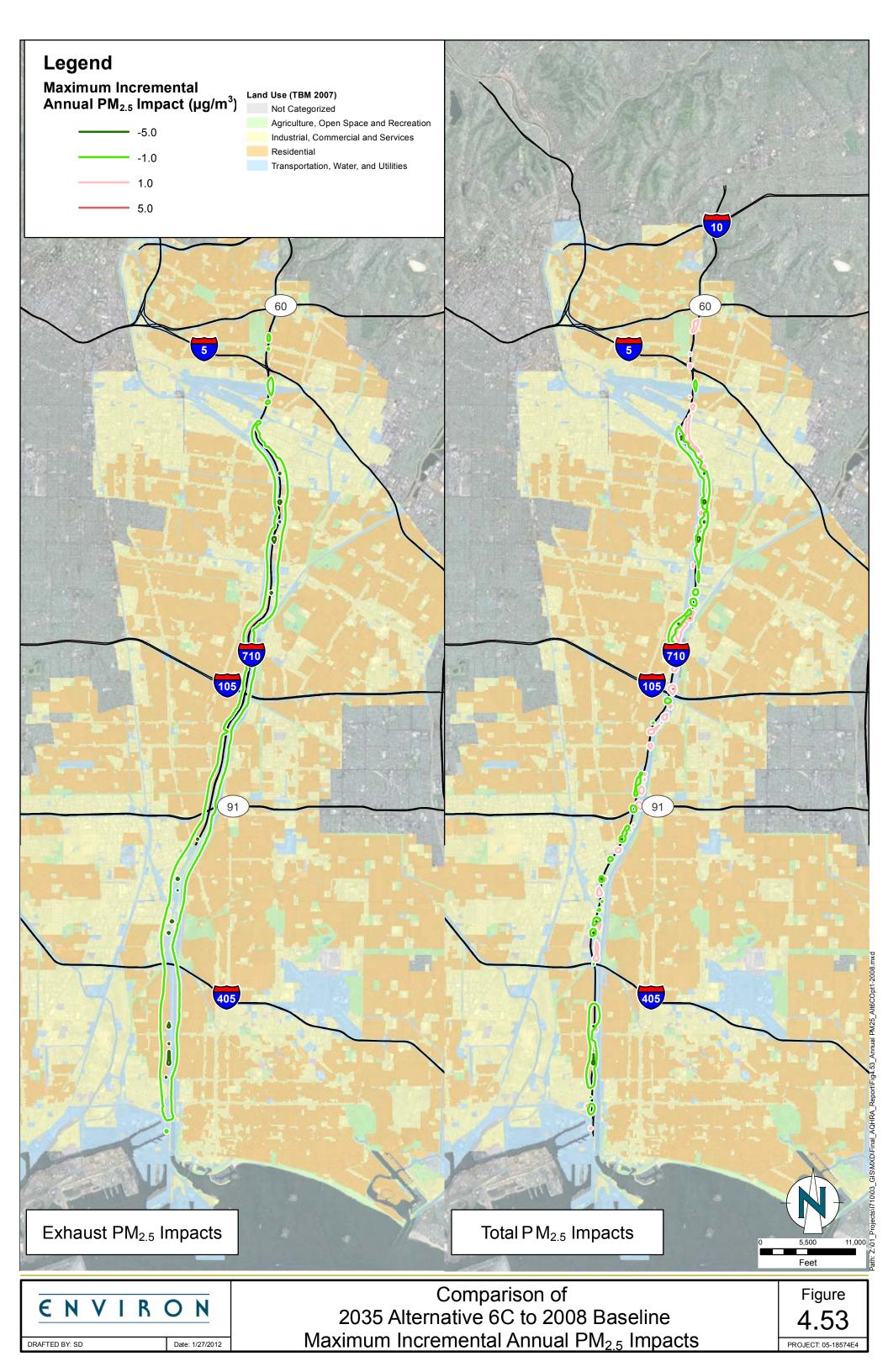


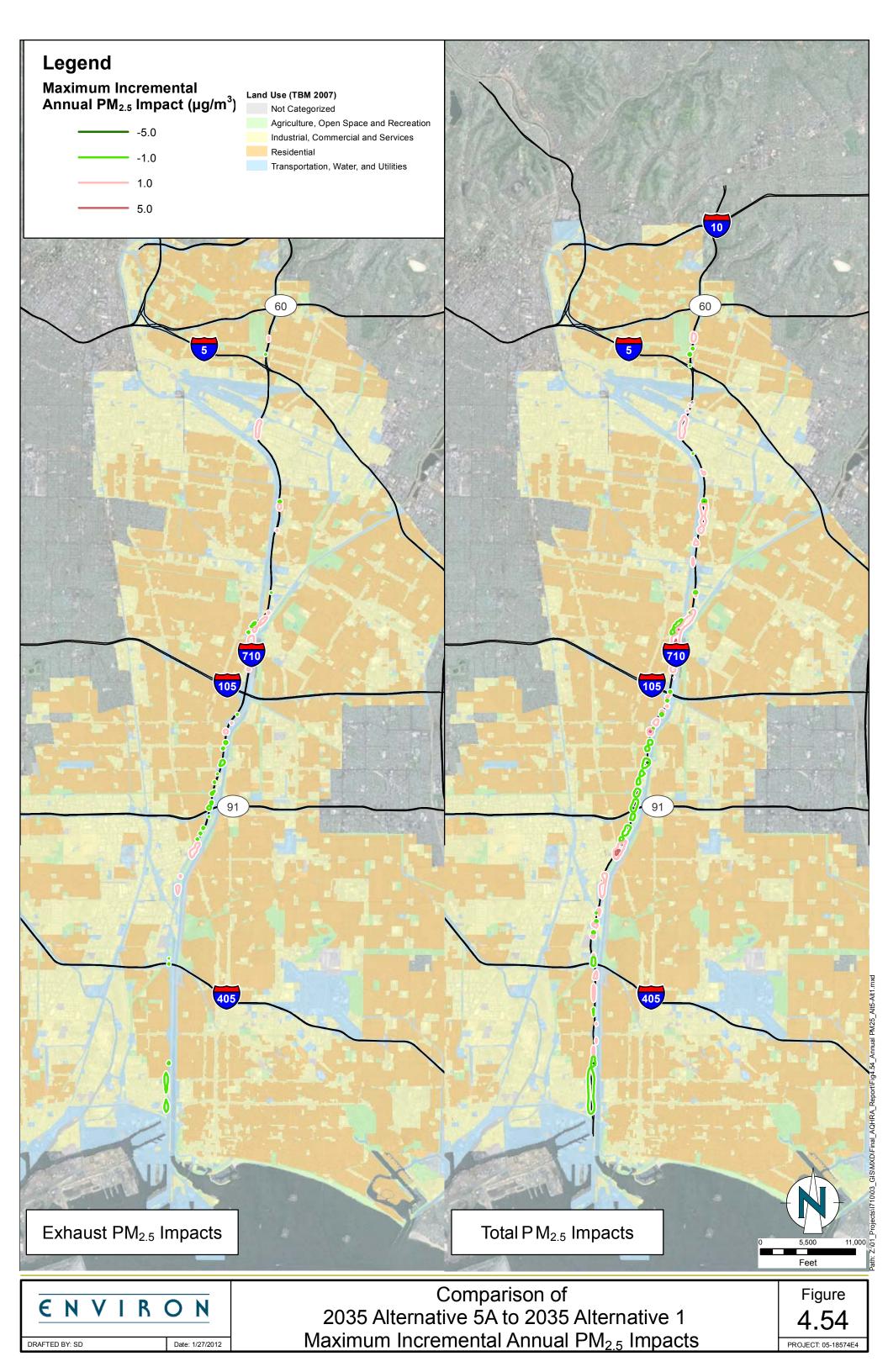


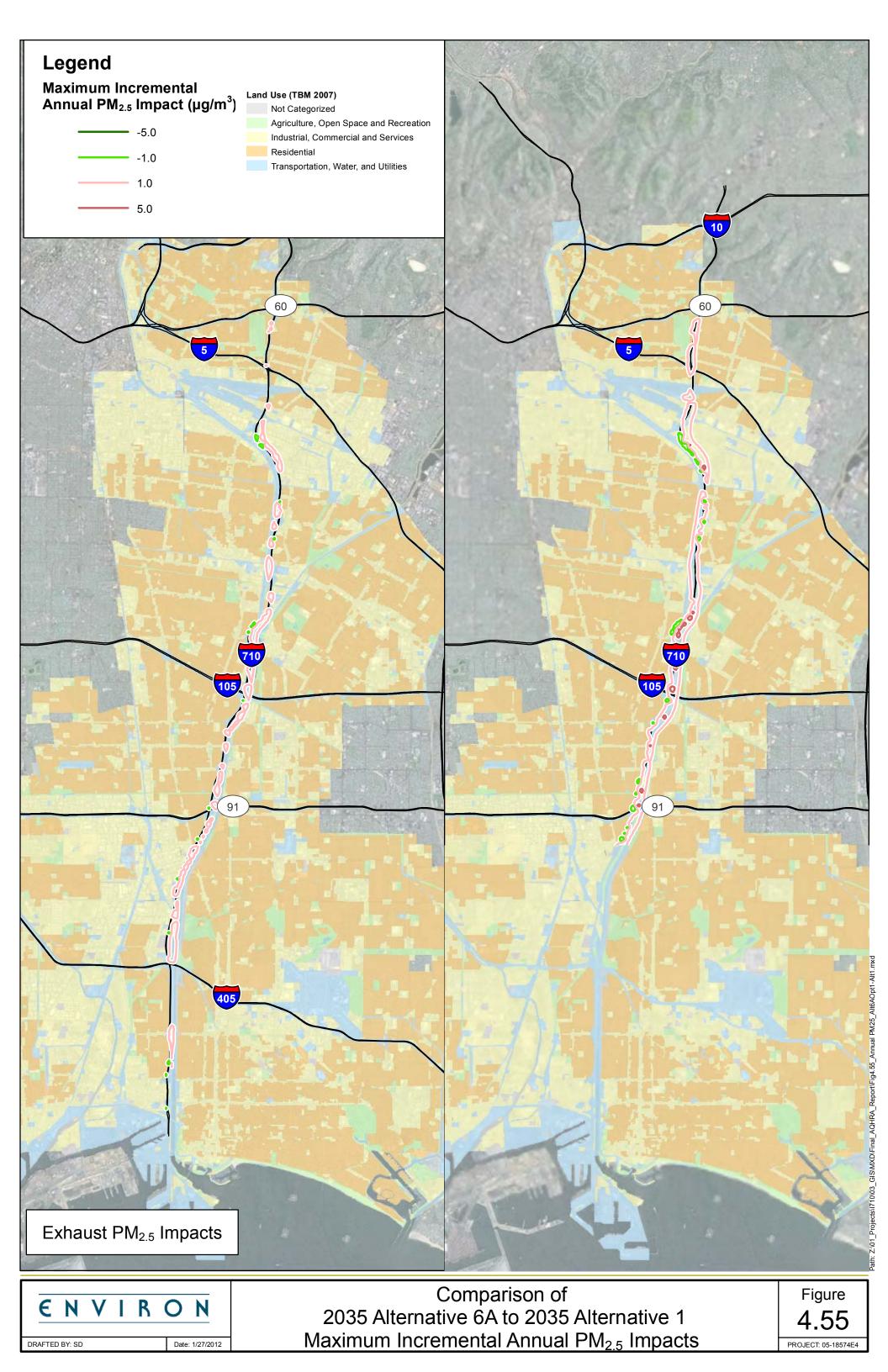


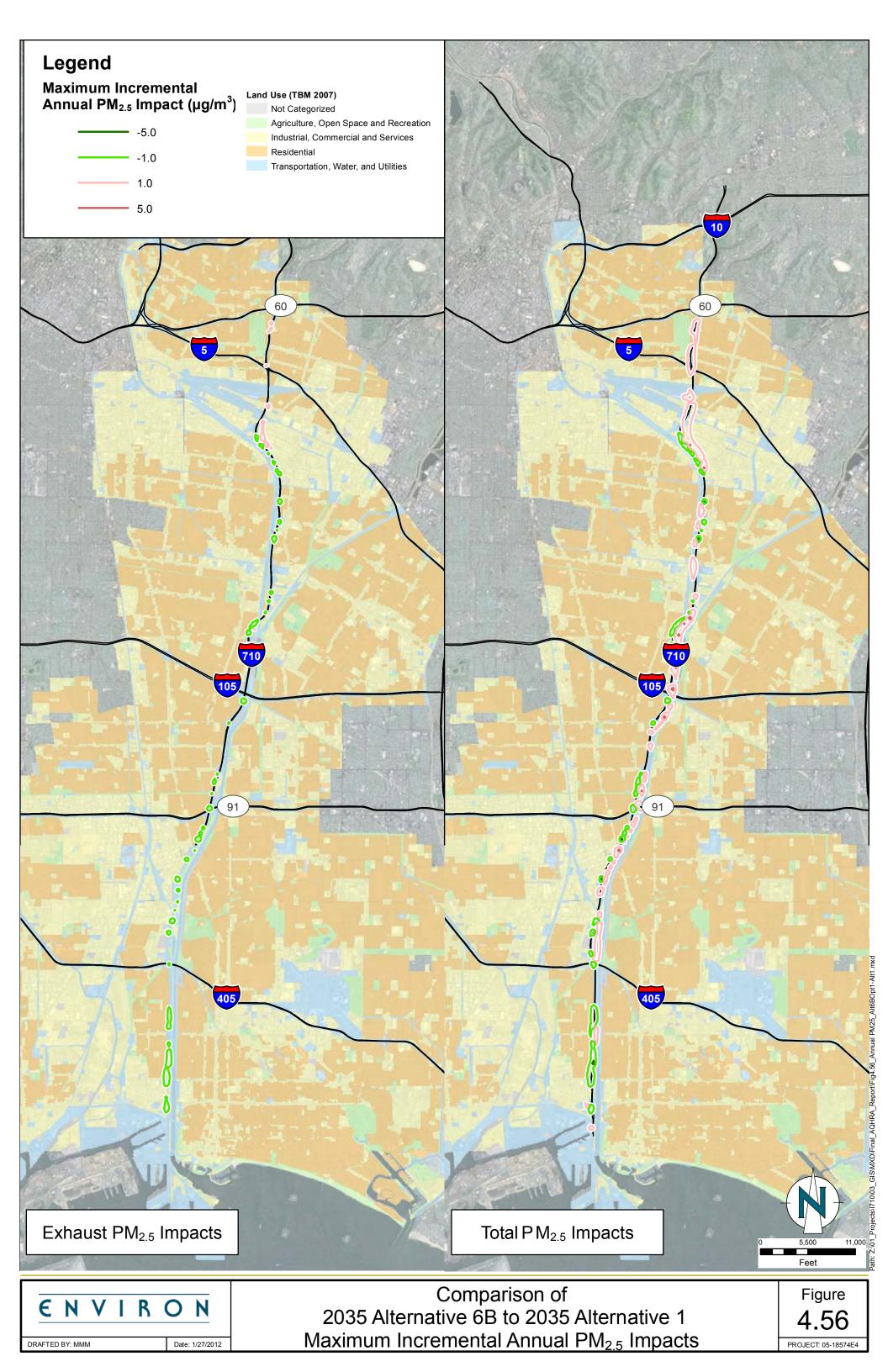


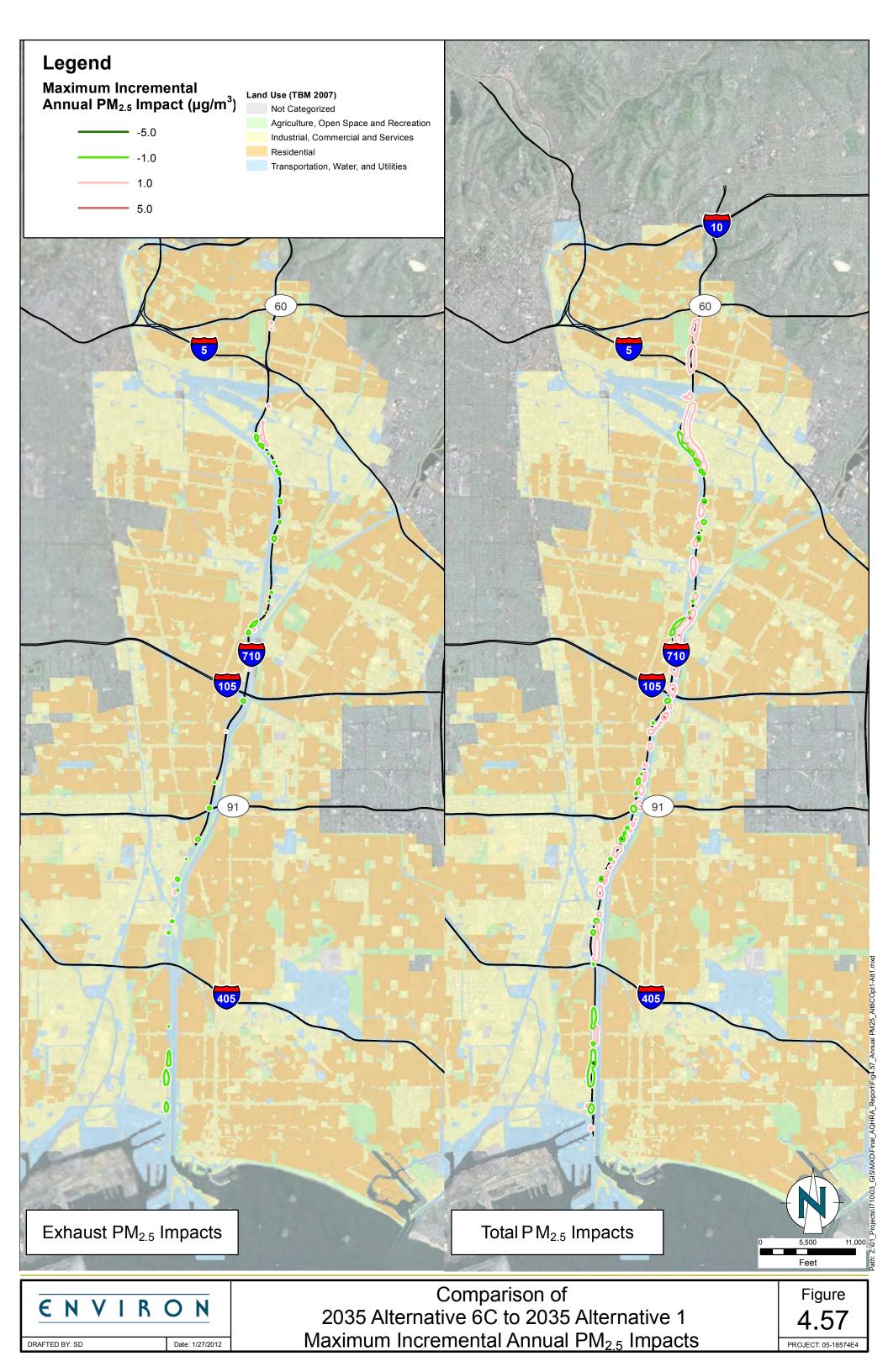












Appendix A

Protocol for the Air Quality and Health Risk Assessments

The draft AQ/HRA Protocol was released to the Funding Partners in March 2009.

Comments were received and incorporated into April 2010 version of the AQ/HRA Protocol, which is presented here as Appendix A without further modification. Methodologies in the AQ/HRA technical study generally followed what has presented in the April 2010 Protocol with the exception of the AP-42 method for estimating the paved road entrained dust emissions. USEPA published a revised AP-42 method in January 2011, which is used in the technical study.



Protocol for the Air Quality and Health Risk Assessments (AQ/HRA)

for the I-710 Corridor Environmental Impact Report / Environmental Impact Statement

> Prepared for: URS Corporation Santa Ana

Prepared by: ENVIRON International Corporation Irvine and Los Angeles, California

Date: April 2010

Project or Version Number: **05-18574A10**

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Glossary of Terms

AADT Annual Average Daily Traffic

AB2588 Assembly Bill 2588 Air Toxics "Hot Spots" Information and Assessment Act of 1987

AB 32 Assembly Bill 32 Global Warming Solutions Act of 2006

AER Annual Emission Report

AERMET AERMOD Meteorological Preprocessor

AERMOD American Meteorological Society/Environmental Protection Agency Regulatory Model

AERSURFACE AERMOD pre-processor that develops parameters to characterize land use

AG Attorney General

AQ/HRA Air Quality and Health Risk Assessments

AQMP Air Quality Management Plans
BSFC Brake-Specific Fuel Consumption

CAAP Clean Air Action Plan

CAAQS California Ambient Air Quality Standards

CALINE California Line Source Model
CARB (ARB) California Air Resource Board
CCAR California Climate Action Registry
CEC California Energy Commission
CEQA California Environmental Quality Act

CH₄ Methane

CO Carbon Monoxide
CO₂ Carbon Dioxide

CO₂e Carbon Dioxide Equivalent
COPC Chemicals of Potential Concern
CPF Cancer Potency Slope Factors

DEM Digital Elevation Maps
DPM Diesel Particulate Matter
EIR Environmental Impact Report
EIS Environmental Impact Statement

EMFAC Emission Factors Model

EPA United States Environmental Protection Agency

FHWA Federal Highway Administration

gal Gallon

GCCOG Gateway Cities Council of Governments

GHG Greenhouse Gas

GIS Geographic Information Systems

g/mi Grams per mile

GRP General Reporting Protocol
GWP Global Warming Potential

HARP Hotspots Analysis Reporting Program



Glossary of Terms

HC Hydrocarbons
HDT Heavy Duty Trucks

hp Horsepower HQ Hazard Quotient

hr Hour

IPCC International Panel on Climate Change
ISCST3 Industrial Source Complex Short Term Model

kg Kilograms
km Kilometer
lb Pounds

LPS Locally Preferred Strategy

LST Localized Significance Thresholds
MATES Multiple Air Toxics Exposure Study

Metro Los Angeles County Metropolitan Transportation Authority

MMBTU Million British Thermal Units
MOVES Motor Vehicle Emission Simulator
MSA Metropolitan Statistical Area
MSAT Mobile Source Air Toxics

MWh Megawatt Hour

NAAQS National Ambient Air Quality Standards

NCDC National Climatic Data Center

NEPA National Environmental Policy Act

NLCD National Land Cover Dataset

N₂O Nitrous oxide
NO₂ Nitrogen dioxide
NO_X Oxides of Nitrogen

NWS National Weather Service

OAQPS Office of Air Quality Planning and Standards

OEHHA Office of Environmental Health Hazard Assessments

OPR Office of Planning and Research

POLA Port of Los Angeles
POLB Port of Long Beach
PM Particulate Mater

PRIME Plume Rise Model Enhancements

REL Reference Exposure Levels
ROG Reactive Organic Gas

SB Senate Bill

SCAB South Coast Air Basin

SCAG Southern California Association of Governments

Glossary of Terms

SCAQMD South Coast Air Quality Management District SCRAM Support Center for Regulatory Air Models

SER Standard Environmental Reference

SIP State Implementation Plan

SO₂ Sulfur dioxides SO₄ Sulfates

TAC Toxic Air Contaminants

TDM Transportation Demand Management

TOG Total Organic Gases

TSM Transportation Systems Management

URBEMIS Urban Emissions Model

URF Unit Risk Factors

USEPA (EPA) United States Environmental Protection Agency

USGS United States Geological Survey

VMT Vehicle Miles Traveled

VOC Volatile Organic Compounds

Executive Summary

ES.1 Background

The Interstate 710 (I-710, also known as the Long Beach Freeway) is a major north-south interstate freeway linking the Port of Los Angeles (POLA) and the Port of Long Beach (POLB) to Southern California and beyond. The I-710 Major Corridor Study (MCS), undertaken to address the I-710 capacity and mobility issues and to explore possible solutions for transportation improvements, was completed in March 2005 and identified a Locally Preferred Strategy (LPS) consisting of ten general purpose lanes next to four separated freight movement lanes. The Los Angeles County Metropolitan Transportation Authority (Metro), in a cooperative effort involving California Department of Transportation (Caltrans), the Gateway Cities Council of Governments (GCCOG), the Southern California Association of Governments (SCAG), the POLA, the POLB, and the I-5 Joint Powers Authority (JPA), are collectively known as the I-710 Corridor Project Funding Partners. They are overseeing the preparation of environmental analysis and documentation for the proposed I-710 Corridor Project (improvements along the I-710 Corridor from Ocean Boulevard in the City of Long Beach to State Route 60 [SR-60] in East LA). The Air Quality / Health Risk Assessments (AQ/HRA) Working Group, comprised of Funding Partner representatives, oversaw the development of this I-710 Corridor Project AQ/HRA Protocol. In addition, an Agency Air Technical Working Group (or AATWG), comprised of representatives from the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), South Coast Air Quality Management District (SCAQMD), Federal Highways Administration (FHWA), Cal/EPA Office of Environmental Health Hazard Assessment (OEHHA), U.S. Army Corps of Engineers, Los Angeles District, as well as Funding Partner representatives, was consulted during the preparation of the draft I-710 AQ/HRA Protocol. Briefings were made to the Environmental Subject Working Group, Corridor Advisory Committee, Technical Advisory Committee, and Project Committee. The draft I-710 AQ/HRA Protocol was released for comments in March 2009.

The purpose¹ of the proposed I-710 Corridor Project (also referred to as the Project or I-710 Project) is to:

- Improve air quality and public health
- Improve traffic safety
- Address design deficiencies
- Address projected traffic volumes
- Address projected growth in population, employment, and activities related to goods movement

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A full description of the Need and Purpose of the I-710 Corridor Project can be found in the Notice of Preparation (http://www.metro.net/projects_studies/I710/images/710_NOP.pdf) and the I-710 Major Corridor Study Final Report (http://www.metro.net/projects_programs/final_report.htm)

The general I-710 Corridor Project study area will include the portion of the I-710 from Ocean Boulevard in Long Beach to SR-60, a distance of approximately 18 miles. Specific study areas may be established for individual analyses. For example, the traffic study area for the Project currently extends one mile east and west of the I-710 and includes freeway to freeway interchanges at I-405, SR-91, I-105, and I-5. Additionally, the traffic study examines intersections and roadway segments of key north/south and east/west arterials from Wilmington Avenue in the west to Lakewood Boulevard in the east.² For the AQ/HRA, the AERMOD dispersion model and a coarse receptor grid will be used to determine the zone of impact, which becomes the general AQ/HRA study area.

The environmental impacts of the proposed Project will be assessed and disclosed in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans (the lead agency³) and Metro have initiated work on the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the proposed Project, the purpose of which is to inform the public and governmental decision-makers of possible environmental effects associated with the proposed Project and to describe the measures that would be undertaken to mitigate those effects. The EIR/EIS will include an evaluation of the incremental air quality and health risk impacts associated with the proposed Project and Project alternatives compared to baseline conditions (i.e., 2008 Notice of Preparation baseline for CEQA or 2035 No Federal Action baseline for NEPA). In addition, a transportation conformity analysis for specific pollutants will be conducted to comply with federal and state transportation conformity requirements.⁴ A Glossary has been included (see page iv) for the acronyms and technical terms used throughout this Protocol.

ES.2 Air Quality / Health Risk Assessments

In support of the EIR/EIS and transportation conformity determination, ENVIRON will be conducting air quality and health risk assessments (AQ/HRA) to evaluate the incremental air quality and human health risk impacts associated with the proposed Project and Project alternatives as compared to the baselines. The AQ/HRA for this Project will consist of two parts (i.e., two reports), meeting two separate regulatory requirements:

- 1. An analysis for the EIR/EIS document, consistent with CEQA/NEPA requirements
- 2. An analysis to support a transportation conformity determination, consistent with federal and state transportation conformity requirements

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² Freeway Traffic Operations Analysis Report (Draft); Prepared for Los Angeles County Metropolitan Transportation Authority; Prepared by URS; December 2, 2009.

³ Caltrans is the lead agency under CEQA. Under NEPA, the Federal Highway Administration's (FHWA's) responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being carried out by Caltrans under its assumption of responsibility pursuant to 23 United States Code (USC) 327.

⁴ 40 CFR 93, Subpart A: Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws.

A white paper⁵ on project level and cumulative air quality/health risk assessments for the I-710 Project has been prepared by ENVIRON and circulated within the I-710 AQ/HRA Working Group. Methodologies used for the AQ/HRA and results will be presented in the AQ/HRA Reports.

ES.3 Pollutants of Concern

The pollutants of concern include criteria pollutants (including, but not limited to, ozone and small airborne particulate matter and their precursors⁶) and toxic air pollutants (including, but not limited to, diesel particulate matter [DPM]). Table ES-1 describes these pollutants, their precursors, and related health effects.

Table ES-1. Pollutants of Concern, Their Precursors, and Related Health Effects ⁷

Pollutant	Health Effects
PM _{2.5} and PM ₁₀ In addition to directly emitted particulates, oxides of nitrogen (NO _x), oxides of sulfur (SO _x) are precursors of PM _{2.5} and PM ₁₀ .	Respirable particulates (PM _{2.5} and PM ₁₀₎ pose a serious health hazard, alone or in combination with other pollutants. More than half of the smallest particles inhaled get deposited in the lungs and can cause permanent lung damage. Respirable particles have been found to increase morbidity and mortality via the following adverse health effects: decreased lung function, aggravated asthma, exacerbation of lung and heart disease symptoms, chronic bronchitis and irregular heartbeats. In addition, respirable particles can act as a carrier of absorbed toxic substance ⁸ .
Ozone Ozone is not a directly emitted pollutant from project sources; volatile organic compounds (VOCs) and NOx are precursors of ozone.	Elevated ozone concentrations have been shown to induce airway irritation, cause airway inflammation, induce wheezing and difficulty breathing, aggravate preexisting respiratory conditions such as asthma, and can lead to permanent lung damage after repeated exposure to elevated concentrations9
Carbon Monoxide (CO)	Carbon monoxide is a colorless and odorless gas that is known to cause aggravation of various aspects of coronary heart disease, dizziness, fatigue, impairment to central nervous system functions, and possible increased risk to fetuses.
Sulfur Dioxide (SO ₂)	Sulfur dioxide is known to cause irritation in the respiratory tract, shortness of breath, and can injure lung tissue when combined with fine PM. It also reduces visibility and the level of sunlight.

White Paper (Revised Draft); Project-Level and Cumulative Air Quality/Health Risk Assessments for the I-710 Project; Prepared for the I-710 AQ/HRA Working Group by ENVIRON International Corporation.

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⁶ Precursors interact in the atmosphere under specific conditions to form secondary criteria pollutants such as ozone and aerosol PM_{2.5}/PM₁₀.

⁷ SCAQMD Final 2007 Air Quality Management Plan, June 2007,

⁽http://www.agmd.gov/agmp/07agmp/agmp/Complete Document.pdf).

⁸ EPA National Center for Environmental Assessment, particle pollution health effects http://www.epa.gov/air/particlepollution/health.html.

⁹ EPA National Center for Environmental Assessment, ground level ozone health effects http://www.epa.gov/air/ozonepollution/health.html.

Table ES-1. Pollutants of Concern, Their Precursors, and Related Health Effects 7

Pollutant	Health Effects
Nitrogen Dioxide (NO ₂)	Long-term exposure to nitrogen dioxide has the potential to decrease lung function and worsen chronic respiratory symptoms and diseases in sensitive population. It has also been associated with cardiopulmonary mortality and emergency room asthma visits. USEPA recently adopted a 1-hour federal standard to address short-term exposure impacts (e.g., adverse respiratory effects) near major roadways.
Air Toxics	Air toxics may have both chronic (cancer and non-cancer) and acute impacts. USEPA has identified a list of 21 mobile source air toxics (MSATs) ¹⁰ , of which six are classified as priority MSATs: acetaldehyde, acrolein, benzene, 1,3-butadiene, diesel particulate matter and diesel exhaust organic gases, and formaldehyde.

ES.4 Scope of AQ/HRA

It should be noted that the AQ/HRA performed for any projects under CEQA/NEPA are conducted for the <u>changes (i.e., increments)</u> in project-related emissions, air quality impacts, and health risks relative to a baseline condition. Therefore, identifying the baseline condition is an important step in the EIR/EIS process. Furthermore, it is important to note that the definition of baseline differs under CEQA and NEPA as discussed below:

The CEQA Baseline represents existing, current conditions, defined to be the conditions at the time the Notice of Preparation (NOP) was released. Therefore, the CEQA baseline will represent project-specific conditions in the year 2008 (e.g., traffic conditions on the I-710 and selected roadways in the year 2008).

The NEPA Baseline represents conditions in the 2035 'analysis' year and in the case where no federal funds were used for the Project. In this case, the "No Build" alternative in the year 2035 (also known as Alternative 1) will represent the NEPA baseline.

The CEQA/NEPA AQ/HRA will evaluate the Project and the identified Project alternatives compared to these baselines. The Alternative Screening process for this Project recommended that the following three build alternatives be evaluated by the AQ/HRA:¹¹

Alternative 5A – Ten General Purpose Lanes;

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In March 2001, EPA issued its first MSATs rule, 40 CFR Parts 80 and 86 - Control of Emissions of Hazardous Air Pollutants From Mobile Sources; Final Rule, March 2001 (http://www.epa.gov/EPA-AIR/2001/March/Day-29/a37.htm), which identified 21 MSATs as being hazardous air pollutants that required regulation. A subset of six MSATs was identified as having the greatest influence on human health. In February 2007 EPA issued a second MSATs rule, which generally supported the findings in the first rule and recommended that acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases, formaldehyde, naphthalene, and polycyclic organic matter as having the greatest influence on health. As agreed on by the AQ/HRA Working Group and the Agency Air Technical Working Group (AATWG), the I-710 AQ/HRA will evaluate the six priority MSATs identified in the first MSATs rule.

¹¹ Technical Memorandum – Alternatives Screening Analysis (Final); Prepared for Los Angeles County Metropolitan Transportation Authority; Prepared by URS; May 29, 2009.

Alternative 6A – Alternative 5A with the Addition of Four Separate Freight Movement Lanes

• Alternative 6B - Alternative 6A with Zero Emission Trucks in the Freight Corridor

The project level conformity analyses will consist of a quantitative "hot-spot" analysis for CO and a qualitative "hot-spot" analysis for PM_{10} and $PM_{2.5}$. The quantitative "hot-spot" analysis for CO will involve estimating the incremental concentration of CO for the project alternatives as compared to the baseline and adding it to the background concentration of CO to determine conformity. At this time, federal and state guidelines call for a qualitative "hot-spot" analysis for PM_{10} and $PM_{2.5}$, although ENVIRON understands that USEPA will likely be releasing a guidance for PM_{10} and $PM_{2.5}$ quantitative analyses sometime in 2010. The conformity analyses will be revised to reflect changes in federal and state guidelines if they occur during the AQ/HRA development process.

The following analyses will be carried out in support of the EIR/EIS (Note that the methods to be used for these analyses are discussed in detail in the main Protocol document, Chapter 3):

Incremental traffic emissions analysis for project alternatives compared to the baselines: The increase in emissions for the criteria pollutants (PM₁₀, PM_{2.5}, CO, SO₂, NO₂), ROG (a precursor to ozone), six priority MSATs, and greenhouse gases for the project alternatives as compared to the baselines will be estimated.

Incremental traffic-related air quality impacts for project alternatives compared to the baselines: The increase in concentrations of criteria pollutants (air quality impacts) for the project alternatives as compared to the baselines will be estimated and reported in the AQ/HRA technical report.

Incremental traffic-related health risk assessment for project alternatives as compared to the baselines: The increase in health risk impacts for the six priority MSATs for alternatives as compared to the baselines will be estimated and reported in the AQ/HRA technical report.

Emission estimates for overall construction activities: The emissions for the criteria pollutants and greenhouse gases will be estimated for the estimated overall construction activities.

Cumulative impact analysis: The cumulative impact analysis will be done following the approach of listing and describing the past, present, and probable future projects in the vicinity of the proposed I-710 Corridor Project, which complies with CEQA requirements of reporting cumulative impacts from the Project. Due to the schedule delay on the I-5 Freeway's EIR/EIS process, it is unlikely that a quantitative cumulative analysis will be performed as part of the I-710 Project, as originally planned. GHG emissions will be discussed under cumulative impacts.

PM mortality: The EIR/EIS will also contain a qualitative discussion on potential mortality associated with exposure to PM emissions from the proposed alternatives as compared to the baselines.



Ultrafine particles: The EIR/EIS will contain a qualitative discussion on ultrafine particles (defined as particles with diameters less than 0.1 μ m) and their associated health impacts for the various alternatives.

ES.5 Significance and Conformity Determinations

One important element of the CEQA/NEPA process is to discuss the significance of the project impacts. Lead agencies may choose to use certain numerical or performance-based thresholds for emissions, ambient concentrations, and/or health impacts against which to judge if a project's impacts are significant and potentially require mitigation. It should be noted that Caltrans does not typically use numerical significance thresholds for transportation projects' air quality and health risk impacts, except for project level conformity analyses where the project needs to demonstrate conformity with the federal Clean Air Act and the purpose of the State Implementation Plan. Caltrans has indicated that it will use (but not adopt) the significance thresholds from the South Coast Air Quality Management District (SCAQMD) for this Project as part of its overall significance determinations. The GHG evaluations and significance determinations in the AQ/HRA will be consistent with the revised CEQA Guidelines soon to become effective and in consultation with the lead agency. ¹²

ES.6 AQ/HRA Protocol

This Protocol is intended to inform all interested agencies and stakeholders of the planned technical approach to be used in the I-710 AQ/HRA such that any adjustments to the approach can be made early in the process and non-consensus on the final technical approach can be minimized. The Draft Protocol (released in March 2009) had been reviewed by the I-710 AQ/HRA Working Group and the Agency Air Technical Working Group for purposes of soliciting feedback and consensus. This version of the Protocol is intended to be final as ENVIRON has incorporated the comments (where appropriate) that it has received since April 2009.

Please refer to the following chapters in the main Protocol document for additional details:

See Chapter 2 for a discussion of CEQA and NEPA baselines used in calculating incremental project impacts;

See Chapter 3 for more information on the individual analyses and related technical approach;

See Chapters 4 and 5 for discussions on cumulative impact analysis and significance and conformity determination, respectively;

See Appendices for detailed information on the technical approach to calculating emissions, conducting local area air quality modeling, conducting conformity and related "hot-spot" modeling, and performing the health risk assessment.

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¹² As mandated by SB 97, the CEQA Guidelines (Title 14, Division 6, Chapter 3, Section 15064 et. seq.) were amended. The Amendments are effective on March 18, 2010. (Adopted text is available from http://ceres.ca.gov/ceqa/docs/Adopted Text of SB97 CEQA Guidelines Amendments.pdf).

1 Introduction

The Interstate 710 (I-710, also known as the Long Beach Freeway) is a major north-south interstate freeway linking the Port of Los Angeles (POLA) and Port of Long Beach (POLB) to Southern California and beyond. An essential component of the regional, statewide, and national transportation system, it serves both passenger and goods movement vehicles. As a result of population growth, cargo container growth, increasing traffic volumes, and aging infrastructure, the I-710 Freeway experiences serious congestion and safety issues. Moreover, the number of Heavy Duty Trucks (HDT) traveling along the I-710 Corridor has also increased, resulting in high levels of air pollution, particularly diesel particulate matter emissions, and other negative impacts to the communities near the I-710. As a result of this strain, I-710 is unable to accommodate current or future traffic demands.

In March 2005, the I-710 Major Corridor Study (MCS) was completed to address the I-710 capacity and mobility issues and to explore possible solutions for transportation improvements. The outcome of the MCS was a Locally Preferred Strategy (LPS) proposing ten general purpose lanes next to four separated freight movement lanes. The Los Angeles County Metropolitan Transportation Authority (Metro), in a cooperative effort involving California Department of Transportation (Caltrans), the Gateway Cities Council of Governments (GCCOG), the Southern California Association of Governments (SCAG), the POLA, the POLB, and the I-5 Joint Powers Authority (JPA), collectively known as the I-710 Corridor Project Funding Partners, formally proposed to improve the I-710 Corridor from Ocean Boulevard in the City of Long Beach to State Route 60 (SR-60) in East LA. The LPS is one of the possible alternatives for the proposed project design. The Air Quality / Health Risk Assessments (AQ/HRA) Working Group, comprised of Funding Partner representatives, oversaw the development of this I-710 Corridor Project AQ/HRA Protocol. In addition, an Agency Air Technical Working Group (or AATWG), comprised of representatives from the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), South Coast Air Quality Management District (SCAQMD), Federal Highways Administration (FHWA), Cal/EPA Office of Environmental Health Hazard Assessment (OEHHA), U.S. Army Corps of Engineers, Los Angeles District, as well as Funding Partner representatives, was consulted during the preparation of the draft I-710 AQ/HRA Protocol. Briefings were made to the Environmental Subject Working Group, Corridor Advisory Committee, Technical Advisory Committee, and Project Committee. The draft I-710 AQ/HRA Protocol was released for comments in March 2009.

The purpose of the proposed I-710 Corridor Project (Project or I-710 Project) is to:

- Improve air quality and public health
- Improve traffic safety
- Address design deficiencies
- Address projected traffic volumes

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 Address projected growth in population and economic activities related to goods movement

The proposed Project will use state and federal funding and, therefore, requires compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans (the lead agency 13) and Metro have initiated an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the proposed Project, the purpose of which is to inform the public and governmental decision-makers of possible environmental effects associated with the Project and to describe the measures that would be undertaken to mitigate those effects. The EIR/EIS will include an evaluation of the incremental air quality and health risk impacts associated with the proposed Project and Project alternatives compared to baseline conditions (i.e., 2008 Notice of Preparation baseline for CEQA or 2035 No Federal Action baseline for NEPA, discussed in detail in Section 2.3). In addition, a transportation conformity analysis for specific pollutants will be conducted to comply with federal and state transportation conformity requirements. Therefore, the overall air quality and health risk assessments (AQ/HRA) for this project will consist of two parts:

- 1. An analysis for the EIR/EIS document to support significance determinations
- 2. An analysis to support a transportation conformity determination

The pollutants of concern to be analyzed in the EIR/EIS include criteria pollutants (including, but not limited to, small airborne particulate matter and ozone precursors¹⁴) and toxic air pollutants (including, but not limited to, diesel particulate matter [DPM]). Table 1-1 describes these pollutants, their precursors, and related health effects.

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¹³ Caltrans is the lead agency under CEQA. Under NEPA, the Federal Highway Administration's (FHWA) responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being carried out by Caltrans under its assumption of responsibility pursuant to 23 United States Code (USC) 327.

¹⁴ Precursors interact in the atmosphere under specific conditions to form secondary criteria pollutants such as ozone and aerosol PM2.5/PM10.

Table 1-1. Pollutants of Concern, Their Precursors, and Related Health Effects 15

Pollutant	Health Effects
PM _{2.5} and PM ₁₀ In addition to directly emitted particulates, oxides of nitrogen (NO _x), oxides of sulfur (SO _x) are precursors of PM _{2.5} and PM ₁₀ .	Respirable particulates (PM _{2.5} and PM ₁₀) pose a serious health hazard, alone or in combination with other pollutants. More than half of the smallest particles inhaled get deposited in the lungs and can cause permanent lung damage. Respirable particles have been found to increase morbidity and mortality via the following adverse health effects: decreased lung function, aggravated asthma, exacerbation of lung and heart disease symptoms, chronic bronchitis and irregular heartbeats. In addition, respirable particles can act as a carrier of absorbed toxic substance. ¹⁶
Ozone Ozone is not a directly emitted pollutant from project sources; volatile organic compounds (VOCs) and NO _x are precursors of ozone.	Elevated ozone concentrations have been shown to induce airway irritation, cause airway inflammation, induce wheezing and difficulty breathing, aggravate preexisting respiratory conditions such as asthma, and can lead to permanent lung damage after repeated exposure to elevated concentrations ¹⁷
Carbon Monoxide (CO)	Carbon monoxide is a colorless and odorless gas that is known to cause aggravation of various aspects of coronary heart disease, dizziness, fatigue, impairment to central nervous system functions, and possible increased risk to fetuses.
Sulfur Dioxide (SO ₂)	Sulfur dioxide is known to cause irritation in the respiratory tract, shortness of breath, and can injure lung tissue when combined with fine PM. It also reduces visibility and the level of sunlight.
Nitrogen Dioxide (NO ₂)	Long-term exposure to nitrogen dioxide has the potential to decrease lung function and worsen chronic respiratory symptoms and diseases in sensitive population. It has also been associated with cardiopulmonary mortality and emergency room asthma visits. USEPA recently adopted a 1-hour federal standard to address short-term exposure impacts (e.g., adverse respiratory effects) near major roadways.
Air Toxics	Air toxics may have both chronic (cancer and non-cancer) and acute impacts. USEPA has identified a list of 21 mobile source air toxics (MSATs) ¹⁸ , of which six are classified as priority MSATs: acetaldehyde, acrolein, benzene, 1,3-butadiene, diesel exhaust particulate matter and organics, and formaldehyde.

¹⁵ SCAQMD Final 2007 Air Quality Management Plan, June 2007,

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⁽http://www.aqmd.gov/aqmp/07aqmp/aqmp/Complete_Document.pdf)

16 EPA National Center for Environmental Assessment, particle pollution health effects http://www.epa.gov/air/particlepollution/health.html.

¹⁷ EPA National Center for Environmental Assessment, ground level ozone health effects http://www.epa.gov/air/ozonepollution/health.html

¹⁸ 40 CFR Parts 80 and 86 - Control of Emissions of Hazardous Air Pollutants From Mobile Sources; Final Rule, March 2001 (http://www.epa.gov/EPA-AIR/2001/March/Day-29/a37.htm). In February 2007 EPA issued a second MSATs rule, which generally supported the findings in the first rule and recommended that acrolein, benzene, 1,3butadiene, DPM, formaldehyde, naphthalene, and polycyclic organic matter as having the greatest influence on health. As agreed on by the AQ/HRA Working Group and the Agency Air Technical Working Group (AATWG), the I-710 AQ/HRA will evaluate the six priority MSATs identified in the first MSATs rule.

This I-710 Project AQ/HRA Protocol (Protocol) describes the technical approach that will be used in the AQ/HRA. Caltrans, the lead review agency for the EIR/EIS, has published a Standard Environmental Reference (SER) document that includes a chapter on air quality that will be used as primary guidance for the analyses. However, if suggested by other agencies and agreed upon by Caltrans and the agencies, ENVIRON will also perform additional analyses to evaluate additional air quality and health risk impacts from the proposed Project, which are discussed in detail in Chapter 3. It should be noted that some elements of the AQ/HRA are still evolving. New guidelines become available and new or updated methodologies become accepted by different agencies over time; hence, new elements will be included in the AQ/HRA if the methods and guidance documents are approved by the lead agency during the preparation of the EIR/EIS.

As noted above, this Project is a joint venture of several agencies associated with transportation and goods movement in the greater Los Angeles area. In addition, various other environmental and transportation agencies will have an interest in how the environmental impacts are assessed, in particular air quality; these agencies include the South Coast Air Quality Management District (SCAQMD), the California Air Resources Board (CARB), the United States Environmental Protection Agency (EPA), and the Federal Highway Administration (FHWA).

Preferred methods used to assess air quality impacts and human health risks sometimes differ among the agencies listed above. This I-710 Protocol is intended to inform all interested agencies of the planned technical approach to be used in the AQ/HRA. Two main objectives of the Protocol are:

To ensure transparency and allow communication on technical issues amongst various stakeholders

To be a living document until finalized in early 2010, which aims for consensus on the technical approach

The Draft Protocol (released in March 2009) had been reviewed by the I-710 Corridor Project AQ/HRA Working Group as well as the Agency Air Technical Working Group (AATWG) for purposes of soliciting feedback and maximizing consensus on technical issues. This version of the Protocol has incorporated the comments that ENVIRON has received since April 2009 and is intended to be final. However, if official agency guidance changes or significant comments are received during the development of the AQ/HRA, the Protocol may be revised or an Addendum prepared, as appropriate.

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¹⁹ Available at http://www.dot.ca.gov/ser/vol1/sec3/physical/ch11air/chap11.htm

2 Project Description, Alternatives, and Baselines

2.1 Project Description

The I-710 Corridor Project proposes to improve the I-710 in Los Angeles County from Ocean Boulevard in the City of Long Beach to SR-60, a distance of approximately 18 miles, as shown on Figure 1. At the freeway to freeway interchanges, the I-710 Corridor extends one mile east and west of I-710 for the I-405, SR-91, I-105, and I-5 interchanges. The general environmental study area is shaded in green, but each environmental analysis may have its own study area. It is generally not possible or reasonable to do air quality modeling of traffic impacts on every roadway within such a large area because of limitations in modeling resources and because in certain areas the potential incremental impacts will be less than the uncertainty associated with the traffic and/or dispersion modeling.

Figure 1: General Project Environmental Study Area



For the AQ/HRA, emissions will be estimated for the CEQA and NEPA baseline years (2008 and 2035) and all Project Alternatives (Alternatives 5A, 6A, and 6B) using the traffic modeling results based on the I-710 Traffic Model for the entire study area. (The I-710 Traffic Model is described in the February 26, 2010 "Final Technical Memorandum - I-710 Corridor Project EIR/EIS Travel Demand Modeling Methodology"; it is based on the regional model that SCAG uses in its transportation planning.) AERMOD dispersion model and a coarse receptor grid will be used to determine the zone of impact for the detailed AQ/HRA modeling. It should be noted that the exact project boundaries, in terms of what roadways are included and excluded in the detailed AQ/HRA modeling, may be different from other environmental analyses being conducted as part of this proposed Project or even for different components of the AQ/HRA, depending on the results of the traffic modeling and limitations of the AQ/HRA models.

2.2 Project Alternatives

URS Corporation (URS), as the primary engineering consultant for this project, in consultation with LSA & Associates, Inc. (LSA, preparing the EIR/EIS), Cambridge Systematics, Inc. (CSI, conducting traffic and goods movement analyses), and ENVIRON, completed the screening process for the project alternatives in May 2009.²⁰ The consultant team evaluated and selected from the following alternative designs or a combination/variation thereof:

- Transportation Systems Management/Transportation Demand Management (TSM/TDM) and Transit may include up to eight new ramp meters, improved signage, parking restrictions on major arterials, empty container management through policies and incentives, expanded truck emission reduction program, implementation of truck emission/safety enforcement facilities, expanded public transportation, and an expanded Intelligent Transportation System (ITS) to include entire study area.
- Goods Movement Enhancement by Rail and/or Advanced Technology
- Arterial Highway and I-710 Congestion Relief Improvements
- Mainline I-710 Improvements
 - Option A Ten general-purpose lanes with no carpool lanes
 - Option B Eight general-purpose lanes with one carpool lane in each direction (total of 10)
- Locally Preferred Strategy Hybrid Design (I-710 Mainline Improvements with the addition of a separated four lane freight movement facility) - Includes ten general purpose lanes next to a separated four lane freight movement facility from the Ports of Los Angeles and Long Beach (Ocean Boulevard) to the intermodal yards southeast of the I-710/I-5 interchange.

²⁰ Technical Memorandum – Alternatives Screening Analysis (Final); Prepared for Los Angeles County Metropolitan Transportation Authority; Prepared by URS; May 29, 2009.





This alternative is a community-based recommendation from the previous I-710 Major Corridor Study: Major Opportunity/Strategy Recommendations and Conditions²¹.

In summary, it is recommended that the draft EIR/EIS evaluate the following three Project alternatives:

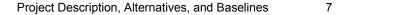
- Alternative 5A Ten General Purpose Lanes;
- Alternative 6A Alternative 5A with the Addition of Four Separate Freight Movement Lanes
- Alternative 6B Alternative 6A with Zero Emission Trucks/Transports in the Freight Corridor

The AQ/HRA will be performed for the identified Project alternatives starting from the year when the Project is projected to be complete and fully functional, which is currently estimated to be 2035. This Protocol describes the methodology used for the AQ/HRA for the identified Project alternatives and the baseline scenarios that are discussed below. Although not included at this time, additional AQ/HRA analyses for specific interim Project years are under discussion.

2.3 Project Baselines

It should be noted that the AQ/HRA performed for any project under CEQA/NEPA are conducted for the <u>changes</u> in project-related emissions, air quality, and health risks relative to a baseline condition. Therefore, identifying the baseline condition is an important step in the EIR/EIS process. Furthermore, it is important to note that the definition of baseline differs under CEQA and NEPA as discussed below:

- The CEQA Baseline represents existing, current conditions, defined to be the conditions
 at the time the Notice of Preparation (NOP) was released. Therefore, the CEQA baseline
 will represent project-specific conditions in 2008 (e.g., traffic on the I-710 and selected
 roadways in 2008).
- The NEPA Baseline represents conditions in the 'analysis' year and in the case where no federal funds were used for the Project. In this case, the No Build alternative (also known as Alternative 1) in the year 2035 will represent the NEPA baseline.





²¹ I-710 Major Corridor Study Final Report Appendix S - Major Opportunity/Strategy Recommendations and Conditions, Tier 2 Community Advisory Committee, (August 2004), Available at http://www.metro.net/projects_programs/final_report/appendix_s.pdf

3 Air Quality/Health Risk Assessments

The technical assessments to be performed for this AQ/HRA can be categorized as follows:

- Quantifications of Emissions for Criteria Pollutants, Toxic Air Contaminants (TACs, specifically the six priority MSATs), and Greenhouse Gases (GHGs)
- Dispersion Modeling for Criteria Pollutant Impacts and MSATs
- Conformity Assessment for CO and PM₁₀/PM_{2.5}
- Human Health Risk Assessment
- PM Mortality
- Ultrafines

Table 3-1a below summarizes the proposed scope of the AQ/HRA, i.e. what activities, sources, and pollutants will be assessed as part of the AQ/HRA, as well as what assessments will be performed for each group of pollutants, consistent with Caltrans's requirements as outlined in Chapter 11 – Air Quality of the Standard Environmental Reference (SER). The proposed scope also includes analyses not traditionally done for freeway projects, but are being added because of the unique goods movement component of the Project and the air quality purpose of the I-710 Corridor Project. ENVIRON will be conducting all of these analyses. Recent goods movement projects at the San Pedro Bay Ports and other places in the South Coast Air Basin (e.g., POLA TraPac and POLB Middle Harbor) have included additional analyses of the same pollutants. Those types of additional analyses are listed in Table 3-1b. ENVIRON may, at the direction of Caltrans, the lead agency, and in consultation with the I-710 AQ/HRA Working Group members, conduct some additional analyses listed in Table 3-1b. It should be further noted that all the assessments mentioned in Tables 3-1a and 3-1b are based on changes as compared to the baselines (both CEQA and NEPA) discussed in Section 2.3.

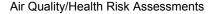


Table 3-1a. Summary of Proposed I-710 AQ/HRA Analyses

Types of Activities/Sources Included	Types of Emissions Included	Pollutants Assessed	Types of Assessments to be Performed
Project Traffic Operations: Changes in traffic from all types of on-road vehicles on the mainline freeway and other designated Project roadways in the study area	Exhaust Evaporative Tire wear Brake wear Re-entrained paved road dust (Emission types above do not produce all pollutants	Volatile Organic Compounds (VOC) Particulate Matter with aerodynamic diameter less than 10 microns (PM ₁₀) Particulate Matter less than 2.5 microns (PM _{2.5}) Sulfur dioxide (SO ₂) and Sulfates (SO ₄) Six Priority Mobile Source Air Toxics (MSATs) Diesel exhaust particulate matter and organic gases	concentrations of criteria pollutants. Qualitative discussion on PM mortality. Qualitative discussion on ultrafine particles. Emissions quantification of the 6 Priority MSATs.
	listed at right)	Benzene 1,3-Butadiene Acetaldehyde Formaldehyde Acrolein Greenhouse Gases: Carbon Dioxide (CO ₂) Methane (CH ₄) Nitrous Oxide (N ₂ O)	Full dispersion modeling for estimating concentrations of the 6 Priority MSATs. Human health risk assessment for the 6 Priority MSATs. Emissions quantification.
Construction: Activities from both on-road and off-road construction equipment for which activity and schedules are quantified	Exhaust Evaporative Fugitive dust from materials handling/hauling and activity on un-paved areas and roads (Different emissions types above do not all produce all pollutants listed at right)	Criteria Pollutants: Carbon Monoxide (CO) Oxides of Nitrogen (NO _x) including Nitrogen Dioxide (NO ₂) Volatile Organic Compounds (VOC) Particulate Matter less than 10 microns (PM ₁₀) Particulate Matter less than 2.5 microns (PM _{2.5}) Sulfur Dioxide (SO ₂) and Sulfates (SO ₄)	Emissions quantification.

Table 3-1b. Summary of Potential Additional Analyses That Are Not Currently Proposed for the I-710 Corridor EIR/EIS Study

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Types of Activities/Sources	Types of Emissions	Pollutants Assessed	Types of Assessments Possible
Project Traffic Operations:	Exhaust	Criteria Pollutants:	Quantitative Conformity Analysis for PM ₁₀ /PM _{2.5} ,
Changes in traffic from all types of	Evaporative	Particulate Matter with aerodynamic diameter	if EPA/FHWA quantitative guidance is issued
on-road vehicles on the mainline	Tire wear	less than 10 microns (PM ₁₀)	within the EIR/EIS preparation timeline.
freeway and other designated	Brake wear	Particulate Matter less than 2.5 microns (PM _{2.5})	Specialized modeling of "near-source" impacts
Project roadways in the study area	Re-entrained paved road dust		for schools and residences that are directly next
	(Emission types above do not		to the freeway.
	produce all pollutants listed at		Quantification of PM _{2.5} mortality and morbidity
	right)		impacts (beyond the qualitative mortality
			assessment currently described in the Protocol).
			We note that this is an area of evolving
			regulatory guidance for project-level analyses.
		Air Toxics	Health risk assessment for expanded list of air
		Additional toxics beyond the 6 Priority MSATs	toxics.
Construction: Activities from both	Exhaust	Criteria Pollutants:	Full dispersion modeling to estimate ambient
on-road and off-road construction		Carbon monoxide (CO)	concentrations of the criteria pollutants
equipment for which activity and	Evaporative	Oxides of Nitrogen (NO _x) including Nitrogen	
schedules are quantified		Dioxide (NO ₂)	
	Fugitive dust from materials	Volatile Organic Compounds (VOC) a.k.a. Total	
	handling/hauling and activity on	Organic Gases (TOG)	
	un-paved areas and roads	Particulate Matter less than 10 microns (PM ₁₀)	
		Particulate Matter less than 2.5 microns (PM _{2.5})	
	(Different emissions types	Sulfur dioxide (SO ₂) and Sulfates (SO ₄)	
	above do not all produce all	Air Toxics	Emission quantification of identified toxics.
	pollutants listed at right)	(Specific toxics to be identified)	Human health risk assessment for the toxics identified
		Greenhouse Gases:	Emissions quantification
		Carbon Dioxide (CO ₂)	
		Methane (CH ₄)	
		Nitrous Oxide (N ₂ O)	
		Others, if necessary	

The proposed approach to be used in this Project for the above assessments is summarized in the following sections and the details are described in Appendices. Results of certain assessments are used as inputs to others, and the flow chart in Figure 2 provides a basic overview of how the individual analyses are related to each other. As noted above, the scope of the individual analyses will be based on decisions by the Lead Agency, in consultation with the I-710 AQ/HRA Working Group.

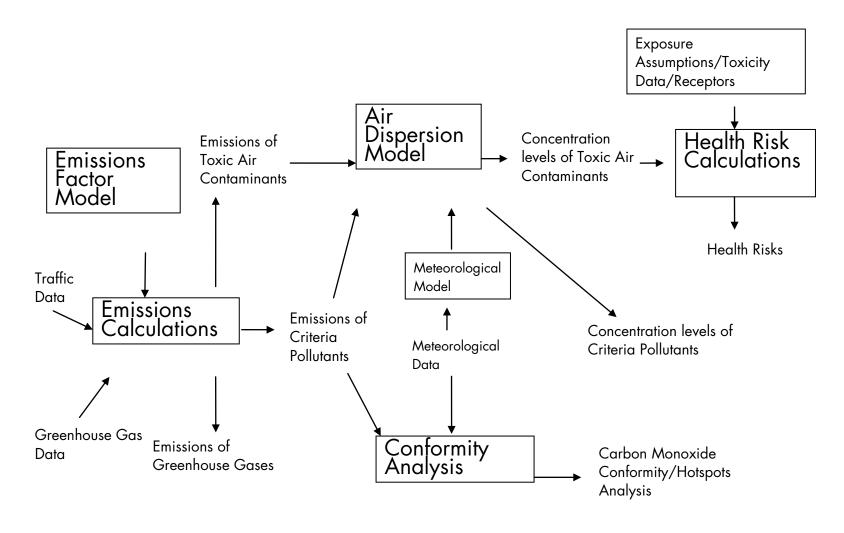


Figure 2: Flow chart showing how technical analyses depend on data and output of other analyses

3.1 Quantification of Emissions

Project emissions form the basis for all other technical assessments in the AQ/HRA. As described in Table 3-1a, emissions from freeway/roadway traffic will be quantified from exhaust, running evaporative losses, tire wear, brake wear, and re-entrained fugitive dust on paved roadways. In order to calculate the incremental emissions, the emissions will be quantified for both CEQA and NEPA baselines and the Alternatives in 2035. The Caltrans SER states that, for areas subject to Transportation Conformity requirements, quantification of emissions from construction activities should be done if the duration of construction activity at a location is greater than five years. The SER also mentions that the CO and PM_{2.5}/PM₁₀ hot spot impacts of the disturbed traffic flow should be analyzed if construction will last more than three years, or will substantially affect traffic due to detours, closures, and temporary terminations. As such, emissions from construction activity will be quantified for equipment exhaust emissions, running evaporative losses, and fugitive dust from materials handling/hauling and activity on un-paved areas and roads using a screening level approach recommended by the lead agency.

There are two main steps in quantification of emissions from freeway/roadway traffic as presented below:

- Estimating the vehicle activity for various vehicle types in terms of vehicle miles traveled (VMT); and
- Estimating emission factors for the various vehicle types.

Similarly, the quantification of emissions from construction can also be broadly divided in two main steps as presented below:

- Estimating the construction equipment activity in terms of horse power-hour (hp-hr) and quantity of material handled (tons or cubic yards) for various construction activities; and
- Estimating emission factors for the various construction equipment and material handling activities.

Both the vehicle activity and construction equipment activity, including quantity of material handled, is to be estimated by other I-710 Project team members. Therefore, this I-710 Protocol does not discuss the methods/approaches to estimate activity data described above. The approach for development of emission factors is discussed below.

3.2 Approach for Criteria Pollutant Emissions Calculations

3.2.1 Project Traffic Operations

The latest release of the California Air Resources Board's Emission Factors (EMFAC)²² emissions model, EMFAC2007 version 2.3, will be used to generate the emission factors for various on-road vehicles/mobile sources. Use of EMFAC is generally consistent with Caltrans'



²² Model and its documentation can be found at http://www.arb.ca.gov/msei/onroad/latest_version.htm.

SER and EMFAC is the preferred model for estimating emissions from on-road vehicles/mobile sources in California as it accounts for California-specific regulations for mobile sources.

Future year emissions factors generated by EMFAC account for the introduction of emissions control technologies that are required by adopted regulations. However, since the last release of EMFAC, the following new regulations/other programs have been adopted/approved that will impact future emissions of heavy-duty trucks that travel on the I-710.

- The CARB "Regulation to Control Emissions from In-Use On-Road Diesel-Fueled 1. Heavy-Duty Drayage Trucks" (http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm)²³
- The Clean Trucks Program that is part of the approved POLA/POLB Clean Air Action 2. Plan (CAAP) (http://www.cleanairactionplan.org/strategies/cleantrucks/default.asp)
- 3. Measures in the State Implementation Plan (SIP).

The present version of EMFAC model does not account for emission reductions for heavy-duty trucks for the above regulations/ programs. Therefore, the emission factors for heavy-duty trucks from EMFAC model will be accordingly adjusted to quantify the reductions for the above regulations/programs. It should be noted that emission reductions from any future regulations/ programs that are adopted during the preparation of the EIR will be appropriately accounted for in the analysis.

The EMFAC model does not estimate emissions from re-entrained road dust that occurs due to movement of vehicular traffic on the freeway. The emissions for dust entrainment will be calculated using EPA AP-42²⁴ guidance document. It should be noted that the AP-42 section for dust entrainment emission calculations is currently under review and the latest available version or another appropriate methodology will be used for emission calculations.

3.3 Project Construction

Emissions of criteria pollutants from construction equipment will be estimated using the emission factors derived from the CARB's OFFROAD 2007 emissions model²⁵. Similar to EMFAC, OFFROAD currently does not account for some regulations that have been adopted since the last release of the model. OFFROAD factors will be adjusted by ENVIRON to account for the impact of the CARB's regulation for offroad in-use diesel vehicles²⁶.

Emissions from various material handling activities in construction will be calculated using the methods and equations available in SCAQMD CEQA Air Quality Analysis Handbook²⁷.



²³ Adopted on October 12, 2008. http://www.arb.ca.gov/regact/2007/drayage07/drayage07.htm.

²⁴ AP-42, Fifth Edition, Volume I, Chapter 13: Miscellaneous Sources. Section 13.2.1. Available at http://www.epa.gov/ttn/chief/ap42/ch13/index.html.

Model along with documentation available at http://www.arb.ca.gov/msei/offroad/offroad.htm

Available at http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm SCAQMD CEQA Air Quality Analysis Guidance Handbook, 1993

3.3.1 Approach for Toxic Air Contaminant Emissions Calculations

Toxic air contaminants (TACs) emissions are components of total organic gas (TOG) emissions (gas-phase TACs) and PM₁₀/PM_{2.5} emissions (particle-phase TACs), which are both quantified using EMFAC as described above. Emissions of individual TACs are calculated by applying speciation profiles from the California Air Resources' Board's (CARB) speciation database²⁸ to total TOG and PM₁₀/PM_{2.5} emissions. There are numerous TACs in mobile source emissions as per the ARB speciation database. However, in discussion with the lead agency, Caltrans, the following six compounds of the 21 Mobile Source Air Toxics (MSATs) were identified by the USEPA²⁹ as the "priority" MSATs:

- Diesel exhaust (particulate matter and organic gases)
- Benzene
- 1.3-Butadiene
- Acetaldehyde
- Formaldehyde
- Acrolein

Therefore, the emissions for the above compounds will be quantified for this study.

It should be noted that recent health risk assessments in EIR/EIS related to goods movement projects (POLA TraPac and POLB Middle Harbor EIR/EIS) have calculated health risk impacts for more than the 6 TACs listed above. This is commonly referred as a "full HRA" as efforts are made to identify a more comprehensive list of TACs emitted from the project and collective health impacts from these TACs are assessed. If required by Caltrans, and with the concurrence of the I-710 AQ/HRA funding partners, a full HRA will be performed for this project. In a full HRA, emissions of all TACs that are found in the aforementioned speciation profiles would be quantified, and the I-710 HRA would include all project roadways that experience changes in traffic due to the project.

It should be noted that diesel exhaust, which includes both PM and TOG, is not speciated by CARB/OEHHA for calculating chronic and cancer health effects. Instead, toxicity values applicable to the entire mixture of diesel exhaust are used to calculate those impacts. Consistent with the standard approach for these emissions, exhaust PM₁₀ emissions from diesel mobile sources will be used as a surrogate for diesel exhaust to estimate cancer and chronic health effects; this TAC is therefore commonly referred to as diesel particulate matter (DPM). The acute health effects of diesel exhaust will be evaluated using the speciated emissions.

More information on emissions assessments is provided in Appendix A.

Available at http://www.arb.ca.gov/ei/speciate/speciate.htm
Available at http://www.epa.gov/otaq/regs/toxics/toxicfrm.pdf

3.3.2 Approach for Greenhouse Gas (GHG) Emissions Calculations

A combination of the methodologies provided in the California Climate Action Registry's General Reporting Protocol (CCAR GRP) and fuel consumption/efficiency data obtained from EMFAC 2007 and OFFROAD 2007 models, as presented in the Table below, will be used to calculate the GHG emissions associated with the Project. Please note that the quantification of GHG emissions is still an "evolving" field and the proposed methodology may change as new emission factors/guidance documents become available from the regulatory agencies during the duration of preparation of the EIR. It should be further mentioned that the GHG emissions will be quantified for both the baselines and the Project Alternatives in 2035 in order to estimate the incremental GHG emissions. Quantification of GHG emissions for construction will be done only if required by the lead agency.

Table 3-2. GHG Emission Estimation Methodology

Emission Source	Project Phase	Emission Estimation Methodology
Off-road construction	Construction Phase Only	Emission factors from the CCAR GRP will be used for
equipment		CO ₂ , CH ₄ and N ₂ O. The emission factors from the
		GRP are in units of kilograms of GHG per gallon of
		fuel (kg/gal). These emission factors will be converted
		to units of g/hp-hr by using default values of brake-
		specific fuel consumption (BSFC) by equipment
		horsepower category from OFFROAD2007 and a fuel
		density value from the GRP. More details on the
		emission factor conversion from kg/gal to g/hp-hr are
		provided in Appendix B
Construction worker	Construction Phase Only	CO ₂ emission factors from CCAR GRP in units of
commute vehicles		kilograms of GHG per gallon of fuel (kg/gal) will be
Passenger Vehicles	Traffic Operation Phase Only	used to calculate CO ₂ emissions. This emission factor
On-road trucks	Both Construction and Traffic	will be converted to units of grams per mile (g/mi) by
	Operation Phases	using the fuel efficiency data from the EMFAC 2007
		model. Emission factors for CH ₄ and N ₂ O from the
		CCAR GRP in units of grams per mile (g/mi) will be
		used to calculate the emissions of CH ₄ and N ₂ O.

The total GHG emissions from the project will be reported in carbon dioxide equivalents (CO_2e). CO_2e is universal unit of measurement to indicate the global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate the impact of different greenhouse gases on a common basis. Emissions of each GHG will be converted to CO_2e by multiplying the CH_4 and N_2O emissions with the respective GWP. Current GWP³⁰ values used in CEQA analyses are listed below:



³⁰ Second Assessment Report (SAR) of the Intergovernmental Panel on Climate Change, 1995

Table 3-3. GHG Global Warming Potential

GHG	Global Warming Potential (GWP)
Carbon dioxide (CO ₂)	1
Methane (CH ₄)	21
Nitrous oxide (N ₂ O)	310

At this time, it is not expected that other Kyoto GHGs will be emitted in quantities that would materially affect the results of the GHG calculations, despite their higher GWP. More information on greenhouse gas emissions calculations is provided in Appendix B.

3.4 Dispersion Modeling for Criteria Pollutant Impacts & Toxics Air Contaminant Concentrations

Emissions released from sources of air pollution are mixed and diluted in ambient air and ultimately transported away from the source(s). The purpose of the dispersion modeling step is to simulate the release and transport of emissions from project sources in order to estimate the concentrations of individual pollutants, criteria pollutants and TACs, at locations (called 'receptors') within the study area.

For this study, the U.S. EPA's AERMOD dispersion model (http://www.epa.gov/scram001/dispersion_prefrec.htm) will be used to model pollutant concentrations in the study area. Note that this is not the same model that will be used to assess localized CO 'hotspots' as discussed in the next section. EPA has indicated that the current version of the AERMOD is adequate for simulating the roadways (i.e. volume sources). Hence, currently there are no plans to use other line source models (such as CALINE4) to simulate the roadway emissions for near-roadway impacts. It should further be noted that the air dispersion modeling will be performed for both the baselines (CEQA and NEPA) and the project analysis year in order to estimate the increase in concentration of the individual pollutants at various receptors.

Three major elements of a dispersion model exercise are source representation and parameterization, receptor designation, and meteorological data processing. These elements are discussed below:

3.5 Source Representation and Parameters

Emissions from freeway traffic will be modeled in AERMOD as a series of volume sources, which is an accepted practice for modeling mobile sources in a dispersion model (ENVIRON, 2006b,c,d,e,f,g, 2007a,b, 2008). Volume sources will be placed along the roadways of interest using GIS tools. The parameters characterizing the volume sources such as source spacing, initial dimensions and release height will be determined after reviewing, and to be consistent with, recent similar modeling exercises for goods movement sources in Southern California (POLA TraPac and POLB Middle Harbor).



If construction impacts are required to be evaluated in the EIR, construction source exhaust and evaporative emissions will be modeled using volume sources; however fugitive dust sources from construction activities will be modeled as area sources according to the methods used by the SCAQMD in their modeling to determine localized significance thresholds (LST's)³¹. Construction sources will be placed in the model using construction schedules by location as provided by other I-710 team members.

Receptor Designation

Grid receptors will be placed in the model at equally spaced intervals covering the area over which Project impacts could be of significance. The exact extent of the receptor grid will not be known until preliminary modeling begins. Spacing of grid receptors will be chosen to be consistent with applicable guidance documents and via consultation with the lead agency. A fine receptor grid will be placed near source.

Discrete receptors will also be placed at exact locations of known 'sensitive' receptors such as schools, day care centers, hospitals etc. within the Project's zone of impact. In addition, residential receptors located near the I-710 will also be included as discrete receptors.

Meteorological Input Data

Hourly-resolution meteorological surface data, such as wind speed and direction, and upper air data must be provided as inputs to AERMOD for pollutant transport calculations. This information is acquired from existing meteorological stations near to the project that continuously monitor this information. A unique aspect of the I-710 Project is that the freeway is 18 miles in length, and the meteorology over that 18 mile stretch may be different along different stretches of the freeway. For this study a "Sphere of Influence" approach will be used whereby data inputs from different meteorological stations in the I-710 corridor will be used to model pollutant transport at different segments of the freeway, according to proximity and/or applicability of each station to the freeway. Meteorological information will be processed into AERMOD-ready format using the U.S. EPA's AERMET program. The overall preparation of meteorological inputs will consist of:

- 1. Identification of applicable meteorological stations for each section of the freeway.
- Acquisition and processing of necessary raw meteorological data from all stations. The
 preferred length of the dataset for dispersion modeling is five years, however a shorter
 period is allowed if the information can be shown to be representative of long-term average
 conditions. For this study, the time period may be limited by the availability of concurrent
 data for all stations under consideration.
- 3. Processing of the AERMOD met input files using AERMET and a GIS based internal tool developed by ENVIRON that calculates surface parameters as per the land use. The

³¹ Available at http://www.agmd.gov/CEQA/handbook/LST/Method_final.pdf



latest guidelines from USEPA issued in January 2008 will be used to perform the surface parameters analysis³².

More information on dispersion modeling and preparation of meteorological inputs can be found in Appendix C.

Conformity Assessment for CO and PM₁₀/PM_{2.5}

A separate analysis from the dispersion modeling for CEQA/NEPA described earlier is a transportation conformity analysis that is required for federally funded transportation projects or projects that require federal approval. Conformity determinations consider whether a project will make air quality in close proximity to the project worse compared to conditions without the project, and whether the project conforms to regional plans to attain federal National Ambient Air Quality Standards (NAAQS).

CO Hotspot Assessment

In general, the procedures as outlined in the "Transportation Project-Level Carbon Monoxide Protocol" (commonly referred to as the "CO Protocol," University of California at Davis, Revised December 1997, UCD-ITS-RR-97-21) will be followed for the CO air quality hotspot assessment. The CO Protocol may also be supplemented through local consultation process to incorporate region-specific processes. Any deviations from use of CO protocol will be clearly justified in the AQ/HRA report. The CO protocol specifies the use of the CALINE4 dispersion model (http://www.dot.ca.gov/hq/env/air/pages/cl_license.htm) to model near source CO concentrations. However, Appendix B, Section B.4 of the CO Protocol provides a comment that "The recommendation to use CALINE4 does not preclude the use of other models approved by EPA such as CAL3QHC..." This section further mentions that the "intersection link" option of CALINE4 should not be used as it calculates modal emissions using algorithm that is based on outdated vehicle fleet information. CAL3QHC has the ability to characterize and model signalized intersections and also has the ability to evaluate the contribution from idling vehicles during red signal times. Therefore it is proposed that CAL3QHC will be used for the CO conformity analysis. Emissions will be quantified as discussed in earlier sections.

PM₁₀ and PM_{2.5} Hotspot Assessment

On March 10, 2006, EPA issued amendments to the Transportation Conformity Rule to address localized impacts of particulate matter: "PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ National Ambient Air Quality Standards" (71 FR 12468). These rule amendments require the assessment of localized air quality impacts of Federally-funded or approved transportation projects in PM_{2.5} and PM₁₀ nonattainment and maintenance areas deemed to be projects of *air quality concern*³³. The critical factor for establishing PM_{2.5} and PM₁₀ hotspot criteria is whether

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³² USEPA. AERMOD Implementation Guide. January 9, 2008.

http://www.epa.gov/scram001/7thconf/aermod/aermod_implmtn_guide_09jan2008.pdf Criteria for identifying projects of air quality concern is described in 40 CFR 93.123(b)(1).

or not a project's direct $PM_{2.5}$ and PM_{10} emissions could actually cause a new violation, worsen an existing air quality violation, or delay timely attainment of the PM_{10} or $PM_{2.5}$ National Ambient Air Quality Standards.

The qualitative PM_{10} and $PM_{2.5}$ analysis would follow EPA's Guidance "Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas" (EPA420-B-06-902). The interagency consultation process would be used to reach concurrence with the methods and underlying assumptions to be used in the $PM_{2.5}$ and PM_{10} hotspot analyses (40 CFR 93.105). The USEPA has been working on the guidance on performing quantitative hot-spot analyses for $PM_{2.5}$ and PM_{10} for project-level conformity determinations. The quantitative analyses for $PM_{2.5}$ and PM_{10} conformity will be performed if the guidance is issued in the EIR/EIS preparation timeframe.

More information on conformity/hotspots assessments can be found in Appendix D.

3.6 Health Risk Assessment

As noted earlier, standard Caltrans' procedures for CEQA/NEPA analyses for transportation projects includes the impact of the emissions of the 6 priority MSATs only, also known as an MSAT analysis. (The six MSATS are: Diesel exhaust, Benzene, 1,3-Butadiene, Acetaldehyde, Formaldehyde, and Acrolein). CEQA/NEPA assessments for goods movement projects in the South Coast Air Basin, however, have recently included a "full HRA" whereby the emissions of multiple air toxics, including the six MSATs, are quantified, their ambient concentrations assessed, and their collective health risks estimated by combining exposure assumptions for the population with published toxicity data for individual TACs.

Given that the I-710 Project is associated with goods movement, in particular related to activities of the Ports of Los Angeles and Long Beach, Caltrans, as the lead agency, may choose to conduct a full HRA.

The I-710 HRA will be conducted using a methodology that is consistent with Office of Environmental Health Hazard Assessment (OEHHA)³⁴ Air Toxics Hot Spots Program Risk Assessment Guidelines and SCAQMD Rule 1401/212 risk assessment guidance³⁵. The HRA will be performed for both the baselines (CEQA and NEPA) and the Project Alternatives in 2035 in order to estimate the incremental health risks at the various receptors.

Health risk assessments can be outlined as a four-step process that includes:

- Hazard identification
- Exposure assessment



³⁴ Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, August 2003.

South Coast Air Quality Management District, Risk Assessment Procedures for Rules 1401 and 212.
 Version 7.0. July 2005

- Dose-response assessment
- Risk characterization.

The first step of the HRA process is to identify the contaminants of potential concern (COPC) and sources of these chemicals, as well as to estimate the levels of emissions from each source. This process is called "hazard identification." COPCs can be defined as contaminants that are known to be carcinogens or are linked to having adverse acute or/and chronic health impacts. The COPC will be identified as the TACs included in the speciation profiles applied to the Project's construction and traffic operational sources. Caltrans guidance (i.e., the SER, based on FHWA guidance) has already identified 6 of these COPC, which are the 6 priority MSATs described earlier in the Protocol. Additional COPCs, other than the 6 priority MSATs, will be identified if a full HRA is required to be undertaken.

The second step, known as "exposure assessment," is concerned with the quantity of a contaminant that people are exposed to during a specific time period, as well as the populations of interest (e.g., residential, commercial, sensitive population, etc.). Once the identity and location of the source(s) are known, the amounts and the process of transporting the contaminants through the environment need to be identified. Computer models, such as AERMOD, use mathematical equations to simulate the movement and dispersion of air contaminants. The models incorporate factors, such as the distance from the source to the exposed population, wind speed and direction, and contaminant release height. Once the amount of exposure to each toxic air contaminant is identified, an assessment of the contaminant path into the human body is performed. For air emissions, breathing (inhalation) is usually the primary route by which a contaminant enters the body, but contaminants can also enter through eating (ingestion) of soil or produce, through mother's milk or can be absorbed through the skin (dermal absorption). The route through which a contaminant enters the body is called a "pathway." The risk assessment models normally used to assess the health risks (such as HARP) are multi-pathway model and account for all applicable exposure pathways for a particular contaminant. An alternative to using the multi-pathway risk models is to use multi-pathway factors for each contaminant, which has been recommended by the SCAQMD. ENVIRON is proposing to use the multi-pathway factors as discussed subsequently in this protocol.

The third step of an HRA is called "dose-response assessment." Dose is the amount of a chemical that enters the human body (or reaches a targeted organ); response is the resulting health effect from the level of the dose. Epidemiologists, toxicologists, and other researchers conduct animal and human epidemiological studies to evaluate and establish the causal relationships between the various doses and the resulting health effects (responses) for a chemical. These causal relationships are quantified as the cancer potency factors (CPF) or unit risk factors (URF) for carcinogenic health effects and acute and chronic Reference Exposure Levels (RELs) for non-carcinogenic health effects. The values of CPS and RELs from the latest version of the Consolidated Table of OEHHA / ARB Approved Risk Assessment Health Values for the various COPC will be used in the HRA.

The last step of the risk assessment process is called "risk characterization." Risk characterization integrates the above three processes to describe the type and magnitude of any increased health risks that may occur as a result of exposure to the toxic air emissions from a facility or project. For the purpose of this HRA, acute, chronic, and cancer health impacts will be defined as follows:

Acute risks are non-cancer adverse health impacts, commonly associated with exposures to relatively high concentrations of toxic air contaminants over short periods of time, from minutes to hours. Acute exposure typically results in headaches, dizziness, nausea, eye/nose/throat irritation, and/or skin rash. Each toxic chemical has a unique acute toxicological profile and specific target organs.

Chronic risks are non-cancer adverse health impacts, commonly associated with exposures to relatively low concentrations of toxic air contaminants over long periods of time, as in several years. Typical symptoms of chronic exposure include persistent respiratory or digestive problems, chronic cough, chest pains, numbness or tingling, loss of smell or taste, etc. Each toxic chemical may affect the body through different mechanisms and target organs causing different chronic health effects.

Cancer is defined as the abnormal or irregular growth of cells or tissue. There are many triggers that may cause or increase the risk of cancer, including exposure to certain chemicals or toxic air contaminants. The increased risk of cancer from exposure to a chemical means the additional risk of getting cancer from continuous exposure (70 years and 365 days per year) to potentially cancer-causing compounds. Cancer risk is usually expressed as a probability (e.g., ten in one million exposed populations).

Unlike cancer health effects, non-cancer acute (short term) and chronic (long term) health effects are generally assumed to have thresholds for adverse effects. These thresholds, represented as a concentration level (ug/m³) or dose (mg/kg-day) at which no adverse health effects are anticipated, are also called Reference Exposure Levels (RELs). RELs are used to calculate the hazard indices (HI) which gives an indication of the likelihood of experiencing chronic or acute health effects.

As stated earlier in the protocol, the HRA for the project will be performed using a combination of OEHHA and SCAQMD methodologies. The HRA will be a multi-pathway risk assessment, which means that all the applicable pathways for a particular contaminant will be evaluated while calculating the health risks. To perform the health risk assessment for this project, the first option is to use the Hotspots Analysis and Reporting Program (HARP), which has been developed by the California Air Resources Board (CARB). HARP is often used as a tool to evaluate health risk impacts and is a computer software package that which incorporates the requirements of the OEHHA Air Toxics Hot Spots Risk Assessment guidelines. HARP combines facility prioritization, air dispersion modeling, and health risk analysis into a single software package. The HARP model currently uses ISC3 as the dispersion model; however, CARB has released a software package called "HARP On-Ramp" that allows a user to import the output from AERMOD model runs directly into the risk module of HARP. The second option



is to use the procedure outlined in, which does not require the use of HARP. Due to the high degree of complexity required for the modeling representation of the emission sources, it is proposed that HARP will not be used for this Project and that the health risks will be assessed using the SCAQMD Rule 1401/212 Risk Assessment Guidance, which is discussed in detail in Appendix E.

3.7 PM Mortality

The Caltrans SER does not require that PM Mortality analyses be performed for freeway projects. However, the recent EIR/EIS for goods movement projects (POLA TraPac and POLB Middle Harbor) have conducted PM mortality analyses. The AQ/HRA Report will contain a qualitative discussion on potential mortality associated with exposure to PM emissions from the proposed Project.

3.8 Ultrafine Particles

Recent toxicological studies have shown that ultrafine particles (defined as particles with diameters less than 0.1 μ m) possess the ability to inflict adverse health effects. In the urban environment, motor vehicles are a major source of ultrafine particles (UFP), and for that reason UFP are found in high numbers near highways. Currently, no federal or state standards for UFP have been developed. There are no guidelines for quantitative analysis of UFP emissions. However, the AQ/HRA Report will present a qualitative discussion on UFP emissions and their associated health effects.

4 Cumulative Impacts Analyses

CEQA and NEPA require that cumulative impacts of a project be discussed when the project's incremental effect may be cumulatively considerable. As per CEQA, a Project is considered as "cumulatively considerable" if the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Section 15130 of CEQA provides that the EIR may contain either of the following two methods of identifying a project's cumulative impacts:

- 1. The EIR may provide a list of past, present, and probable future projects producing related or cumulative impacts, or
- 2. The EIR may provide a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

A "probable future project" is further defined in the CEQA as follows:

- A project for which an application has been received by the time the Notice of Preparation for the Project is released;
- A project that is included in an adopted capital improvements program, general plan, regional transportation plan, or other similar plan;
- A project included in a summary of projections of projects (or development areas designated) in a general plan or a similar plan;
- A project anticipated as a later phase of a previously approved project (e.g., a subdivision);
 or
- Public agency projects for which money has been budgeted.

For this project, Approach 1 will be used, which describes listing of the past, present, and probable future projects to comply with CEQA requirements of reporting cumulative impacts from the project. Maximum impacts from related projects will not be added together since those maximum impacts do not necessarily occur at the same location; rather, the magnitude of maximum impacts from related projects will be qualitatively discussed. It should be noted that CEQA guidelines specifically state that the cumulative analysis will be less detailed than the analyses performed for the project (in other words, qualitative vs. quantitative). At the discretion of the lead agency, cumulative impacts from the I-710 Corridor Project and the I-5 freeway project currently going through the EIR/EIS development process may be assessed quantitatively together. That quantitative evaluation is not discussed here but may be added as an Appendix in future versions of this I-710 Protocol.



5 Significance and Conformity Determinations

One important element of the CEQA/NEPA process is to discuss the significance of the project impacts. Lead agencies may choose to use certain numerical or performance-based thresholds for emissions, ambient concentrations, and/or health impacts against which to judge if a project's impacts are significant and potentially require mitigation. It should be noted that Caltrans' current policy is not to use numerical significance thresholds for transportation projects' air quality and health risk impacts, except for project level conformity analyses for CO, PM₁₀ and PM_{2.5}, where the project needs to demonstrate conformity with the federal Clean Air Act. Caltrans is in the process of developing a guidance document to evaluate greenhouse gases emissions and related thresholds, which may be available during the preparation of the I-710 EIR/EIS. Outside of the conformity determination, the AQ/HRA Report will not assess the significance of specific air quality and health risk impacts for the proposed I-710 Project or project alternatives, but will provide the results necessary for those determinations to be made in the EIR/EIS.

6 References

- 40 CFR Part 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans, (http://www.gpoaccess.gov/ecfr/)
- 40 CFR 93.116, Criteria and procedures: Localized CO, PM₁₀, and PM_{2.5} violations (hot-spots), (http://www.gpoaccess.gov/ecfr/)
- 40 CFR 93.123, Procedures for determining localized CO, PM₁₀, and PM_{2.5} concentrations (hotspot analysis), (http://www.gpoaccess.gov/ecfr/)
- AP 42, Volume 1, Fifth Edition, Chapter 13, http://www.epa.gov/ttn/chief/ap42/ch13/index.html
- Atkinson, D. and Lee, R. 1992. Procedures for Substituting Values for Missing NWS Meteorological Data for Use in Regulatory Air Quality Models. Research Triangle Park, NC. U.S. Environmental Protection Agency.
- California Air Resources Board (CARB). 2002. Staff Report: Public Hearing to Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates. May 3, 2002.
- ---, 2006a. Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach. April.
- ---, 2006b. Emission Reduction Plan for Ports and Goods Movement in California. April 20, 2006.
- ---, 2006c. Quality Assurance Air Monitoring Site Information http://www.arb.ca.gov/qaweb/siteinfo.php
- ---. 2006d. Health Risk Assessment Guidance for Rail Yard and Intermodal Facilities (Preliminary Draft). July 2006, (http://www.arb.ca.gov/railyard/hra/071806hra_guideline.pdf)
- ---, 2006e. Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach Final Report.
- ---, 2006f. Combined California ARB and U.S. EPA standards for off-road compression ignition engines. Website: http://www.arb.ca.gov/msprog/ordiesel/documents/Off-Road%20Diesel%20Stds.xls
- ---, 2008. Staff report: Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California. California Environmental Protection Agency, October 24, 2008.
- ---, adopted drayage truck regulation, (http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm)
- ---, EMFAC2007 Model (EMission FACtor Model), EMFAC2007 v2.3 User's Guide (http://www.arb.ca.gov/msei/onroad/latest version.htm)
- ---, OFFROAD 2007 emissions model User's Guide, (http://www.arb.ca.gov/msei/offroad/offroad.htm)
- ---, OFFROAD In-Use Diesel Equipment Rule, (http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm)



- ---, Speciation Database, http://www.arb.ca.gov/ei/speciate/speciate.htm
- California Climate Action Registry's General Reporting Protocol, version 3.0, April, 2008 (CCAR GRP)
 - (http://www.climateregistry.org/resources/docs/protocols/grp/GRP V3 April2008 FINAL.pdf)
- California Energy Commissions, Inventory of California Greenhouse Gas Emissions and Sinks: 1990-2004, 2006. (http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF)
- California Department of Transportation, CALINE4 Dispersion Model Guidance, (http://www.dot.ca.gov/hq/env/air/pages/cl_license.htm)
- California Environmental Protection Agency. 2004. Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values. Office of Environmental Health Hazard Assessment and Air Resources Board. April 4, 2005.
- California Environmental Quality Act (CEQA) Guidelines, (http://ceres.ca.gov/topic/env_law/ceqa/guidelines/)
- Clean Trucks Program documentation, POLA/POLB Clean Air Action Plan (CAAP), (http://www.cleanairactionplan.org/strategies/cleantrucks/default.asp)
- ENVIRON International Corporation (ENVIRON). 2005. Developing State-Wide Guidance for the Use of AERMOD A Workgroup's Experience. Air and Waste Management Association Annual Fall Conference, Baton Rouge, LA.
- ---. 2006a. Meteorological Data Selection and Processing Methodology for 2006 BNSF Designated Rail Yards. Prepared for BNSF Railyards and submitted to the California ARB.
- ---. 2006b. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Commerce/Mechanical Rail Yard. November 2.
- ---. 2006c. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Commerce/Eastern Intermodal Rail Yard. November 13.
- ---. 2006d. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Watson/Wilmington Rail Yard. December 1.
- ---. 2006e. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Los Angeles/Hobart Rail Yard. December 1.
- ---. 2006f. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Richmond Rail Yard. November 2.
- ---. 2006g. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Stockton Rail Yard. December 8.
- ---. 2007a. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF San Bernardino Rail Yard. January 18.
- ---. 2007b. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF Barstow Rail Yard. December 20.
- ---. 2008. Air Dispersion Modeling Assessment of Air Toxic Emissions from BNSF San Diego Rail Yard. February 4.

- EPA Climate Leaders Greenhouse Gas Inventory Protocol Core Module Guidance on Direct Emissions from Mobile Combustion Sources, May 2008, (http://www.epa.gov/climateleaders/documents/resources/mobilesource_guidance.pdf)
- EPA's List of Mobile Source Air Toxics (MSAT), (http://www.epa.gov/otaq/regs/toxics/toxicfrm.pdf)
- Federal Highway Administration, 2006. Interim Guidance on Air Toxic Analysis in NEPA Documents, (http://www.fhwa.dot.gov/environment/airtoxic/020306guidmem.htm)
- Federal Register release Vol. 73, No. 13 (January 18, 2008), Environmental Protection Agency [CAXXX–NOA; FRL–8517–9], Official Release of EMFAC2007 Motor Vehicle Emission Factor Model for Use in the State of California, (http://edocket.access.gpo.gov/2008/pdf/E8-876.pdf)
- Guideline for Modeling Carbon Monoxide from Roadway Intersections, EPA-454/R-92-005, July 1993, (http://www.epa.gov/scram001/guidance/guide/coguide.pdf)
- Hanna, S.R., Britter, R. E. 2002. Wind Flow and Vapor Cloud Dispersion at Industrial and Urban Sites; American Institute of Chemical Engineers: New York, New York.
- Hotspots Analysis Reporting Program (HARP) User's Guide, (http://www.arb.ca.gov/toxics/harp/harp.htm)
- I-710 Major Corridor Study Final Report Appendix S Major Opportunity/Strategy Recommendations and Conditions, Tier 2 Community Advisory Committee, (August 2004), Available at http://www.metro.net/projects_programs/final_report/appendix_s.pdf
- Intergovernmental Panel on Climate Change (IPCC), 2006 IPCC Guidelines for National Greenhouse Gas Inventories, (http://www.ipcc-nggip.iges.or.jp/public/2006gl/index.html)
- Long, G. E.; Cordova, J. F., Tanrikulu, S. 2004. An Analysis of AERMOD Sensitivity to Input Parameters in the San Francisco Bay Area. 13th Conference on the Applications of Air Pollution Meteorology with the Air and Waste Management Association. Vancouver, B.C. Canada.
- Middle Harbor Draft EIR/EIS, May 2008,

(http://www.polb.com/environment/environmental_documents.asp)

- National Environmental Policy Act (NEPA),
 - (http://www.epa.gov/Compliance/resources/policies/nepa/index.html)
- Office of Environmental Health Hazard Assessment (OEHHA). 2003. The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, (http://www.oehha.ca.gov/air/hot_spots/pdf/HRAquidefinal.pdf)
- ---. 1998. Findings of the Scientific Review Panel on The Report on Diesel Exhaust, as adopted at the Panel's April 22, 1998, meeting. Available electronically at http://www.arb.a.gov
- ---. 2007. Air Toxics Hot Spots Program Risk Assessment Guidelines: Part II Technical Support Document for Describing Available Cancer Potency Factors. California Environmental Protection Agency (Cal/EPA). December.
- PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ National Ambient Air Quality Standards (71 FR 12468), March 10, 2006



- South Coast Air Quality Management District (SCAQMD) Risk Assessment Procedures for Rules 1401 and 212, Version 7.0. July 2005.

 (http://www.aqmd.gov/prdas/Risk%20Assessment/RiskAssessment.html)
- ---. Air Quality Significance Thresholds (http://www.aqmd.gov/ceqa/handbook/signthres.pdf)
- ---. LST modeling methodology (http://www.aqmd.gov/CEQA/handbook/LST/Method_final.pdf)
- Standard Environmental Reference (SER) document (http://www.dot.ca.gov/ser/vol1/sec3/physical/ch11air/chap11.htm)
- Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act (AB2588), July 2005, (http://www.agmd.gov/prdas/ab2588/pdf/AB2588 Guidelines.pdf)
- Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas (EPA420-B-06-902), March 2006
- Transportation Project-Level Carbon Monoxide Protocol", University of California at Davis, Revised December 1997, UCD-ITS-RR-97-21
- United States Environmental Protection Agency. "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006" (2008) (http://www.epa.gov/climatechange/emissions/downloads/08 CR.pdf)
- ---. AERMOD dispersion model guidance, (http://www.epa.gov/scram001/dispersion_prefrec.htm)
- ---. 1989. Risk Assessment Guidance for Superfund Volume I, Human Health Evaluation Manual (Part A). USEPA 540/1-89-002, Office of Emergency and Remedial Response, Washington, DC. December 1989.
- ---. 1997. Exposure Factors Handbook, Volume III Activity Factors. Office of Research and Development. EPA/600/P-95/002Fc, August 1997.
- ---. 2000. Meteorological Monitoring Guidance for Regulatory Modeling Applications. Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina. EPA-454/R-99-005. 6-32. February 2000.
- ---. 2004a. User's Guide for the AERMOD Meteorological Preprocessor (AERMET). Office of Air Quality Planning and Standards. Emissions Monitoring and Analysis Division. Research Triangle Park, North Carolina. EPA-454/B-03-002. 5-9, 4-49. November
- ---. 2004b. User's Guide for the AMS/EPA Regulatory Model AERMOD. Office of Air Quality Planning and Standards. Emissions Monitoring and Analysis Division. Research Triangle Park, North Carolina. EPA-454/B-03-001. September
- ---. 2005b. AERMOD Implementation Guide. Research Triangle Park, North Carolina. September 27
- ---. 2005c. Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions; Final Rule. 40 CFR Part 51, Appendix W (Federal Register) 70216
- United States Environmental Protection Agency (USEPA), 2008a. AERMOD implementation guidelines, (http://www.epa.gov/scram001/7thconf/aermod/aermod_implmtn_guide_09jan20 08.pdf)



- ---. 2008b. Integrated Risk Information System (IRIS). (http://www.epa.gov/iris/)
- United States Geological Survey (USGS). 2007. National Land Cover Dataset 2001 (NLCD 2001) (http://landcover.usgs.gov/natllandcover.php)
- URS, 2008. Draft Technical Memorandum Alternative Screening Methodology Report, Task 165.05.15

ATTACHMENT C

21 Cal.App.5th 712 Court of Appeal, Second District, Division 7, California.

COVINA RESIDENTS FOR RESPONSIBLE DEVELOPMENT, Plaintiff and Appellant,

v.

CITY OF COVINA, Defendant and Respondent; City Ventures, Inc. et al., Real Parties in Interest.

> B279590 | | Filed 2/28/2018

Synopsis

Background: Objectors filed petition for writ of mandate seeking to overturn city's approval of a 68-unit, mixeduse infill project located a quarter-mile from a commuter rail station, contending that, under California Environmental Quality Act (CEQA), project's significant parking impacts required city to prepare an environmental impact report (EIR) and that city's approval of project violated Subdivision Map Act. The Superior Court, Los Angeles County, No. BS147861, Amy D. Hogue, J., denied petition. Objectors appealed.

Holdings: The Court of Appeal, Perluss, P.J., held that:

- [1] alleged parking impacts of project were exempt from environmental review;
- [2] speculation that residents would exceed occupancy standards and generate increased parking demand did not constitute substantial evidence of significant environmental impact;
- [3] city was permitted to tier its review of project from prior EIR for town center development plan; and
- [4] tentative map for project was consistent with town center development plan, and thus approval of project did not violate Subdivision Map Act.

Affirmed.

Procedural Posture(s): On Appeal; Petition for Writ of Mandamus; Judgment; Motion for Costs.

West Headnotes (27)

[1] Environmental Law Duty of government bodies to consider environment in general

California Environmental Quality Act (CEQA) was enacted to advance four related purposes: (1) to inform the government and public about a proposed activity's potential environmental impacts; (2) to identify ways to reduce, or avoid, environmental damage; (3) to prevent environmental damage by requiring project changes via alternatives or mitigation measures when feasible; and (4) to disclose to the public the rationale for governmental approval of a project that may significantly impact the environment. Cal. Pub. Res. Code § 21000 et seq.

[2] Environmental Law Duty of government bodies to consider environment in general

First step under California Environmental Quality Act (CEQA) is jurisdictional, requiring that an agency conduct a preliminary review in order to determine whether CEQA applies to a proposed activity. Cal. Pub. Res. Code § 21000 et seq.

[3] Environmental Law Categorical exclusion; exemptions in general

As part of the preliminary review to determine whether California Environmental Quality Act (CEQA) applies to a proposed activity, public agency must determine the application of any statutory exemptions that would exempt the proposed project from further review under CEQA. Cal. Pub. Res. Code § 21000 et seq.

[4] Environmental Law Categorical exclusion; exemptions in general

If, as a result of preliminary review to determine whether California Environmental Quality Act

(CEQA) applies to a proposed activity, agency finds the project is exempt from CEQA under any of the stated exemptions, no further environmental review is necessary; agency may prepare and file a notice of exemption, citing the relevant section of the CEQA guidelines and including a brief statement of reasons to support the finding. Cal. Pub. Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, § 15000 et seq.

[5] Environmental Law Megative declaration; statement of reasons

If there is evidence a project may have a significant environmental effect, but revisions in the project plans would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur and there is no substantial evidence that the project as revised may have a significant effect on the environment, a mitigated negative declaration (MND) may be used under California Environmental Quality Act (CEQA). Cal. Pub. Res. Code § 21064.5; Cal. Code Regs. tit. 14, § 15063(a).

[6] Environmental Law Significance in general

With limited exceptions, lead agency must prepare an environmental impact report (EIR) under California Environmental Quality Act (CEQA) whenever substantial evidence supports a fair argument that a proposed project may have a significant effect on the environment. Cal. Pub. Res. Code §§ 21100, 21151; Cal. Code Regs. tit. 14, §§ 15064(f)(1), 15161.

1 Case that cites this headnote

[7] Environmental Law - Significance in general

"Fair argument standard," which requires lead agency, with limited exceptions, to prepare an environmental impact report (EIR) under California Environmental Quality Act (CEQA) whenever substantial evidence supports a fair

argument that a proposed project may have a significant effect on the environment, thus creates a low threshold for requiring an EIR, reflecting the legislative preference for resolving doubts in favor of environmental review. Cal. Pub. Res. Code §§ 21100, 21151; Cal. Code Regs. tit. 14, §§ 15064(f)(1), 15161.

3 Cases that cite this headnote

[8] Environmental Law 🐎 Land use in general

Fair argument standard, requiring agency to prepare an environmental impact report (EIR) under California Environmental Quality Act (CEQA) whenever substantial evidence supported fair argument that proposed project may have a significant effect on the environment, rather than substantial evidence standard, governed review of city's approval of 68-unit, mixed-use infill project located near commuter rail station on appeal from denial of objector's petition for writ of mandate seeking to overturn city's approval of project, contending that city was required to prepare an EIR rather than a mitigated negative declaration (MND); city structured its environmental review under CEQA's tiering provisions, rather than under CEQA's subsequent review provisions. Cal. Pub. Res. Code §§ 21093, 21094, 21100,

Pub. Res. Code §§ 21093, 21094, 21100, 21151, 21166; Cal. Code Regs. tit. 14, § 15064(f)(1), 15152, 15161, 15162.

2 Cases that cite this headnote

[9] Environmental Law - Scope of review

In determining whether there has been an abuse of discretion when reviewing agency's actions for compliance with California Environmental Quality Act (CEQA), appellate court reviews agency's action, not trial court's decision; in that sense appellate judicial review under CEQA is de novo. Cal. Pub. Res. Code § 21168.5.

1 Case that cites this headnote

[10] Environmental Law Assessments and impact statements

The scope of an exemption from California Environmental Quality Act (CEQA) may be analyzed as a question of statutory interpretation and thus subject to independent review.

West's Ann.Cal.Pub.Res.Code § 21080; 14 CCR §§ 15061, 15301–15333.

1 Case that cites this headnote

[11] Environmental Law Assessments and impact statements

In determining the availability of a statutory exemption from environmental review under California Environmental Quality Act (CEQA), courts review the administrative record to see that substantial evidence supports each element of the exemption. Cal. Pub. Res. Code § 21000 et seq.

1 Case that cites this headnote

[12] Environmental Law Categorical exclusion; exemptions in general

For statutory exemption from environmental review under California Environmental Quality Act (CEQA) to apply, there must be substantial evidence that the activity is within exempt category of projects, which may be found in information submitted in connection with the project, including at any hearings that agency chooses to hold. Cal. Pub. Res. Code § 21000 et seq.

1 Case that cites this headnote

[13] Environmental Law 🐎 Land use in general

Alleged parking impacts of 68-unit, mixed-use infill project located near commuter rail station were exempt from environmental review under California Environmental Quality Act (CEQA) provision providing that parking impacts of a mixed-use project on an infill site within a transit priority area would not be considered significant impacts on the environment; project site

encompassed 24 parcels on a block previously developed for car dealerships and surrounded by qualifying urban uses approximately a quartermile from rail station, only identified concern pertaining to parking impacts was the lack of parking spaces for downtown businesses, and there was no indication that project would result in secondary impacts associated with project's allegedly inadequate parking. Cal. Pub. Res. Code §§ 21072, 21099(a)(4), 21099(a)(7), 21099(b)(3), 21099(d)(1).

4 Cases that cite this headnote

[14] Environmental Law Categorical exclusion; exemptions in general

There are two types of exemptions from environmental review under California Environmental Quality Act (CEQA): statutory, which are enacted by the legislature and are not subject to exceptions, and categorical, which are adopted in the CEQA guidelines and are subject to exceptions. Cal. Pub. Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, § 15000 et seq.

[15] Environmental Law Categorical exclusion; exemptions in general

If project is in an exempt category under California Environmental Quality Act (CEQA) or the CEQA guidelines for which there is no exception, no further environmental review is necessary. Cal. Pub. Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, § 15000 et seq.

[16] Environmental Law 🕪 Land use in general

Speculation that conversion of four- and threebedroom apartments to three- and two-bedroom apartments, as part of 68-unit, mixed-use infill project located near commuter rail station, would not prevent residents from adding additional tenants, thereby exceeding occupancy standards and generating increased parking demand, did not constitute substantial evidence supporting a fair argument that proposed project might have a significant effect on the environment, and

thus preparation of environmental impact report (EIR) under California Environmental Quality Act (CEQA) was not required on such basis.

Cal. Pub. Res. Code §§ 21100, 21151; Cal. Code Regs. tit. 14, §§ 15064(f)(1), 15161.

[17] Environmental Law Scope of project; multiple projects

California Environmental Quality Act (CEQA) provisions governing tiered environmental impact reports (EIR) permit environmental analysis for long-term, multipart projects to be "tiered," so that the broad overall impacts analyzed in an EIR at the first-tier programmatic level need not be reassessed as each of the project's subsequent, narrower phases is approved. Cal. Code Regs. tit. 14, § 15152.

1 Case that cites this headnote

[18] Environmental Law Scope of project; multiple projects

Tiering an environmental impact report (EIR) is proper when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous environmental impact reports. Cal. Code Regs. tit. 14, §§ 15152, 15161.

[19] Environmental Law 🐎 Land use in general

City was permitted to tier its environmental review of mixed-use infill project located near commuter rail station, including traffic impacts associated with alleged parking shortage, from prior environmental impact report (EIR) for town center development plan, which governed the site where the project was to be located; project's parking impacts were exempt from environmental review, traffic impacts from project were sufficiently analyzed and mitigated under EIR for town center plan, and there was no indication of any deficiencies or omissions in project-specific trip analysis conducted by city. Cal. Pub. Res. Code §§ 21072, 21099(a)

(4), 21099(a)(7), 21099(b)(3), 21099(d)(1); Cal. Code Regs. tit. 14, §§ 15152, 15161.

3 Cases that cite this headnote

[20] Zoning and Planning Maps, plats, and plans; subdivision regulations

Subdivision Map Act is designed to promote orderly community developments and involves an application process that culminates in public hearings to determine whether a subdivision map will be approved. Cal. Gov't Code § 66410 et seq.

1 Case that cites this headnote

[21] Zoning and Planning Maps, plats, and plans; subdivision regulations

Regulation and control of the design and improvement of subdivisions is vested in local agency legislative bodies such as a city council, which must adopt ordinances on the subject, under Subdivision Map Act. Cal. Gov't Code § 66410 et seq.

1 Case that cites this headnote

[22] Zoning and Planning Conformity of regulations to comprehensive or general plan

Zoning and Planning \leftarrow Maps, plats, and plans; subdivisions

Propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements under Subdivision Map Act. Cal. Gov't Code §§ 65359, 66473.5.

1 Case that cites this headnote

[23] Mandamus • Making and enforcement of police and zoning regulations

Mandamus ← Scope of inquiry and powers of court

Planning agency's decisions as to whether project affecting land use and development is consistent with general plan under Subdivision Map Act are reviewed by ordinary mandamus, and the inquiry in such cases is whether the

decision is arbitrary, capricious, entirely lacking in evidentiary support, unlawful, or procedurally unfair. Cal. Gov't Code §§ 65359, 66473.5.

Zoning and Planning Decisions of boards or officers in general

Planning agency's determination as to whether project affecting land use and development is consistent with general plan under Subdivision Map Act is entitled to deference as an extension of planning agency's unique competence to interpret its policies when applying them in its adjudicatory capacity. Cal. Gov't Code §§ 65359, 66473.5.

Zoning and Planning Decisions of boards or officers in general

When reviewing planning agency's decisions as to whether project affecting land use and development is consistent with general plan under Subdivision Map Act, reviewing courts must defer to a procedurally proper consistency finding unless no reasonable person could have reached the same conclusion. Cal. Gov't Code §§ 65359, 66473.5.

[26] Zoning and Planning Maps, plats, and plans; subdivision regulations

Perfect conformity between a proposed project affecting land use and development and the applicable general plan is not required under Subdivision Map Act; it is enough that the proposed project will be compatible with objectives, policies, general land uses, and programs specified in the applicable plan. Cal. Gov't Code §§ 65359, 66473.5.

[27] Zoning and Planning Streets and roads; traffic considerations

Tentative map for 68-unit, mixed-use infill project located near commuter rail station was

consistent with town center development plan, which governed the site where the project was to be located, and thus city's approval of project did not violate Subdivision Map Act on such basis; city insisted that project fully comply with parking requirements of town center plan, and project inherently encouraged alternative travel modes as a higher-density, mixed-use residential, transit-oriented project, which complied with town center plan's policies requiring developments to provide adequate pedestrian and bicycle access. Cal. Gov't Code §§ 65359, 66473.5, 66474.

See 12 Witkin, Summary of Cal. Law (11th ed. 2017) Real Property, § 890 et seq.

1 Case that cites this headnote

**554 APPEAL from a judgment of the Superior Court of Los Angeles County, Amy D. Hogue, Judge. Affirmed. (Los Angeles County Super. Ct. No. BS147861)

Attorneys and Law Firms

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PERLUSS, P. J. SEGAL, J. BENSINGER, J. *

Opinion

PERLUSS, P. J.

*717 In this CEQA ¹ action Covina Residents for Responsible Development (CRRD) appeals from the trial court's denial of its petition for writ of mandate seeking to overturn the City of Covina's approval of a 68–unit, mixeduse, infill project ² located a quarter-mile from the Covina Metrolink commuter rail station. CRRD contends the project's significant parking impacts required the City to prepare an

environmental impact report (EIR) rather than the mitigated negative declaration it adopted in March 2016. We conclude section 21099, **555 subdivision (d)(1), which took effect three months before the City approved the project, exempts the project's parking impacts, as alleged by CRRD, from CEQA review. We also reject CRRD's contentions the City's approval of the project violated the Subdivision Map Act (Gov. Code, § 66410 et seq.) and affirm the judgment.

FACTUAL AND PROCEDURAL BACKGROUND

1. The Proposed Project

In 2000 the City adopted a general plan and certified a program-level EIR governing future development within the City. In October 2004 the City adopted the Town Center Specific Plan (TCSP), which governs the site where the project is to be located and certified a second EIR tiered from the general plan EIR. The TCSP EIR identified the following objectives for development within the town center: facilitate infill development and redevelopment of deteriorated properties "particularly for housing creation and rehabilitation and economic development purposes"; revitalize and attract more people and retail businesses; "[c]apture [of] all potential benefits resulting from the Metrolink Commuter Train Station"; and "[p]ermit mixed uses in appropriate areas in the downtown ... to provide needed housing" "via 'urban village' or livable cities concepts, as a means for ... maximizing the efficiency and attractiveness of transit usage, reducing vehicle trips, and encouraging and facilitating pedestrian circulation."

By 2012 real parties in interest City Ventures, Inc. and City Ventures LLC (City Ventures) had assembled a 3.4-acre site within the TCSP area bordered by Orange Street, Citrus Avenue, San Bernardino Road and 3rd Avenue. The site is comprised of an entire block with 27 parcels (24 of which will be used by the project) located a quarter-mile from the Covina Metrolink station and *718 served by a major bus line. The site is paved in its entirety, contains 25,000 square feet of existing but vacant single-story buildings previously used by a car dealership, and is surrounded by developed residential and commercial parcels with improved streets, sidewalks, curbs and gutters. City staff described the condition of the site as "deteriorating and underutilized" and acknowledged the City and former redevelopment agency had worked for several years to remove blighted conditions and revitalize the area.

City Ventures submitted the proposed project application to the City in December 2012. Over the next year City Ventures adapted the project to accommodate the recommendations of City staff. On November 20, 2013 the City circulated an initial study and proposed mitigated negative declaration (MND), which described measures incorporated into the project to mitigate potentially significant environmental impacts.

As proposed to the City planning commission in December 2013, the project consisted of 52 townhomes (32 three-bedroom plans and 20 four-bedroom plans), 16 urban lofts (12 one-bedroom plans and 4 two-bedroom plans), four live-work units (3 four-bedroom plans and 1 three-bedroom plan), 8,000 square feet of retail space and a 4,800 square-foot gallery. Each unit was designed with rooftop solar energy to power the home and a 220–volt outlet intended for use as an electric vehicle charging station. Common areas were to be planted with drought-tolerant plants and trees.

City staff calculated the project, as designed, would require 238 parking spaces (174 residential spaces and 64 nonresidential spaces). Anticipating the project, as a transitoriented, mixed-use development, **556 would be eligible for parking credits under the TCSP, City Ventures proposed a design with 177 spaces that assumed the availability of 23 offsite, street parking spaces. The staff report prepared for the planning commission concluded the project was short 61 spaces, a number increased to 84 if street parking was excluded from the count. The report recommended allowance of the 23 street parking spaces but recommended against allowing credits for shared residential-commercial spaces and transit proximity for three reasons: existing parking pressures in the area and City Ventures's inability to provide adequate detail about future tenants and failure to address ride-sharing or public transportation subsidies necessary to earn transitrelated credits. The staff report concluded the project "[left] too much of its parking requirements unmitigated" and recommended City Ventures be asked to work with the City to redesign the project to satisfy TCSP parking requirements.

*719 Based on these unresolved parking concerns, the planning commission denied approval of the project at its December 10, 2013 meeting.

2. The Redesigned Project

City Ventures appealed the planning commission's denial to the city council and submitted a modestly revised project reducing the retail and gallery space by 3,600 square feet,

a revision that cut the parking deficit (and need for parking reduction credits) to 46 spaces. The city council considered the revised project at its meeting on January 21, 2014, told City Ventures to come back "with something that is viable and practical," and continued the hearing to February 4, 2014.

City Ventures again revised the project by redesigning all four-bedroom units to three bedrooms, reducing the total number of three-bedroom units, increasing the number of two-bedroom units and adding six onsite parking spaces. This redesign eliminated the residential parking deficit and reduced the commercial parking deficit to 19 spaces. Because a pending traffic analysis had not been received, the staff report recommended any action on the item be continued to February 18, 2014. At the February 4, 2014 hearing the developer spoke about the modifications to the project and fielded questions from council members. Two residents opposed the project: One urged the council to ensure adequate parking and support for the commercial uses, noting the failure of the commercial section of a previous mixed-use project; and another spoke against the design of the buildings on Orange Street.

The staff report for the February 18, 2014 council meeting advised the council, "With the exception of parking concerns, the Planning Commission and Staff have been overall in support of the Project. With these latest revisions ..., Staff believes its prior analysis presented to the Planning Commission (supporting all other Project aspects except parking) remains in effect and continues to support overall approval of the Project." The staff report also advised that new architectural features had been added to the townhome design in response to public input. Further, the project as proposed was now in compliance with all zoning ordinances if the council decided to approve City Ventures's **557 request for 19 transit-related parking credits. The staff recommended the adoption of a MND if the council approved the project. Only one letter had been submitted during the comment period for the MND. In response staff had made minor revisions to the MND, clarifying the findings; consequently, recirculation was not warranted. 4

*720 The council again considered the project at the February 18, 2014 meeting. Council members questioned City Ventures at length about the parking shortage and inquired whether one of the buildings containing four units could be omitted to allow additional onsite parking. Three downtown business owners spoke against allowing the project to receive parking credits, voicing particular concern

about the assumption employees would use public transit and the failure of another recently developed project to secure retail tenants because of a similar parking shortage. Asking City Ventures to consider further alterations to the project, the council continued the public hearing on the project to March 4, 2014.

Pending the March 4, 2014 meeting, City Ventures again revised the project by replacing a four-unit residential loft building with a 14–space parking lot. The revision reduced the number of units from 72 to 68. In addition, 614 square feet of gallery space was eliminated, and 600 square feet of the commercial building was changed to administrative office space. With these final revisions the planning staff concluded the project met all City parking requirements and no longer required an award of public transit credits. The staff report recommended the council approve the project.

Cory Briggs, counsel for CRRD, spoke at the meeting on behalf of his then-client Bentley Real Estate LLC. Having submitted a letter opposing the project earlier that afternoon, Briggs objected that the council had failed to provide the public with an opportunity to review the revisions to the project. Briggs also accused the council of violating the Ralph

M. Brown Act (Gov. Code, § 54950 et seq.) by discussing his client's opposition to the project in closed session. The city attorney told Briggs the closed session was justified by comments made by his client to several staff members threatening litigation. ⁵

Following a break to allow attendees to review the revisions to the project, the public hearing was reopened. After several council members spoke, the city clerk, apparently unaware of any other requests to speak, closed the meeting. The council voted unanimously to approve the project and to adopt the MND, making all required findings, including those necessary for approval of City Ventures's application for a subdivision tentative tract map. On March 6, 2014 the City filed a notice of determination under sections 21108 *721 and 21152, as well as a notice of categorical exemption for a class 32 infill project pursuant to CEQA Guidelines, section 15332.

****558** 3. *The Litigation*

CRRD filed this action on April 3, 2014. The petition alleged three causes of action: a CEQA claim the City had improperly approved the project without preparing an EIR and improperly tiered the MND from the TCSP EIR; a claim

the City had violated the Subdivision Map Act (Gov. Code, §§ 66473.5, 66474) by failing to make the necessary findings for approval of the project or, in the alternative, making findings that were not supported by substantial evidence in the record; and a claim the City had violated due process by failing to allow a meaningful opportunity to respond to last-minute revisions in the project. ⁶

CRRD's principal CEQA challenge focused on the project's allegedly inadequate parking. After briefing and a hearing the trial court denied the petition, finding (a) a lack of substantial evidence to support CRRD's claim the parking shortage would result in any environmental impacts; (b) any parking impacts from the project were exempt from environmental review under section 21099; (c) the City had properly tiered its environmental review from the TCSP EIR; (d) the City did not violate the Subdivision Map Act; and (e) the record did not indicate any person had been prevented from speaking at the final council meeting.

DISCUSSION

1. CRRD Has Failed To Establish a Violation of CEQA

a. CEQA overview

[1] CEQA and the regulations implementing it "embody California's strong public policy of protecting the environment." (Tomlinson v. County of Alameda (2012) 54 Cal.4th 281, 286, 142 Cal.Rptr.3d 539, 278 P.3d 803.) As the Supreme Court has explained, "CEQA was enacted to advance four related purposes: to (1) inform the government and public about a proposed activity's potential environmental impacts; (2) identify ways to reduce, or avoid, environmental damage; (3) prevent environmental damage by requiring project changes via alternatives or mitigation measures when feasible; and (4) disclose to the public the rationale for governmental approval of a project that may significantly impact the environment." (*722 California Building Industry Assn. v. Bay Area Air Quality Management Dist. (2015) 62 Cal.4th 369, 382, 196 Cal.Rptr.3d 94, 362 P.3d 792; accord, Respect Life South San Francisco v. City of South San Francisco (2017) 15 Cal. App. 5th 449, 454, 223 Cal. Rptr. 3d 202.)

[2] [3] [4] "The first step [under CEQA] 'is jurisdictional, requiring that an agency conduct a preliminary review in

order to determine whether CEQA applies to a proposed activity.' [Citation.] As part of the preliminary review, the public agency must determine the application of any statutory exemptions that would exempt the proposed project from further review under CEQA. If, as a result of preliminary review, 'the agency finds the project is exempt from CEQA under any of the stated exemptions, no further environmental review is necessary. The agency may prepare and file a notice of exemption, citing the relevant section of the Guidelines and including a brief "statement of reasons to support the finding." ' "(Concerned Dublin Citizens v. City of Dublin (2013) 214 Cal.App.4th 1301, 1309–1310, 154 Cal.Rptr.3d 682; see CEQA Guidelines, § 15062, subd. (b) ["[a] notice of exemption may be filled out and may accompany the project application through the approval process"].)

**559 [5] When an activity is a project and does not fall under a CEQA exemption, the agency must "conduct an initial study to determine if the project may have a significant effect on the environment." (CEQA Guidelines, § 15063, subd. (a).) If no substantial evidence shows the project may have a significant environmental effect, the agency must prepare a negative declaration describing the reasons for this determination. (CEQA Guidelines, §§ 15063, subd. (b)(2),

15070; see Parker Shattuck Neighbors v. Berkeley City Council (2013) 222 Cal.App.4th 768, 776, 166 Cal.Rptr.3d 1.) "If there is such evidence, "but revisions in the project plans 'would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur' and there is no substantial evidence that the project as revised may have a significant effect on the environment, [an MND] may be used." "Parker Shattuck, at p. 776, 166 Cal.Rptr.3d 1; see § 21064.5; Friends of the College of San Mateo Gardens v. San Mateo Community College Dist. (2016) 1 Cal.5th 937, 945, 207 Cal.Rptr.3d 314, 378 P.3d 687

(Friends of the College).)

[6] [7] [8] With limited exceptions the lead agency must prepare an EIR "whenever substantial evidence supports a fair argument that a proposed project 'may have a significant effect on the environment.'" (Laurel Heights Improvement Assn. v. Regents of University of California (1993) 6 Cal.4th 1112, 1123, 26 Cal.Rptr.2d 231, 864 P.2d 502; accord, Friends of the College, supra, 1 Cal.5th at p. 945, 207 Cal.Rptr.3d 314, 378 P.3d 687; Tomlinson, supra, 54 Cal.4th at p. 286, 142 Cal.Rptr.3d 539, 278 P.3d 803; Parker

Shattuck Neighbors v. Berkeley City Council, supra, 222 Cal.App.4th at p. 777, 166 Cal.Rptr.3d 1; see §§ 21100, 21151; CEQA Guidelines, § 15064, subd. (f)(1).) Explaining this standard, the Supreme *723 Court has stated, "a reviewing court may not uphold an agency's decision [not to prepare an initial EIR under the fair argument test] 'merely because substantial evidence was presented that the project would not have [a significant environmental] impact. The [reviewing] court's function is to determine whether substantial evidence support[s] the agency's conclusion as to whether the prescribed "fair argument" could be made. If there [is] substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it [can] be "fairly argued" that the project might have a significant environmental impact. Stated another way, if the [reviewing] court perceives substantial evidence that the project might have such an impact, but the agency failed to secure preparation of the required EIR, the agency's action is to be set aside because the agency abused its discretion by failing to proceed "in a manner required by law." '" (Berkeley Hillside Preservation v. City of Berkeley (2015) 60 Cal.4th 1086, 1112, 184 Cal.Rptr.3d 643, 343 P.3d 834].) The fair argument standard thus creates a low threshold for requiring an EIR, reflecting the legislative preference for resolving doubts in favor of environmental review. (Latinos Unidos de Napa v. City of Napa (2013) 221 Cal.App.4th 192, 200, 164 Cal.Rptr.3d 274; Taxpayers for Accountable School Bond Spending v. San Diego Unified School Dist. (2013) 215 Cal.App.4th 1013, 1034, 156 Cal.Rptr.3d 449 (Taxpavers).)⁷

**560 b. Standard of review

[9] In reviewing the City's actions "for compliance with CEQA, we ask whether the agency has prejudicially abused its discretion; such an abuse is established 'if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence.' (§ 21168.5.) [Fn. omitted.] In determining whether there has been an abuse of discretion, we review the agency's action, not the trial court's decision. '[I]n *724 that sense appellate judicial review under CEQA is de novo.' "Center for Biological Diversity v. Department of Fish & Wildlife (2015) 62 Cal.4th 204, 214–215, 195

Cal.Rptr.3d 247, 361 P.3d 342.) We determine de novo whether the agency has followed the proper procedures, and we review the agency's substantive factual conclusions for substantial evidence. (Id. at p. 215, 195 Cal.Rptr.3d 247, 361 P.3d 342.) We may not interpret CEQA or its guidelines "in a manner which imposes procedural or substantive requirements beyond those explicitly stated." (§ 21083.1)

[10] [12] We apply a de novo standard of review to questions of statutory interpretation. (Concerned Dublin Citizens v. City of Dublin, supra, 214 Cal. App. 4th at p. 1311, 154 Cal.Rptr.3d 682; San Lorenzo Valley Community Advocates for Responsible Education v. San Lorenzo Valley Unified School Dist. (2006) 139 Cal.App.4th 1356, 1382, 44 Cal.Rptr.3d 128.) "The scope of an exemption may be analyzed as a question of statutory interpretation and thus subject to independent review." (San Lorenzo Valley, at p. 1382, 44 Cal.Rptr.3d 128.) In determining the availability of a statutory exemption, " 'we review the administrative record to see that substantial evidence supports each element of the exemption. [Citations.] "There must be 'substantial evidence that the [activity is] within the exempt category of projects.' [Citation.] That evidence may be found in the information submitted in connection with the project, including at any hearings that the agency chooses to hold." ' " (Concerned Citizens of Dublin, at p. 1311, 154 Cal.Rptr.3d 682, Great Oaks Water Co. v. Santa Clara Valley Water Dist. (2009) 170 Cal.App.4th 956, 973, 88 Cal.Rptr.3d 506.)

c. The alleged parking impacts of the project are exempt from environmental review under section 21099, subdivision (d)(1)

[13] [14] [15] "There are two types of exemptions: statutory, which are enacted by the Legislature and are not subject to exceptions, and categorical, which are adopted in the Guidelines and are subject to exceptions. [Citation.] 'If the project is in an exempt category for which there is no exception, "'no further environmental **561 review is necessary.' "' "(Respect Life South San Francisco v. City of South San Francisco, supra, 15 Cal.App.5th at p. 455, 223 Cal.Rptr.3d 202; accord, Parker Shattuck Neighbors v. Berkeley City Council, supra, 222 Cal.App.4th at p. 776, 166 Cal.Rptr.3d 1.)

Enacted in 2013 and effective on January 1, 2014, section 21099, subdivision (d)(1), provides, "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." (See Stats. 2013, ch. 386, § 5, pp. 705–706.) Because section 21099 took effect after the City had completed its initial study and circulated the proposed MND, the City did not rely on this statute in March 2014 when it *725 adopted the MND and approved the project. 8 Nonetheless, section 21099 exempts the project's parking impacts, as alleged by CRRD, from CEQA review.

Section 21099 was enacted as part of Senate Bill No. 743 (2013–2014 Reg. Sess.) to further the Legislature's strategy of encouraging transit-oriented, infill development consistent with the goal of reducing greenhouse gases announced in the "Sustainable Communities and Climate Protection Act of 2008" (see Stats. 2008, ch. 728, § 1, p. 5065; Stats. 2009, ch. 354, § 5), also known as Senate Bill No. 375. Senate Bill No. 375 (2007–2008 Reg. Sess.). in turn, was enacted to implement the California Global Warming Solutions Act of 2006 (Health & Saf. Code, § 38500 et seq.; seeStats. 2006, ch. 488, § 1, p. 3419), 9 and "is one in a series of executive, legislative and administrative measures enacted to reduce greenhouse gas emissions and their adverse effects on our climate." (Bay Area Citizens v. Association of Bay Area Governments (2016) 248 Cal.App.4th 966, 975, 204 Cal.Rptr.3d 224; see also Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 506, 220 Cal.Rptr.3d 294, 397 P.3d 989 [discussing Senate Bill 375; "[t]he Legislature ... found the state could not meet its emission reduction goals without improved land use and transportation policy"]; id. at p. 522, 220 Cal.Rptr.3d 294, 397 P.3d 989 ["When it comes to climate change, the state's long-term environmental goals are clear. Senate Bill 375 and other statutes have codified into California law the scientific consensus that the state must reduce greenhouse gas emissions over the next few

**562 *726 There is little doubt section 21099 applies to the City Ventures project. ¹¹ Section 21099, subdivision (a)(4), defines an "'[i]nfill site'" as "a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public

decades."1.) 10

right-of-way from, parcels that are developed with qualified urban uses." ¹² A " '[t]ransit priority area" is defined as "an area within one-half mile of a major transit stop that is existing or planned" (§ 21099, subd. (a)(7).) The project site encompasses 24 parcels on a block previously developed for car dealerships and surrounded by qualifying urban uses approximately a quarter-mile from the Covina Metrolink station. (See *Protect Telegraph Hill v. City and County of San Francisco* (2017) 16 Cal.App.5th 261, 272, 223 Cal.Rptr.3d 846 [applying § 21099, subd. (d)(1)'s exemption of aesthetic impacts from CEQA review to a residential infill project within a transit priority area].)

Section 21099 also directs the Office of Planning and Research (OPR) to propose revisions to the CEQA guidelines "establishing criteria for determining the significance of transportation impacts of projects within transit priority areas" (§ 21099, subd. (b)(1)). Upon certification, "automobile delay" or "traffic congestion" will no longer be considered a significant impact on the environment (§ 21099, subd. (b)(2)). Subdivision (b) "does not relieve a public agency of the requirement to analyze a project's potentially significant transportation impacts related to air quality, noise, safety, or any other impact associated with transportation," but clarifies, "the adequacy of parking for a project shall not support a finding of significance pursuant to this section." (§ 21099, subd. (b)(3).) ¹³

*727 In arguing section 21099 does not exempt the parking impacts alleged here **563 from review, CRRD emphasizes subdivision (b)(3)'s requirement that transportation-linked environmental impacts continue to be analyzed and points to the decision in *Taxpayers*, *supra*, 215 Cal.App.4th 1013, 156 Cal.Rptr.3d 449, a decision that predates section 21099, in which Division One of the Fourth District found a project's impact on the parking of vehicles "a physical impact that could constitute a significant effect on the environment." (*Taxpayers*, at p. 1051, 156 Cal.Rptr.3d 449.)

Decisions predating the enactment of section 21099 conflict somewhat in their analysis of parking impacts under CEQA. In San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656, 125 Cal.Rptr.2d 745 (San Franciscans) the First District observed, "[T]here is no statutory or case authority requiring an EIR to identify specific measures to provide additional

parking spaces in order to meet an anticipated shortfall in parking availability. The social inconvenience of having to hunt for scarce parking spaces is not an environmental impact; the secondary effect of scarce parking on traffic and air quality is. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. An EIR need only address the secondary physical impacts that could be triggered by a social impact. (Guidelines, § 15131, subd. (a).)" (San Franciscans, at p. 697, 125 Cal.Rptr.2d 745.) The court found the EIR at issue adequate in its analysis of parking impacts in the context of urban development: "[T]he EIR correctly concluded that '[p]arking shortfalls relative to demand are not considered significant environmental impacts in the urban context of San Francisco. Parking deficits are an inconvenience to drivers, but not a significant physical impact on the environment." (Ibid.)

Taxpayers, supra, 215 Cal.App.4th 1013, 156 Cal.Rptr.3d 449, expressly disagreed with what it called "the broad statement made in [San Franciscans] that a parking shortage is merely a social inconvenience and can never constitute a primary physical impact on the environment." (Taxpayers, at p. 1051, 156 Cal.Rptr.3d 449.) The court opined, "[W]henever vehicles are driven or parked, they naturally must have some impact on the physical environment. The fact that a vehicle's impact may be only temporary (e.g., only so long as the vehicle remains parked) does not preclude it from having a physical impact on the environment around it. Therefore, as a general rule, we believe CEQA considers a project's impact on parking of vehicles to be a physical impact that could constitute a significant effect on the environment." (Ibid.)

The perceived conflict between these decisions can be explained by the context of the projects analyzed. In Taxpayers, supra, 215 Cal.App.4th 1013, 156 Cal.Rptr.3d 449, *728 a school district had approved the installation of new stadium field lighting and other improvements at a suburban high school that had previously been unable to host evening sporting events. (Ind. at p. 1023, 156 Cal.Rptr.3d 449.) In evaluating whether a fair argument existed that the project's parking impacts could be significant during evening games, the Court of Appeal criticized the District's parking analysis, finding it contained "no basis on which to conclude the parking shortage of 174 spaces would be

filled by available offsite, street parking spaces" (*id.* at p. 1050, 156 Cal.Rptr.3d 449) and noted the project would cause significant traffic congestion (a secondary impact) in the narrow, residential canyon streets surrounding the school (*id.* at p. 1053, 156 Cal.Rptr.3d 449).

In contrast, the First District was reviewing the City's approval of a large Market Street redevelopment project the petitioners **564 claimed would increase gridlock in the area. (San Franciscans, supra, 102 Cal. App. 4th at p. 666, 125 Cal.Rptr.2d 745.) The court agreed the project's location at a transit hub served by BART, as well as multiple bus and cable car lines, justified the EIR's conclusion that " '[p]arking shortfalls relative to demand are not considered significant environmental impacts in the urban context of San Francisco' " (id. at p. 697, 125 Cal.Rptr.2d 745) and that "providing additional off-street parking would result in the adverse environmental impact of attracting more cars to the area, in conflict with the City's charter policy to encourage the use of public transit first and discourage the use of private automobiles in areas 'well served by public transit.'" (Ibid.) The court concluded the EIR "fulfilled its CEQA-mandated purpose by identifying ways in which the secondary environmental impacts resulting from the projected parking deficits could be mitigated, in keeping with the specific environmental strictures imposed by the City's own transit-first policy." (*Ibid.*)

Through its 2013 enactment of section 21099 the Legislature endorsed the approach of the First District in Franciscans for urban infill projects near transit hubs like the City Ventures project. While secondary parking impacts caused by ensuing traffic congestion ("air quality, noise, safety, or any other impact associated with transportation") must be addressed, parking impacts, in and of themselves, are exempted from CEQA review for these projects. (§ 21099, subd. (b)(3).)

Here, CRRD failed to submit any evidence of secondary impacts associated with the project's allegedly inadequate parking. Instead, the complaints identified by CRRD concern the lack of parking spaces for downtown businesses, a concern falling within the scope of section 21099, subdivision (d)(1). For instance, one business owner commented, "I have [four] parking spots in front of my building that I have had to work hard to keep for my clients[;]... [t]hese people I'm

sure will spill over to our spots." Another wrote, "Business space with adequate parking for owners, employees, and *729 patrons is essential for the future of the downtown as a viable business community. ... I look out from the front of my store daily to the sight of empty storefronts." A petition drafted to oppose the project as originally designed accused the project of providing "ZERO onsite parking spaces for the owners, employees, and customers of the commercial space." As to secondary impacts associated with the claimed lack of parking, CRRD criticizes the MND's assertion the TCSP EIR had adequately analyzed traffic impacts for future development consistent with the TCSP but provides no explanation, let alone evidence, why that analysis was inadequate. While the City responded to the business owners' concerns by requiring the project to comply with existing parking requirements, that decision was not compelled by CEQA.

[16] CRRD also asks us to speculate that the revised project's conversion of four- and three-bedroom apartments to threeand two-bedroom apartments will not prevent residents from adding additional tenants, thereby exceeding occupancy standards and generating increased parking demand. To prevent such behavior, however, the City included a condition of approval stating, "In order for the residential component of the project to meet City parking requirements in perpetuity, none of the dens or family rooms in the residential dwelling units shall be marketed for or advertised as bedrooms or used as bedrooms or for principally sleeping purposes. This restriction shall be stated in and enforced under the projectrelated Conditions, Covenants, and Restrictions (C, C & Rs)." This condition is binding on **565 the future homeowners association and enforceable by the City (see Civ. Code, §§ 5975, 5980), and speculation about possible violations does not constitute substantial evidence of a significant impact.

(See East Sacramento Partnership for a Livable City v. City of Sacramento (2016) 5 Cal.App.5th 281, 297, 209 Cal.Rptr.3d 774 ["'[i]n the absence of a specific factual foundation in the record, dire predictions by nonexperts regarding the consequences of a project do not constitute substantial evidence'"].)

It may seem somewhat ironic to apply section 21099 to exempt from review the parking impacts of a project that, in the end, was revised to comply with existing City parking requirements. That is not the point, however; and section 21099 "does not preclude the application of local general plan policies, zoning codes, conditions of approval, thresholds, or any other planning requirements pursuant to the police power

or any other authority." (§ 21099, subd. (b)(4); see also *id.*, subd. (e) ["[t]his section does not affect the authority of a public agency to establish or adopt thresholds of significance that are more protective of the environment"].) During the last 10 years, the Legislature has charted a course of long-term sustainability based on denser infill development, reduced reliance on individual vehicles and improved mass transit, all with the goal of reducing greenhouse gas emissions. Section 21099 is part of that strategy, and subdivision (d)(1) exempts *730 parking impacts from CEQA review for qualifying infill projects located within a half-mile of a major transit stop. On the record presented here, this statutory provision applies to the City Ventures project and precludes CRRD's claim the project lacked adequate parking.

d. The MND was properly tiered from the TCSP EIR

[18] "'Tiering' refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project." (CEQA Guidelines, § 15152, subd. (a).) "Unlike '[p]roject EIR[s]," which 'examine[] the environmental impacts of a specific development project' (CEQA Guidelines, § 15161), the CEQA provisions governing tiered EIRs 'permit[] the environmental analysis for long-term, multipart projects to be "tiered," so that the broad overall impacts analyzed in an EIR at the first-tier programmatic level need not be reassessed as each of the project's subsequent, narrower phases is approved.' "(Friends of the College, supra, 1 Cal.5th at p. 959, 207 Cal.Rptr.3d 314, 378 P.3d 687, quoting Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 429, 53 Cal.Rptr.3d 821, 150 P.3d 709.) "Tiering is proper 'when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous environmental impact reports.'

"(In re Bay-Delta etc. (2008) 43 Cal.4th 1143, 1170, 77 Cal.Rptr.3d 578, 184 P.3d 709; accord, City of Hayward v. Bd. Trustees of California State University (2015) 242 Cal.App.4th 833, 849, 195 Cal.Rptr.3d 614.)

[19] CRRD challenges the MND's reliance on the TCSP EIR's analysis of traffic impacts, which it claims was insufficient for the impacts associated with the City Ventures project. CRRD acknowledges, however, the City was permitted to tier from the TCSP EIR "if the proposed action falls under one or more statutory or **566 categorical exemptions ... or if the potential project impacts have been adequately analyzed and mitigated" under that document. As discussed, the project's parking impacts are exempt under section 21099, subdivision (d)(1). Consequently, the only remaining issue raised by CRRD is the general allegation the MND's analysis of traffic impacts from the alleged parking shortage was inadequate.

CRRD's challenge based on traffic impacts suffers from

multiple flaws. First, as the City notes, there is no parking shortage because the project, as approved, complied with the TCSP's parking requirements. Second, CRRD did not previously question the adequacy of the traffic analysis, independent *731 of the claimed parking shortage. Finally, even if this argument were not forfeited because it was not raised in the trial court (see, e.g., Kaufman & Broad Communities, Inc. v. Performance Plastering, Inc. (2006) 136 Cal.App.4th 212, 226, 39 Cal.Rptr.3d 33), it is without merit. The City conducted a project-specific trip analysis and required the project to comply with an imposed mitigation measure and improvements to San Bernardino Road as a final condition of approval based on those findings. CRRD has not identified any deficiencies or omissions in that analysis. Consequently, there is no evidence in the record to support CRRD's assertion the project had impacts not contemplated by the TCSP EIR, and the City properly tiered its review from that document.

In sum, CRRD has failed to provide any evidence the City violated CEQA by approving the project.

2. The City Did Not Violate the Subdivision Map Act

a. Governing law and standard of review

[20] [21] [22] The Subdivision Map Act (Gov. Code, § 66410 et seq.) (the Act) is "the primary regulatory control" governing the subdivision of real property in California. (**Gardner v. County of Sonoma (2003) 29 Cal.4th 990, 996, 129 Cal.Rptr.2d 869, 62 P.3d 103; accord, **Carson Harbor Village, Ltd. v. City of Carson (2015)

239 Cal.App.4th 56, 63, 190 Cal.Rptr.3d 511.) The Act is "designed to promote orderly community developments and involves an application process that culminates in public hearings to determine whether a subdivision map will be approved." (Carson Harbor Village, at p. 63, 190 Cal.Rptr.3d 511.) Under the Act, "the "[r]egulation and control of the design and improvement of subdivisions" ' is vested in local agency legislative bodies such as a city council, which must adopt ordinances on the subject." (Save Laurel Way v. City of Redwood City (2017) 14 Cal.App.5th 1005, 1012, 222 Cal.Rptr.3d 554; see Gardner, at pp. 996–997, 129 Cal.Rptr.2d 869, 62 P.3d 103.) " "T]he propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements." "(Orange Citizens for Parks & Recreation v. Superior Court (2016) 2 Cal.5th 141, 153, 211 Cal.Rptr.3d 230, 385 P.3d 386; see Gov. Code, §§ 65359 [requiring specific plans be consistent with general plan], 66473.5 [requiring tentative maps and parcel maps to be consistent with general plan].)

[25] An agency's decisions regarding project [23] [24] consistency with a general plan are reviewed by ordinary mandamus. "The inquiry in such cases is 'whether the decision is arbitrary, capricious, entirely lacking in evidentiary support, unlawful, or procedurally unfair." (*732 San Francisco Tomorrow v. City and County of San Francisco (2014) 229 Cal.App.4th 498, 515-516, 176 Cal.Rptr.3d 430.) "[A] consistency determination **567 is entitled to deference as an extension of a planning agency's ' "unique competence to interpret [its] policies when applying them in its adjudicatory capacity." '[Citation.] Reviewing courts must defer to a procedurally proper consistency finding unless no reasonable person could have reached the same conclusion." (Orange Citizens for Parks and Recreation v. Superior Court, supra, 2 Cal.5th at p. 155, 211 Cal.Rptr.3d 230, 385 P.3d 386; accord, San Franciscans, supra, 102 Cal.App.4th at pp. 667–678, 125 Cal.Rptr.2d 745; see Joshua Tree Downtown Business Alliance v. County of San Bernardino (2016) 1 Cal.App.5th 677, 695-696, 204 Cal.Rptr.3d 464.)

[26] ""An action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment.""(Orange Citizens for Parks & Recreation v. Superior Court, supra, 2 Cal.5th at p. 153, 211 Cal.Rptr.3d 230, 385 P.3d 386, quoting OPR, General Plan Guidelines

(2003) p. 164.) "State law does not require perfect conformity between a proposed project and the applicable general plan. ... [Citations.]" [Citation.] In other words, it is nearly, if not absolutely, impossible for a project to be in perfect conformity with each and every policy set forth in the applicable plan. ... It is enough that the proposed project will be compatible with the objectives, policies, general land uses and programs specified in the applicable plan." (San Francisco Tomorrow v. City and County of San Francisco, supra, 229 Cal.App.4th at p. 514, 176 Cal.Rptr.3d 430.

b. CRRD's Subdivision Map Act challenge lacks merit

[27] CRRD asserts the findings made by the City under Government Code sections 66473.5 and 66474 relating to the consistency of the project's tentative map with the TCSP were not supported by substantial evidence. Government Code section 66473.5 provides: "No local agency shall approve a tentative map, or a parcel map ... unless the legislative body finds that the proposed subdivision, together with the provisions for its design and improvement, is consistent with the general plan ... or any specific plan. ... [¶] A proposed subdivision shall be consistent with a general plan or a specific plan only if the local agency has officially adopted such a plan and the proposed subdivision or land use is compatible with the objectives, policies, general land uses, and programs specified in such a plan." Government Code section 66474 requires the legislative body of a city or county to deny approval of a tentative or parcel map unless it makes a series of findings related to consistency of the proposed map and design of the project with the general or specific plan (id., subds. (a) & (b)), the suitability of the site for the type and density of the development (id., subds. (c) & (d)), the likelihood the proposed map and improvements will cause environmental damage, harm wildlife and habitat or cause serious public health problems *733 (id., subds. (e) & (f)) and the effect of the map and project on public easements (id., subd. (g)). The necessary findings under these sections were adopted at the city council's March 4, 2014 meeting.

Once again, CRRD's principal complaint about the City's findings concerns parking. CRRD argues the project does not comply with the parking standards set forth in the TCSP and criticizes City Venture's "stunt" of relabelling bedrooms as dens, a modification CRRD believes will be easily circumvented. As discussed, CRRD's argument is based on speculation, rather than evidence, and does not support the relief **568 sought. CRRD has also emphasized the

importance of adequate parking for the business community. The City responded to that concern by insisting the project fully comply with the parking requirements of the TCSP.

Attempting to broaden its focus from parking to traffic circulation, CRRD claims the City's parking analysis "cherrypicked" certain circulation elements of the TCSP while ignoring others. The example cited by CRRD relates to the TCSP's policies requiring developments to provide adequate pedestrian and bicycle access and create "[s]tronger pedestrian and bicycle linkages through the downtown." CRRD, however, does not identify any evidence suggesting the project is not compatible with these policies; and the record refutes its contention. As a higher density, mixeduse residential, transit-oriented project, the project inherently encourages alternative travel modes. In reviewing changes to the subdivision map, the City found the project was "consistent with the General Plan in that it offers a different form of circulation in the sense of promoting walking and bicycling to meet Circulation Goal 1 of the General Plan," which identifies the goal of offering " '[a] balanced circulation system that offers multiple travel options so that people can live, work, shop, and play without relying on private vehicles.' "The proposed MND expressly inquired whether the project would "[c]onflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities," and found no significant impact. The MND analysis explained, "The Project will not conflict with adopted policies, plans, or programs supporting alternative transportation in that it has been designed as a pedestrianoriented community with direct access to the downtown, Metrolink Station, and bus stops and is required to comply with the policies of the [TCSP]."

In short, the project's map was fully consistent with the TCSP.

*734 DISPOSITION

The judgment is affirmed. The City and City Ventures are to recover their costs on appeal.

Segal, J., and Bensinger, J., concurred.

All Citations

21 Cal.App.5th 712, 230 Cal.Rptr.3d 550, 18 Cal. Daily Op. Serv. 2791, 2018 Daily Journal D.A.R. 2724

Footnotes

- Judge of the Los Angeles County Superior Court, assigned by the Chief Justice pursuant to article VI, section 6 of the California Constitution.
- * Judge of the Los Angeles County Superior Court, assigned by the Chief Justice pursuant to article VI, section 6 of the California Constitution.
- CEQA refers to the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) and the regulations implementing it (Cal. Code Regs., tit. 14, § 15000 et seq.) (CEQA Guidelines). Citations are to the Public Resources Code unless otherwise stated.
- An infill project develops vacant or under-used parcels within urban areas that are already largely developed. (See generally § 21099, subd. (a)(4).)
- As the staff report explained, "The TCSP provides that 'The City may approve a reduction in the number of off-street parking spaces when a development is located within 1/4 mile of a Metrolink station, an employer implements a ride-sharing program approved by the City, and/or an employer pays for at least 50% of the cost of public transit for its employees.' "
- Additional letters were received after the comment period had closed, including one from counsel for CRRD appearing on behalf of Bentley Real Estate LLC, an entity linked to Ziad Alhassen, the former owner of the defunct car dealership on the project site and owner of the remaining parcels on the block. All of the comment letters challenged the project's failure to provide adequate parking.
- As described by the city attorney, Ziad Alhassen had spoken with several staff members and stated he had not been able to reach a price with City Ventures for the remaining parcels and intended to protect his interests with litigation if necessary. A City Ventures representative told the council he had been in discussions with Alhassen and would continue efforts to purchase the parcels at a reasonable price.
- 6 CRRD has abandoned its due process claim on appeal.
- City Ventures and the City, citing Friends of the College, supra, 1 Cal.5th 937, 207 Cal.Rptr.3d 314, 378 P.3d 687, contend the substantial evidence standard, rather than the more rigorous fair argument standard, governs review of the City's actions in this case. In Friends of the College the Supreme Court held that an agency's decision to proceed under CEQA's subsequent review provisions (see § 21166; CEQA Guidelines, § 15162) is subject to substantial evidence review, reasoning that the previous environmental review retains relevance and warrants increased deference to the agency's determination. (Friends, at pp. 951–953, 207 Cal.Rptr.3d 314, 378 P.3d 687.)

While this analysis is superficially appealing because the City relied in part on the TCSP EIR in choosing to adopt an MND, the City did not proceed under the subsequent review provisions at issue in Friends of the

- College. Instead, the City structured its environmental review for a new, rather than modified, project under CEQA's tiering provisions (§§ 21093, 21094; CEQA Guidelines, § 15152). (See Friends of the College, supra, 1 Cal.5th at p. 950, 207 Cal.Rptr.3d 314, 378 P.3d 687 ["the subsequent review provisions ... have no application if the agency has proposed a new project that has not previously been subject to review"].)
- The City's notice of exemption cited a categorical exemption under CEQA Guidelines, section 15332 for Class 32 infill development. (See *Tomlinson v. County of Alameda, supra,* 54 Cal.4th at p. 288, fn. 4, 142 Cal.Rptr.3d 539, 278 P.3d 803 [discussing requirements for the Class 32 categorical exemption for infill development: "(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations. [¶] (b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses. [¶] (c) The project site has no value, as habitat for endangered, rare or threatened species. [¶] (d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality. [¶] (e) The site can be adequately served by all required utilities and public services.' " (Italics omitted.)].) The parties have not raised this exemption on appeal.
- Better known as Assembly Bill No. 32, the Global Warming Solutions Act of 2006 "established as state policy the achievement of a substantial reduction in the emissions of gases contributing to global warming." (**Center for Biological Diversity v. Department of Fish & Wildlife, supra, 62 Cal.4th at p. 215, 195 Cal.Rptr.3d 247, 361 P.3d 342.)
- 10 As one commentator has explained, "The Sustainable Communities Act seeks to change California's existing land development patterns characterized by sprawl development—low-density residential uses (caroriented suburbs) extending into exurban areas. Instead, the Sustainable Communities Act foresees compact patterns of dense residential development in mixed-use walkable communities located along public transit corridors. ... [T]he Sustainable Communities Act assembles an arsenal of regulatory measures, including regional transportation plans, local land use planning, increased investment in transit, and enhanced intercity public transportation, all designed to reduce the number of vehicle miles traveled by personal cars and light trucks." (Glancy, Vehicle Miles Traveled and Sustainable Communities (2014) 46 McGeorge L.Rev. 23, 25, fns. omitted; see also Kasner, Arena Development and Environmental Review Reform Under SB 743 (2014) 25 Stan. L. & Policy Rev. 203, 208–209 ["Perhaps the best aspect of SB 743 is its changed approach toward transportation and parking analysis. Under the old legislative regime, development projects could demonstrate traffic mitigation by increasing parking lot size and adding lanes to surrounding surface streets. From an environmental perspective, these allowances provide little benefit, as congestion effects are offset but automobile use is encouraged. SB 743 allows for greater flexibility for projects while incentivizing public transit."].)
- 11 CRRD argues section 21099 does not apply because the City completed the initial study and MND before the effective date of the statute. CRRD cites no authority for this argument, and we have found none. The project was approved three months after the effective date of the statute.
- 12 CEQA defines a qualified urban use as "any residential, commercial, public institutional, transit or transportation passenger facility, or retail use, or any combination of those uses." (§ 21072.)
- As directed, OPR has proposed a new guideline (§ 15064.3, pending adoption by the Secretary of Natural Resources) and issued a technical advisory identifying "vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts." (OPR, "Technical Advisory on Evaluating Transportation Impacts in CEQA" (November 2017), at p. 1, retrieved from http://www.opr.ca.gov/ceqa/updates/sb-743/, as of February 28, 2018.)

End of Document

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ATTACHMENT D

KeyCite Yellow Flag - Negative Treatment

Declined to Extend by City of Selma v. City of Kingsburg, Cal.App. 5

Dist., July 14, 2016

40 Cal.4th 412 Supreme Court of California

VINEYARD AREA CITIZENS FOR RESPONSIBLE GROWTH, INC., et al., Plaintiffs and Appellants,

v.

CITY OF RANCHO CORDOVA,

Defendant and Respondent; Sunrise Douglas Property Owners Assn. et al., Real Parties in Interest and Respondents.

As Modified on Denial of Rehearing April 18, 2007.

Synopsis

Background: Environmental group filed petition for writ of mandate challenging, under the California Environmental Quality Act (CEQA), a county's approval of a large development project. The Superior Court, Sacramento County, No. 02CS01214, Raymond M. Cadei, J., after a bench trial, denied the petition. Group appealed. The Court of Appeal affirmed. The Supreme Court granted group's petition for review, superseding the opinion of the Court of Appeal.

Holdings: The Supreme Court, Werdegar, J., held that:

- [1] environmental impact report (EIR) was not required to demonstrate that project was definitely assured long-term future water supplies;
- [2] final environmental impact report (FEIR) adequately analyzed near-term groundwater supplies;
- [3] FEIR failed to adequately analyze long-term surface water supplies; and
- [4] draft EIR was required to be recirculated for newly disclosed potential impact on salmon migration.

Judgment of the Court of Appeal reversed and matter remanded.

Baxter, J., filed a concurring and dissenting opinion.

Opinion, 25 Cal.Rptr.3d 596, superseded.

West Headnotes (20)

[1] Environmental Law - Assessments and impact statements

Under the California Environmental Quality Act (CEQA), an agency's abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence. West's Ann.Cal.Pub.Res.Code § 21168.5.

118 Cases that cite this headnote

[2] Environmental Law ← Scope of review Mandamus ← Scope and extent in general

An appellate court's review of the administrative record for legal error and substantial evidence in a California Environmental Quality Act (CEQA) case, as in other mandamus cases, is the same as the trial court's: the appellate court reviews the agency's action, not the trial court's decision, and in that sense appellate judicial review under CEQA is de novo. West's Ann.Cal.Pub.Res.Code § 21168.5.

132 Cases that cite this headnote

[3] Environmental Law Assessments and impact statements

In interpreting the California Environmental Quality Act (CEQA), courts accord the CEQA Guidelines, promulgated by the state's Resources Agency, great weight except where they are clearly unauthorized or erroneous. West's Ann.Cal.Pub.Res.Code § 21083; 14 CCR § 15000 et seq.

39 Cases that cite this headnote

[4] Environmental Law 🐎 Land use in general

Informational purposes of California Environmental Quality Act (CEQA) are not satisfied by an environmental impact report (EIR) that simply ignores or assumes a solution to the problem of supplying water to a proposed land use project; decision makers must be presented with sufficient facts to evaluate the pros and cons of supplying the amount of water that the project will need. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

16 Cases that cite this headnote

[5] Environmental Law 🕪 Land use in general

Under California Environmental Quality Act (CEQA), an adequate environmental impact analysis for a large project, to be built and occupied over a number of years, cannot be limited to the water supply for the first stage or the first few years. West's Ann.Cal.Pub.Res.Code § 21000 et seq.; 14 CCR § 15152(b).

1 Case that cites this headnote

[6] Environmental Law - Scope of project; multiple projects

Under California Environmental Quality Act (CEQA), tiering of environmental review is properly used to defer analysis of environmental impacts and mitigation measures to later phases when the impacts or mitigation measures are not determined by the first-tier approval decision but are specific to the later phases. 14 CCR § 15152.

15 Cases that cite this headnote

[7] Environmental Law 🗁 Land use in general

Under California Environmental Quality Act (CEQA), an environmental impact report (EIR) evaluating a planned land use project must assume that all phases of the project will eventually be built and will need water, and must analyze, to the extent reasonably possible, the

impacts of providing water to the entire proposed project. 14 CCR § 15152.

27 Cases that cite this headnote

[8] Environmental Law 🐎 Land use in general

Under California Environmental Quality Act (CEQA), the future water supplies identified and analyzed in an environmental impact report (EIR) must bear a likelihood of actually proving available; speculative sources and unrealistic allocations, "paper water," are insufficient bases for decisionmaking under CEQA. 14 CCR § 15152.

17 Cases that cite this headnote

[9] Environmental Law Waters and water courses; dams and flood control

Where, despite a full discussion in an environmental impact report (EIR), it is impossible to confidently determine that anticipated future water sources for a development project will be available, California Environmental Quality Act (CEQA) requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those

contingencies. West's Ann.Cal.Pub.Res.Code § 21000 et seq.; 14 CCR § 15152.

13 Cases that cite this headnote

[10] Environmental Law 🐎 Land use in general

Under California Environmental Quality Act (CEQA), an environmental impact report (EIR) for a land use plan need not demonstrate that the project is definitely assured long-term future water supplies at an early phase of planning.

West's Ann.Cal.Pub.Res.Code § 21000 et seq.; West's Ann.Cal.Gov.Code § 66473.7; West's Ann.Cal.Water Code §§ 10910-10912; 14 CCR § 15152.

5 Cases that cite this headnote

[11] Environmental Law Assessments and impact statements

On judicial review of an agency's determination under California Environmental Quality Act (CEQA), the court determines de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements, but the court accords greater deference to the agency's substantive factual conclusions. West's Ann.Cal.Pub.Res.Code § 21168.

129 Cases that cite this headnote

[12] Environmental Law Assessments and impact statements

In reviewing for substantial evidence an agency's approval of an environmental impact report (EIR) under California Environmental Quality Act (CEQA), the reviewing court may not set aside the agency's approval of an EIR on the ground that an opposite conclusion would have been equally or more reasonable; on factual questions, the court's task is not to weigh conflicting evidence and determine who has the better argument. West's Ann.Cal.Pub.Res.Code § 21168.

108 Cases that cite this headnote

[13] Environmental Law 🕪 Land use in general

Under California Environmental Quality Act (CEQA) final environmental impact report (FEIR) for large housing and commercial development project adequately analyzed near-term groundwater supplies proposed to come from new well facility drawing from region's deeper aquifer, notwithstanding some uncertainty regarding future supplies; although there could be others potential users for well water, record indicated that substantial portion of projected well water would be used for project.

West's Ann.Cal.Pub.Res.Code § 21000 et seq.

3 Cases that cite this headnote

[14] Environmental Law 🕪 Land use in general

Under California Environmental Quality Act (CEQA) final environmental impact report (FEIR) for large housing and commercial development project failed to adequately analyze long-term surface water supplies; FEIR provided no consistent description of future demand for new water or potential supply, its explanation that new surface waters would be used in conjunction with groundwater was vague and unquantified, it improperly attempted to tier from future environmental document, and it contained no discussion of impacts of new surface water diversion or measures needed to mitigate those impacts.

West's Ann.Cal.Pub.Res.Code § 21000 et seq.

10 Cases that cite this headnote

[15] Environmental Law Adequacy of Statement, Consideration, or Compliance

Informational purpose of California Environmental Quality Act (CEQA) is not satisfied by simply stating in the environmental impact report (EIR) that information will be provided in the future. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

3 Cases that cite this headnote

[16] Environmental Law 🐎 Land use in general

An environmental impact report (EIR) that neglects to explain the likely sources of water and analyze their impacts, but leaves long-term water supply considerations to later stages of the project, does not serve the purpose of the California Environmental Quality Act (CEQA).

West's Ann.Cal.Pub.Res.Code § 21000 et seq.

12 Cases that cite this headnote

[17] Environmental Law Adequacy of Statement, Consideration, or Compliance

The data in an environmental impact report (EIR) prepared under California Environmental Quality Act (CEQA) must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and

decision makers, who may not be previously familiar with the details of the project. West's Ann.Cal.Pub.Res.Code § 21000 et seq.

12 Cases that cite this headnote

[18] Environmental Law - Adequacy of Statement, Consideration, or Compliance

The audience to whom an environmental impact report (EIR) prepared under California Environmental Quality Act (CEQA) must communicate is not the reviewing court but the public and the government officials deciding on the project; that a party's briefs to the court may explain or supplement matters that are obscure or incomplete in the EIR is irrelevant. West's

3 Cases that cite this headnote

Ann.Cal.Pub.Res.Code § 21000 et seq.

[19] Environmental Law 🐎 Sufficiency

Under California Environmental Quality Act (CEQA), draft environmental impact report (EIR) for large housing and commercial development project was required to be revised and recirculated for public comment on newly disclosed potential impact on salmon migration in river; draft EIR contained no discussion of impact planned groundwater extraction would have on water flows and habitats in river, and when issue was raised, county merely adopted unsupported conclusion that impact was insignificant. West's Ann.Cal.Pub.Res.Code § 21092.1; 14 CCR § 15088.5.

9 Cases that cite this headnote

[20] Environmental Law Updated or supplemental statements; recirculation

Recirculation of draft environmental impact report (EIR) is not mandated under California Environmental Quality Act (CEQA) when new information merely clarifies or amplifies the previously circulated draft EIR, but it is required when it reveals a new substantial impact or a substantially increased impact on the environment. West's Ann.Cal.Pub.Res.Code § 21092.1; 14 CCR § 15088.5.

22 Cases that cite this headnote

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Opinion

WERDEGAR, J.

*421 **713 The County of Sacramento (County) approved a community plan for a large, mixed-use development project proposed by real parties in interest in this mandate action

(real parties), as well as a specific plan for the first portion of that development. A group of objectors to the development (plaintiffs) brought a petition for writ of mandate to overturn, on a variety of grounds, the County's approval. The superior court denied the petition, and the Court of Appeal affirmed.

We granted review to consider plaintiffs' claims, arising under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), that (1) the environmental impact report (EIR) prepared for the community and specific plans failed to adequately identify and evaluate future water sources for the development, and (2) potential impacts on migratory salmon in the Cosumnes River, disclosed in the Final EIR, should instead have been incorporated in a revised Draft EIR and recirculated for public comment.

We conclude that while the EIR adequately informed decision makers and the public of the County's plan for near-term provision of water to the development, it failed to do so as to the long-term provision and hence failed to disclose the impacts of providing the necessary supplies in the long term. While the EIR identifies the intended water sources in general terms, it does not clearly and coherently explain, using material properly stated or incorporated in the EIR, how the long-term demand is likely to be met with those sources, the environmental impacts of exploiting those sources, and how those impacts are to be mitigated. On the second issue, we agree with plaintiffs that the Draft EIR must be revised and recirculated for public comment on the newly disclosed potential impact on Cosumnes River fish migration.

FACTUAL AND PROCEDURAL BACKGROUND

The facts are drawn from the record before the County's Board of Supervisors (Board) when that body took the challenged actions. (See **Western States Petroleum Assn. v. Superior Court (1995) 9 Cal.4th 559, 568–574, 38 Cal.Rptr.2d 139, 888 P.2d 1268.)

Real parties, a land development group led by AKT Development Corporation, propose to develop more than 6,000 rural acres in the eastern part of the County (now within the jurisdiction of the recently incorporated City of Rancho Cordova (Rancho Cordova), which has assumed the County's place in this litigation) into a "master planned community" known as Sunrise *422 Douglas (after Sunrise Boulevard and Douglas Road, two major roads forming part

of its borders). Fully built, the project would include more than 22,000 residential units, housing as many as 60,000 people, together with schools and parks, as well as office and commercial uses occupying about 480 acres of land.

County planning staff prepared two plans for initial regulatory approval: the Sunrise Douglas Community Plan (Community Plan), which sets out the "policy framework and conceptual development plan" for the entire project, and the SunRidge Specific Plan (Specific Plan), which details the proposed development of a substantial portion of the project—2,600 acres of land to contain 9,886 **714 residential units, as ***827 well as community commercial areas, shopping centers, neighborhood schools and parks. County staff also prepared a single EIR assessing the likely environmental consequences of implementing both plans, to be used by the Board in deciding whether to approve the plans.

On July 17, 2002, the Board passed resolutions and ordinances that amended the County general plan and zoning ordinances to approve the project. The Board also certified the Final EIR (FEIR) and made findings as to significant unmitigated environmental effects and overriding benefits. (See Pub. Resources Code, § 21081;) Guidelines for the Implementation of Cal. Environmental Quality Act (CEQA Guidelines) (Cal.Code Regs., tit. 14, §§ 15090, 15091.)

The EIR for the Community Plan and Specific Plan addressed myriad potential environmental impacts associated with the development, as well as mitigation measures and alternatives to the development. Many of these formed the basis for critical public comment on the Draft EIR ¹ and disputes at earlier stages of the litigation, but this court's review of the EIR's adequacy is focused solely on issues of water supply and the impact of groundwater withdrawals on Cosumnes River fish migration. Our factual summary therefore also addresses only these two points.

Water Supply: Sources, Impacts and Mitigation Measures

According to the FEIR, the average water demand in the Specific Plan area, on full build out, is estimated to be 8,539 acre-feet annually (afa); demand in the remainder of the Community Plan area is estimated at 13,564 *423 afa, giving a total project demand, when fully built and occupied, of about 22,103 afa. The plan for supplying this water relies on both groundwater and surface water supplies. Initially,

groundwater in an amount eventually reaching about 5,527 afa would be provided from a newly developed source, the North Vineyard Well Field (Well Field), to be built southwest of the development. The Well Field is thought to have a safe yield of about 10,000 afa, but that full amount would not necessarily be available to Sunrise Douglas. The project's additional needs, beyond those supplied from the Well Field, would later be met with surface water diverted from the American River. Both the ground and surface water supplies would be delivered by the Sacramento County Water Agency (the Water Agency).

The Water Agency, according to the FEIR, will provide the surface water supplies as part of its system for a larger area of the County known as Zone 40, which, as expanded in 1999, includes the Sunrise Douglas project area. This water will be employed in "conjunctive use" with the Well Field groundwater, employing more surface water in wet years (allowing the groundwater resources to be recharged) and more groundwater in dry years when surface supplies are restricted. The Water Agency has an existing contract with the federal Bureau of Reclamation for 15,000 afa of American River water for use in Zone 40 (an allocation referred to in the FEIR and by the parties as Fazio water) and is negotiating or exploring other surface water diversion rights.

***828 The FEIR relied to a significant extent on prior water supply planning completed under the aegis of the Water Forum, a group of public and private "stakeholders" including the County, the City of Sacramento, other water providers, business groups and environmental organizations (among them the Environmental Council of Sacramento, a plaintiff here), that undertook long-term planning to meet increased demand for American River water through the year 2030. The Water Forum's product, the Water Forum Proposal, which became the Water Forum Agreement on execution by the participants, includes plans for increased surface water diversions by several water purveyors, including new diversions by the County and the Water Agency by the year 2030 totaling **715 as much as 78,000 afa; used conjunctively with groundwater, this surface water is intended to meet the County's need for new water supplies in the Zone 40 area.

The final EIR for the Water Forum Proposal extensively analyzed the environmental impacts of the participants' planned increases in surface water diversion, as well as the cumulative impacts of the proposal and other foreseeable changes in area water supply and demand. It found

that in spite of measures included in the proposal for water conservation, conjunctive use and fisheries protection, increased use of American River water under the *424 plan is likely to cause "significant and potentially significant impacts within the Lower American River and Folsom Reservoir, including effects to certain fisheries, recreational opportunities, and cultural resources." In addition, "impacts to water supply, water quality and power supply" are likely to occur outside the American River system.

The impacts of groundwater withdrawals at the Well Field, the other source of water for the development, are discussed in the FEIR for the Community and Specific Plans. The FEIR analyzes a set of seven groundwater withdrawal scenarios to satisfy Specific Plan area and other regional needs, ranging between 2,265 afa and 32,821 afa. According to the FEIR's modeling analysis, groundwater elevations in the shallow aquifer near the Well Field would decline by 10-15 feet—deemed a potentially significant amount because it could affect adjacent landowners' domestic wells-under the scenarios involving the project's use of around 10,000 afa of groundwater from the Well Field. ² This potential impact would be mitigated by conjunctive use of surface water supplies to recharge the aquifer and, if necessary, by deepening domestic wells or connecting their users to the municipal supply.

Because the Sunrise Douglas development does not have legal rights to the projected Well Field and surface water resources, and transmission and treatment facilities have not yet been built, the FEIR contemplates that legal entitlements for development must await final agreements and facilities financing. The FEIR's mitigation measure WS-1 specifies that entitlements ("subdivision maps, parcel maps, use permits, building permits, etc.") in Sunrise Douglas shall not be granted "unless ***829 agreements and financing for supplemental water supplies are in place."

Cosumnes River: Impact on Salmon Migration

The Cosumnes River lies south of the Well Field. The only remaining undammed river draining the Sierra Nevada's western slope, the Cosumnes supports steelhead trout and fall-run chinook salmon populations. The Draft EIR did not discuss the impact groundwater extraction at the Well Field would have on the river's flows and habitats. In public comments on the Draft EIR, however, several agencies,

organizations and individuals expressed concern on the subject.

*425 The United States Fish and Wildlife Service noted that past groundwater withdrawals had significantly lowered groundwater levels in the area, which causes loss of flow in the Cosumnes River due to seepage through the riverbed and thus limits access of adult fall-run chinook to their spawning grounds. "Any further withdrawals will almost certainly exacerbate this situation." The Fish and Wildlife Service comment urged an analysis of the potential effect of groundwater withdrawals on flow conditions in the river's spawning reach (between LaTrobe and Dillard Roads) and migratory reach (from the tidal zone to LaTrobe Road) during the fall and winter months.

**716 The National Marine Fisheries Service observed that the Cosumnes River is designated critical habitat for the Central Valley steelhead trout, a "federally listed" species, as well as habitat for a "candidate species," fall/late fall-run chinook salmon. Further groundwater withdrawals in the area could reduce surface flow, "significantly impacting recovery of listed and sensitive salmonid species."

The Nature Conservancy, which manages the Cosumnes River Preserve (an area of 30,000 acres in which several state and federal agencies hold land interests), similarly observed that due to the lowering of the groundwater table the Cosumnes River now loses surface flow to groundwater, and, as a consequence, "the river ceases flowing earlier in the year, stays dry longer into the Fall, and dries over an increasingly long reach, compared to historic conditions." Because water from fall rains must saturate an increasingly dry riverbed, significantly more fall water is now required for surface flows to reach the Sacramento San Joaquin Delta and permit salmon migration; riparian habitats and seasonal wetlands are also adversely affected. "Any increment of further lowering of groundwater will, in our view, have a significantly negative effect on these habitat and public trust values."

Graham Fogg, a professor of hydrogeology at the University of California, Davis, who has studied the effects of groundwater extraction on the Cosumnes River, also warned that increased extraction could reduce stream flows, jeopardizing salmon migration. In particular, Fogg explained that while some reaches of the Cosumnes River are hydrologically disconnected from the aquifer in the region, modeling and field observations show a potential for

connection "upstream of Dillard Road and downstream of Highway 99."

In response to these public comments, the FEIR states that "available data suggest groundwater extraction at the proposed [W]ell [F]ield will not significantly impact flows in either Deer Creek [a tributary of the Cosumnes] or the Cosumnes River." The estimated impact on groundwater levels in the Cosumnes River area is less than five feet. Moreover, the deep aquifer from which the Well Field would draw is hydrologically disconnected from the *426 Cosumnes River over most of its reach in the County. In the unconnected ***830 reaches, seepage from the river occurs whatever the regional groundwater elevation; further extraction would therefore have no effect on river flows. Hydrological connections exist "upstream of Dillard Road and downstream of Twin Cities Road" ("about 7 miles downstream of Highway 99"), but groundwater elevation changes in those reaches is expected to be no more than two feet and typically less than one foot. The FEIR concludes: "The resulting impact on depletions from Deer Creek and the Cosumnes River is not considered significant. Correspondingly, these depletions are expected to result in small but uncertain impacts on flows in Deer Creek and the Cosumnes River. The potential exception could be during periods of very low flow. During such periods of low flow, these depletions could change the timing and areal extent of the dewatering of the stream invert, potentially impacting aquatic and riparian-dependent species and habitat."

The FEIR response also observed that the proposed extraction of 10,000 afa from the Well Field represented less than a 3 percent increase in the annual groundwater extraction underlying and adjacent to the Cosumnes River, and that agricultural wells located very close to the river and drawing from the region's shallower aquifer "exert a much greater influence on local groundwater elevations and gradients than the proposed [W]ell [F]ield."

Lower Court Review

The superior court denied plaintiffs' petition for writ of mandate, which challenged the County's CEQA findings and approval of the project. The Court of Appeal affirmed, holding, inter alia, that the FEIR's water supply discussion satisfied CEQA because it did not rely on speculative or illusory sources, and that substantial evidence supported the County's finding the impact of groundwater extraction on flow levels in the Cosumnes River would be insignificant. We granted plaintiffs' petition for review.

**717 DISCUSSION

[1] In reviewing an agency's compliance with CEQA in the course of its legislative or quasi-legislative actions, the courts' inquiry "shall extend only to whether there was a prejudicial abuse of discretion." (Pub. Resources Code, § 21168.5.)³ Such an abuse is established "if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence." (*Ibid.*; see **Western States *Petroleum Assn. v. Superior Court, supra, 9 Cal.4th at p. 568, 38 Cal.Rptr.2d 139, 888 P.2d 1268; **427 Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 392–393, 253 Cal.Rptr. 426, 764 P.2d 278 **(Laurel Heights I).) 4

[2] An appellate court's review of the administrative record for legal error and ***831 substantial evidence in a CEQA case, as in other mandamus cases, is the same as the trial court's: the appellate court reviews the agency's action, not the trial court's decision; in that sense appellate judicial review under CEQA is de novo. (County of Amador v. El Dorado County Water Agency, supra, 76 Cal.App.4th at p. 946, 91 Cal.Rptr.2d 66; Friends of the Old Trees v. Dept. of Forestry & Fire Protection (1997) 52 Cal.App.4th 1383, 1393, 61 Cal.Rptr.2d 297; Sierra Club v. County of Sonoma (1992) 6 Cal.App.4th 1307, 1321, 8 Cal.Rptr.2d 473; City of Carmel-by-the-Sea v. Bd. of Supervisors (1986) 183 Cal.App.3d 229, 239, 227 Cal.Rptr. 899.) We therefore resolve the substantive CEQA issues on which we granted review by independently determining whether the administrative record demonstrates any legal error by the County and whether it contains substantial evidence to support the County's factual determinations.

I. Adequacy of the FEIR's Water Supply Analysis

Plaintiffs contend the FEIR is deficient in that it "fails to identify the actual source of most of the water needed to fill the project's long-term demand," an analytical gap that "serves to obscure the undisclosed environmental impacts of the project." The County's assurance, through the FEIR's mitigation measure WS-1, that development entitlements will not be granted until agreements and financing for water supplies are in place does not remedy the deficiency, plaintiffs

argue. Rather, the promise of future environmental analysis merely sidesteps the County's obligation to disclose and consider the impacts of supplying water to the entire planned Sunrise Douglas project at the outset, before approving that project. Moreover, plaintiffs maintain, insofar as the FEIR relies on mitigation measures proposed in the Water Forum Proposal, those are legally inadequate to support approval of the Sunrise Douglas project because they have not been embodied in a legally enforceable agreement.

Relying in part on the FEIR's use of information drawn from the Water Forum Proposal's final EIR, the Court of Appeal held the FEIR's treatment of *428 water sources and impacts satisfied CEQA's requirements. The identified sources "were not speculative, although they were not completed." Unlike the reliance on "illusory supplies" condemned in earlier appellate decisions, the Court of Appeal concluded, here the FEIR identified and assessed the impacts of using "future water supplies." Real parties and Rancho Cordova, similarly, contend the FEIR adequately identified and addressed future water supplies. CEQA, Rancho Cordova argues, requires only that the County **718 " use its best efforts to disclose all that [it] reasonably could, not to actually secure a water source and work out all the uncertainties and competing demands before an environmental review would be adequate."

A. Principles Governing CEQA Analysis of Water Supply

The fundamental purpose of an EIR is "to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment." (§ 21061.) To that end, the EIR "shall include a detailed statement setting forth ... [a]ll significant effects on the environment of the proposed project." (§ 21100, subd. (b)(1).) It is common ground for the parties and the lower court that the EIR in this case was required to analyze the effects of providing water to this large housing and commercial development, and that in order to do so the EIR had, in some manner, to identify the planned sources of ***832 that water. The principal disputed issue is how firmly future water supplies for a proposed project must be identified or, to put the question in reverse, what level of uncertainty regarding the availability of water supplies can be tolerated in an EIR for a land use plan.

[3] Neither CEQA itself, nor the CEQA Guidelines, ⁵ nor any of this court's decisions address this question specifically.

On a general level, section 15144 of the CEQA Guidelines (Cal.Code Regs., tit. 14), addressing the need to forecast future events in an EIR, states that "[w]hile foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." We endorsed this view in Laurel Heights I, supra, 47 Cal.3d at pages 398–399, 253 Cal.Rptr. 426, 764 P.2d 278, explaining that an EIR must address the impacts of "reasonably foreseeable" future activities related to the proposed project. The Courts of Appeal, however, have in several decisions specifically addressed the sufficiency of an EIR's analysis of future water supplies.

*429 In Santiago County Water Dist. v. County of Orange (1981) 118 Cal.App.3d 818, 173 Cal.Rptr. 602, the EIR for a proposed mining project stated that the mine would consume 12,000 to 15,000 gallons of water daily and that the local water district would supply it, but provided no information as to the impacts on water service elsewhere of supplying that amount of water to the mine. (Id. at pp. 830–831, 173 Cal.Rptr. 602.) The Court of Appeal held that without any "facts from which to evaluate the pros and cons of supplying the [needed] amount of water" to the mine (id. at p. 829, 173 Cal.Rptr. 602), the EIR was inadequate.

Long-term supplies for a large project—a residential community and resort to be developed over 25 years were addressed in Stanislaus Natural Heritage Project v. County of Stanislaus (1996) 48 Cal.App.4th 182, 55 Cal.Rptr.2d 625 (Stanislaus Natural Heritage). The EIR noted that "'[a] firm water supply has not yet been established beyond the first five years of development, although the applicant is pursuing several sources." (Id. at p. 195, 55 Cal.Rptr.2d 625.) Although the EIR listed several possible sources of long-term water supply (id. at p. 194, 55) Cal.Rptr.2d 625), it provided no analysis of the likelihood of their materializing and their environmental impacts if employed. Instead, the EIR deferred such analysis to future environmental review of water acquisitions or "detailed project-level review for future phases of development," providing as a mitigation measure that if the applicant failed to demonstrate and analyze the impacts of future water supplies, further phases of the development would not be approved.

(*Id.* at p. 195, 55 Cal.Rptr.2d 625.)

The appellate court held this treatment of future water supplies defeated CEQA's fundamental informational purpose. Before approving a specific plan for an entire development, **719 the decision makers must be informed of the intended source or sources of water for the project, "what the impact will be if supplied from a particular source or possible sources and if that impact is adverse how it will be addressed." ***833 (Stanislaus Natural Heritage, supra, 48 Cal.App.4th at p. 206, 55 Cal.Rptr.2d 625.) CEQA, the court recognized, permits the environmental analysis for long-term, multipart projects to be "tiered," so that the broad overall impacts analyzed in an EIR at the first-tier programmatic level need not be reassessed as each of the project's subsequent, narrower phases is approved, ⁶ but tiering "is not a device for deferring the identification of significant environmental impacts that the adoption of a specific plan can be expected to cause." (Stanislaus Natural Heritage, at p. 199, 55 Cal.Rptr.2d 625.) Nor can the unanalyzed impacts of unknown water sources be mitigated by providing that if water proves unavailable, the project's future phases will not be built: "While it might be argued that not building a portion of the project is the ultimate mitigation, it must be borne in mind that the EIR must address the project and assumes the project will be built." [Id. at p. 206, 55] Cal.Rptr.2d 625.)

*430 In Santa Clarita Organization for Planning the Environment v. County of Los Angeles (2003) 106 Cal.App.4th 715, 131 Cal.Rptr.2d 186 (Santa Clarita), the EIR for a residential and commercial development project, for which the Castaic Lake Water Agency (Castaic) was to supply water, relied for analysis of cumulative development impacts on Castaic receiving its full entitlement of 54,200 afa from the State Water Project and purchasing an additional 41,000 afa in State Water Project water rights from another agency. (Id. at pp. 718–719, 131 Cal.Rptr.2d 186.) Quoting another appellate court's recent observation that because the State Water Project had never been fully constructed "there is a huge gap between what is promised and what can be delivered," rendering State Water Project entitlements nothing more than "hopes, expectations, water futures or, as the parties refer to them, 'paper water' " (Planning & Conservation League v. Department of Water Resources (2000) 83 Cal.App.4th 892, 908, fn. 5, 100 Cal.Rptr.2d 173), the Santa Clarita court held the EIR's water supply discussion was inadequate because of its assumption that "100 percent of Castaic's State Water Project entitlement" would be available to Castaic. (Santa Clarita, at p. 722, 131 Cal.Rptr.2d 186; see also California Oak Foundation v. City of Santa Clarita (2005) 133 Cal.App.4th 1219, 1238–1239, 1244, 35 Cal.Rptr.3d 434 (California Oak) [disapproving EIR for an industrial park because the water supply analysis relied, without adequate consideration of the attendant uncertainties, on Castaic's purchase of 41,000 afa in imported State Water Project water].)

Finally, Napa Citizens for Honest Government v. Napa County Bd. of Supervisors (2001) 91 Cal.App.4th 342, 110 Cal.Rptr.2d 579 (Napa Citizens) considered the closely related issue of what constitutes an adequate discussion of contingencies in case the anticipated water supplies for a land use project fail to materialize. The EIR for an industrial development project in Napa County stated that water would be supplied by the City of American Canyon, which already supplied other users in the area. American Canyon's water sources were adequate for planned growth in the short term, but in the longer term would fall short unless that city was able to purchase additional water from the City of Vallejo, as it was trying to do. The EIR assumed that purchase would go through and therefore found the project's demand for water would have no significant impact. [Id. at p. 372, 110 Cal.Rptr.2d 579.) The appellate court held the EIR inadequate for not disclosing possible ***834 alternative water sources and their impacts. In light of the uncertainty regarding American Canyon's future supplies, the EIR "cannot simply label the possibility that they will not materialize as 'speculative,' and decline to address it. The County should be informed if other sources exist, and be informed, in at least general terms, of the environmental consequences of tapping such resources." [Id. at p. 373, 110 Cal.Rptr.2d 579.)

**720 [4] While these decisions state no definitive standard of certainty for analysis of future water supplies, they do articulate certain principles for analytical adequacy under CEQA, principles with which we agree. First, CEQA's *431 informational purposes are not satisfied by an EIR that simply ignores or assumes a solution to the problem of supplying water to a proposed land use project. Decision makers must, under the law, be presented with sufficient facts to "evaluate the pros and cons of supplying the amount of water that the [project] will need." (Santiago County Water

Dist. v. County of Orange, supra, 118 Cal.App.3d at p. 829, 173 Cal.Rptr. 602.)

[5] [6] [7] Second, an adequate environmental impact analysis for a large project, to be built and occupied over a number of years, cannot be limited to the water supply for the first stage or the first few years. While proper tiering of environmental review allows an agency to defer analysis of certain details of later phases of long-term linked or complex projects until those phases are up for approval, CEQA's demand for meaningful information "is not satisfied by simply stating information will be provided in the future."

(Santa Clarita, supra, 106 Cal.App.4th at p. 723, 131 Cal.Rptr.2d 186.) As the CEQA Guidelines explain: "Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental impacts of the project and does not justify deferring such analysis to a later tier EIR or negative declaration." (Cal.Code Regs., tit. 14, § 15152, subd. (b).) Tiering is properly used to defer analysis of environmental impacts and mitigation measures to later phases when the impacts or mitigation measures are not determined by the first-tier approval decision but are specific to the later phases. For example, to evaluate or formulate mitigation for "site specific effects such as aesthetics or parking" (id., § 15152 [Discussion]) may be impractical when an entire large project is first approved; under some circumstances analysis of such impacts might be deferred to a later tier EIR. ⁷ But the future water sources for a large land use project and the impacts of exploiting those sources are not the type of information that can be deferred for future analysis. An EIR evaluating a planned land use project must assume that all phases of the project will eventually be built and will ***835 need water, and must analyze, to the extent reasonably possible, the impacts of providing water to the entire proposed project. (Stanislaus Natural Heritage,

[8] *432 Third, the future water supplies identified and analyzed must bear a likelihood of actually proving available; speculative sources and unrealistic allocations ("paper water") are insufficient bases for decisionmaking under CEQA. (Santa Clarita, supra, 106 Cal.App.4th at pp. 720–723, 131 Cal.Rptr.2d 186.) An EIR for a land use project must address the impacts of likely future water sources, and the EIR's discussion must include a reasoned analysis of the circumstances affecting the likelihood of

supra, 48 Cal.App.4th at p. 206, 55 Cal.Rptr.2d 625.)

the water's availability. (California Oak, supra, 133 Cal.App.4th at p. 1244, 35 Cal.Rptr.3d 434.)

[9] Finally, where, despite a full discussion, it is impossible to confidently determine that anticipated future water sources will be available, CEQA requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those contingencies. (Napa Citizens, supra, 91 Cal.App.4th at p. 373, 110 Cal.Rptr.2d 579.) The **721 law's informational demands may not be met, in this context, simply by providing that future development will not proceed if the anticipated water supply fails to materialize. But when an EIR makes a sincere and reasoned attempt to analyze the water sources the project is likely to use, but acknowledges the remaining uncertainty, a measure for curtailing development if the intended sources fail to materialize may play a role in the impact analysis. (See id. at p. 374, 110 Cal.Rptr.2d 579.)

[10] Significantly, none of the Court of Appeal decisions on point holds or suggests that an EIR for a land use plan is inadequate unless it demonstrates that the project is definitely assured water through signed, enforceable agreements with a provider and already built or approved treatment and delivery facilities. Requiring certainty when a long-term, large-scale development project is initially approved would likely be unworkable, as it would require water planning to far outpace land use planning.

Examination of other state statutes specifically addressing the coordination of land use and water planning supports our conclusion CEQA should not be understood to require assurances of certainty regarding long-term future water supplies at an early phase of planning for large land development projects. Pertinent are two measures enacted in 2001 "to ensure that local land use authorities will thoroughly consider the availability of water supplies before approving major new developments." (Tepper, New Water Requirements for Large–Scale Developments (Jan.2005) 27 L.A. Law. 18, 20.)

*433 Government Code section 66473.7 generally requires a city or county, before approving a subdivision map for a residential development of more than 500 units, to obtain from the applicable public water system a "written verification" that adequate water supplies will be available for that project as well as other existing and planned future uses for a projected 20—year period. When the verification rests

on supplies not yet available to the water provider, it is to be based on firm indications the water will be available in the future, including written contracts for water rights, approved financing programs ***836 for delivery facilities, and the regulatory approvals required to construct infrastructure and deliver the water. (*Id.*, subd. (d).) The subdivision map may be approved only if the water system verifies, or the city or county finds on substantial evidence, that water supplies will be adequate. (*Id.*, subd. (b); see Tepper, *New Water Requirements for Large–Scale Developments, supra, 27 L.A.* Law. at p. 20.) While the verification or finding is *required* as a condition of subdivision approval, "[n]othing in this section shall preclude the [local] legislative body ... from making the determinations required in this section earlier than" the subdivision approval stage. (Gov.Code, § 66473.7, subd. (*l*).)

Water Code sections 10910 to 10912, enacted in 1995 but substantially amended in 2001, apply more broadly to any large land use project (not only residential developments) and to approval of any such project subject to CEQA (not only to subdivision map approvals). (Wat.Code, §§ 10910, subd. (a), 10912, subds. (a), (b).) They require the city or county considering a project to obtain, at the outset of the CEQA process, a water supply "assessment" from the applicable public water system. (Wat.Code, § 10910, subd. (b).) The "water supply assessment" is then to be included in any CEQA document the city or county prepares for the project. (Wat.Code, § 10911, subd. (b).) 8 With regard to existing supply entitlements and rights, a water supply assessment must include assurances such as written contracts, capital outlay programs and regulatory approvals **722 for facilities construction (paralleling the assurances Gov.Code, § 66473.7, subd. (d) requires for future water), but as to additional future supplies needed to serve the project, the assessment need include only the public water system's plans for acquiring the additional supplies, including cost and time estimates and regulatory approvals the system anticipates needing. (Wat.Code, §§ 10910, subd. (d)(2), 10911, subd. (a).)

Taken together, Water Code sections 10910 to 10912 and Government Code section 66473.7 thus demand, as amicus curiae Association of California Water Agencies explains, that "water supplies must be identified with more *434 specificity at each step as land use planning and water supply planning move forward from general phases to more specific phases." The plans and estimates that Water Code section 10910 mandates for future water supplies at the time of any approval subject to CEQA must, under Government Code section 66473.7, be replaced by firm assurances at the

subdivision map approval stage. To interpret CEQA itself as requiring such firm assurances of future water supplies at relatively early stages of the land use planning and approval process would put CEQA in tension with these more specific water planning statutes.

Consistent with the foregoing, we emphasize that the burden of identifying likely water sources for a project varies with the stage of project approval involved; the necessary degree of confidence involved for approval of a conceptual plan is much lower than for issuance of building permits. The ultimate question under CEQA, moreover, is not whether an EIR establishes ***837 a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project. If the uncertainties inherent in long-term land use and water planning make it impossible to confidently identify the future water sources, an EIR may satisfy CEQA if it acknowledges the degree of uncertainty involved, discusses the reasonably foreseeable alternatives-including alternative water sources and the option of curtailing the development if sufficient water is not available for later phases—and discloses the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact. (§ 21100, subd. (b).) In approving a project based on an EIR that takes this approach, however, the agency would also have to make, as appropriate to the circumstances, any findings CEQA requires regarding incorporated mitigation measures, infeasibility of mitigation, and overriding benefits of the project (§ 21081) as to each alternative prong of the analysis.

Moreover, CEQA, in our understanding, does not require a city or county, each time a new land use development comes up for approval, to reinvent the water planning wheel. Every urban water supplier is already required to prepare and periodically update an "urban water management plan," which must, inter alia, describe and project estimated past, present, and future water sources, and the supply and demand for at least 20 years into the future. Wat.Code. §§ 10620—10631.) When an individual land use project requires CEQA evaluation, the urban water management plan's information and analysis may be incorporated in the water supply and demand assessment required by both the Water Code and CEQA "[i]f the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan." (Wat.Code § 10910, subd. (c)(2).) Thus the Water Code

and the CEQA provision requiring compliance with it (Pub. Resources Code, § 21151.9) contemplate that analysis in an individual *435 project's CEQA evaluation may incorporate previous overall water planning projections, assuming the individual project's demand was included in the overall water plan.

[11] [12] Finally, before assessing the adequacy of the FEIR's water supply analysis, we pause to clarify the nature of our review. As explained earlier, an agency may abuse its discretion under CEQA either by failing to proceed in the manner CEQA provides or by reaching factual conclusions unsupported by substantial evidence. (§ 21168.5.) Judicial review of these two types of error differs significantly: while we determine de novo whether the agency has employed the correct procedures, "scrupulously enforc[ing] all legislatively

**723 mandated CEQA requirements" (Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564, 276 Cal.Rptr. 410, 801 P.2d 1161), we accord greater deference to the agency's substantive factual conclusions. In reviewing for substantial evidence, the reviewing court "may not set aside an agency's approval of an EIR on the ground that an opposite conclusion would have been equally or more reasonable," for, on factual questions, our task "is not to weigh conflicting evidence and determine who has the better

argument." (Laurel Heights I, supra, 47 Cal.3d at p. 393, 253 Cal.Rptr. 426, 764 P.2d 278.)

In evaluating an EIR for CEQA compliance, then, a reviewing court must adjust its scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a dispute over the facts. For example, where an agency failed to require an applicant ***838 to provide certain information mandated by CEQA and to include that information in its environmental analysis, we held the agency "failed to proceed in the manner prescribed by CEQA." (Sierra Club v. State Bd. of Forestry (1994) 7 Cal.4th 1215, 1236, 32 Cal.Rptr.2d 19, 876 P.2d 505; see also Santiago County Water Dist. v. County of Orange, supra, 118 Cal.App.3d at p. 829, 173 Cal.Rptr. 602 [EIR legally inadequate because of lack of water supply and facilities analysis].) In contrast, in a factual dispute over "whether adverse effects have been mitigated or could be better mitigated" (Laurel Heights I, supra, 47 Cal.3d at p. 393, 253 Cal.Rptr. 426, 764 P.2d 278), the agency's conclusion would be reviewed only for substantial evidence. Thus, in Laurel Heights I, we rejected as a matter of law the

agency's contention that the EIR did not need to evaluate the impacts of the project's foreseeable future uses because there had not yet been a formal decision on those uses (id. at pp. 393–399, 253 Cal.Rptr. 426, 764 P.2d 278), but upheld as supported by substantial evidence the agency's finding that the project impacts described in the EIR were adequately mitigated (id. at pp. 407–408, 253 Cal.Rptr. 426, 764 P.2d 278). (See also California Oak, supra, 133 Cal.App.4th at p. 1244, 35 Cal.Rptr.3d 434 [absent uncertain purchase of additional water, as to which the EIR's discussion is legally inadequate, "substantial evidence of sufficient water supplies

*436 B. The FEIR's Analysis of Near-term Groundwater Supplies

does not exist"].)

As previously described, the Sunrise Douglas [13] Community and the SunRidge Specific Plan proposed to rely initially on between 5,000 and 10,000 afa of groundwater to be extracted at the Well Field, a new well facility drawing from the region's deeper aquifer; the FEIR analyzed the impacts and needed mitigation of such extraction. Plaintiffs contend competing identified uses for the Well Field water, in particular growth in the Mather Field, Sunrise Corridor and Security Park areas of the County and the replacement of contaminated groundwater sources serving those areas, are likely to use the full 10,000 afa capacity of the Well Field, making the planned use of the same water for the Sunrise Douglas development "completely out of the question." As a result, plaintiffs argue, the Sunrise Douglas project will need instead to employ some other, unknown near-term water source, the impacts of which have not been analyzed.⁹

As explained above, we review solely for substantial evidence the County's factual conclusion that 5,000 afa or more of Well Field water will be available for Sunrise Douglas. We disagree with plaintiffs that the FEIR's analysis of near-term water supply is inadequate on this ground.

The FEIR noted that "capacity would not be reserved in the [Well Field] for any specific user; capacity would simply be available to users on a 'first-come, first-served' basis, since the [Well Field] would be a public **724 water facility"; acknowledged that existing and new demand in the Mather Field, Sunrise Corridor and Security Park areas might also be satisfied from the Well Field; and made clear that serving all these demands as well as a significant portion of the Sunrise Douglas project ***839 from the Well Field would

require much more water than the 10,000 afa that source can safely provide. Nothing plaintiffs cite in the administrative record, however, demonstrates that these competing demands can be satisfied *only* from the Well Field or that they will all materialize in full in the near term and have priority over the Sunrise Douglas project. Uncertainty in the form of competition for identified water sources is an important point that should be discussed in an EIR's water supply analysis—and was here—but it does not necessarily render development of the planned water supply too unlikely.

In fact, the record indicates that a substantial portion of the projected Well Field water is likely to be used for the Sunrise Douglas project. The FEIR *437 explains that the initial phase of Well Field construction (three wells, pumping about 2,265 afa) would include a pipeline connecting the wells to the Sunrise Douglas project's water distribution system and to a storage tank located at Sunrise Boulevard and Douglas Road. Those facilities would be constructed and operational within an estimated 18 months of project approval. Only with the second phase of construction (three additional wells pumping about 3,262 afa) would the Well Field be connected to the Water Agency's larger Zone 40 system, where it might also serve other users. The County's findings also state that developers within the Specific Plan area will be required to pay a per unit fee to purchase insurance for compensation of any Well Field neighbors whose wells fail as a result of the project.

With regard to competition from other planned development, the findings state that already entitled development is expected to call, in the following six years, on about 3,000 of the Well Field's 10,000 afa production, leaving about 7,000 afa—more than the FEIR's projected near-term usage of about 5,500 afa—for "development within the SunRidge Specific Plan area." With regard to replacement of contaminated groundwater, both the FEIR and the findings refer to other remediation and replacement efforts not involving Well Field water; what approaches will be taken and how successful they will be appear partly unknown.

While much uncertainty remains, then, the record contains substantial evidence demonstrating a reasonable likelihood that a water source the provider plans to use for the Sunrise Douglas project—a source that will initially be connected only to the Sunrise Douglas project, for which the Sunrise Douglas project developers will pay a special insurance fee, and which is not already allocated to other entitled uses—will

indeed be available at least in substantial part to supply the Sunrise Douglas project's near-term needs.

Nor did the County, in this instance, fail to proceed in the manner required by CEQA. With regard to the nearterm exploitation of groundwater from the Well Field, the FEIR neither improperly used tiering to defer all analysis of supplies to future stages of the project, as in Stanislaus Natural Heritage, supra, 48 Cal.App.4th 182, 55 Cal.Rptr.2d 625, nor relied upon demonstrably illusory supplies, as in Santa Clarita, supra, 106 Cal.App.4th 715, 131 Cal.Rptr.2d 186, and California Oak, supra, 133 Cal.App.4th 1219, 35 Cal.Rptr.3d 434. Although the FEIR did not demonstrate a level of certainty regarding future supplies comparable to that required for subdivision approval under Government Code section 66473.7, CEQA does not demand such certainty at the relatively early planning stage involved here.

The Attorney General, as amicus curiae in support of plaintiffs, points out that the Specific Plan occupies a later land use planning stage than the *438 Community ***840 Plan and that, under Government Code section 65457, a subdivision application consistent with the Specific Plan would not require further CEQA analysis unless substantial changes had occurred to the project or the surrounding circumstances, or new information had surfaced about the project's impacts (see Pub. Res.Code, § 21166). Nonetheless, to satisfy CEQA, an EIR for a specific plan need not demonstrate certainty regarding **725 the project's future water supplies. To the extent a subsequent subdivision proposal relies on different water sources than were proposed in the specific plan it implements, or the likely availability of the intended water sources has changed between the time of the specific plan and the subdivision application (or more has been learned about the impacts of exploiting those sources), changes in the project, the surrounding circumstances or the available information would exist within the meaning of section 21166, requiring additional CEQA analysis under that section and Government Code section 65457. In holding the FEIR's analysis of supplying water to the Specific Plan area from the Well Field satisfies CEQA, therefore, we do not imply that the FEIR's analysis would suffice for approval of a future subdivision application proposing to use different or additional near-term water sources.

C. Long-term Surface Water Supplies

[14] With regard to the long-term provision of surface water supplies to the project, plaintiffs again stress the competing demands for new water in the County, including other planned growth and the replacement of contaminated groundwater. They first note that the only assured source of new surface water supplies, 15,000 afa in federal Fazio water (not all of which is yet available for diversion), is clearly inadequate to meet long-term water demand in the southern part of the County. In so arguing, however, plaintiffs seemingly ignore the additional planned surface water supplies disclosed in the Water Forum Proposal and the FEIR. True, those supplies are not certain to materialize: even the Fazio water may in practice be limited to something less than 15,000 afa by lack of adequate diversion and transmission facilities, while neither binding contracts nor established facilities financing has been demonstrated for the remaining new surface water. But as we have seen, CEQA does not require this level of certainty at planning stages prior to approval of permits, subdivision maps or other development entitlements. (Cf. Gov.Code, § 66473.7, subd. (d) [detailed verification of future supplies required at subdivision approval stage].) The FEIR discloses the remaining uncertainty regarding actual provision of surface water, noting that "provision of a longterm reliable water supply ... cannot be ensured until facilities are approved." The EIR thus contains substantial evidence to support the conclusion that *some part* of the planned new surface water supplies will be developed and made available to the Water Agency for use in its Zone 40.

*439 Plaintiffs are correct, however, that the FEIR's discussion of the *total* long-term water supply and demand in the Water Agency's Zone 40 (which includes the Sunrise Douglas project) leaves too great a degree of uncertainty regarding the long-term availability of water for this project. Factual inconsistencies and lack of clarity in the FEIR leave the reader—and the decision makers—without substantial evidence for concluding that sufficient water is, in fact, likely to be available for the Sunrise Douglas project at full build out. Most fundamentally, the project FEIR and the Water Forum Proposal final EIR provide no consistent and coherent description of the future demand for new water due to growth in Zone 40 or of the amount of new ***841 surface water that is potentially available to serve that growth.

Regarding demand, the FEIR (in its background water supply discussion) states: "The average water demand to support growth approved in the 1993 General Plan for the Zone 40 area, as expanded, is approximately 113,000 AF/yr." But the Water Forum Proposal and its associated final EIR, assertedly

working from the same general plan growth projections, provide a lower estimate: 87,000 afa in expanded Zone 40 demand by the year 2030. The reason for divergence in these estimates is not explained. Also left unclear is whether these figures represent water demand from expected growth alone or total demand including that from expected growth.

As to supply, the FEIR, relying on the Water Forum Proposal, projects new surface water deliveries of "approximately 63,857" afa to the south area of the County (which includes the project and the Well Field), but elsewhere (responding to a commenton the Draft EIR) discloses only 45,000 afa of expected new surface water ("15,000 AF/year **726 of 'Fazio' water from the [Central Valley Project]; 30,000 AF/year from an assignment of [the Sacramento Municipal Utility District (SMUD)'s] appropriative water rights on the American River"), plus an "application" for an undisclosed amount of "surplus supplies on the Sacramento River." The final EIR for the Water Forum Proposal, however, is more optimistic, disclosing "up to 78,000" afa in new surface water. ¹⁰

The FEIR does not explain the divergence between its estimates and those in the Water Forum Proposal, or even the FEIR's own use of divergent new surface water supply figures in different portions of its discussion. In its findings approving the project, the Board used the FEIR's estimated demand *440 figure of 113,000 afa and the FEIR's new surface water supply figure of "approximately 63,857" afa, but did not attempt to explain the different estimates appearing elsewhere in the Water Forum Proposal and FEIR. An explanation of the differences among these figures may well exist, but it did not appear in the FEIR presented to the public and the Board.

Nor does the FEIR make clear how the available water supply is expected to meet total Zone 40 demand over the long term and, hence, why a sufficient amount of the identified water should reasonably be expected to be available for the Sunrise Douglas project. Demand of 113,000 afa "to support growth" obviously cannot be met with new supplies of 63,857 afa. Even using the lowest demand figure of 87,000 afa and the highest new surface water supply figure of 78,000 afa (both drawn from the Water Forum Proposal, not from the FEIR), a significant gap remains.

The general answer given in the FEIR, and echoed by real parties and Rancho Cordova, is that the new surface water supplies are to be used conjunctively with groundwater supplies. But this explanation is vague and unquantified.

By itself, reliance on "conjunctive use" is inadequate, for, as plaintiffs argue, "CEQA requires more than a reference to a water supply management practice as water supply analysis." How much groundwater, ***842 existing and new, will be used with how much new surface water? In what combinations will these sources be used during wet and dry years, respectively? No such description of planned future water use appears in the FEIR. As an amicus curiae observes: "The conjunctive use program ... lacks quantification, with no analysis that would disclose whether the program will produce sufficient supplies and storage capacity to meet expected demands."

[15] Instead of itself providing an analytically complete and coherent explanation, the FEIR notes that a full analysis of the planned conjunctive use program must await environmental review of the Water Agency's Zone 40 master plan update, which was pending at the time the FEIR was released. The Board's findings repeat this explanation. To the extent the FEIR attempted, in effect, to tier from a future environmental document, we reject its approach as legally improper under CEOA. If the environmental impact analysis the Water Agency expects to perform on its Zone 40 master plan update is important to understanding the long-term water supply for the Sunrise Douglas project, it should be performed in the Sunrise Douglas project FEIR even though that might result in subsequent duplication by the master plan update. If, as Rancho Cordova argues, such duplication would be an impractical waste of resources, the County could instead have deferred analysis and approval of the Sunrise Douglas project until the master plan update analysis was complete, then tiered the project FEIR from the programmatic analysis it performed there. What the County could not do was avoid *441 full discussion of the likely water sources for the Sunrise Douglas project by referring to a not yet complete comprehensive analysis in the Zone 40 master plan update. CEQA's informational purpose "is not satisfied by simply stating information will be provided in the **727 future."

(Santa Clarita, supra, 106 Cal.App.4th at p. 723, 131 Cal.Rptr.2d 186.)

A reader of the FEIR, moreover, cannot readily derive the missing quantitative analysis of conjunctive use from the figures provided. The 10,000 afa in new groundwater to be drawn from the Well Field does not appear sufficient to bridge the dry-year gap between new surface water supplies and demand due to Zone 40 growth, which appears to be 42,000 afa at a minimum: 45,000 afa in planned dry-year surface water diversion rights versus 87,000 afa in demand (both

figures per the Water Forum Proposal final EIR). In wet years even less groundwater would be available for extraction, as conjunctive use involves recharging the aquifer in wet years.

To be sure, the County's burden in preparing the [16] FEIR for the Sunrise Douglas project was not necessarily to demonstrate with certainty that the County's total water supply in the year 2030 would be sufficient to meet its total demand, though some discussion of total supply and demand is necessary to evaluate "the long-term cumulative impact of development on water supply." (Santa Clarita, supra, 106 Cal.App.4th at p. 719, 131 Cal.Rptr.2d 186; see also CEQA Guidelines, Cal.Code Regs., tit. 14, § 15130, subd. (b)(1) (B) [cumulative impact analysis may employ projections in general planning documents].) But CEQA did require that the FEIR show a likelihood water would be available, over the long term, for this project. 11 Without an explanation that shows at least an approximate long-term ***843 sufficiency in total supply, the public and decision makers could have no confidence that the identified sources were actually likely to fully serve this extraordinarily large development project. An EIR that neglects to explain the likely sources of water and analyze their impacts, but leaves long-term water supply considerations to later stages of the project, does not serve the purpose of sounding an "'environmental "alarm bell" '" (Laurel Heights I, supra, 47 Cal.3d at p. 392, 253) Cal.Rptr. 426, 764 P.2d 278) before the project has taken on overwhelming "bureaucratic and financial momentum"

In this respect, the FEIR's discussions of near- and long-term water supplies differ significantly. As explained in part I.B. above, the FEIR included substantial evidence that competing users would not deprive the Sunrise Douglas project of most of its planned groundwater from the Well Field. But the FEIR contains *no* evidence, other than the gross demand figures (which are, as noted, inconsistent) regarding the uses that might be *442 expected to compete with Sunrise Douglas for the planned new surface water over the next 20 or more years.

(id. at p. 395, 253 Cal.Rptr. 426, 764 P.2d 278).

[17] Real parties point to a discussion of conjunctive use in the Water Forum Proposal that refers to larger amounts of groundwater than will be drawn from the Well Field. But the origin and precise reference of these figures is not explained, nor is their connection to the demand figures made entirely plain. ¹² More important, neither these figures nor

any reference to this analysis appears in the FEIR or even, so far as we are able to determine, in the Water Forum Proposal's final EIR. A reader of the FEIR could not reasonably be expected to ferret out an unreferenced discussion in the earlier Water Forum Proposal, interpret that discussion's unexplained figures without assistance, and spontaneously incorporate them into the FEIR's own discussion of total projected supply and demand. The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar **728 with the details of the project. "[I]nformation 'scattered here and there in EIR appendices' or a report 'buried in an appendix,' is not a substitute for 'a good faith reasoned analysis.' " (California Oak, supra, 133 Cal.App.4th at p. 1239, 35 Cal.Rptr.3d 434, quoting Santa Clarita, supra, 106 Cal.App.4th at pp. 722-723, 131 Cal.Rptr.2d 186.) To the extent the County, in certifying the FEIR as complete, relied on information not actually incorporated or described and referenced in the FEIR, it failed to proceed in the manner provided in CEQA.

We do not hold or suggest that the Sunrise Douglas FEIR needed to reproduce or repeat an environmental impact analysis for new surface water supplies already performed in connection with the Water Forum Proposal. As discussed in the statement of facts, the final EIR for the Water Forum Proposal did discuss the impacts of the planned additional diversions of American River water; indeed, a summary of these impacts and ***844 the proposed mitigation measures occupies 85 pages of that EIR. The contemplated diversions include additional water for the Water Agency to use in its Zone 40 area, which, as noted, includes Sunrise Douglas. To the extent the Community and Specific Plans call for that same surface water to be used by the Sunrise Douglas development, the FEIR could have properly tiered from or incorporated the earlier environmental analysis. CEQA does not require that the information on impacts of diversion laid out in the Water Forum Proposal's final EIR be repeated in environmental documents for every development that depends on that water. (See § 21068.5 [through tiering, *443 applicable analysis information in an EIR for a policy or program may be incorporated by reference in later narrow or site-specific project EIR's].) 13

The FEIR did not, however, make sufficiently clear its relationship with the Water Forum Proposal's environmental impact analysis. Although the FEIR's water supply discussion refers at several points to the Water Forum Proposal's final EIR, the FEIR does not state that it is tiered from or incorporates parts of the earlier document. In its background discussion, the FEIR lists the Water Forum Proposal's final EIR as one of the technical analyses upon which it is based but, again, does not expressly incorporate any part of that document by reference or state that it is formally tiered from the earlier environmental impact analysis. Because it does not expressly tier from or incorporate the earlier documents, a reader of the FEIR would not be alerted that in order to apprehend the intended surface water supply for the Sunrise Douglas project, and particularly the impacts of exploiting that supply, he or she must separately read parts of those earlier documents. And the reader who did look to the earlier documents would do so without explicit reference in the FEIR to the particular portions incorporated. When an EIR uses tiering or incorporation, it must give the reader a better road map to the information it intends to convey. (See CEQA Guidelines, Cal.Code Regs., tit. 14, §§ 15150, subd. (c) [when an EIR incorporates an earlier environmental document by reference, "the incorporated part of the referenced document shall be briefly summarized where possible" and "[t]he relationship between the incorporated part of the referenced document and the EIR shall be described"], 15152, subd. (g) [when tiering is used, "[t]he later EIR or negative declaration should state that the lead agency is using the tiering concept and that it is being tiered with the earlier EIR"].)

[18] The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project. That a party's briefs to **729 the court may explain or supplement matters that are obscure or incomplete in the EIR, for example, is irrelevant, because the public and decision makers did not have the briefs available at the time the project was reviewed and ***845 approved. The question is therefore not whether the project's significant environmental effects *can* be clearly explained, but whether they *were*. The Sunrise Douglas FEIR fails that test.

*444 Because the FEIR failed to explicitly incorporate the impacts and mitigation discussion in the Water Forum Proposal's final EIR, it lacks, contrary to CEQA's requirements, enforceable mitigation measures for the surface water diversions intended to serve the Sunrise Douglas project. "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be

set forth in referenced documents which address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other public project, by incorporating the mitigation measures into the plan, policy, regulation, or project design." (§ 21081.6, subd. (b); see also CEQA Guidelines, Cal.Code Regs., tit. 14, § 15126.4, subd. (a)(2).) The County could have complied with this command by incorporating the Water Forum Proposal final EIR's mitigation measures into the Community and Specific Plans. But absent such incorporation, the FEIR, and the County's findings based on it, are inadequate to support project approval under CEQA because they do not discuss the impacts of new surface water diversions, enforceable measures to mitigate those impacts, or the remaining unmitigated impacts. (See § 21081.) 14 In this respect, the County failed to proceed in the manner required by CEQA.

Real parties also assert that the FEIR's mitigation measure WS-1, which states that entitlements for development within the Sunrise Douglas project shall not be granted without firm proof of available water supplies, assures that water will be available for later phases of the project. As discussed earlier, however, an EIR may not substitute a provision precluding further development for identification and analysis of the project's intended and likely water sources. "While it might be argued that not building a portion of the project is the ultimate mitigation, it must be borne in mind that the EIR must address the project and assumes the project will be built."

(Stanislaus Natural Heritage, supra, 48 Cal.App.4th at p. 206, 55 Cal.Rptr.2d 625.) A provision like WS–1 could serve to supplement an EIR's discussion of the impacts of exploiting the intended water sources; in that case, however, the EIR, in order adequately to inform decision makers and the public, would then need to discuss the probability that the intended water sources for later phases of development will not eventuate, the environmental impacts of curtailing the project before completion, and mitigation measures planned to minimize any such significant impacts. The Sunrise Douglas FEIR did not attempt such an analysis. In this respect as well, the County erred procedurally.

In short, the FEIR's long-term water supply discussion suffers from both lack of substantial evidence to support its key factual conclusion and legally *445 defective procedures. On the factual question of how future surface water supplies will serve this project as well as other projected demand in the area, the project FEIR presents a jumble of seemingly inconsistent figures for future total area demand and surface water supply, with no plainly ***846 stated, coherent

analysis of how the supply is to meet the demand. The reader attempting to understand the County's plan for providing water to the entire Sunrise Douglas development is left to rely on inference and speculation. In this respect, the FEIR water supply discussion fails to disclose "the 'analytic route the ... agency traveled from evidence to action' " and is thus not "sufficient to allow informed decision making." (Laurel Heights I, supra, 47 Cal.3d at p. 404, 253 Cal.Rptr. 426, 764 P.2d 278.)

**730 The concurring and dissenting opinion purports to find our holding—that the FEIR's long-term water supply discussion is legally insufficient, while the short-term discussion is adequate—"surprising" and the distinctions on which it rests "elusive." (Conc. & dis. opn. of Baxter, J., post, 53 Cal.Rptr.3d at pp. 851, 852, 150 P.3d at p. 734.) For maximum clarity, we summarize the pertinent distinctions here.

- (1) The time periods involved: According to the FEIR, the first phase of groundwater supply is to occur within about 18 months of project approval, with the second phase following as needed. In contrast, real parties suggest full build out of the Community Plan may take 15 to 20 years. As the planning horizon is extended, one's confidence that large quantities of new surface water will be available, and not allocated to competing projects that may be developed in the future, necessarily decreases.
- (2) Discussion of facilities and competing uses: As already discussed (see ante, 53 Cal.Rptr.3d at p. 839, 150 P.3d at p. 724), the administrative record contains information on the potential competitors for Well Field water that, taken together with information on the planned development of the facilities for delivering the water to Sunrise Douglas, is sufficient to demonstrate a likelihood of its availability for Sunrise Douglas. In contrast, the record contains no information (beyond the County's general plan projections) on other planned long-term developments in Zone 40. Nor does the FEIR disclose any concrete plans for new surface water diversion, treatment and transmission facilities that would tend to tie the new water particularly to Sunrise Douglas. A reader of the FEIR is not informed what other Zone 40 development projects are in prospect over the long term, what their specific water needs will be, or when they will draw on available supplies. ¹⁵ In these circumstances, the FEIR could not demonstrate a likelihood of adequate longterm supply for Sunrise Douglas without *446 showing that plans for the Zone 40 area call for at least a rough balance

between water supply and demand, a showing the FEIR fails to make.

(3) Analysis of impacts and mitigation measures: The FEIR analyzes the impacts of withdrawing groundwater from the Well Field to meet the project's water needs in the near term and proposes mitigation measures, which the County adopted in approving the project. As already discussed, however, the FEIR contains no discussion of the impacts of new ***847 surface water diversion or the measures needed to mitigate those impacts and does not adequately incorporate the impact and mitigation discussion contained in the Water Form Proposal's final EIR. (See ante, 53 Cal.Rptr.3d at pp. 844-845, 150 P.3d at pp. 728-729.) The FEIR neither states that it is tiered from that earlier EIR, nor expressly incorporates the pertinent discussion from it, nor guides the reader with a summary of the contents of the earlier discussion or a specific reference to the discussion's location within the earlier document, nor incorporates mitigation measures proposed in the earlier EIR into proposed measures the County could adopt as enforceable requirements for implementing the Community and Specific Plans.

The concurring and dissenting opinion also asserts that our decision here will hold Sunrise Douglas and other developments "hostage to a balancing of supply and demand for all conceivable development that is not prohibited by the County's general plan." (Conc. & dis. opn. of Baxter, J., post, 53 Cal.Rptr.3d at p. 852, 150 P.3d at p. 735.) This claim misses the mark for two reasons, both of which we have already explained. First, CEQA does not necessarily require that an EIR show that total water supply **731 and demand are or will be in balance in an area. The EIR may by other means demonstrate a reasonable likelihood that water will be available for the project from an identified source (see ante, 53 Cal.Rptr.3d at pp. 839–840, 150 P.3d at pp. 724– 725 [near-term water supply discussion for this project]) and, even without a showing that water from the identified source is likely to be sufficient, an EIR may satisfy CEQA by fully disclosing the uncertainty, the other possible outcomes, their impacts and appropriate mitigation measures. (See ante, 53 Cal.Rptr.3d at pp. 836–837, 150 P.3d at p. 722.) ¹⁶ Second, long-term local water planning is not a burden that must be taken up anew, for CEQA purposes, each time a development is proposed; rather, cities and counties may rely on existing urban water management plans, so long as the expected new demand of the development was included *447 in the water management plan's future demand accounting. (See ante, 53 Cal.Rptr.3d at pp. 836–837, 150 P.3d at pp. 722–723; Wat.Code, § 10910, subd. (c)(2); Pub. Resources Code, § 21151.9.)

In summary, the FEIR's long-term water supply discussion suffers from both procedural and factual flaws. Procedurally, the FEIR improperly purports to tier from a future environmental document, the pending Zone 40 master plan analysis. The FEIR also fails to properly incorporate or tier from the impact and mitigation discussion of the Water Forum Proposal and hence to include in the present project enforceable mitigation measures for the large new surface water diversions proposed. Finally, it relies on a provision for curtailing later stages of development if water supplies do not materialize without disclosing, or proposing mitigation for, the environmental effects of such truncation. Factually, the FEIR's use of inconsistent supply and demand figures, and its failure to explain how those figures match up, results in a lack of substantial evidence that new surface water diversions are likely to supply the project's long-term needs. We think that with approval at stake of a ***848 development project ultimately expected to use more than 22,000 afa of water -almost 4 percent of the entire County's projected urban demand in the year 2030—CEQA entitles the decision makers and the public to a legally proper procedure and to a clearer, more coherent and consistent explanation of how, given the competing demands expected to arise for new water supplies, water is to be provided to the project.

II. Recirculation of the Draft EIR for Comment on the Cosumnes River Salmon Impacts

[19] [20] Section 21092.1 provides that when a lead agency adds "significant new information" to an EIR after completion of consultation with other agencies and the public (see §§ 21104, 21153) but before certifying the EIR, the lead agency must pursue an additional round of consultation.

In Laurel Heights II, supra, 6 Cal.4th at page 1129, 26 Cal.Rptr.2d 231, 864 P.2d 502, we held that new information is "significant," within the meaning of section 21092.1, only if as a result of the additional information "the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect." (Accord, CEQA Guidelines, Cal.Code Regs., tit. 14, § 15088.5, subd. (a).) Recirculation is not mandated under section 21092.1 when the new information merely clarifies or amplifies the previously circulated draft EIR, but is required when it reveals, for example, a new substantial impact or a substantially increased impact on the environment. (Laurel

Heights II, at pp. 1129–1130, 26 Cal.Rptr.2d 231, 864 P.2d 502.) We further held the lead agency's determination that a newly disclosed impact is not "significant" so as to warrant recirculation is reviewed only for support by substantial evidence. (Id. at p. 1135, 26 Cal.Rptr.2d 231, 864 P.2d 502.)

*448 **732 In this case, the Draft EIR contained no discussion of the impact the planned groundwater extraction at the Well Field would have on water flows and habitats in the Cosumnes River. When several agencies and private organizations commenting on the Draft EIR raised concerns regarding such effects and the resulting impacts on salmon migration, County staff responded in the FEIR that, due to restrictions on the amount of water to be pumped from the Well Field and the limited hydrological connections between the Cosumnes River and the aquifer from which water would be taken, the impact on Cosumnes River flows would be small and insignificant. The County adopted that conclusion in its findings approving the project.

Plaintiffs contend, and we agree, that the County's finding is not supported by substantial evidence because the FEIR discloses a potentially significant impact of reduced river flows on aquatic species, including migrating salmon. ¹⁷ While concluding the effect of further groundwater withdrawals was likely to be small and therefore generally insignificant, the FEIR authors included this proviso: "The potential exception could be during periods of very low flow. During such periods of low flow, these depletions could change the timing and areal extent of the dewatering of the stream invert, potentially impacting ***849 aquatic and riparian-dependent species and habitat."

Though phrased as a limited exception to the conclusion of insignificance, this reservation appears instead to identify a substantial, or at least potentially substantial, new impact. That is because "periods of very low flow" are precisely those in which, according to comments on the Draft EIR by the United States Fish and Wildlife Service and the Nature Conservancy, migratory fish, waiting in the fall for streamflows to rise to sufficient levels, are likely to be adversely affected by further dewatering. The potential adverse change identified by the FEIR in "the timing and areal extent of the [Cosumnes's] dewatering" is impossible to distinguish from the barrier to migration caused, according to the Nature Conservancy's comment, when the Cosumnes River "ceases flowing earlier in the year, stays dry longer into the Fall, and dries over an increasingly long reach...."

Moreover, the area of the Cosumnes River in which the FEIR projects potential loss of flow overlaps with the river's migratory reach. The Fish and Wildlife Service comment identifies the migratory reach as "from the tidal zone to LaTrobe Rd.," a reach that includes both of the areas identified by the *449 FEIR as having a hydrological connection to the lower aquifer ("to the east of Dillard Road and to the west of Twin Cities Road"). ¹⁸

Thus, in response to comments raising the issue of an impact on salmon migration in the Cosumnes River, the FEIR states, in effect, that loss of flow to that river is likely to be small and therefore insignificant *except that* the river might remain drier longer in the year—including when the salmon would be migrating—and over a longer reach—including where the salmon would be migrating. We do not consider this response substantial evidence that the loss of stream flows would have no substantial effect on salmon migration. Especially given the sensitivity and listed status of the resident salmon species, the County's failure to address loss of Cosumnes River stream flows in the Draft EIR "'deprived the public ...

of meaningful participation' " (Laurel Heights II, supra, 6 Cal.4th at p. 1131, 26 Cal.Rptr.2d 231, 864 P.2d 502) in the CEQA discussion. (See CEQA Guidelines, Cal.Code Regs., tit. 14, § 15065, subd. (a)(1) [potential substantial impact on endangered, rare or threatened species is per se significant].)

**733 Real parties and Rancho Cordova point out that the FEIR "contemplated additional environmental review of the Cosumnes River issue in the then-pending" Zone 40 master plan EIR. But as we explained in part I above, analysis of the project's impacts could not be deferred in this manner. An EIR cannot be tiered from another EIR if the latter is not yet complete.

The burden of recirculating a draft EIR, we note, may be limited by the scope of the revisions required. "If the revision is limited to a few chapters or portions of the [draft] EIR, the lead agency need only recirculate the chapters or portions that have been modified." (CEQA Guidelines, Cal.Code Regs., tit. 14, § 15088.5, subd. (c).)

CONCLUSION

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome.

The EIR's function is to ensure that government officials who decide to ***850 build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been taken into account. **Claurel Heights I, supra, 47 Cal.3d at pp. 391–392, 253 Cal.Rptr. 426, 764 P.2d 278.) For the EIR to serve these goals it must present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed, and the public must be given an adequate opportunity to comment *450 on that presentation before the decision to go forward is made. On the important issues of long-term water supply and impacts on migratory fish, the County's actions in the present case fell short of these standards.

DISPOSITION

The judgment of the Court of Appeal is reversed, and the matter is remanded to that court for further proceedings consistent with this opinion.

WE CONCUR: GEORGE, C.J., KENNARD, CHIN, MORENO and CORRIGAN, JJ.

Concurring and Dissenting Opinion by BAXTER, J.

I concur in the majority's conclusion that the final environmental impact report (FEIR) for the Sunrise Douglas project adequately assessed the near-term environmental impacts of supplying water to the proposed development. This conclusion rests in large part on the majority's finding of a reasonable likelihood that groundwater from the North Vineyard Well Field (Well Field) would be available to supply the project's near-term needs. I agree in particular that substantial evidence supports the FEIR's reliance on the Well Field even though Well Field water had not been reserved " 'for any specific user' " and would be made available " 'on a "first-come, first served" basis' " (maj. opn., ante, 53 Cal.Rptr.3d at p. 838, 150 P.3d at p. 723), even though existing demand and new demand in the region "might also be satisfied from the Well Field" (ibid.), even though serving that demand and the initial phase of the Sunrise Douglas project "would require much more water than ... [the Well Field] can safely provide" (ibid.), and even though "much uncertainty remains" as to the Well Field's ability to supply water to the project in the near term (id. 53 Cal.Rptr.3d at p. 839, 150 P.3d at p. 724). As the majority explains, nothing in the administrative record demonstrates "that these competing demands can be satisfied only from the Well Field or that they will all materialize in full in the near term and have priority over the Sunrise Douglas project." (*Id.* 53 Cal.Rptr.3d at p. 839, 150 P.3d at p. 724.) Indeed, as the majority subsequently explains, there is more than enough water that can be drawn from the Well Field to satisfy this project's near-term demand even after one subtracts the expected demand for "already entitled development." (*Id.* 53 Cal.Rptr.3d at p. 839, 150 P.3d at p. 724, italics added.)

Like the majority, I further agree that the FEIR need not provide "firm assurances" of long-term water supplies at the early stages of the land use planning and approval process, inasmuch as the "ultimate question" under the California Environmental Quality **734 Act (CEQA) "is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project." (Maj. opn., ante, 53 Cal.Rptr.3d at pp. 836-837, 150 P.3d at p. 722.) The requisite level of specificity in identifying water supplies thus increases "'at each step as land *451 use planning and water supply planning ***851 move forward from general phases to more specific phases.' " (Id. 53 Cal.Rptr.3d at p. 836, 150 P.3d at p. 722.) For example, because the SunRidge Specific Plan is further along the planning process than is the Sunrise Douglas Community Plan (id. 53 Cal.Rptr.3d at pp. 839-840, 150 P.3d at pp. 724-725), CEQA imposes a greater level of specificity in identifying water supplies for the Specific Plan than it does for the Community Plan. What is sufficiently specific for the Specific Plan in the near term should therefore prove more than sufficient for the Community Plan in the long term, inasmuch as "CEQA should not be understood to require assurances of certainty regarding long-term future water supplies at an early phase of planning for large land development projects." (Id. 53 Cal.Rptr.3d at p. 835, 150 P.3d at p. 721.)

The surprising thing, though, is that the majority has adopted precisely the *opposite* rule in analyzing the sufficiency of the FEIR for this project in the long term. The FEIR estimates the average water demand of the entire Sunrise Douglas Community Plan at full build out will be 22,103 acrefeet annually (afa). The sources identified in the record to meet this demand are more than ample: at least 5,500 afa from the Well Field, with a possibility of up to 10,000 afa; 15,000 afa of American River water under the Sacramento County Water Agency's existing contract with the federal Bureau of Reclamation (an allocation known as Fazio water);

15,000 afa of American River water under the water agency's agreement in principle with the Sacramental Municipal Utility District (SMUD); an additional 15,000 afa as to which the water agency and SMUD are in negotiations; and 33,000 afa of intermittent water consisting of excess flows on the American and Sacramento Rivers for which the water agency is applying. In other words, the FEIR has identified sufficient water for this project *three or four times over*.

Why the majority nonetheless holds that the FEIR has insufficiently identified long-term water supplies for Sunrise Douglas—and, in doing so, reverses both the trial court and the Court of Appeal—is thus difficult to comprehend. There does not appear to be a problem with the likelihood that the identified water supplies will come to fruition. Although these supplies "are not certain to materialize," the majority correctly points out that "CEQA does not require this level of certainty at planning stages prior to approval of permits, subdivision maps or other development entitlements." (Maj. opn., ante, 53 Cal.Rptr.3d at p. 840, 150 P.3d at p. 725.) There also does not appear to be a problem with the analysis of the reasonably foreseeable impacts of supplying water to the project in the long term, inasmuch as the FEIR for the Water Forum Proposal "extensively analyzed the environmental impacts of the participants' planned increases in surface water diversion"—indeed, a summary of these impacts and the proposed mitigation measures occupies 85 pages of that FEIR —and the FEIR for this project analyzed "[t]he impacts of groundwater withdrawals at the Well Field." (Maj. opn., ante, 53 Cal.Rptr.3d at p. 828, 150 P.3d at p. 715.)

*452 The majority's rejection of the Sunrise Douglas FEIR rests instead on the FEIR's failure to balance total long-term water supply and demand in the entirety of the Sacramento County Water Agency's Zone 40, an area comprising the southern and eastern regions of the county that is almost 10 times as large as the Sunrise Douglas project. The majority simply asserts, without explanation, that while substantial evidence "support[s] the conclusion that some part of the planned new surface water supplies will be developed and made ***852 available to the Water Agency for use in its Zone 40" (maj. opn., ante, 53 Cal.Rptr.3d at p. 840, 150 P.3d at p. 725), there is "too great a degree of uncertainty regarding the long-term availability of water for this project." (Id., 53 Cal.Rptr.3d at p. 839, 150 P.3d at p. 724, italics added.) The distinction is an elusive one. The Fazio water for the long term, like the Well Field water in the short term, will be made available to **735 users on a first-come, firstserved basis, and, as with the Well Field water, there is no indication in the record that capacity for these long-term supplies has been " 'reserved ... for any specific user,' " that these other "competing demands" can be satisfied only from the identified supplies, or that the potential demand from other sources will all "materialize in full" in the relevant period and "have priority over the Sunrise Douglas project." (Id. 53 Cal.Rptr.3d at p. 839, 150 P.3d at p. 724.) The only significant distinction I can see is that, in contrast to its discussion of the Well Field water, the majority does not identify any portion of the project's long-term supplies that has been "already allocated to other entitled uses." (Id. 53 Cal.Rptr.3d at p. 839, 150 P.3d at p. 724.) But that distinction, of course, would favor the FEIR's analysis of the project's long-term supplies. Thus, if the majority's analysis of the two situations had been consistent, the majority should have found substantial evidence that these long-term supplies will be available at least in substantial part to supply the Sunrise Douglas project. The majority finds otherwise only by assuming that other users will have priority on all of the identified supplies—or, to put it another way, by speculating that there is evidence outside the record that would rebut the county board of supervisors' finding, sustained by both the trial court and the Court of Appeal below, that the supplies will be adequate. (See maj. opn., ante, 53 Cal.Rptr.3d at p. 846, fn. 15, 150 P.3d at p. 730, fn. 15.)

The path the majority pursues to reverse the lower court judgments is a curious one. What dooms the FEIR here, according to the majority, is the potential for increased long-term demand from other, purely hypothetical projects that *could* be developed under the 1993 general plan for the Zone 40 area—even if, so far as the record discloses, those projects have not yet been entitled, approved, or even proposed. In other words, Sunrise Douglas must be held hostage to a balancing of supply and demand for all conceivable development that is not prohibited by the County's general plan—even if no one has yet stepped forward to propose such development.

*453 Until today, this was not the law in California. ¹ The majority can find no support for its new rule in the statute for, as the majority concedes (maj. opn., *ante*, 53 Cal.Rptr.3d at pp. 831–832, 150 P.3d at p. 718), neither CEQA itself nor this court's decisions have ever before required a project EIR not only to demonstrate a reasonable likelihood that there is water for the project at issue but also that there is water for all hypothetical future projects nearby, including those no entity has yet planned to build. Thus, as the majority elsewhere observes, "Decision makers must, under the law,

be presented with sufficient facts to 'evaluate the pros and cons of supplying the amount of water that the [project] will ***853 need.' " (Maj. opn., ante, 53 Cal.Rptr.3d at p. 834, 150 P.3d at p. 720, quoting Santiago County Water Dist. v. County of Orange (1981) 118 Cal.App.3d 818, 829, 173 Cal.Rptr. 602.) An EIR "must analyze, to the extent reasonably possible, the impacts of providing water to the entire proposed project." (Maj. opn., ante, 53 Cal.Rptr.3d at p. 835, 150 P.3d at p. 720.) An EIR, in particular, need not analyze a " 'worst case scenario' " and "need not identify and analyze all possible resources that might serve the Project should the anticipated resources fail to materialize." (Napa Citizens for Honest Government v. Napa County Bd. of Supervisors (2001) 91 Cal.App.4th 342, 373, 110 Cal.Rptr.2d 579.) None of these cases requires an EIR to identify a water supply sufficient to meet the demands of all development envisioned by the project, together with all hypothetical future development that might look to the same supplies.

The majority suggests that a balancing of total supply and demand in the Zone 40 region is required by the CEQA Guidelines (Cal.Code Regs., tit. 14, § 15000 et seq.) in **736 order to evaluate the long-term cumulative impact of development on water supply. (Maj. opn., ante, 53 Cal.Rptr.3d at p. 842, 150 P.3d at p. 727, citing CEQA Guidelines, Cal.Code Regs., tit. 14, § 15130, subd. (b)(1) (B).) But a "cumulative impact" consists of "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects" (CEQA Guidelines, tit. 14, § 15355, subd. (b), italics added), not (as the majority apparently assumes) all possible future projects. Under the majority's newly minted rule, no project could ever be approved in the Zone 40 area until the entire region's projected long-term water supply and demand are in balance.

This is essentially the rule that the Legislature considered—and *rejected*—in amending the Water Code in 1995. The initial versions of Senate Bill No. 901, which (among other things) added sections 10910–10915 to the Water Code, directed the lead agency for a *454 project EIR to request a water supply and demand assessment from the appropriate public water system, and stated that the lead agency "shall consider a project to have a significant effect on the environment" if, based on that assessment, "water supplies are, or will be, insufficient to meet the reasonable needs of the proposed project in addition to existing and planned future uses." (Sen. Bill No. 901 (1995–1996 Reg. Sess.) § 2, as

amended July 5, 1995, proposed Wat.Code, § 10915.) The bill as enacted, however, deleted the requirement that the lead agency make a finding of a significant environmental impact under such circumstances and directed the lead agency, if it determined that water supplies will not be sufficient to meet existing and planned future uses, instead simply to "include that determination in its findings." 2 (Sen. Bill No. 901 (1995-1996 Reg. Sess.) § 4, as amended Sept. 7, 1995; Stats.1995, ch. 881, § 4, p. 6705, adding Wat.Code, § 10911.) This sequence of events makes me confident that the Legislature did not intend to require a project EIR to balance water supply with water demand not only for the project itself but also for the entire region. (Cf. Hess v. Ford Motor Co. (2002) 27 Cal.4th 516, 532, 117 Cal.Rptr.2d 220, 41 P.3d 46 [" 'Generally the Legislature's rejection of a specific provision ***854 which appeared in the original version of an act supports the conclusion that the act should not be construed to include the omitted provision' "]; accord, "INS v. Cardoza— Fonseca (1987) 480 U.S. 421, 442-443, 107 S.Ct. 1207, 94 L.Ed.2d 434 [" 'Few principles of statutory construction are more compelling than the proposition that Congress does not intend sub silentio to enact statutory language that it has earlier discarded in favor of other language' "].) The majority offers no justification for effectively reinserting what the Legislature has rejected.

Indeed, the legislative history leading to the elimination of Senate Bill No. 901's stricter requirement explains why this court ought not itself resurrect it. One legislative analysis warned that the required finding of a significant environmental impact due to an imbalance between water supply and demand on a regional basis "could be a severe roadblock to housing development as it is the [Department of Housing and Community Development]'s experience that many areas of the State cannot demonstrate water supply availability for all potential development which could be permitted under their general plan land use designations within the next five years. Also, it would be infeasible for many cities or counties to demonstrate water supply availability for all potential development over the 10 to 20 year timeframes of general plan updates." (Dept. of Housing and Community Development, analysis of Sen. Bill No. 901 (1995-1996 Reg. Sess.) Aug. 7, 1995, p. 5.) The Department of Housing and Community Development's analysis further warned that "[w]here there may be an adequate water supply *455 for a housing project and the project may have no significant effect on the environment, but an inadequate water supply exists for long term future

uses, mitigation measures in the form of fees are likely to be assessed to buy water or **737 develop new supplies. These are likely to significantly increase costs for new housing development." (*Id.* at p. 6.) Moreover, "[u]sing the complex and bureaucratic CEQA process to assure local water planning is likely to result in significant administrative costs which will, in every likelihood, be charged to new development because there is no other pocket to pay." (*Id.* at p. 8.) Finally, such an approach would supply "new opportunities for court challenges of new housing and job-creating development. From the perspective of possible environmental litigation, the bill would create great uncertainty." (*Id.* at p. 7.) ³

I also find it interesting that neither plaintiffs nor the Attorney General as amicus curiae, when offered the opportunity at oral argument to embrace the majority's new rule, chose to do so. Plaintiffs stated instead that "the EIR must address the water supply essential for the scope of the project that is approved," not for the entire general plan. The Attorney General similarly explained that the general rule under CEQA is that an agency must consider "all the significant environmental impacts for the project that it is approving," distinguishing the SunRidge Specific Plan and Sunrise Douglas Community Plan from the entire Zone 40 area, and that considering the entire general plan was thus "too far out from where this court needs to go."

By recognizing that CEQA does not require a project EIR to balance water supply ***855 and demand on a regional basis, I do not intend to diminish the significance of a finding in a project FEIR that projected supply will not be able to satisfy the entirety of projected demand contemplated by a general plan. Obviously, if new supplies are not found, then a decision to approve one project means that projects proposed later in time may be unable to identify adequate water supplies and therefore may not be built. If not all of the development contemplated by the general plan can be built, cities and counties must ensure that the projects that are approved are of the highest priority, in order to prevent the negative economic or social effects from haphazard development. However, one must also remember that "[e]conomic or social effects of a project shall not be treated as significant effects on the environment" (CEQA Guidelines, tit. 14, § 15131, subd. (a)) and therefore are beyond the scope of CEQA. Under the majority's new rule, however, once a city or county approves a general plan, it could not approve a project in *456 furtherance of that plan unless or until it had secured water sources for build out of the entire general plan. Nothing in CEQA requires such a result. (Atherton v. Board of Supervisors (1983) 146 Cal.App.3d 346, 351, 194 Cal.Rptr. 203 ["where future development is unspecified and uncertain, no purpose can be served by requiring an EIR to engage in sheer speculation as to future environmental consequences"].)

It is no answer to suggest, as the majority does, that the FEIR for the Sunrise Douglas Community Plan might have been adequate if it instead had disclosed "concrete plans for new surface water diversion, treatment and transmission facilities that would tend to tie the new water particularly to Sunrise Douglas," akin to those included in the SunRidge Specific Plan's discussion of water from the Well Field. (Maj. opn., ante, 53 Cal.Rptr.3d at p. 846, 150 P.3d at p. 730.) The majority seems to forget that "[t]o interpret CEQA itself as requiring such firm assurances of future water supplies at relatively early stages of the land use planning and approval process would put CEQA in tension with ... more specific water planning statutes." (Maj. opn., ante, 53 Cal.Rptr.3d at pp. 836-837, 150 P.3d at pp. 721-722.) Indeed, it is precisely because "full build out of the Community Plan may take 15 or 20 years" (id. 53 Cal.Rptr.3d at pp. 845-846, 150 P.3d at pp. 729-730) that the analysis of water supplies for the Community Plan did not need to be as detailed as the analysis for water supplies for the Specific Plan, which would begin to **738 draw water "within about 18 months of project approval." (id. 53 cal.rptr.3d at p. 846, 150 P.3d at p. 730.) the majority's insistence that the analysis of Zone 40 water supplies in the long-term must be as concrete as that for the Well Field in the near-term completely inverts its earlier assertion that " 'water supplies must be identified with more specificity at each step as land use planning and water supply planning move forward from general phases to more specific phases.' " (Id. 53 Cal.Rptr.3d at p. 836, 150 P.3d at p. 722.)

The reader might likewise be forgiven for looking with skepticism at the majority's assurance that "CEQA does not necessarily require that an EIR show that total water supply and demand are or will be in balance in an area," inasmuch as the majority elsewhere condemns *this* FEIR because it "could not demonstrate a likelihood of adequate long-term supply for Sunrise Douglas without showing that plans for the Zone 40 area call for at least a rough balance between water supply and demand, a showing the FEIR fails to make." (Compare maj. opn., *ante*, 53 Cal.Rptr.3d at p. 846, 150 P.3d at p. 730 with ***856 *id*. 53 Cal.Rptr.3d at pp. 846–847, 150 P.3d at pp. 730–731.) And if, as the majority belatedly states, it would be enough for the FEIR, as to future water supplies needed for the project, to "include only the public water system's plans for acquiring the additional supplies, including

cost and time estimates and regulatory approvals the system anticipates needing" (maj. opn., *ante*, 53 Cal.Rptr.3d at p. 836, 150 P.3d at p. 722; see *id.* 53 Cal.Rptr.3d at p. 847, 150 P.3d at p. 731), one wonders why the majority goes on at length to discuss far more burdensome requirements—and what authority it has to do so.

*457 In sum, the majority's insistence that the FEIR should have identified sufficient water not merely for the project itself but also for all conceivable future development in the region suffers from a number of serious defects. It is not supported by any statute or guideline—or, indeed, by any party to this litigation. It is inconsistent with the legislative

history of Water Code section 10911. It is inconsistent as well with the majority's own analysis of the environmental effects of drawing on this project's near-term water supplies. And, as the Legislature recognized in rejecting such an approach in 1995, it will discourage new housing development, increase its cost, create uncertainty, and trigger more litigation. For all these reasons, I respectfully dissent.

All Citations

40 Cal.4th 412, 150 P.3d 709, 53 Cal.Rptr.3d 821, 07 Cal. Daily Op. Serv. 1131, 07 Cal. Daily Op. Serv. 4181, 2007 Daily Journal D.A.R. 5373

Footnotes

- * George, C.J., did not participate therein. Baxter, J., dissented.
- We refer to the "Revised Recirculated Draft Environmental Impact Report" for the Community Plan and Specific Plan, publicly circulated on May 18, 2001, as the Draft EIR. A different draft EIR, addressing inter alia a different water supply plan, circulated in 1999 but was superseded by the 2001 Draft EIR and is not at issue in this case. The FEIR was publicly circulated on November 16, 2001.
- Both a shallow aquifer and a deeper one underlie the Well Field area. The Well Field would draw from the deeper aquifer, resulting in local depression of that aquifer's level, but the FEIR considers this less potentially significant than the effect on the shallow aquifer because the municipal wells drawing from the deeper aquifer, unlike the domestic wells in the shallow aquifer, are already sufficiently deep to be unaffected by lowered levels.
 - The FEIR also analyzed possible effects of Well Field extraction on known plumes of groundwater contaminants in the area. No significant impact was projected under the relevant scenarios.
- 3 All further unspecified statutory references are to the Public Resources Code.
- Although the resolutions and ordinances by which the Board approved the Community and Specific Plans appear to have been legislative rather than quasi-judicial acts, the writ petition was styled as for administrative mandamus (Code Civ. Proc., § 1094.5) as well as traditional mandamus (id., § 1085). The parties have not briefed the question of which remedial scheme applies, but, as we have noted before (Laurel Heights I, supra, 47 Cal.3d at p. 397, fn. 5, 253 Cal.Rptr. 426, 764 P.2d 278), the substantial evidence standard applies to review of the Board's factual determinations under either analysis. (See Pub. Resources Code, §§ 21168, 21168.5; see also County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931, 945, 91 Cal.Rptr.2d 66 [distinction between these provisions is "'rarely significant'"].)
- The CEQA Guidelines, promulgated by the state's Resources Agency, are authorized by Public Resources Code section 21083. In interpreting CEQA, we accord the Guidelines great weight except where they are clearly unauthorized or erroneous. (Laurel Heights Improvement Assn. v. Regents of University of

California (1993) 6 Cal.4th 1112, 1123, 26 Cal.Rptr.2d 231, 864 P.2d 502, fn. 4 (Laurel Heights II); Bakersfield Citizens for Local Control v. City of Bakersfield (2004) 124 Cal.App.4th 1184, 1197, 22 Cal.Rptr.3d 203.)

- 6 See Public Resources Code sections 21068.5, 21093, 21094; CEQA Guidelines, California Code of Regulations, title 14, section 15152. We discuss tiering further below.
- Conversely, once a general project impact has been analyzed in the broadest first-tier EIR, the agency saves time and resources by relying on that first-tier analysis in later, more specific environmental analysis documents, provided of course that passage of time or factors peculiar to the later project phase do not render the first-tier analysis inadequate. (See § 21083.3 [limited analysis required for development project consistent with general or community plan that was subject of earlier EIR]; CEQA Guidelines, Cal.Code Regs., tit. 14, § 15152, subds. (d)-(f).) The Stanislaus Natural Heritage court gives the apt example of a set of office building projects: the buildings' traffic impacts and other common environmental impacts would properly be discussed in a first-tier EIR covering the entire set of buildings, a discussion that could be relied upon, rather than repeated, in each of the building-specific environmental evaluations. (Stanislaus Natural Heritage, supra, 48 Cal.App.4th at p. 198, 55 Cal.Rptr.2d 625.) Impacts specific to the individual buildings' designs would properly be analyzed in later tier documents.
- A section of CEQA, in turn, requires compliance with these Water Code provisions. (Pub. Resources Code, § 21151.9.) The parties agree that the County's compliance with the Water Code requirements is not at issue in this case.
- Plaintiffs also contend extraction from the Well Field will be limited by a regional groundwater cap of 273,000 afa set under the Water Forum Agreement. As Rancho Cordova explains, however, that limit was set at the projected 2005 level of groundwater withdrawals and may include projected growth in the Sunrise Douglas area. According to discussion at a 2002 public hearing on the project, taking 10,000 afa from the Well Field would bring total area groundwater withdrawals to about 260,000 afa.
- The 78,000 afa is made up of 15,000 afa in existing contractual rights to American River diversion (Fazio water), 15,000 afa of SMUD's American River rights as to which the Water Agency and SMUD have reached an agreement in principle, a final 15,000 afa as to which the Water Agency and SMUD are in negotiations, plus 33,000 afa of intermittent water consisting of excess flows on the American and Sacramento Rivers for which the Water Agency is applying.
- Other analytical paths are possible (see *ante*, 53 Cal.Rptr.3d at pp. 836–837, 150 P.3d at p. 722 and *post*, 53 Cal.Rptr.3d at pp. 846–847, 150 P.3d at pp. 730–731) but were not pursued in the FEIR.
- The Water Forum Proposal discussion refers to use of 34,000 afa and 95,100 afa in groundwater in wet and dry years, respectively, as being used conjunctively with new surface water supplies to meet "a total 2030 demand of 117,600" afa for the "South County M & I users group." The exact relationship of this demand figure to those in the FEIR and elsewhere in the Water Forum Proposal (113,000 afa and 87,000 afa, respectively) is not clear, and the source of the proposal's groundwater supply figures is not identified.
- At oral argument, plaintiffs' counsel asserted the Water Forum Proposal could not be relied upon because, inter alia, it was formulated before discovery of widespread groundwater contamination in the Zone 40 area. In using tiering, of course, an agency must consider "whether, in light of changing circumstances, the EIR prepared earlier in the process would still provide an adequate description of the broad effects considered at that stage." (CEQA Guidelines, Cal.Code Regs., tit. 14, § 15152 [Discussion].) We do not attempt to resolve the factual question whether the Water Forum Proposal's conjunctive use assumptions need to be

- reevaluated in light of groundwater contamination discovered in the interim. That should be decided in the first instance by Rancho Cordova in proceedings on remand.
- To the extent mitigation of the impacts of new surface water diversions under the Water Forum Agreement is the responsibility of agencies other than the County, approval of the project would require the finding set out in section 21081, subdivision (a)(2).
- The concurring and dissenting opinion's assertion that no other projects in Zone 40 have been "entitled, approved, or even proposed" (conc. & dis. opn. of Baxter, J., post, 53 Cal.Rptr.3d at p. 852, 150 P.3d at p. 735) is thus without factual basis in the FEIR. In effect, the concurring and dissenting opinion simply assumes that Sunrise Douglas will be first in line for sufficient new surface water supplies when those supplies are developed, which could be 10, 15 or more years in the future. Such assumptions are no more reliable, and no more legally supportable, than the assumption that a water district would in the future, contrary to historical experience, receive 100 percent of its SWP allocation. (See Santa Clarita, supra, 106 Cal.App.4th at p. 722, 131 Cal.Rptr.2d 186.)
- As we do not hold that CEQA requires planning for a development project to necessarily establish a future area-wide balance between water supply and demand, the concurring and dissenting opinion's claim that our holding mandates what the Legislature deliberately omitted from Water Code section 10911 (see conc. & dis. opn. of Baxter, J., post, 53 Cal.Rptr.3d at pp. 853–854, 150 P.3d at pp. 735–736) is unfounded.
- Under section 21068, a significant environmental impact is defined as "a substantial, or *potentially substantial*, adverse change in the environment." (Italics added.) In Laurel Heights II, supra, 6 Cal.4th at page 1131, 26 Cal.Rptr.2d 231, 864 P.2d 502, we explained that recirculation had been required in an earlier case because the draft EIR had not addressed a "potentially substantial adverse environmental effect." (Italics added.)
- As plaintiffs point out, LaTrobe Road crosses the Cosumnes River upstream (east) of the river's crossing with Dillard Road. We may take notice of this fact under Evidence Code sections 452 and 459. (See Thomas Guide to Sacramento County (2001) pp. 6–7.)
- It also, quite obviously, is not the test by which the majority has approved the adequacy of the FEIR's analysis of water supplies in the near term. The majority finds that analysis adequate, notwithstanding the fact that supplying existing and new demand in the area as well as a significant portion of the Sunrise Douglas project from the Well Field in the near term "would require much more water than the 10,000 afa that source can safely provide." (Maj. opn., ante, 53 Cal.Rptr.3d at p. 839, 150 P.3d at p. 724.)
- As the majority concedes, the County's compliance with these Water Code provisions is not at issue in this case. (Maj. opn., *ante*, 53 Cal.Rptr.3d at p. 836, fn. 8, 150 P.3d at p. 721, fn. 8.)
- The Governor's Office of Planning and Research also cautioned that an early version of the bill made no provision for measures that may act to reduce overall demand by requiring "new development to retrofit old, existing development in order to free sufficient 'wasted' water to serve the new project." (Governor's Off. of Planning and Research, analysis of Sen. Bill No. 901 (1995–1996 Reg. Sess.) Apr. 3, 1995, p. 6.)

End of Document

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ATTACHMENT E



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX 75 Hawthorne Street

75 Hawthorne Street
San Francisco, CA 94105-3901

Tony Tavares, Director, District 7 California Department of Transportation, District 7 100 South Main Street, Suite 100 Los Angeles, CA 90012

Philip A. Washington, Chief Executive Officer Los Angeles County Metropolitan Transportation Authority One Gateway Plaza Los Angeles, CA 9012-2952

Re: EPA technical response for project-level transportation conformity status- Interstate 710 South

Dear Mr. Tavares and Mr. Washington:

In 2018, following publication of the Supplemental Draft EIR/EIS for the Interstate 710 (I-710) South Corridor project, Caltrans and Metro asked the EPA to consider a variation from project level transportation conformity analysis processes and requirements. Prior to this request, the transportation agencies were pursuing coordination related to required particulate matter (PM) hot-spot modeling assumptions and protocols. As an alternative, Caltrans and Metro proposed the I-710 Clean Truck Program to potentially offset the significant increase of diesel-emitting trucks that would result from the project, thereby attempting to remove the status of the project as a "Project of Air Quality Concern" and the need for a PM hot-spot analysis as part of the project-level transportation conformity determination.

The EPA recognizes the collective challenges to protecting human health while delivering transportation projects within the I-710 Corridor, an area with communities already overburdened by existing goods movement and industry in an area with the worst air quality in the United States, including some of the highest PM_{2.5} levels in the country. After thoughtful consideration, multiple interagency meetings, and good faith efforts by EPA, Caltrans and Metro to identify a potential alternative path forward for the analysis of project-level transportation conformity, the EPA ultimately concludes that a PM hot-spot analysis is necessary for the project's transportation conformity determination. Please see the attached Technical Response supporting this position, the details of which were also shared verbally during our November 20, 2020 senior leadership meeting with Caltrans, Metro, and the Federal Highway Administration.

EPA continues to support efforts to increase clean transportation along the corridor and we remain committed to partnering with you as you evaluate pathways to advance transportation solutions while being protective of human health. I understand that our staff are already in dialogue on possible

alternatives. If you would like to speak further, please contact me at (415) 972-3183, or your staff can contact Karina O'Connor, Project Level Transportation Conformity Lead, at (775) 434-8176 or Oconnor.Karina@epa.gov.

Sincerely,

Elizabeth J. Adams, Director Air & Radiation Division

Attachment: Technical Response

cc: Vincent Mammano, Division Administrator, FHWA Antonio Johnson, Planning Team Leader, FHWA Abdollah Ansari, Senior Executive Officer, Metro Ron Kosinski, Deputy District Director, Caltrans

Technical Response: Summary of Issues for the I-710 Highway Expansion Project and I-710 Clean Truck Program

I. Introduction and Purpose

A. Purpose of this Document

On November 20,2020, after considerable coordination between Caltrans, Metro, Federal Highways Administration (FHWA) and EPA, EPA indicated that we would not be able to concur that the proposed I-710 highway expansion project was not a project of air quality concern under the Clean Air Act transportation conformity requirements. Caltrans and Metro requested more details regarding the specific legal and technical issues that we identified with using the I-710 Clean Truck Program to avoid completion of a particulate matter (PM) hot-spot analysis to satisfy transportation conformity requirements for the I-710 expansion project. In response, this document describes in more detail why, after careful consideration and based on the information before us, EPA does not agree that the I-710 Clean Truck Program renders the I-710 project as a project that is not of air quality concern, and describes how project sponsors should proceed with meeting conformity requirements.

B. Summary of Findings

EPA is very supportive of using zero emissions truck technology on the I-710 freight corridor, but it is critical that public agencies develop a program that meets all of the regulatory requirements so that emissions will not increase and negatively impact public health in the future. This document describes why EPA does not agree that (1) the I-710 Clean Truck Program renders the I-710 project as a project that is not of air quality concern and (2) that the project does not need a PM hot-spot analysis. To summarize:

- The I-710 project requires a PM hot-spot analysis under the Clean Air Act (CAA) and EPA's transportation conformity regulations because it is a highway expansion project that would result in a significant increase in the number of diesel vehicles.
- The clear purpose of the hot-spot regulations are to implement the Clean Air Act's requirements that projects do not cause or contribute to violations of EPA's national ambient air quality standards (NAAQS), worsen existing violations, or delay attainment or other milestones.
- There is no current air quality modeling that demonstrates that the I-710 Clean Truck Program sufficiently reduces emissions such that the I-710 expansion project does not create PM NAAQS hot-spots. In fact, we expect increases in the severity of existing violations even if the proposed I-710 Clean Truck Program were to be fully implemented given dust, tire wear and brake wear.
- The transportation conformity regulation allows mitigation measures to be included as part of a hot-spot analysis for a project but does not permit mitigation measures to avoid a hot-spot analysis for a project of air quality concern.
- As a mitigation measure, the I-710 Clean Truck Program would need a federally enforceable written commitment to be relied upon for a project-level transportation conformity determination.
- The project sponsor has not utilized more recent travel activity assumptions for truck movement along the I-710 freight corridor.

• The I-710 Clean Truck Program does not meet EPA's guidance that diesel replacement programs can be used in a conformity determination if the older diesel vehicles are scrapped.

C. Background on the Los Angeles Air Quality and the Surrounding Community The proposed project area, 18 miles of the I-710 freeway extending north from the Ports of Los Angeles and Long Beach, serves as a primary freight corridor connecting two of the busiest container ports in the country with downtown intermodal railyards and the goods movement network extending east into the Inland Valley. The greater Los Angeles area has among the worst air quality in the United States, including some of the highest PM_{2.5} levels in the country. In 2020, EPA determined that the South Coast Air District failed to attain the 2006 PM_{2.5} NAAQS (or standard) by its December 31, 2019 attainment date and bumped up the area to Serious for the 2012 PM_{2.5} standard, requiring additional planning work by the South Coast Air Quality Management District.

The I-710 corridor accommodates a daily count of approximately 50,000 diesel-fueled freight trucks and 165,000 other vehicles running directly through, and adjacent to, numerous densely populated communities with environmental justice concerns. These low-income and minority communities are already heavily burdened by pollution from existing goods movement and industrial activity and experience health disparities, including asthma burdens. These communities are vulnerable to any increases in particulate matter emissions associated with the proposed I-710 expansion project, and have historically voiced strong concerns about air quality impacts from freight-related projects in this area, including ongoing engagement with the I-710 project. Environmental and community groups have expressed support for exclusively zero-emission truck technology and associated infrastructure for the I-710 project.

D. Background on the Transportation Conformity PM Hot-spot Requirement Transportation conformity applies to transportation plans, transportation improvement programs (TIPs), and federally-supported transportation projects (i.e., FHWA and FTA funded or approved projects) in nonattainment and maintenance areas for transportation-related pollutants, including PM, ozone, and carbon monoxide (CO).

Section 176(c)(1)(B) of the Clean Air Act (CAA) states that federally-supported transportation projects cannot:

- (i) cause or contribute to any new violation of any standard in any area;
- (ii) increase the frequency or severity of any existing violation of any standard in any area; or
- (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area. See CAA § 176(c)(1)(B).

To ensure that transportation projects meet these criteria, EPA's transportation conformity regulations require a hot-spot analysis in PM₁₀ and PM_{2.5} areas for certain highway and transit projects. To ensure that CAA requirements are met, large projects that result in "a significant increase in the number of diesel vehicles" (40 CFR 93.123(b)(1)) need a quantitative PM hot-spot analysis. Such a project is referred to as a "project of air quality concern." A hot-spot analysis is an estimation of likely future localized pollutant concentrations with the proposed project and a comparison of those concentrations to the relevant PM NAAQS. A hot-spot analysis assesses the air quality impacts on a scale smaller than an

entire nonattainment or maintenance area, including, for example, congested highways or freight terminals.

For a project that is not of air quality concern, the project-level conformity determination consists of verifying that there is a conforming regional transportation plan and Transportation Improvement Plan (TIP) and that the project is included in that conforming transportation plan and TIP.

The interagency consultation process must be used to develop project-level conformity determinations to meet all applicable conformity requirements for a given project. Project sponsors typically make the determination whether a highway project needs a quantitative PM hot-spot analysis through an interagency consultation process with FHWA, EPA, the State DOT, and the other state and local agencies involved.

E. I-710 and the PM Hot-spot Requirement

The proposed I-710 transportation project is an 18-mile project to increase capacity on I-710 by adding new general purpose lanes, truck by-pass lanes, and intersection improvements along this corridor. The latest iteration of the I-710 project had been determined to be a project of air quality concern since reports developed for the project's environmental documentation (such as the June 2018 modeling protocol for hot-spot modeling) showed that the project would increase heavy-duty diesel truck traffic as much as 6,900 trucks each day for some segments of I-710 (in addition to the existing 50,000 trucks and 165,000 other vehicles that drive on this highway every day).

On August 1, 2018, Caltrans requested that the EPA reconsider the I-710 project's status as a project of air quality concern (also referred to as a "POAQC"), with Caltrans' assumption that the I-710 Clean Truck Program would reduce diesel truck traffic (by funding the replacement of diesel trucks with zero emission/near zero emission (ZE/NZE) trucks).

In October 2018, Region 9 sent an email to Caltrans with an attachment with preliminary, staff-level information for a written commitment for the I-710 Clean Truck Program. In response, in October 2019, Caltrans and Metro sent a letter to EPA indicating that they did not agree that a written commitment would be required for the I-710 Clean Truck Program. EPA responded in a letter dated March 3, 2020 that we continue to believe that a written commitment describing the program was necessary. Further information regarding implementation of the I-710 Clean Truck Program was described in the June 4, 2020 Responses to Questions from USEPA/FHWA on the I-710 Clean Truck Program and the July 27, 2020 I-710 Clean Truck Program Responses to Technical Questions documents.

Caltrans' and Metro's I-710 Clean Truck Program Project Description, dated September 18, 2020, describes the major components of the I-710 Clean Truck Program and contains some information on related programs such as the Metro Countywide Clean Truck Initiative. According to this document, the I-710 Clean Truck Program would be implemented by a program administrator at the Los Angeles County Metropolitan Transportation Authority (Metro) with direction from the Metro Board of Directors and the I-710 Steering Committee with assistance from contractors and vendors. The Metro Board would have responsibility and authority for development and implementation as well as approval for any major policy decisions related to the program.

The September 18, 2020 description further states that the I-710 Steering Committee, a multi-agency group operating under the October 2019 Memorandum of Understanding, would be tasked with developing implementation details, eligibility requirements, institutional arrangements, management and administration for the program as well as identifying and obtaining funding, creating a phasing plan and comprehensive goals, and issuing quarterly reports. These roles and responsibilities are further elaborated in Appendix C of the September 2020 program description.

EPA's regulatory analysis of the approach proposed by Caltrans to reconsider the I-710 project's status as a POAQC, with Caltrans' assumption that the I-710 Clean Truck Program would reduce diesel truck traffic (by funding the replacement of diesel trucks with ZE/NZE) trucks) is based on a careful consideration of these documents as well as the NEPA documents developed for the I-710 project and information discussed in the Technical Workgroup meetings with Caltrans, Metro and FHWA. The legal and technical issues supporting EPA's decision that the proposed I-710 highway expansion project is a project of air quality concern under the Clean Air Act transportation conformity requirements, are described in more detail below.

II. Discussion

The Clean Air Act and EPA's transportation conformity rule require completion of a quantitative PM hot-spot analysis for the I-710 project because it is a project of air quality concern.

A. Statutory and Regulatory Requirements

The regulatory hot-spot analysis requirement was adopted to implement the Clean Air Act requirement that federally-supported transportation projects cannot "cause or contribute to any new violation of any standard in any area; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard of any required interim emission reductions or other milestones in any area." See CAA §176(c)(1)(B). EPA has interpreted "in any area" to include not just entire nonattainment and maintenance areas, but also the localized area surrounding a transportation project. See 75 Fed. Reg. 14260, 14274 (Mar. 24, 2010).

EPA adopted the regulatory PM hot-spot requirements in 2006, including the requirement that a hot-spot analysis be completed for expanded highway projects with a significant increase in the number of diesel vehicles. The preamble for the final rule explains that this criterion was intended to identify projects with significant PM emissions increases. See, e.g., 71 Fed. Reg. 12467, 12491 (Mar. 10, 2006) ("The final rule's criteria for hot-spot analyses targets highway and transit projects that involve a significant increase in diesel vehicle traffic, since EPA believes that directly emitted particles from diesel vehicles are the primary consideration for potential PM_{2.5} and PM₁₀ hot-spots.") The 2006 preamble also contains a lengthy discussion of the technical basis for EPA's conclusion that projects that are not of air quality concern will not increase PM emissions. Id. at 12471-74 and 12490-93. We further said that PM hot-spot analyses must include emissions from re-entrained road dust. Id. at 12494.

The I-710 highway expansion project would result in a significant increase in the number of diesel vehicles and consequently in significant PM emissions increases. Therefore, the project meets the regulatory criterion for requiring a quantitative PM hot-spot analysis. This is particularly important in light of the factual circumstances of the project. First, the greater Los Angeles area has some of the highest PM_{2.5} levels in the country with people living and working all along the I-710 corridor. In addition, the Ports of Los Angeles and Long Beach are the terminus of the I-710 and are the largest container ports in the country, with a significant portion of freight moving every day by diesel truck.

B. Need for a PM Hot-Spot Analysis for I-710

The I-710 clearly meets the relevant regulatory criterion for a PM hot-spot analysis: Caltrans' June 2018 modeling shows an additional 6,900 heavy-duty diesel vehicles per day, which is consistent with numbers EPA has concluded constitute a "significant increase" in other instances. Even if the I-710 Clean Truck Program is implemented, the project would still result in a significant increase in heavy-duty trucks, which would increase PM emissions. Consistent with SIP inventories and past conformity analyses, brake/tire wear and road dust would be significantly increased by the I-710 project, and as a result, make air quality worse in communities along the I-710 corridor.

We expect increases in the severity of existing violations even if the proposed I-710 Clean Truck Program were to be fully implemented given dust, tire wear and brake wear emissions. Given that the project would likely result in localized increases in PM in an existing nonattainment area, determining that the project is not a project of air quality concern would be inconsistent with the conformity requirement in the Clean Air Act and EPA's implementing regulations.

C. I-710 Clean Truck Program as a Mitigation Measure

It is possible that the I-710 Clean Truck Program could be used to mitigate the impacts of the I-710 expansion as part of a hot-spot analysis. See 40 C.F.R. § 93.123(c)(4): "...mitigation or control measures shall be assumed in the hot-spot analysis only where there are written commitments...". However, mitigation measures cannot be used to avoid a hot-spot analysis for a project of air quality concern.

Mitigation should address a project's impact on the NAAQS in the conformity determination, which can only be determined through a hot-spot analysis with measures included, per the conformity rule and guidance. EPA addressed the inclusion of new technologies in a PM hot-spot analysis in the preamble to the March 24, 2010 final rule (75 CFR 14280):

Last, it is entirely appropriate that a hot-spot analysis include the effects of new technologies and fleet turnover that is expected to occur in a future analysis year. The conformity rule has always allowed the future effects of federal vehicle emissions standards, fleet turnover, fuel programs, and other control measures to be reflected in hot-spot analyses when they are assured to occur, because including such effects provides a reasonable estimate of future emissions that is more accurate than not including such effects.

For the emission reductions of the Clean Truck Program to be relied on for conformity, significant additional work would be necessary by the project sponsor to ensure the Clean Truck Program meets the regulatory requirements for mitigation measures, including a written commitment to such a measure that includes, among other things, "a demonstration that funding necessary to implement the action has been authorized by the appropriating or authorizing body." See 40 C.F.R. §§ 93.101 and 93.125(a).

Furthermore, under Metro's documentation, some of the final details, commitments and funding for the Clean Truck Program would be deferred to a later date as the Steering Committee sees how well the program performs in the first few years of operation. This leaves EPA with less certainty today that diesel truck traffic would not increase significantly and would limit the program from being an enforceable mitigation measure under the transportation conformity regulations. More EPA concerns on components of the I-710 Clean Truck Program and discussion on why it is a mitigation measure is included in Section IV below.

III. Modeling Issues

Another concern with Caltrans' and Metro's proposal is the lack of evidence that the I-710 Clean Truck Program would sufficiently reduce diesel vehicles on the I-710 expansion to the point where the project would no longer be of air quality concern. Under EPA regulations, mitigation would be included in the hot-spot analysis done for a project, so it can be demonstrated whether or not mitigation is sufficient for the project to meet the Clean Air Act and conformity requirements. In other words, it is important that the agencies involved understand how many truck replacements would be necessary to ensure that the proposed highway expansion does not negatively impact the PM NAAQS or interim milestones and that the public health of the people living along this corridor is protected. However, in this case, Caltrans and Metro are assuming the I-710 Clean Truck Program sufficiently reduces the number of diesel trucks such that the project no longer needs a hot-spot analysis, ignoring the need for an analysis that would support such an assumption.

As explained above, EPA's regulation requires Caltrans to perform a PM hot-spot analysis. In addition, even if the I-710 Clean Truck Program were improved to qualify as a mitigation measure, it is unclear to EPA at this time how many trucks would remain on the I-710 once the Clean Truck Program would be in effect and if that number would be sufficiently low to declare that there is not a significant increase in the number of trucks. In the last few years, there have been projects determined to need a hot-spot analysis where the daily increase in diesel trucks has been under 4,000 in California and elsewhere.

A. Review of truck travel

The estimated increases in truck traffic projected for the I-710 project is based on the I-710 travel demand forecasting model developed for the air quality analysis in the I-710 EIR/EIS, which was published in early 2017. Modeling conducted for the I-710's NEPA document estimating the number of trucks necessary to be offset is now outdated, and therefore does not satisfy the conformity requirement to use the latest planning assumptions in an analysis (40 CFR 93.110). Improved and updated modeling is needed to better understand how many trucks are still projected, both with and without the I-710 Clean Truck Program, and the air quality impacts of those levels of trucks. This analysis must be based on the latest planning assumptions, including vehicle miles traveled (VMT) per truck, to demonstrate whether or not the project would result in any new or worsened PM NAAQS violations.

The current estimate that 4,000 diesel trucks will travel two trips per day is based on a 2013 study. We do not have more recent data on truck traffic so we do not know how many trucks currently travel an average of 42.5 miles each day on I-710 or if there would be at least 4,000 such trucks that could be targeted by the I-710 Clean Truck Program. Given the length of time to phase in the proposed program,

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¹ Page 17 of November 15, 2013 Key Performance Parameters for Drayage Trucks Operating at the Ports of Los Angeles and Long Beach, Prepared by Andrew Papson and Michael Ippoliti of CALSTART.

these diesel trucks may not all be on the road at the same time, and therefore, it is possible that more than 4,000 trucks (including more trucks traveling only one trip per day) may need to be replaced by the I-710 Clean Truck Program.

B. No scrappage/ No requirements for replaced vehicles

There are some program design elements which do not appear to support reduction in diesel traffic and PM emissions from the project. In order to be eligible for program funding for the I-710 Clean Truck Program, owners or operators would need to own trucks that travel "frequently" on I-710. The I-710 Clean Truck Program funds could be used to purchase additional trucks that the owners or operators agree will meet average weekday VMT thresholds within the 20-mile I-710 corridor. It is unclear what the minimum threshold would be since the stated objective of the program is to reach a target of 42.5 VMT per NZE/ZE truck per weekday "in aggregate, on average."

EPA had previously assumed that the original trucks that are envisioned to be replaced through the I-710 Clean Truck Program (i.e., those that traveled "frequently" on I-710) would no longer be operating on the I-710 once the highway expansion is open to traffic. However, the I-710 Clean Truck Program does not include contractual restrictions or requirements to scrap the original vehicle, since, in Caltrans' view, scrappage requirements would be considered as "barriers to program entry" by some applicants.² This approach does not appear to be consistent with EPA's Diesel Retrofit and Replacement Guidance which discusses scrappage programs in light of parties seeking conformity or SIP credit. For more information about scrappage for truck replacements in conformity analyses, see EPA's Diesel Retrofit and Replacement Guidance.³

Assuming that the financial incentive would be sufficient for some truck owners to accept, the I-710 Clean Truck Program could potentially incentivize *more* truck travel on I-710, for example:

- Since there is no requirement for trucks being replaced to be scrapped or in any way limited in traveling I-710, trucks being replaced could continue to operate on I-710 under the proposed program. With both the new and old trucks continuing to drive on I-710, this overall fleet expansion could increase VMT and particulate matter emissions, burdening local communities and possibly the larger nonattainment area.
- Under the proposed program, instead of relying on historical travel data, any truck owner agreeing to a minimum VMT on I-710 could receive the financial incentive, and applicants could get a higher ranking in the competition for funding "for agreeing to add additional VMT on I-710." This aspect could incentivize more travel on I-710.
- The Program is described as having check-ins every six months to provide "early warning indicators so that corrective action can be taken by recipients to get back on track before penalties are invoked." The only type of "corrective action" that EPA can envision would be for truckers to drive more miles on I-710. If this assumption is true, such an action could incentivize more heavy-duty truck travel on I-710.

³ Page 9 of March 2018 Diesel Retrofit and Replacement Projects: Quantifying and Using Their Emission Benefits in SIPs and Conformity, Guidance for State and Local Air and Transportation Agencies, available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100U3LT.pdf.

² Pages 2-3 of July 27, 2020 I-710 Clean Truck Program Responses to Technical Questions.

IV. Technical Issues with Program Implementation and Enforceability

EPA continues to consider the I-710 Clean Truck Program to be a mitigation measure that would need to be federally enforceable as part of a conformity determination with a PM hot-spot analysis.⁴ EPA's PM Hot-spot Guidance provides a description of the types of "mitigation and control measures that could be considered by project sponsors to reduce emissions and any predicted new or worsened PM NAAQS violations" in Section 10 of the Guidance.⁵ The first category of mitigation and control measures discussed in this document is "Retrofitting, replacing vehicles/engines, and using cleaner fuels." The proposed I-710 Clean Truck Program belongs in this category, as it is designed to replace diesel vehicles with those that use cleaner fuels. Because this program would be a mitigation measure, a written commitment⁶ is necessary for it to be relied upon in a conformity determination, per 40 CFR 93.125(a):

a) Prior to determining that a transportation project is in conformity, the MPO, other recipient of funds designated under title 23 U.S.C. or the Federal Transit Laws, FHWA, or FTA must obtain from the project sponsor and/or operator written commitments to implement in the construction of the project and operation of the resulting facility or service any project-level mitigation or control measures which are identified as conditions for NEPA process completion with respect to local CO, PM₁₀, or PM_{2.5} impacts. *Before a conformity determination is made, written commitments must also be obtained for project-level mitigation or control measures which are conditions for making conformity determinations* for a transportation plan or TIP and are included in the project design concept and scope which is used in the regional emissions analysis required by §93.118 ("Motor vehicle emissions budget") and 93.119 ("Interim emissions in areas without motor vehicle emissions budgets") *or used in the project-level hot-spot analysis required by §93.116* [emphasis added].

As noted above, in October 2018, Region 9 sent an email to Caltrans with an attachment with preliminary, staff-level information for a written commitment. In the Caltrans and Metro response letter of October 2019, Caltrans and Metro claimed that the I-710 Clean Truck Program "is not intended to mitigate air quality impacts. Rather, it has been designed in conjunction with the other elements that comprise the entire I-710 project – to improve air quality in general."

EPA does not see any distinction. The purpose of improving air quality in general does not change the fact that the I-710 Clean Truck Program is a mitigation or control measure. In fact, mitigation measures must necessarily improve air quality in order to offset a project's emissions. Section 10 of the PM Hot-Spot Guidance recognizes that there may be other programs not directly related to the project that improve air quality in general that are still mitigation measures. For example, in Section 10.2.5, EPA states: "Controlling emissions from other sources may sufficiently reduce background concentrations in the PM hot-spot analysis" and thus still count as mitigation measures.

⁴ A written commitment can be enforced by EPA directly against project sponsors under section 113 of the Clean Air Act, which authorizes EPA to enforce the provisions of rules promulgated under the Act, and by citizens under section 304 of the Clean Air Act. See 58 FR 62199.

⁵ Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas, EPA-420-B-15-084, November 2015, available on EPA's web site at https://www.epa.gov/state-and-local-transportation/project-level-conformity-and-hot-spot-analyses#pmguidance, p. 149.

⁶ As defined in 40 CFR 93.101, "Written commitment for the purposes of this subpart means a written commitment that includes a description of the action to be taken; a schedule for the completion of the action; a demonstration that funding necessary to implement the action has been authorized by the appropriating or authorizing body; and an acknowledgment that the commitment is an enforceable obligation under the applicable implementation plan."

⁷ Same source, Section 10.2.5, p. 152.

In the October 2019 letter, Caltrans and Metro provided several arguments, such as that the I-710 Clean Truck Program does not need a written commitment because the program is (1) a core element of the broader project, not a mitigation or control measure and (2) dependent upon a multi-agency commitment including agencies outside of Caltrans and Metro. The letter stated that if the I-710 Clean Truck Program is not successful due to future uncertainties that result in significant increases in diesel truck traffic, the program "would be subject to re-evaluation and/or supplemental documentation. Therefore the EIR/EIS is a written commitment that the Clean Truck Program is an integral part of the project." The September 2020 document describing the Clean Truck Program contains no further discussion of a written commitment to be provided by Metro. Therefore, we assume that Caltrans and Metro's position continues to be that they do not believe that a written commitment is necessary.

As we described in our March 3, 2020 letter, EPA's position is that the Clean Truck Program is a mitigation measure and the EIR/EIS does not suffice as a written commitment under the requirements of EPA's transportation conformity regulations. Caltrans' and Metro's proposal that the I-710 project does not need a PM hot-spot analysis depends on the I-710 Clean Truck Program reducing the number of diesel trucks. As explained above, EPA disagrees and believes the project requires a hot-spot analysis under the Clean Air Act and EPA's implementing regulations. A program to reduce PM emissions that is necessary for a transportation project to demonstrate conformity requires a written commitment, per 40 CFR 93.125.

EPA's October 2018 email included preliminary information for a written commitment. This paper ("Preliminary Information for the I-710 ZE/NZE Truck Deployment Program Written Commitment, October 23, 2018 – staff draft") provided staff thoughts about the types of information that a written commitment should include per the regulatory definition in 40 CFR 93.101:

- a description of the action,
- a schedule for completion,
- a demonstration that funding has been authorized by the appropriating or authorizing body (and is surplus to what would be funded in the no-build alternative), and
- acknowledgment that the commitment is an enforceable obligation under the SIP.

We provided this document to help Caltrans consider what would be needed for the I-710 Clean Truck Program, given that at the time, there was just a mention of the program in the I-710 NEPA documentation without any detail.

To date, Caltrans and Metro have not developed a written commitment for this project. In addition, information provided to EPA thus far about the I-710 Clean Truck Program would not be sufficient to meet the regulatory definition of a written commitment as described in the following paragraphs below.

A. Description of the Action

A written commitment must contain a description of the program. (40 CFR 93.101). EPA's October 2018 paper indicated that the written description of the program should be fairly detailed, and include information about the agency implementing the program, identification of potential participants, truck activity, data and assumptions relied upon to estimate VMT, tracking and enforcement and verification of the program parameters, scrappage of replaced vehicles, and information about the number and type of support facilities. Information provided to EPA thus far lacks detail as many aspects of the program are not described and are left to the Steering Committee to design, fund, and implement.

While Metro has authorized \$50 million and started defining the I-710 Clean Truck Program in its September 2020 document, many of the details of the program and the associated funding are undeveloped and are described as evolving as the Steering Committee reviews the program performance and adjusts the program as needed. In order to be considered a mitigation measure to support a hot-spot analysis and CAA conformity determination, the program must be well-defined and fully funded with certainty that the project will not negatively impact the PM NAAQS or interim milestones.

A critical part of the I-710 Clean Truck Program, needed to ensure that the program would reduce truck traffic to levels needed to meet the CAA requirements, is the verification and compliance components of the program. The September 2020 document describes some of the overall compliance activities that Metro anticipates would be needed to support the I-710 Clean Truck Program, for example: developing a website to track trucks deployed, funding sources, funding expenditures, and ZE/NZE VMT data within the corridor. The document also describes how truck VMT data would be collected via a GIS monitoring device, based on geofencing within the I-710 corridor and that if a recipient truck does not meet the annual VMT requirement for one year, the truck owner would be required to reimburse some or all of the funding. However, it is not clear what specific targets would be required for individual truck owners. Metro has stated repeatedly that the program would target 4,000 trucks, at 42.5 VMT per weekday, in aggregate, on average. How this aggregate estimate translates to individual contracts to be verified is unclear at this time.

In addition, an important part of the program description is what technologies are targeted by a diesel truck replacement program. This level of detail is necessary to include in the written commitment to ensure successful program implementation as well as to include the effectiveness of reducing PM emissions for such truck replacements in the PM hot-spot analysis.

The September 2020 program description identifies transition to ZE trucks as a goal and indicates that the proposed I-710 Clean Truck Program includes a feature that allows for the funding of up to 20 electric charging stations and 10 hydrogen refueling stations between 2022 and 2035. However, the I-710 Clean Truck Program would only provide 4% of the initial \$50 million in funding, i.e., \$2 million, as seed funding for infrastructure and a target of 10% ZE trucks.

While inclusion of these targets is an improvement from previous documents on the I-710 Clean Truck Program, Metro has made no specific commitment to any percentage of ZE trucks. ¹⁰ In fact, Metro has stated that NZE trucks satisfy the primary goal of the program to improve air quality and reduce diesel particulate matter. In addition, there is no commitment to fund electric vehicle or hydrogen refueling infrastructure since in Metro's view, it is not essential to meeting the ZE/NZE truck development

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⁸ Page 12 of the September 2020 Program Description describes how the program will be developed in more detail in a I-710 Clean Truck Manual which would be developed by Metro and the I-710 Steering Committee and be updated for each deployment phase.

⁹ Pages 7-8 and 26 of September 18, 2020 I-710 Clean Truck Program, Program Description.

¹⁰ Page 3 of July 27, 2020 U-710 Clean Truck Program Responses to Technical Questions.

objectives. Under Metro's proposed program, infrastructure would be funded by partner agencies only after the Final EIR/EIS is deemed valid.

B. Schedule for Completion

A written commitment must contain a schedule for completion. (40 CFR 93.101). EPA's October 2018 paper indicated that the schedule should include a detailed (month and year) for the Program's start, opening of support facilities, the schedule for program verification, and end date. Information provided thus far lacks detailed milestones by which someone could judge whether or not the project is on schedule. The September 2020 document includes some information on the major milestones for initiation of the three phases of the program and the total number of trucks to be targeted in each phase and the expected criteria for eligibility, program documentation and compliance reporting, but no additional details or milestones are provided, and there are no specific commitments to ensure compliance with planned milestones (600 trucks by 2025, 1,700 additional trucks by 2030, and 1,700 additional trucks) given to the Steering Committee.

C. Demonstration of Funding

A written commitment must contain a demonstration that funding necessary to implement the action has been authorized by the appropriating or authorizing body (40 CFR 93.101). This criterion has not been met, given that only \$50 million of the estimated \$200 million in program funding has been identified. In addition, since it is not clear if 4,000 trucks would offset the I-710 project's impacts, additional funding may be needed.

Information on funding for the I-710 Clean Truck Program is described in multiple sections throughout the September 2020 document. First, under 2. Program Goals and Milestones, the document states that in March 2017, Metro identified \$200 million as a funding target for the I-710 Clean Truck Program and in April 2020, Metro's Board programmed \$50 million for the first phase of the project. Section 9, Funding for the I-710 Clean Truck Program, also identified the \$200 million target, but indicated that this total may not be needed due a variety of factors related to costs, and indicated that Metro hopes to get the remaining \$150 million by leveraging the initial \$50 million with assistance from the I-710 Steering Committee. The project sponsors for the I-710 Clean Truck Program have not yet identified funding sources for the estimated funding target, haven't committed to the funding sources, and may not have estimated the full funding necessary to mitigate the additional diesel traffic anticipated by implementation of the project. There is no assurance or guarantee that other funding will be obtained.

As stated above, in the fall of 2018, EPA provided draft information on the major components needed to support a written commitment to the I-710 Clean Truck Program. For funding, we indicated that the demonstration of funding should include, but not necessarily be limited to:

- the level of funding for the program in each year the program is in effect,
- funding agencies and legal authority, and
- the sources of the funding, including a discussion of how the funding will be documented and enforced over the time that the program operates.

The funding sources that were mentioned in the September 2020 document were only a list of potential sources that Metro would expect the Steering Committee to investigate to leverage the limited funding that Metro has obtained. Funds from these potential sources are uncertain, and therefore, there is currently insufficient commitment that the funding necessary to support the program is available.

¹¹ Page 6 of September 18, 2020 I-710 Clean Truck Program, Program Description.

The project sponsor has the responsibility for implementing the I-710 Clean Truck Program. However, Caltrans and Metro have placed responsibility for obtaining funding with a multi-agency Steering Committee. Metro has assigned this group of representatives from different agencies the task of identifying funding opportunities for the program, though the Steering Committee has no legal responsibility for the I-710 project or the associated Clean Truck Program. The anticipated roles and responsibilities identified only assign the Metro's board responsibility to approve fiscal plans, funding levels and approval of budgets and programming of the initial \$50 million as needed for the Clean Truck Program.

EPA is concerned that \$200 million may not be enough to ensure that the I-710 expansion project would not negatively impact the PM NAAQS and public health. The September 2020 document provides an average incentive estimate of \$45,000 to \$56,000 per NZE truck that is currently being considered for the I-710 Clean Truck Program. If those costs, with the other estimated costs for the Incentive Reserve, Administration and ZE Power Infrastructure, and an assumption of 10% zero emission incentives at \$150,000 to \$188,000 are extended for replacement of the full 4,000 trucks, total costs could be closer to \$300 million. Based on these assumptions, the \$50 million that was programmed by the Metro Board is less than 20% of the total funding anticipated by extension of Metro's proposed budget for the first phase. A higher per truck funding commitment would also likely be needed to provide a realistic incentive.

D. Commitment is an Enforceable Obligation

A written commitment must include an acknowledgement that the commitment is an enforceable action. (40 CFR 93.101). The responsibility for the program's implementation belongs to Metro and Caltrans as the project sponsors, per 40 CFR 93.125(b). There has been no acknowledgement thus far that the I-710 Clean Truck Program would be an enforceable commitment by Metro.

The September 2020 document describes the different groups expected to implement the I-710 Clean Truck Program. The groups include the Metro Board of Directors, the I-710 Steering Committee and Metro staff with help from contractors and vendors. The Metro proposal states that the I-710 Steering Committee would be drawn from the Countywide Clean Truck Initiative (CCTI) and representatives from selected agencies and localities with a focused interest in the I-710 corridor. The roles and responsibilities of these groups are discussed in Appendix C of the September 2020 document as well as in the Memorandum of Understanding document that Metro is relying upon to create the I-710 Corridor Air Quality Steering Committee to Implement the I-710 Clean Truck Program.

The Steering Committee is tasked with obtaining funding to implement the program and is the main group to make recommendations and suggestions to improve the program, increase program applicants and participation, and optimize NZE/ZE travel within the I-710 corridor. The Metro board can authorize course corrections for the I-710 Clean Truck Program to ensure consistency with program objectives, milestone, and NZE/ZE VMT targets, but the Steering Committee must review, advise, and make the recommendations needed for these corrective actions.

¹² The cost breakdown provided the September 2020 document, in section 10.5. Cost Breakdown – Initial Deployment Phase, indicates a low cost breakdown of \$45,000, and a high cost of \$56,000 per low NOx Certified emission truck.

However, the proposed multi-agency Steering Committee does not meet the regulation's requirements for mitigation measures in 40 CFR 93.125(b): "Project sponsors voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments."

Conclusion

As described in this document, EPA finds there are significant issues with this proposal that are in conflict with the Clean Air Act and the transportation conformity regulation. EPA continues to support using ZE truck technology on the I-710 freight corridor but does not accept the proposal that the I-710 Clean Truck Program eliminates the need for a PM hot-spot analysis for the I-710 project. It is critical that public agencies develop a program that meets all of the regulatory requirements so that emissions will not increase and negatively impact the PM NAAQS and public health in the future.

We appreciate the opportunity to outline our concerns and hope to continue working with you on a new direction for the I-710 project and I-710 Clean Truck Program.

ATTACHMENT F

KeyCite Yellow Flag - Negative Treatment Distinguished by Northwest Environmental Advocates v. National Marine Fisheries Service, 9th Cir.(Wash.), August 23, 2006

> 421 F.3d 797 United States Court of Appeals, Ninth Circuit.

NATURAL RESOURCES DEFENSE COUNCIL:

Southeast Alaska Conservation Council; Sierra Club; National Audubon Society; The Wilderness Society; Center for Biological Diversity, Plaintiffs-Appellants,

UNITED STATES **FOREST** SERVICE; **U.S**.

Department of Agriculture; Mark Rey; Dennis E. Bschor; Forrest Cole, Defendants-Appellees, State of Alaska; Alaska Forest Association, Defendants-Intervenors-Appellees.

> No. 04-35868. Argued and Submitted Feb. 15, 2005. Filed Aug. 5, 2005.

Synopsis

Background: Environmental organizations brought action, raising administrative and environmental law challenges to a revision to the Tongass Land Management Plan. The United States District Court for the District of Alaska; James K. Singleton, Chief Judge, entered judgment in favor of the federal defendants, and organizations appealed.

Holdings: The Court of Appeals, Gould, Circuit Judge, held that:

- [1] Forest Service's admitted misinterpretation of market demand for Tongass timber in its revision to the forest plan was a clear error of judgment that rendered record of decision (ROD) arbitrary and capricious, in violation of Administrative Procedure Act (APA), and
- [2] Forest Service violated National Environmental Policy Act's (NEPA) procedural requirement to present complete and accurate information to decision makers and to the public to

allow an informed comparison of the alternatives considered in environmental impact statement (EIS).

Reversed and remanded.

Procedural Posture(s): On Appeal.

West Headnotes (9)

[1] Woods and Forests - Forest reservations, preserves, or parks

National Forest Management Act (NFMA) embraces concepts of "multiple use" and "sustained yield of products and services," obligating the Forest Service to balance competing demands on national forests, including timber harvesting, recreational use, and environmental preservation. Forest and Rangeland Renewable Resources Planning Act of 1974, § 6(a), 16 U.S.C.A. § 1604(a).

8 Cases that cite this headnote

Woods and Forests • Forest reservations, [2] preserves, or parks

February 2003 Omnibus Appropriations Act, which prohibited review under any Forest Service administrative appeal process of record of decision (ROD) for the 2003 supplemental environmental impact statement (SEIS) for the 1997 Tongass Land Management Plan, did not strip court of its jurisdiction to review adequacy of 1997 revision to the Tongass Land

Management Plan. 28 U.S.C.A. § 1291.

3 Cases that cite this headnote

[3] **Administrative Law and**

Procedure \leftarrow Review for arbitrary, capricious, unreasonable, or illegal actions in general

Administrative Law and

Procedure \hookrightarrow Review for correctness or error

A "clear error of judgment" sufficient to be arbitrary and capricious agency action exists

when the agency offers an explanation that runs counter to the evidence before the agency. 5 U.S.C.A. § 706.

3 Cases that cite this headnote

[4] Woods and Forests Forest reservations, preserves, or parks

Forest Service's admitted misinterpretation of market demand for Tongass timber in its revision to the Tongass Land Management Plan was a clear error of judgment that rendered record of decision (ROD) arbitrary and capricious, in violation of Administrative Procedure Act (APA); market-demand error was not harmless since it had some bearing on the substance of the Forest Service's decision to adopt a particular alternative in its revised forest plan. Tongass Timber Reform Act, § 705(a)(2), 16 U.S.C.A. § 539d(a)(2); 5 U.S.C.A. § 706.

23 Cases that cite this headnote

[5] Environmental Law 🐎 Land use in general

Forest Service violated National Environmental Policy Act's (NEPA) procedural requirement to present complete and accurate information to decision makers and to the public to allow an informed comparison of the alternatives considered in environmental impact statement (EIS) for revised **forest** plan; economic information in the EIS was misleading because it was based on mistaken market demand projections that inflated the economic benefits and discounted the environmental impacts of the plan, and the market-demand error was sufficiently significant that it subverted NEPA's purpose. National Environmental Policy Act of 1969, § 102(2)(C), 42 U.S.C.A. § 4332(2)(C).

35 Cases that cite this headnote

[6] Environmental Law Consideration and disclosure of effects

Inaccurate economic information may defeat the purpose of an environmental impact statement (EIS) by impairing the agency's consideration of the adverse environmental effects and by skewing the public's evaluation of the proposed agency action. National Environmental Policy Act of 1969, § 102(2)(C), 42 U.S.C.A. § 4332(2)(C).

20 Cases that cite this headnote

[7] Environmental Law 🐎 Land use in general

Because environmental impact statement (EIS) for revised **forest** plan did not examine the viable alternative of setting the ASQ (allowable sale quantity) equal to any of the three correct market demand scenarios for Tongass timber, and in light of the statutory requirement to seek to meet market demand and the **Forest** Service's awareness of its misinterpretation of market demand, the EIS was inadequate in its consideration of alternatives, violating National Environmental Policy Act (NEPA). National Environmental Policy Act of 1969, § 102(2) (C), 42 U.S.C.A. § 4332(2)(C); 40 C.F.R. § 1502.14(a).

25 Cases that cite this headnote

[8] Environmental Law Consideration and disclosure of effects

An environmental impact statement (EIS) must include a useful analysis of the cumulative impacts of past, present and future projects in sufficient detail to be useful to the decisionmaker in deciding whether, or how, to alter the program to lessen cumulative impacts. National Environmental Policy Act of 1969, § 102(2) (C), 42 U.S.C.A. § 4332(2)(C); 40 C.F.R. §

6 Cases that cite this headnote

[9] Environmental Law 🐎 Land use in general

Environmental impact statement (EIS) for revised **forest** plan failed to adequately consider the cumulative effects of disproportionate high-volume logging on non-federal land; there was no catalog of past projects and no discussion of how those projects and differences between

the projects had harmed the environment, there was no discussion of the connection between individual harvests and the prior environmental harms from those harvests, and EIS did not assess the potential impacts of reasonably foreseeable, continued "highgrading" in the future. National Environmental Policy Act of 1969, § 102(2) (C), 42 U.S.C.A. § 4332(2)(C); 40 C.F.R. § 1508.7.

8 Cases that cite this headnote

Attorneys and Law Firms

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Thomas L. Sansonetti, Assistant Attorney General, Andrew C. Mergen, Bruce M. Landon, David C. Shilton, and Elizabeth Ann Peterson, Environment & Natural Resources Division, United States Department of Justice, Washington, D.C., for the defendants-appellees.

Steve Silver and Ruth Hamilton Heese, Robertson, Monagle & Eastaugh, Juneau, Alaska, and Gregg Renkes, Attorney General for State of Alaska, and Zachary Falcon, Assistant Attorney General for State of Alaska, for the defendants-intervenors.

Appeal from the United States District Court for the District of Alaska; James K. Singleton, Chief Judge, Presiding.

Before: B. FLETCHER, McKEOWN, and GOULD, Circuit Judges.

Opinion

GOULD, Circuit Judge:

Plaintiffs—Appellants Natural Resources Defense Council, Southeast Alaska Conservation Council, Sierra Club, National Audubon Society, The Wilderness Society, and Center for Biological Diversity (collectively "NRDC") appeal the district court's final judgment in favor of Defendants—Appellees United States Forest Service, United States Department of Agriculture, and certain government employees acting in their official capacity, ¹ dismissing

administrative *800 and environmental law challenges to the 1997 Revision to the Tongass Land Management Plan (Plan). We must decide the legality of the Plan adopted and the process used by the Forest Service.

NRDC claims that a Forest Service error that doubled the projected market demand for Tongass timber² rendered the Plan for the Tongass National Forest arbitrary and capricious, in violation of the Administrative Procedure Act (APA), 5 U.S.C. § 706(2)(A), and rendered arbitrary and capricious the Forest Service's conclusion that timber goals justified the risk that the Plan may not ensure viable, welldistributed populations of wildlife, as required by former 36 C.F.R. § 219.19 (2000). NRDC also claims that the market-demand error rendered misleading the Plan's final Environmental Impact Statement (EIS), in violation of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4332. NRDC further challenges the EIS on grounds that the Forest Service did not consider an adequate range of alternatives and failed to consider the cumulative impacts of "highgrading." 4

The government Appellees argue that under section 335 of the 2003 Omnibus Appropriations Act, we lack jurisdiction to review the **Forest** Service's decision to adopt the Plan. Alternatively, they contend that the Plan was not arbitrary because the inflated market demand projections did not influence the **Forest** Service's decision to adopt the Plan. The Intervenors argue that, if **NRDC** prevails on the merits, injunctive relief is inappropriate in this case because **NRDC** cannot show irreparable harm to its interests, while the interests of the Intervenors will be irreparably harmed if an injunction is in place.

We have jurisdiction under 28 U.S.C. § 1291, and we reverse.

I

Created in 1907 by President Theodore Roosevelt, ⁵ the Tongass National Forest is an immense forest located in Southeast Alaska comprised of mainland and many islands within the Alexander Archipelago. The Tongass is the nation's largest national forest, and the largest unspoiled and intact temperate rainforest in the world, containing almost

seventeen million acres and occupying about seven percent of Alaska's area. ⁶

*801 [1] The National Forest Management Act (NFMA) requires the Forest Service to "develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System." 16 U.S.C. § 1604(a). As we have explained, NFMA embraces concepts of "multiple use" and "sustained yield of products and services," obligating the Forest Service to "balance competing demands on national forests, including timber harvesting, recreational use, and environmental preservation." Lands Council v. Powell, 379 F.3d 738, 742 n. 2 (9th Cir.2004) (quoting 16 U.S.C. § 1607 and citing 16 U.S.C. §§ 528—31), amended and superseded by 395 F.3d 1019 (9th Cir.2005).

The original plan for the Tongass was approved in 1979, and has since been amended twice, once in 1986 and again in 1991. By law, **forest** plans must be revised at least every fifteen years, or sooner if changed conditions warrant a revision. 16 U.S.C. § 1604(f)(5) (2004). The Record of Decision (ROD) for the revised Plan at issue in this appeal was adopted in May 1997. The initial "paper version" of the Plan's EIS as released in January 1997. The EIS was updated in May 1997.

During the public process of revising the Tongass Plan, Congress passed the Tongass Timber Reform Act (TTRA), which imposed additional planning requirements for the Tongass. Among the requirements, Congress imposed a unique duty on the **Forest** Service to consider the "market demand" for timber: ⁷

Subject to appropriations, other applicable law, and the requirements of the National Forest Management Act of 1976 (Public Law 94–588), except as provided in subsection (d) of this section, the Secretary shall to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle.

16 U.S.C. § 539d(a). The exception in subsection (d) provides that "the Secretary need not consider economic

factors in the identification of lands not suited for timber production." *Id.* § 539d(d).

During the planning process for the 1997 Revision to the Tongass Land Management Plan, the Forest Service used the analysis of economists David Brooks and Richard Haynes to determine the market demand for Tongass timber, and to assess whether the Plan would supply enough timber to meet that demand, in accord with the Forest Service's statutory obligations. Over an eight-year period, Brooks and Haynes prepared four reports with projections of the market demand for Tongass timber.

The updated 1997 Brooks and Haynes report was the most recent demand study available to the **Forest** Service. The report gives three scenarios—low, medium, and high—to display a range of future average demand for Tongass timber during the upcoming decade. The alternate scenarios are predicated on variations in Alaskan timber's competitiveness, Alaskan timber's share of the Japanese market, and Alaskan mills' share of the **U.S.** domestic market.

The 1997 Brooks and Haynes report projected a low scenario of 68 million board feet per year (MMBF/year), a medium scenario of 110 MMBF/year, and a *802 high scenario of 154 MMBF/year. Prior reports projected nearly double this demand, but were revised downward due to changed circumstances, such as the closing of local pulp mills, a weaker Japanese market, and a decline in Alaska's competitive position.

The Forest Service misinterpreted the 1997 Brooks and Haynes market demand projection within the published ROD and EIS. The Forest Service incorrectly thought that the projection numbers refer only to "sawlogs suitable for producing lumber," when they actually refer to "total National Forest harvest, including both net sawlog and utility volume." Because of the Forest Service's error, the ROD and EIS project an average market demand for Tongass timber nearly double that which Brooks and Haynes projected. The projected demand scenarios used by the ROD and EIS are 130 MMBF/year (low), 212 MMBF/year (medium), and 296 MMBF/year (high).

The ROD and EIS examined ten alternatives in detail. The **Forest** Service adopted Alternative 11 9 because it "best responds to multiple needs, including ensuring a healthy **forest** habitat and providing a sustainable supply of goods and services including timber." Alternative 11 allocates 3.9 million acres to development land use designations

(LUDs) that allow logging, and 60% of this allocation (2.4 million acres) is currently roadless area. Alternative 11 also establishes an average "Allowable Sale Quantity" (ASQ) ¹⁰ of 267 MMBF/ year for the next decade. ¹¹ Although the ASQ represents a ceiling on allowable timber sales, the ROD states that "the public can expect the amount of timber to be offered annually to vary between 200 MMBF or less and 267 MMBF."

Regulations in force when the Plan was adopted required the Forest Service to "maintain viable populations of existing native and desired non-native vertebrate species *803 in the planning area." 36 C.F.R. § 219.19 (2000). The Forest Service enlisted panels of specialists to rate the degree of risk to wildlife viability posed by each of the Alternatives assessed by the ROD and EIS. The level of risk was gauged for several species by placement into one of five "Outcome" scenarios. 12 The Forest Service determined that placement of a species into Outcomes I or II would always meet the concept of "viable and well distributed" as required by NFMA regulations, and that placement of a species into Outcome III may, for some species, sometimes meet the regulatory requirement. ¹³ Thus, the likelihood of maintaining a species' viability is "expressed as being greater than the sum of likelihood scores for Outcomes I and II, but less than the sum of likelihood scores for Outcomes I, II, and III." ¹⁴ The ROD concluded that *804 the Plan presented an acceptable level of risk to wildlife viability when balanced against other multiple-use goals, such as "providing a sustainable supply of goods and services including timber."

Pursuant to the 1997 Plan, the Forest Service has authorized new timber sale projects that allow logging in roadless areas, and which NRDC challenges in this appeal. NRDC contends that the Forest Service's admitted error in interpreting the market demand for Tongass timber (1) renders arbitrary and capricious the decision to adopt the Plan, (2) renders arbitrary and capricious the Plan's conclusion that its risk to wildlife was acceptable, (3) makes the EIS misleading due to exaggerated estimates of the Plan's economic effects, and (4) makes the range of alternatives considered by the EIS inadequate under NEPA because no alternative reflected the actual market demand. NRDC also argues that the EIS failed to consider the cumulative impacts of State and private logging of high-volume old-growth forest, which NRDC contends is particularly important to certain wildlife.

The district court bifurcated the merits of the case from the relief. The district court issued first a tentative decision, and after receiving objections and comment, a final decision in favor of the government Appellees because the district court concluded that the market demand report "was not significant to the planning process" and that "the **Forest** Service did not rely on the [market demand] report." ¹⁵ The district court also ruled against **NRDC's** NEPA claims, stating that "the Government adequately considered the range of alternatives and adequately justified its decisions."

During litigation in district court, the **Forest** Service announced its intent to begin construction of a road into a roadless area pursuant to one of the Plan's authorized timber sales. **NRDC** sought a preliminary injunction and an injunction pending appeal in the district court, which the district court denied. **NRDC** then sought an injunction pending appeal in the Ninth Circuit, which was granted by a motions panel because "**NRDC** has shown a likelihood of success on the merits" and because the planned timber sale "will cause irreparable injury." Order at 2–3 (filed Oct. 18, 2004) (per curiam). ¹⁶

II

[2] We must first determine whether we have jurisdiction to review the 1997 Revision to the Tongass Land Management Plan. In 2003, Congress passed the Omnibus Appropriations Act, Pub.L. 108–7 (Feb. 20, 2003), stating in part that:

The Record of Decision for the 2003 Supplemental Environmental Impact Statement for the 1997 Tongass Land Management Plan shall not be reviewed under any **Forest** Service administrative appeal process, and its adequacy shall not be subject to judicial review by any court of the United States.

149 Cong. Rec. H707–01, H779 (2003). The 2003 Supplemental Environmental Impact Statement (SEIS) was a response *805 to a court order holding that the 1997 ROD violated NEPA and NFMA because it failed to consider in the EIS alternatives that would have recommended more

wilderness areas on the Tongass. *Sierra Club v. Rey*, J00–009 (D. Alaska, Order of Mar. 30, 2001).

After completing the court-ordered SEIS, the **Forest** Service issued a ROD adopting Alternative 1, the "No–Action Alternative," which represented "the 1997 **Forest** Plan Revision land allocations and standards and guidelines." The 2003 ROD thus recommended the creation of no wilderness areas on the Tongass, other than those already recommended by the 1997 Plan. By its terms, section 335 of the 2003 Appropriations Act precludes judicial review of the 2003 ROD.

The government Appellees argue that Congress understood that the 2003 ROD adopted or readopted the entire Tongass Plan, and that Congress intended to insulate the entire 1997 Plan from judicial review. We are not persuaded. The 2003 Appropriations Act does not by its terms clearly preclude judicial review of challenges to the 1997 Plan. See

Robertson v. Seattle Audubon Soc'y, 503 U.S. 429, 440, 112 S.Ct. 1407, 118 L.Ed.2d 73 (1992) ("Congress ... may amend a substantive law in an appropriations statute, as long as it does so clearly.").

The 2003 ROD and SEIS were the **Forest** Service's response to a court order to reassess *only* the wilderness component of the 1997 Plan. As the SEIS explains: "The purpose and need for this SEIS is, therefore, narrow in focus and has been developed to specifically respond to the March 2001 Court order." There is no indication that the **Forest** Service intended the 2003 court-ordered response to be an entirely new plan, or that it readopted the 1997 Plan; ¹⁷ there is, however, unambiguous language indicating that the SEIS was limited in scope:

As indicated by the U.S. District Court for Alaska, there is a need to evaluate roadless areas in the Tongass National Forest and consider them for wilderness recommendations; therefore, this SEIS focuses on new wilderness recommendations. The alternatives discussed below reflect this focus. The SEIS does not consider land allocation options, such as changing current non-development LUDs to development LUDs. Also, it does not explore new biodiveristy or conservation biology strategies, nor represent a totally new Forest Plan Revision.

We conclude that the 2003 ROD adopted only the 2003 SEIS, and was intended to address only the wilderness element of the 1997 Plan. ¹⁸

Because Congress precluded judicial review of only the 2003 ROD reassessing the wilderness recommendations of the 1997 ROD, and not the entire 1997 Plan, and because NRDC challenges the adequacy of the 1997 Plan, we hold that Congress has not stripped us of our jurisdiction under 28 U.S.C. § 1291 to review the final decision *806 and judgment of the district court dismissing NRDC's claims. 19

Ш

[3] Having determined that we have jurisdiction to decide the merits of NRDC's appeal, we next must determine whether the Forest Service's admitted misinterpretation of market demand for Tongass timber was a clear error of judgment that renders the 1997 ROD arbitrary and capricious, in violation of the APA. 20 Under the APA, the Forest Service's decision must be based on "a consideration of relevant factors" and we assess whether there has been "a clear error of judgment." Gifford Pinchot Task Force v. United States Fish & Wildlife Serv., 378 F.3d 1059, 1065 (9th Cir.2004). A "clear error of judgment" sufficient to be arbitrary and capricious agency action exists when "the agency offer[s] an explanation that runs counter to the evidence before the agency." Sierra Club v. EPA, 346 F.3d 955, 961 (9th Cir.2003), amended by 352 F.3d 1186. The Forest Service must "state a rational connection between the facts found and the decision made." Gifford Pinchot Task Force, 378 F.3d at 1065.

A

[4] Under the TTRA, the Forest Service must "seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle." 16 U.S.C. § 539d(a). The Forest Service sought to satisfy its obligations under the TTRA by considering market demand for Tongass timber and by seeking to meet that demand. The Forest Service first used the Brooks and Haynes report to assess market demand. Then, in its list of goals and objectives, the ROD stated that the Forest

Service "will seek to provide a timber supply sufficient to meet the annual market demand for Tongass National Forest timber and the market demand for the planning cycle." The ROD thus preferred alternatives that "have a timber program potential (Allowable Sale Quantity) that allows flexibility to respond to changing needs within the timber industry, as reflected in the most recent demand study (see Final EIS, Appendix M), and are responsive to communities dependent upon timber harvesting."

The three scenarios of average annual demand for Tongass timber for the next decade "reflected in the most recent demand study" were: 68 MMBF/year (low), 110 MMBF/year (medium), and 154 MMBF/year (high). The Forest Service, however, interpreted the Brooks and Haynes report to apply only to sawlogs. *807 Because "[t]he ASQ for the Forest Plan and the annual timber sale program on the Tongass include both sawlogs and other types of wood," the ROD's three scenarios for projected average market demand were: 130 MMBF/year, 212 MMBF/year, and 296 MMBF/year. The Forest Service used its doubled market demand figures, instead of the Brooks and Haynes figures, to gauge the relative desirability of each of the proposed Alternatives. Accordingly, the ROD adopted Alternative 11, with its average annual ASQ of 267.2 MMBF/year.

The ROD explained:

Demand. Research scientists at the Pacific Northwest (PNW) Station have recently completed new projections of demand for timber from the Tongass National **Forest**. The new projections include a medium projection that averages 110 MMBF per year over the next decade and low and high projections that average 68 and 154 MMBF per year, respectively, over the same time period....

The projected demand is for sawlogs suitable for producing lumber in Southeast Alaska mills. The ASQ for the Forest Plan and the annual timber sale program on the Tongass include both sawlogs and other types of wood. Over the past ten years, about 52 percent of the timber volume harvested on the Tongass has gone to Southeast Alaska sawmills. If this ratio continues into the future, the ASQ needed to satisfy the medium demand projection of demand would be about 212 MMBF per year. Under the same assumption, the ASQ needed to satisfy the low and high projections of demand would be about 130 and 296 MMBF per year respectively. These numbers can be compared with the actual ASQ, which averages 267 MMBF per year over the next decade.

The **Forest** Service concedes that it made a mistake in interpreting the 1997 Brooks and Haynes report, which actually accounted for both sawlogs and other types of wood, and that its mistake doubled the demand projection scenarios. Because the **Forest** Service linked the selected ASQ to the satisfaction of the projected market demand scenarios, the **Forest** Service's explanation "runs counter to the evidence before the agency." Sierra Club. 346 F.3d at 961.

The Forest Service argues, and the district court held, that the market-demand error was harmless because the projections were not significant to the Regional Forester's decision choice among the Plan Alternatives. We disagree.

В

The role of harmless error in the context of agency review is constrained. **Gifford Pinchot*, 378 F.3d at 1071. We have stated that the "doctrine may be employed only when a mistake of the administrative body is one that *clearly* had *no bearing* on the procedure used or the substance of decision reached." *Id.* (internal quotation marks omitted). The Forest Service bears the burden of demonstrating harmlessness.

Id.

The Forest Service has not met its burden. The ROD is clear: "We will seek to provide a timber supply sufficient to meet the annual market demand for Tongass National Forest timber and the market demand for the planning cycle." We hold that the market-demand error was not harmless because the TTRA specifically requires the Forest Service to consider market demand for Tongass timber, and because the record shows that the Forest Service did seek to meet the annual market demand and plan-cycle market demand for timber, albeit mistakenly. In other words, we hold that the Forest Service's *808 mistake had some bearing on the substance of the Forest Service's decision to adopt Alternative 11, with its ASQ of 267 MMBF/year.

We have said that a "[p]roper determination of the ASQ, perhaps more than any other element of **forest**-wide planning, is critical in providing 'long-term direction.' "Resources Ltd., 35 F.3d at 1305. Here, the Forest Service linked its preferred ASQ to its mistaken view of market demand, stating that a certain ASQ would be "needed to satisfy" the various market demand projection scenarios, and that the market

demand projections "can be compared with the actual ASQ, which averages 267 MMBF per year over the next decade."

Common sense, as well as the record, tells us that the Forest Service's assessment of market demand was important for its determination through the ASQ of how much timber is allowed to be cut. Given the competing goals to be accommodated under NFMA, it is clear that trees are not to be cut nor forests leveled for no purpose. If market demand exists for timber, the need for timber harvest may outweigh the competing goals for environmental preservation and recreational use. But if the demand for timber was mistakenly exaggerated, it follows that the timber harvest goal may have been given precedence over the competing environmental and recreational goals without justification sufficient to support the agency's balancing of these goals.

The ROD noted that a "key factor" in the decision to adopt Alternative 11, as "a matter of finding a balance, within a multiple-use context," was "not foreclosing options for the future that changes in public needs, economic conditions, or new technologies may bring." Thus, the ROD rejected Alternatives 4 and 5 because they "do not have a timber program that would be adaptable to changing demands" ²¹ and preferred Alternatives 2, 3, 6, 10, and 11 because they "have a timber program potential (Allowable Sale Quantity) that allows flexibility to respond to changing needs within the timber industry, as reflected in the most recent demand study (see Final EIS, Appendix M), and are responsive to communities dependent upon timber harvesting."

The ROD's reasoning suggests to **us** that the "changing needs within the timber industry" are reflected in the low-to-high market demand scenarios set forth in the Brooks and Haynes report and incorporated by the **Forest** Service into the ROD and EIS. Accordingly, we hold that the **Forest** Service's market-demand error affected the **Forest** Service's assessment of alternatives and its decision to choose Alternative 11.

The Forest Service argues that the ASQ is a ceiling on allowable timber sales that is unrelated to market demand projections. Although the ASQ represents a ceiling, the ROD's rationale clearly links the ASQ to the projected market demand. *See* discussion *supra* Part III.A.1. Reason and logic also support this linkage. A ceiling too low to satisfy demand could compromise one of NFMA's multiple-use goals (timber harvest) without justification in this record. ²² Likewise, a ceiling higher than *809 needed to satisfy

demand, could compromise another of NFMA's multipleuse goals (environmental preservation) without justification in this record. Moreover, even if the **Forest** Service would have adopted an ASQ greater than the high market demand scenario to allow flexibility to respond to changes in market demand, ²³ it is impossible to tell how much greater the ASQ would need to be, or to what extent other alternatives might have been considered in detail, in relation to the actual market demand. *See Alaska Wilderness Recreation & Tourism Ass'n v. Morrison*, 67 F.3d 723, 730 ("While we cannot predict what impact the elimination of the APC contract will have on the **Forest** Service's ultimate land use decisions, clearly it affects the range of alternatives to be considered.").

The government Appellees also argue that the TTRA's market demand provisions are hortatory and envision "not an inflexible harvest level, but a balancing of the market, the law, and other uses, including preservation." Alaska Wilderness, 67 F.3d at 731. As our precedent indicates, the TTRA gives flexibility to the Forest Service "to choose among various site-specific plans, provided it follows the procedural requirements of the applicable statutes." Id. This does not mean, as the Appellees argue, that the responsibility reflected in the TTRA applies only at the project level. To give the TTRA such a meaning would essentially negate that portion of the statute that seeks to meet the market demand for Tongass timber "for each planning cycle." See 16 U.S.C. § 539d(a)(2). Moreover, even if hortatory, to satisfy the TTRA's earnest admonishment requires the Forest Service to at least consider market demand and seek to meet market demand. And this the Forest Service attempted to do, using its own economists' projections of the annual and plan-cycle market demands for Tongass timber for the life of the Plan. Yet in its attempt, the Forest Service committed a clear error of judgment, and the Forest Service has not met its burden to show that its error "clearly had no bearing ... on the substance of the decision reached." ²⁴ See Gifford Pinchot. 378 F.3d at 1071.

*810 C

Because the **Forest** Service's "explanation [of its market demand projections] runs counter to the evidence before the [A]gency," we hold that the Plan was based in part on a clear error of judgment. *See* Sierra Club, 346 F.3d at 961. The **Forest** Service cannot "state a rational connection between [the proper market demand projection] found and

its decision [to select an ASQ of 267 MMBF/year]." See Gifford Pinchot, 378 F.3d at 1065.

Because the law requires a market demand assessment for the Tongass Land Management Plan, and the **Forest** Service tried, but failed, to comply properly with this requirement, we hold that the mistaken interpretation of the Brooks and Haynes projections was not harmless. The **Forest** Service has not met its burden of showing that its misinterpretation of the 1997 Brooks and Haynes report "clearly had no bearing on the ... substance of the decision" to choose Alternative 11, and so we reverse the district court. *See* id. at 1071 (emphases omitted). ²⁵

IV

We next address the NEPA arguments raised by NRDC challenging the Forest Service's EIS. Although the Forest Service's market-demand error requires it to make a new revised forest plan for the Tongass, it does not render moot our consideration of the NEPA issues presented to us, which are integrally intertwined with the error of judgment that rendered the Plan arbitrary and capricious. Our assessment of the NEPA issues presented by NRDC is necessary to ensure that the Forest Service prepares a lawful EIS for the new Tongass Land Management Plan that is required by our decision today. 26 Resolution of the NEPA issues raised by this appeal is also appropriate to clarify the requirements of NEPA that the Forest Service was bound to follow in its prior EIS. Accordingly, we next consider whether the process used by the Forest Service in adopting the Plan complied with NEPA. 27

NEPA requires "that federal agencies carefully weigh environmental considerations *811 and consider potential alternatives to the proposed action before the government launches any major federal action." Lands Council, 395 F.3d at 1026. NEPA's procedural requirements require federal agencies to "take a 'hard look' at environmental consequences." Id. at 1027 (quoting Earth Island Inst. v. United States Forest Serv., 351 F.3d 1291, 1300 (9th Cir.2003)).

NRDC contends that the EIS is inadequate in three respects: (1) by inflating the market demand for Tongass timber, the EIS presents misleading information on the economic effects

of the plan; (2) the EIS examines an inadequate range of alternatives because it fails to examine alternatives that would maximize preservation of currently roadless areas, while having an ASQ adequate to meet projected market demand; and (3) the EIS fails to disclose and consider the cumulative effects of logging of high-volume old growth **forest** on nonfederal lands. We address these contentions in turn.

A

[5] We first consider whether the inflated assessment of market demand by the **Forest** Service led it to present misleading information in the EIS.

NEPA requires federal agencies to examine the environmental effects of a proposed project and, for those actions that will significantly affect the environment, to inform the public in an EIS of the relevant factors that were considered in the decision-making process. See 42 U.S.C. § 4332(2)(C); Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 97, 103 S.Ct. 2246, 76 L.Ed.2d 437 (1983). NEPA is a procedural statute; NEPA does not force an agency to choose the most environmentally sound alternative, but it does ensure that agency action is "fully informed and well considered." Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc., 435 U.S. 519, 558, 98 S.Ct. 1197, 55 L.Ed.2d 460 (1978).

"Where the information in the initial EIS was so incomplete or misleading that the decisionmaker and the public could not make an informed comparison of the alternatives, revision of an EIS may be necessary to provide a reasonable, good faith, and objective presentation of the subjects required by NEPA."

Animal Def. Council v. Hodel, 840 F.2d 1432, 1439 (9th Cir.1988), amended by 867 F.2d 1244 (9th Cir.1989) (internal quotation marks omitted). NRDC contends that the economic information in the EIS for the Tongass Plan was misleading because it was based on mistaken market demand projections that inflated the economic benefits and discounted the environmental impacts of the Plan.

[6] The Fourth Circuit has held that there was a NEPA violation where an EIS inflated the economic benefits of a proposed plan. Hughes River Watershed Conservancy v. Glickman, 81 F.3d 437, 446–48 (4th Cir.1996). Inaccurate economic information may defeat the purpose of an EIS

by "impairing the agency's consideration of the adverse environmental effects" and by "skewing the public's evaluation" of the proposed agency action. Id. at 446; see also Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 235 F.Supp.2d 1143, 1157 (W.D.Wash.2002) ("An EIS that relies upon misleading economic information may violate NEPA if the errors subvert NEPA's purpose of providing decisionmakers and the public *812 an accurate assessment upon which to evaluate the proposed project.").

We hold that here the market-demand error was sufficiently significant that it subverted NEPA's purpose of providing decision makers and the public with an accurate assessment of the information relevant to evaluate the Tongass Plan. Throughout the EIS, calculations of the projected employment effects of the Plan are based on the Forest Service's mistaken interpretation of the Brooks and Haynes report. The EIS states that the "approach used by Brooks and Haynes is representative and is used in this analysis as a baseline projection for use in comparing expected employment levels under different planning alternatives." The EIS uses the mistaken medium demand scenario of 212 MMBF/year to predict the employment and earnings potential of each considered alternative. Had the decision makers and public known of the accurate demand forecast for Tongass timber, and the concomitant lower employment and earnings potential, the Forest Service may have selected an alternative with less adverse environmental impact, in less environmentally-sensitive areas. Presenting accurate market demand information was necessary to ensure a wellinformed and reasoned decision, both of which are procedural requirements under NEPA. See, e.g., Vt. Yankee Nuclear

The Forest Service argues that because the final EIS was fully developed and printed before the 1997 Brooks and Haynes report was received, the EIS analysis was complete and gave a basis for an informed comparison. We reject the Forest Service's argument because it is contrary to the evidence. The updated Brooks and Haynes projection scenarios were incorporated into the final EIS through an "Errata" that identified errors and updated the initial "paper version" of the EIS. The Errata replaces the tables comparing employment and business earnings predictions used in the paper EIS with new tables of economic predictions based upon the Forest Service's erroneous interpretation of the Brooks and Haynes report. The Forest Service's final decision was made after it relied upon its incorrect market demand assessment.

Power Corp., 435 U.S. at 558, 98 S.Ct. 1197.

The Forest Service also contends that it adequately and correctly considered the updated Brooks and Haynes market demand report in Appendix M, which the Forest Service argues reasonably concluded that a supplemental EIS was not required to address the substantial change in market conditions. This contention, however, is unsupported by the record. Appendix M discusses the 1997 Brooks and Haynes report, and gives a correct interpretation of its projected scenarios, but Appendix M fails to mention or correct the error made in the economics section of the EIS. Similarly, Appendix M fails to conduct a new analysis of employment and earnings predictions in light of the updated 1997 Brooks and Haynes report. Appendix M does not cure the misleading economic information presented to decision makers and the public in the EIS.

Finally, the Forest Service argues that because Appendix M asserted that "short-term demand information is not significant to the choice of alternatives" the economic information presented in the EIS was not misleading. The Forest Service also suggests in Appendix M that the Brooks and Haynes report was unreliable and insignificant. The Forest Service's argument does not persuade us. In the EIS, the Forest Service refers to the market demand projections in the 1997 Brooks and Haynes report, which demand was misinterpreted and doubled by the agency, as "the most reliable and defensible estimates" *813 because of the report's methodology. ²⁸ The EIS presented to decision makers and to the public a comparison of alternatives based on an economic forecast that relies on a flawed view of the market demand for Tongass timber. Thus, we conclude that short-term market demand was significant because the Forest Service presented and relied on the misconstrued demand information to predict the Plan's economic effects.

We conclude that the **Forest** Service presented misleading economic effects of the Plan significant to its evaluation of alternatives considered by the Plan, and the public was similarly misled in its opportunity for comment. We hold that the **Forest** Service violated NEPA's procedural requirement to present complete and accurate information to decision makers and to the public to allow an informed comparison of the alternatives considered in the EIS. See Animal Def. Council, 840 F.2d at 1439; see also Hughes River Watershed Conservancy, 81 F.3d at 446.

В

[7] We next consider whether the alternatives explored by the **Forest** Service were inadequate.

NEPA requires agencies to "rigorously explore and objectively evaluate all reasonable alternatives" to a proposed plan of action that has significant environmental effects. 40 C.F.R. § 1502.14(a) (2000). This is "the heart" of an EIS. City of Carmel-by-the-Sea v. United States Dep't of Transp., 123 F.3d 1142, 1155 (9th Cir.1997). "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." Citizens for a Better Henderson v. Hodel, 768 F.2d 1051, 1057 (9th Cir.1985); see also 36 C.F.R. § 219.12(f)(1) (2000) ("Alternatives shall be distributed between the minimum resource potential and the maximum resource potential to reflect to the extent practicable the full range of major commodity and environmental resource uses and values that could be produced from the forest."). NRDC contends that the Forest Service failed to consider alternatives that would have a timber program potential sufficient to meet or exceed market demand projections, while protecting more intact habitat, notably habitat in high-volume stands of old growth forest.

Many considerations went into the development and evaluation of each alternative, including the level of wildlife habitat protection and the level of contribution to the local and regional economies of southeast Alaska. We have held that where changed circumstances affect the factors relevant to the development and evaluation of alternatives, the Forest Service must account for such change in the alternatives

it considers. See Alaska Wilderness, 67 F.3d at 730–31 ("While we cannot predict what impact the elimination of the [long-term] contract will have on the Forest *814 Service's ultimate land use decisions, clearly it affects the range of alternatives to be considered."). Here, the Forest Service's discovery of its error in interpreting the Brooks and Haynes report affected the economic and wildlife factors that the Forest Service used in developing and evaluating the alternatives considered in detail. See discussion supra Parts III.B and IV.A.

Specifically, the EIS considered ten alternatives with an ASQ ranging from 0 (Alternative 1, the no logging alternative) to 640 MMBF/year (Alternative 7), and chose Alternative

11, which had an ASQ of 267 MMBF/year. The ASQ for Alternative 11 lies between the medium and high demand scenarios, as incorrectly interpreted by the Forest Service in the ROD and EIS. An analogous ASQ based on the correct market demand projection would be around 139 MMBF/year. Supra note 23. The EIS considered two alternatives (4 and 5) with an ASQ situated between the actual medium and high demand scenarios, but rejected both in part because "Alternatives 4 and 5 (in addition to Alternative 1) do not have a timber program that would be adaptable to changing demands or new technologies and would be more likely to adversely affect communities whose primary employment comes from timber harvesting."

Because the EIS did not examine the viable alternative of setting the ASQ equal to any of the three correct market demand scenarios for Tongass timber, and in light of the TTRA's requirement to seek to meet market demand and the **Forest** Service's awareness of its misinterpretation of the Brooks and Haynes report, we hold that the EIS is inadequate in its consideration of alternatives, violating NEPA. *See*

Equally important, each of the ten alternatives considered in the EIS allocate some currently roadless areas to LUDs that allow development. The allocations range from .12 million acres (Alternative 1) to 6.2 million acres (Alternative 7). If the no logging alternative (Alternative 1) were excluded, the range of roadless allocation considered by the alternatives is 2.4 to 6.2 million acres. Alternative 11 allocates 2.4 million acres of roadless area to development. As a percentage of total development LUD acreage, no alternative allocates less than 50% to currently roadless areas. Because the range of alternatives considered by the EIS omits the viable alternative of allocating less unspoiled area to development LUDs, we hold that the EIS is inadequate, in violation of NEPA. See Citizens for a Better Henderson, 768 F.2d at 1057; see also

C

We finally consider whether the EIS properly gauged the cumulative effects of logging of high-volume old growth **forest** on non-federal lands.

[8] NEPA requires an agency to consider the environmental impact that "results from the incremental impact of the action

when added to other past, present and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." Muckleshoot Indian Tribe v. United States Forest Serv., 177 F.3d 800, 809 (9th Cir.1999) (per curiam) (quoting 40 C.F.R. § 1508.7). An EIS must include a "useful analysis of the cumulative impacts of past, present and future projects" in sufficient detail to be "useful to the decisionmaker in deciding whether, or how, to alter the program to lessen cumulative impacts." Id. at 810 (quoting Carmel-by-the-Sea, 123 F.3d at 1160). The Forest Service in the EIS must at a minimum provide a "catalog of past projects" and a "discussion of how those projects (and differences *815 between the projects) have harmed the environment." Lands Council. 395 F.3d at 1027. NRDC contends that the Forest Service failed to disclose the cumulative impacts of non-federal logging of

[9] High-volume old growth **forests** have a special economic value for the timber industry and a special habitat value for wildlife. According to scientists assembled by the **Forest** Service to review independently the conservation measures related to wildlife habitat for the Tongass, high-volume stands

high-volume stands on the Tongass.

provide a combination of large living and dead trees, multiple canopy layers, high-nutrient forage on the **forest** floor, good protection from snowfall, and other important features leading to habitat of high quality for wildlife adapted to Old Growth. At the same time, these high volume classes have been, almost exclusively, the target for past logging in Southeast Alaska.

The EIS acknowledges that timber harvest "has been concentrated in the higher volume classes." The EIS also notes that 5% of the Tongass National Forest (about 1 million acres) is owned by non-federal entities, and that these lands "have been heavily developed which cumulatively impacts oldgrowth forest resources." However, the EIS does not disclose the effect of continued "highgrading" of Tongass forest. Moreover, the EIS does not give detail on whether

or how to lessen the cumulative impact of this practice. *See*Muckleshoot Indian Tribe. 177 F.3d at 810.

We hold that the EIS fails adequately to consider the cumulative effects of disproportionate high-volume logging on non-federal land because "there is no catalog of past projects and no discussion of how those projects (and differences between the projects) have harmed the environment.... Moreover, there is no discussion of the connection between individual [non-federal, high-volume] harvests and the prior environmental harms from those harvests." See Lands Council, 395 F.3d at 1027. The EIS is also inadequate because it does not assess the potential impacts of reasonably foreseeable, continued "highgrading" in the future. See Muckleshoot Indian Tribe, 177 F.3d at 811–12.

The Forest Service argues that the Plan only establishes guidance for future actions that may have impacts, and that those impacts will be studied in conjunction with impacts from past, present, and future actions on both federal and non-federal land when those future actions are proposed.

However, we held in **Resources Limited Inc. v. Robertson, 35 F.3d 1300 (9th Cir.1993), that "the **Forest** Service is required to address cumulative impacts in the EIS," and "where several foreseeable similar projects in a geographical region have a cumulative impact, they should be evaluated in

a single EIS." Id. at 1305–06. In Thomas v. Peterson, 753 F.2d 754 (9th Cir.1985), we held that "consideration of cumulative impacts after [agency action] has already been approved is insufficient to fulfill the mandate of NEPA.... [NEPA's] purpose requires that the NEPA process be integrated with agency planning 'at the earliest possible time,' and the purpose cannot be fully served if consideration of the cumulative effects of successive, interdependent steps

is delayed until the first step has already been taken." Id. at 760 (quoting 40 C.F.R. § 1501.2).

Here, the record shows that under the Plan, "there is a disproportionate amount of harvesting planned within high-volume low-elevation stands-areas that also provide critical wildlife habitat and are the most valuable to several species of concern." *816 Species are not impacted by the federal or non-federal character of the lands over which they are distributed, but the cumulative effect of "highgrading" on each type of land may determine whether species will retain viable, well-distributed populations in the Tongass. *Cf.*

Resources Ltd., 35 F.3d at 1306 ("[O]ne does not need control over private land to be able to assess the impact that activities on private land may have in the Forest."). At least in the particular circumstances of this case, the cumulative impacts on wildlife viability from continued "highgrading" by non-federal entities, as well as by the Forest Service to the extent permissible under NFMA, ought to be considered in a single, programmatic EIS. See City of Tenakee Springs v. Clough, 915 F.2d 1308, 1312-13 (9th Cir.1990); see also LaFlamme v. Fed. Energy Regulatory Comm., 852 F.2d 389, 401-02 (9th Cir.1988) (holding that a cumulative impacts analysis was insufficient where the agency had examined single projects in isolation because there were several foreseeable similar projects in a geographical region that added to the cumulative impacts). A cumulative effects analysis in a programmatic EIS is necessary here for the Forest Service and public to make a rational evaluation of this proposed federal action balancing the competing goals of timber harvest, environmental preservation, and recreational use in the Tongass.

\mathbf{V}

We hold that the **Forest** Service has not met its burden of showing that its admitted error in interpreting the market demand report for Tongass timber was harmless, and we reverse the district court's final decision and judgment. The **Forest** Service's reliance on an important mistake in fact seriously impaired the rationality of the **Forest** Service's judgment and Plan for the Tongass. The **Forest** Service's error in assessing market demand fatally infected its balance of economic and environmental considerations, rendering the Plan for the Tongass arbitrary and capricious in violation of the APA.

Moreover, the EIS was misleading because it presented as fact for decision makers and the public twice the market demand, and economic benefit, attendant to the Plan, violating NEPA. The EIS also did not consider an adequate range of alternatives, in light of a correct interpretation of data that the **Forest** Service had on market demand projections for Tongass timber, again violating NEPA. Finally the **Forest** Service in the EIS did not consider the cumulative impacts of past and reasonably foreseeable future non-federal logging in high-volume old growth **forest** of the Tongass, in further violation of NEPA.

The law of NFMA requires, and the ROD attempted, a balance among the multiple uses of our national **forest** lands, including timber harvest and environmental preservation; because a critical part of this balance was interpreted incorrectly by the **Forest** Service, the district court incorrectly rendered its final decision and final judgment in favor of the government Appellees, dismissing **NRDC's** claims.

We keep in place the temporary injunction until a permanent injunction is considered on an appropriate record and is entered by the district court, reflecting the requirements imposed by our opinion. ²⁹ *817 We REVERSE and REMAND to the district court for further proceedings consistent with this opinion.

REVERSED and REMANDED.

All Citations

421 F.3d 797, 60 ERC 2053, 35 Envtl. L. Rep. 20,160, 05 Cal. Daily Op. Serv. 6937, 2005 Daily Journal D.A.R. 9487

Footnotes

- Intervenors—Appellees State of Alaska and Alaska Forest Association (collectively "Intervenors") successfully moved to intervene on the issue of remedy if NRDC succeeds on the merits of this appeal.
- The Forest Service admitted this error in its briefs and at oral argument.

- The regulations in 36 C.F.R. § 219 have since been supplanted. 65 Fed.Reg. 67,514–81 (Nov. 9, 2000). However, the former regulations are applicable here because they were in effect when the plan revisions challenged in this lawsuit were prepared.
- 4 "Highgrading" is the practice of logging disproportionately in high-volume old-growth areas. High-volume old growth areas are superior habitat for many wildlife species, including wolves, the American marten, and marbled murrelets.
- Known primarily in modern times for his political achievements, President Theodore Roosevelt was also an occasional "man of letters" who wrote essays on varied topics including the need for conservation of wildlife. See, e.g., Theodore Roosevelt, The Conservation of Wildlife, in 12 The Works of Theodore Roosevelt 423, 425–26 (Charles Scribner's Sons 1926) (Jan. 20, 1915).
- According to its website, the **Forest** Service seeks to "balance multiple uses of the **forest** resources," which include "healthy fish and wildlife populations, clean water, trees to support local industry, recreation opportunities unique to Alaska, and plenty of unspoiled beauty and solitude." **U.S.** Dep't of Ag., **Forest** Service, *at* http:// www.fs.fed.us/r10/tongass/forest—facts/forest—facts.shtml (last visited May 10, 2005).
- 7 This required duty, to assess market demand for timber, can be seen as a refinement of the general requirement under NFMA that the **Forest** Service consider timber harvest as one of the goals to be balanced with environmental preservation and recreational use.
- "Sawlog" is the "portion of a tree that is suitable in size and quality for the production of dimension lumber, collectively known as sawtimber." "Utility volume" refers to other types of wood. A figure that included only demand for "sawlog" would therefore be significantly less than a figure that included demand for both "sawlog" and "utility volume."
- The ROD originally examined in detail 11 Alternatives, but omitted Alternative 8 from detailed consideration because of its similarity to Alternative 1 in environmental effect. However, the **Forest** Service retained the same numbering system, hence the tenth alternative considered is called Alternative 11.
- The ASQ represents the "upper decadal limit on the amount of timber that may be offered for sale from suitable timberland on the Tongass National Forest as part of the regularly scheduled timber sale program."

 The ASQ applies to sawlog and utility log volumes.
- The ASQ, the development LUD acreage, and the allocated roadless area acreage for each considered Alternative is as follows:

Alternative	ASQ	Development LUDs	Roadless Area
1	0	.24 million acres	.12 million acres
2	463	5.3 million acres	3.6 million acres
3	256	4.4 million acres	2.9 million acres
4	130	5.3 million acres	3.6 million acres
5	122	5.0 million acres	3.3 million acres
6	309	5.0 million acres	3.3 million acres
7	640	8.1 million acres	6.2 million acres

9	549	6.3 million acres	4.7 million acres
10	300	4.4 million acres	2.9 million acres
11	267	3.9 million acres	2.4 million acres

- Outcome I indicated that habitat would be "of sufficient quality, distribution, and abundance to allow the species to maintain well distributed, breeding populations across the Tongass." Outcome II indicated a similar result as Outcome I, but with low density populations, and the possibility of temporary gaps occurring. Outcome III indicated that permanent gaps in species distribution were likely. Outcome IV indicated that habitat would allow continued species existence only with strong limitations on interactions among local populations. Outcome V indicated that habitat conditions would result in species extinction.
- The Forest Service, and most panels, initially determined that placement of a species only into Outcomes I and II would indicate a "likelihood that viable populations will remain distributed across the Forest." This conclusion was modified in Appendix N of the EIS, published four months after the "paper version" of the EIS, wherein the Forest Service determined that placement of a species into Outcome III may, for some species, meet the concept of "viable and well distributed" as required by NFMA regulations.

NRDC takes issue with the Forest Service's motive for modifying its standard. We do not; we defer to the Forest Service's judgment on the standard used to gauge wildlife viability as it necessarily involves scientific and technical expertise, in the context of predicting how various timber programs would affect the viability and distribution of species populations. See Nat'l Wildlife Fed'n v. United States Army Corps of Eng'rs, 384 F.3d 1163, 1174 (9th Cir.2004) ("Where scientific and technical expertise is necessarily involved in agency decision-making, especially in the context of prediction ..., the Supreme Court has held that a reviewing court must be highly deferential to the judgment of the agency. Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103, 103 S.Ct. 2246, 76 L.Ed.2d 437 (1983).").

14 The panel results included the following viability ranges:

Species	Alt. 1	Alt. 2	Alt. 5	Alt. 9	Alt. 11
Northern	100%	>20%,	>85%,	>10%,	>71%,
Goshawk		<61%	<100%	<61%	<97%
American	>93%,	>19%,	>66%,	>13%,	>36%,
Marten	<100%	<83%	<95%	<66%	<91%
Alexander	>94%,	>63%,	>84%,	>48%,	>83%,
Archipelago	<97%	<97%	<97%	<92%	<97%
Wolf					
Brown Bear	>94%,	>49%,	>65%,	>16%,	>68%,
	<100%	<90%	<98%	<74%	<93%

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Widely	>69%,	>3%,	>39%,	>0%,	>38%
Distributed	<96%	<18%	<92%	<9%	<82%
Mammals					
Fadamia	> 400/	> 00/	>400/	> 00/	> 400/
Endemic	>40%,	>0%,	>10%,	>0%,	>18%
Mammals	<71%	<8%	<55%	<8%	<55%

- The district court concluded that the "short-term projections were irrelevant to the long-term, programmatic goals of the revised [Tongass Plan]" and that "the uncertainty of the projections" undermined the market demand report's utility.
- The motions panel included Judges Kleinfeld, Tashima, and Gould. Judge Kleinfeld dissented from the order granting an injunction pending appeal.
- We note that NFMA allows only the "approval," "amendment," or "revision" of a **forest** plan, and not the "readoption" of a **forest** plan. See 16 U.S.C. § 1604(f)(4)-(5).
- The legislative history confirms this limited intent: "The conference agreement retains language proposed in section 329 of the Senate bill limiting review of certain elements in the land management plan for the Tongass National Forest." H.R. Conf. Rep. No. 108–10, at 1032 (2003); 149 Cong. Rec. S340–05, at S588 (daily ed. Jan 15, 2003) (Senate report submitted by Sen. Stevens) ("Limits the review of certain aspects of the Tongass Land Management Plan.").
- Alternatively, even if Congress intended in the 2003 Appropriations Act to preclude judicial review of the entire 1997 Plan, we would retain jurisdiction over NRDC's appeal because appropriations acts are generally only "in force during the fiscal year of the appropriation and do not work a permanent change in the substantive law." Seattle Audubon Soc'y v. Evans, 952 F.2d 297, 304 (9th Cir.1991) (holding that a rider that limited judicial review of national forest management plans expired at the end of the appropriation year). To rebut this presumption takes a clear statement of "futurity," such as "hereafter." See Atl. Fish Spotters Ass'n v. Evans, 321 F.3d 220, 224–25 (1st Cir.2003); Bldg. & Constr. Trades Dep't, AFL-CIO v. Martin, 961 F.2d 269, 273–74 (D.C.Cir.1992).
- Our review of agency action is governed by the APA; we will set aside only agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); Resources Ltd., Inc. v. Robertson, 35 F.3d 1300, 1304 (9th Cir.1993). Our review is narrow, but searching and careful. Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378, 109 S.Ct. 1851, 104 L.Ed.2d 377 (1989).
- In the Plan's Appendix L, containing public comments and Forest Service responses, the Forest Service expressly rejected suggestions for a lower ASQ because they would not enable the Forest Service to "meet the provision in the Tongass Timber Reform Act to seek to supply timber which meets the annual market demand for timber (consistent with providing for the multiple use and sustained yield of all renewable forest resources)."
- We do not suggest that an ASQ can never be too low to satisfy market demand, or that the **Forest** Service must in fact *meet* demand (as opposed to *seek* to meet market demand). Here, however, the record shows that the **Forest** Service preferred the ASQ that it believed best balanced NFMA's three multiple-use goals: recreation, environmental protection, and timber harvest. The **Forest** Service acted arbitrarily because it

- fundamentally misunderstood one leg of this tripodal balance, believing its scenarios of projected market demand, pertinent to the timber harvest goal, to be double the actual amount of demand.
- As it stands in the ROD, the chosen ASQ of 267 MMBF/year lies between the medium (212) and high (296) market demand scenarios projected by the **Forest** Service. If this ratio holds, based on the correct market demand projection scenarios, the **Forest** Service would have had flexibility to respond to changing demand with an ASQ of 139 MMBF/year (situated between the actual medium (110) and high (154) market demand scenarios).
- The Forest Service suggests that the TTRA's qualifying language, stating that the Forest Service must seek to meet market demand only "to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources," 16 U.S.C. § 539d(a), means that its mistake must be harmless because market demand considerations come into play only after NFMA's mandatory provisions are satisfied. Here, however, the Forest Service considered market demand in balancing NFMA's multiple-use goals and in assessing the various Alternatives, but misinterpreted the relevant data. The Forest Service's error on demand had a bearing on its analysis, and is not harmless under our precedent. See Gifford Pinchot, 378 F.3d at 1071.
- Because we reverse the district court and hold the Plan invalid on the above ground relating to the **Forest** Service's error on market demand, we need not address **NRDC's** further argument that the **Forest** Service's conclusion that timber goals justified the Plan's risks to wildlife was arbitrary and capricious.
- Although the law requires an EIS for every federal action that has a significant impact on the environment, 12.S.C. § 4332(2)(c), NEPA's procedures do not apply to agency actions that "maintain the environmental status quo." Kootenai Tribe v. Veneman, 313 F.3d 1094, 1114 (9th Cir.2002). After the Forest Service discovered the market demand error, it concluded that a supplemental EIS was not necessary. In 2003, in response to a court order directing the Forest Service to consider recommending more wilderness area in the Tongass Plan, the Forest Service issued the ROD selecting the "No Action" Alternative, which represented the Plan's original land allocations. The 2003 ROD did not require an EIS because it maintained that environmental status quo. Our holdings today make clear that the Forest Service will need to prepare a new EIS because the prior EIS did not satisfy NEPA's requirements.
- We review de novo a district court's legal determinations that an agency complied with NEPA and that the EIS is adequate. See Churchill County v. Norton, 276 F.3d 1060, 1071 (9th Cir.2001), amended by 282 F.3d 1055 (9th Cir.2002). We review NEPA claims under the APA and will set aside agency actions that are adopted "without observance of procedure required by law." 5 U.S.C. § 706(2)(D); Ctr. for Biological Diversity v. United States Forest Serv., 349 F.3d 1157, 1165 (9th Cir.2003). We apply a "rule of reason" standard when reviewing the adequacy of an agency's EIS, asking "whether an EIS contains a reasonably thorough discussion of the significant aspects of the probable environmental consequences." Churchill County, 276 F.3d at 1071. Under this standard, we make "a pragmatic judgment whether the EIS's form, content and preparation foster both informed decision-making and informed public participation." Id.
- The ROD's reliance on the market demand projections is made more clear by the **Forest** Service's multiple references to the Brooks and Haynes report in responding to public comments in Appendix L. For example, the **Forest** Service responded to criticism of a "[I]ack of 'genuine' timber demand study" by noting the several research projects it had undertaken and concluding that "[a]fter review of the findings of each of the[] studies, we have elected to utilize the predictions made by Brooks and Haynes."

Indeed, in previous court documents, the **Forest** Service argued for the importance of the Brooks and Haynes projection numbers: "A major effort in [seeking to meet market demand] is the preparation of demand reports by economists Haynes and Brooks of the Pacific Northwest **Forest** and Range Experiment Station." **U.S. Forest** Service Opposition to Summary Judgment in *Alaska Forest Ass'n v. U.S. Forest Serv.*, J99–013–CV (JKS) (D.Alaska 2000).

Before a motions panel, NRDC obtained an injunction pending appeal of one of the seven timber sales at issue in this case because the sale would "cause irreparable injury" and because NRDC showed a "likelihood of success on the merits." Order at 3–4 (filed Oct. 18, 2004). Intervenors argue that we should lift the current injunction and bar the lower court from granting any injunctive relief. In light of our decision, we reject this argument.

The appropriateness and scope of an injunction "raise intensely factual issues, and for that reason should be decided in the first instance by the district court." Alaska Wilderness, 67 F.3d at 732. Here, the district court has not yet conducted the relief portion of the case, and so neither NRDC nor the Forest Service have been able to conduct discovery or submit evidence as to the scope of permanent injunctive relief. Further, NRDC in its briefing urges that we "should not consider permanent relief at this point." Because the record has not been developed in this respect, we retain the current injunction provisionally and remand to the district court to conduct such further proceedings as are appropriate, and consistent with this opinion, to address the scope of permanent injunctive relief.

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ATTACHMENT G

KeyCite Yellow Flag - Negative Treatment
Disagreement Recognized by Oregon Wild v. Bureau of Land Management,
D.Or., March 14, 2015

387 F.3d 989 United States Court of Appeals, Ninth Circuit.

KLAMATH-SISKIYOU WILDLANDS CENTER,

an Oregon non-profit organization, Plaintiff-Appellant,

v.

BUREAU OF LAND MANAGEMENT, an agency of the United States Department of the Interior; Richard Drehobl, in his official capacity as the Field Manager of the Ashland Resource Area of the Bureau of Land Management's Medford District, Defendants—Appellees.

No. 03–35461.

| Argued and Submitted May 5, 2004.

| Filed Oct. 28, 2004.

Synopsis

Background: Environmental organization brought action under National Environmental Policy Act (NEPA) challenging two timber sales proposed by **Bureau** of **Land** Management (BLM) in South Fork Little Butte Creek watershed in Cascade Mountains of southwest Oregon. The United States District Court for the District of Oregon, Michael R. Hogan, J., entered summary judgment in favor of BLM. Organization appealed.

Holdings: The Court of Appeals, Clifton, Circuit Judge, held that:

- [1] environmental assessments (EAs) of two timber sales proposed by BLM did not satisfy requirements of NEPA;
- [2] "tiering" EAs to district's resource management plan (RMP) and environmental impact statement (EIS) did not cure deficiencies in cumulative impact analysis of EAs; and
- [3] BLM did not act arbitrarily by not evaluating two timber sales in single NEPA document.

Reversed and remanded.

Reinhardt, Circuit Judge, filed opinion concurring in part and dissenting in part.

Procedural Posture(s): On Appeal; Motion for Summary Judgment.

West Headnotes (11)

[1] Environmental Law Assessments and Impact Statements

Courts apply a rule of reason standard when reviewing the adequacy of a National Environmental Policy Act (NEPA) document. National Environmental Policy Act of 1969, § 2 et seq., 42 U.S.C.A. § 4321 et seq.

12 Cases that cite this headnote

[2] Environmental Law • "Hard Look" Test; Reasoned Elaboration

Through the National Environmental Policy Act (NEPA) process, federal agencies must carefully consider detailed information concerning significant environmental impacts, but they are not required to do the impractical; alternatively phrased, the task is to ensure that the agency has taken a hard look at the potential environmental consequences of the proposed action. National Environmental Policy Act of 1969, § 2 et seq., 42 U.S.C.A. § 4321 et seq.

89 Cases that cite this headnote

[3] Environmental Law - Assessments and Impact Statements

To the fullest extent possible, courts must interpret the implementing regulations promulgated by the Council on Environmental Quality (CEQ) consistently with the policies embodied in the National Environmental Policy Act (NEPA). National Environmental Policy Act of 1969, § 2 et seq., 42 U.S.C.A. § 4321 et seq; 40 C.F.R. § 1501.1 et seq.

6 Cases that cite this headnote

[4] Environmental Law Assessments and Impact Statements

Although an agency's actions under the National Environmental Policy Act (NEPA) are subject to careful judicial scrutiny, courts also must be mindful to defer to agency expertise, particularly with respect to scientific matters within the purview of the agency. National Environmental Policy Act of 1969, § 2 et seq., 42 U.S.C.A. § 4321 et seq.

34 Cases that cite this headnote

[5] Environmental Law 🕪 Sufficiency

Environmental assessments (EAs) of two timber sales proposed by **Bureau** of **Land** Management (BLM) in South Fork Little Butte Creek (SFLBC) watershed in Cascade Mountains of southwest Oregon did not satisfy requirements of National Environmental Policy Act (NEPA), since they did not sufficiently identify or discuss incremental impact that could have been expected from each successive timber sale, or how those individual impacts might have combined or synergistically interacted with each other to affect SFLBC environment. National Environmental Policy Act of 1969, § 102(2) (C), 42 U.S.C.A. § 4332(2)(C); 40 C.F.R. § 1508.7.

19 Cases that cite this headnote

[6] Environmental Law ← "Hard Look" Test; Reasoned Elaboration

Under the National Environmental Policy Act (NEPA), a proper consideration of the cumulative impacts of a project requires some quantified or detailed information; general statements about possible effects and some risk do not constitute a "hard look" absent a justification regarding why more definitive information could not be provided. National Environmental Policy Act of 1969, § 102(2) (C), 42 U.S.C.A. § 4332(2)(C); 40 C.F.R. § 1508.7.

88 Cases that cite this headnote

[7] Environmental Law Duty of Government Bodies to Consider Environment in General

Analysis under the National Environmental Policy Act (NEPA) must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects. National Environmental Policy

Act of 1969, § 102(2)(C), 42 U.S.C.A. § 4332(2)(C); 40 C.F.R. § 1508.7.

58 Cases that cite this headnote

[8] Environmental Law ← Sufficiency Environmental Law ← Adequacy of Statement, Consideration, or Compliance

While the conclusions of agency experts are entitled to deference, National Environmental Policy Act (NEPA) documents are inadequate if they contain only narratives of expert opinions, and the documents are unacceptable if they are indecipherable to the public. National Environmental Policy Act of 1969, § 102(2) (C), 42 U.S.C.A. § 4332(2)(C); 40 C.F.R. §§ 1500.1(b), 1502.8, 1508.7.

9 Cases that cite this headnote

[9] Environmental Law 🗁 Effect of Deficiency

"Tiering" environmental assessments (EAs) to district's resource management plan (RMP) and environmental impact statement (EIS), whereby RMP-EIS would be incorporated by reference in EAs, did not cure deficiencies in cumulative impact analysis of EAs prepared by Bureau of Land Management (BLM) under National Environmental Policy Act (NEPA) in connection with two proposed timber sales in South Fork Little Butte Creek watershed in Cascade Mountains of southwest Oregon, since incremental impact that could have been expected on that watershed as result of those and two other successive timber sales was not revealed and specific information

about cumulative effects was missing in those documents, 40 C.F.R. § 1508.28.

54 Cases that cite this headnote

[10] Environmental Law - Sufficiency Environmental Law - Adequacy of

Statement, Consideration, or Compliance

A National Environmental Policy Act (NEPA) document cannot "tier" to a non-NEPA document. 40 C.F.R. § 1508.28.

19 Cases that cite this headnote

[11] Environmental Law 🕪 Land Use in General

Bureau of Land Management (BLM) did not act arbitrarily by not evaluating two timber sales in particular watershed in single National Environmental Policy Act (NEPA) document; timing of projects was different and they took place on different pieces of land, although proposed projects were similar in many respects in that they were adjacent to each other in same watershed, they were to be harvested under identical silvicultural prescription, and they were supervised by same personnel. 40 C.F.R. § 1508.25(a)(3).

4 Cases that cite this headnote

Attorneys and Law Firms

*991 Brenna Bell, Klamath-Siskiyou Wildlands Center, Williams, OR, for the plaintiff-appellant.

Roger W. Nesbit, U.S. Department of the Interior, Office of the Regional Solicitor, Portland, OR; Thomas L. Sansonetti, Assistant Attorney General; Andrew Mergen, Ellen J. Durkee, Tamara N. Rountree (argued), U.S. Department of Justice, Environment & Natural Resources Division, Washington, D.C., for the defendants-appellees.

Appeal from the United States District Court for the District of Oregon, Michael R. Hogan, District Judge, Presiding. D.C. No. CV–02–03062–HO.

Before: REINHARDT, SILVERMAN, and CLIFTON, Circuit Judges.

Opinion

CLIFTON, Circuit Judge:

Appellant Klamath-Siskiyou Wildlands Center ("KS Wild"), an environmental organization, challenges two timber sales—the Indian Soda and the Conde Shell—proposed by the Bureau of Land Management ("BLM") in the South Fork Little Butte Creek ("SFLBC") watershed in the Cascade Mountains of southwest Oregon. Pursuant to the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 et seq., the BLM conducted environmental assessments ("EAs") to assess the potential environmental impacts posed by the Conde Shell and Indian Soda sales. KS Wild claims that the EAs are legally insufficient because (1) they fail to adequately evaluate and discuss the potential cumulative environmental impacts posed by the sales in combination with other major activities in the watershed, and (2) the environmental effects of the two sales, along with two other adjacent proposed sales, should all have been discussed in a single NEPA document.

The district court entered summary judgment in favor of the BLM. To make an informed decision about how or whether to proceed with the proposed projects and to comply with NEPA, an agency must identify their potential combined environmental impacts and make that information available to the public. We reverse the judgment of the district court because the analyses performed by the BLM do *992 not sufficiently consider the cumulative impacts posed by the timber sales.

I. BACKGROUND

The SFLBC watershed is classified as a Tier 1 Key Watershed under the Northwest Forest Plan, a comprehensive plan adopted in 1994 for the management of all federal forest lands in Washington, western Oregon, and northern California. Tier 1 Watersheds are river basins that are deemed to contribute directly to the survival and restoration of at-risk salmonids. The SFLBC watershed contains designated critical habitat for two endangered species, the coho salmon and the northern spotted owl.

In 1998, the BLM began planning a project on the 373 square miles of the Little Butte Creek watershed aimed at improving forest health by restoring the forest habitat to a "pre-European condition," while also providing a sustainable supply of

timber. For the South Fork Little Butte Creek watershed, the BLM adopted a single silvicultural prescription, titled "SFLBC Project Timber Sales (FY 2000–2003)." The plan to harvest SFLBC timber was originally conceived as a single project, but in the summer and fall of 1999, the BLM decided to divide the analysis for at first two, then four nominally separate (but immediately adjacent) timber sales that would be harvested over a four-year period. The reason for dividing the project is not entirely clear, but the record indicates that the BLM's primary motivation was the desire to proceed expediently with the project or projects.

The BLM decided to prepare a separate EA for each of the four projects: the Indian Soda, Conde Shell, Deer Lake, and Heppsie sales. The first analyses to be completed were for the Indian Soda and Conde Shell sales. In each EA, the BLM determined that the given project did not pose a risk of significant environmental impact and therefore issued a Finding of No Significant Impact, which allowed the sale to proceed. While KS Wild objects to the analyses performed for all four sales, it only specifically challenged the Indian Soda and Conde Shell projects, because those were the only two for which a final agency action (the BLM's issuance of a Record of Decision) had been taken at the time of the complaint.

On cross-motions for summary judgment, the district court entered judgment in favor of the BLM. While there was no immediate harvest activity on the Conde Shell project, harvesting began on the Indian Soda project, extending to fifteen of the sixteen individual harvest areas. KS Wild moved the district court to enjoin further harvest activities in both areas. The court issued the injunction pending the resolution of this appeal.

II. STANDARDS OF REVIEW

[1] [2] A "district court's determination on summary judgment that the BLM complied with NEPA is reviewed *de novo*." Kern v. Bureau of Land Mgmt., 284 F.3d 1062, 1069–70 (9th Cir.2002). The agency's actions, findings, and conclusions will be set aside if they are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." Ocean Advocates v. U.S. Army Corps of Eng'rs, 361 F.3d 1108, 1118 (9th Cir.2004) (quoting 5 U.S.C. § 706(2) (A)). Courts apply a "rule of reason" standard in reviewing the adequacy of a NEPA document. Churchill County v. Norton, 276 F.3d 1060, 1071 (9th Cir.2001). Through the NEPA process, federal agencies must "carefully consider[]

detailed information concerning significant environmental impacts," Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349, 109 S.Ct. 1835, 104 L.Ed.2d 351 (1989), but they are "not require[d] to do the impractical." Inland Empire Public *993 Lands Council v. United States Forest Serv., 88 F.3d 754, 764 (9th Cir.1996). Alternatively phrased, the task is to ensure that the agency has taken a "hard look" at the potential environmental consequences of the proposed action. Churchill County, 276 F.3d at 1072.

[3] The NEPA statute is accompanied by implementing regulations promulgated by the Council on Environmental Quality ("CEQ") and found at 40 C.F.R. §§ 1501.1–1508.28. Courts must "to the fullest extent possible" interpret these regulations consistently with the policies embodied in NEPA.

**Churchill County, 276 F.3d at 1072 (quoting **Lathan v. Brinegar, 506 F.2d 677, 687 (9th Cir.1974) (en banc)).

[4] Although an agency's actions under NEPA are subject to careful judicial scrutiny, courts must also be mindful to defer to agency expertise, particularly with respect to scientific matters within the purview of the agency. See Anderson v. Evans, 371 F.3d 475, 489 (9th Cir.2004). As the Supreme Court stated in Citizens to Preserve Overton Park, Inc. v. Volpe, "the ultimate standard of review is a narrow one," and "[t]he court is not empowered to substitute its judgment for that of the agency." 401 U.S. 402, 416, 91 S.Ct. 814, 28 L.Ed.2d 136 (1971).

III. NATIONAL ENVIRONMENTAL POLICY ACT

NEPA "is our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). It is a procedural statute that requires the Federal agencies to assess the environmental consequences of their actions before those actions are undertaken. For "major federal actions significantly affecting the quality of the human environment," 42 U.S.C. § 4332(2)(C), the agency is required to prepare an environmental impact statement ("EIS"). An EIS is a thorough analysis of the potential environmental impacts that "provide[s] full and fair discussion of significant environmental impacts and ... inform[s] decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1.

Where an agency is unsure whether an action is likely to have "significant" environmental effects, it may prepare an EA: a "concise public document" designed to "[b]riefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement...." 40 C.F.R. § 1508.9. If the EA concludes that the action will not have a significant effect on the environment, the agency may issue a Finding of No Significant Impact and may then proceed with the action. 40 C.F.R. § 1508.13. That is the route taken by the BLM for the timber sales at issue here.

IV. ADEQUACY OF THE ENVIRONMENTAL ASSESSMENTS

A. Cumulative Impacts

[5] KS Wild contends that the EAs are legally inadequate because they fail to properly consider the cumulative impacts of the sales. A cumulative impact is defined in NEPA's implementing regulations as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.... Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7.

[6] [7] A proper consideration of the cumulative impacts of a project requires "some quantified or detailed information; ... [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.' "* *994 Ocean Advocates, 361 F.3d at 1128 (quoting Neighbors of Cuddy Mountain v. United States Forest Serv., 137 F.3d 1372, 1379–80 (9th Cir.1998)). The analysis "must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects." Id. (internal quotations and citations omitted). The Indian Soda and Conde Shell EAs both fall short of this standard.

Cumulative impacts of multiple projects can be significant in different ways. The most obvious way is that the greater total magnitude of the environmental effects—such as the total number of acres affected or the total amount of sediment to be added to streams within a watershed—may demonstrate by itself that the environmental impact will be significant. Sometimes the total impact from a set of actions may be greater than the sum of the parts. For example, the addition of a small amount of sediment to a creek may have only a limited

impact on salmon survival, or perhaps no impact at all. But the addition of a small amount here, a small amount there, and still more at another point could add up to something with a much greater impact, until there comes a point where even a marginal increase will mean that *no* salmon survive.

Although each of the EAs contains a section of more than a dozen pages under the heading "Cumulative Effects," a close read reveals that those sections do not adequately discuss the subject. A considerable portion of each section discusses only the direct effects of the project at issue on its own minor watershed. In the parts of the section where the other projects are contemplated, there is no quantified assessment of their combined environmental impacts. Because the sections are similar in each of the EAs, it will suffice to use the Indian Soda EA as an illustration.

The purported "cumulative effects" analysis begins with a table that consumes three pages in describing the current condition and desired future condition of, as the title indicates, "the Indian Soda Project Area" without regard to the other projects in the SFLBC watershed. That description is followed by another table that, although described as presenting in "graphic form the cumulative impacts of the SFLBC projects ... on an extensive list of criteria," does not actually provide a useful analysis of the impacts. The first column of the table describes the effects of the Indian Soda sale on its own watershed (Soda Creek). The second and third columns apparently include consideration of the projected impacts from the three other timber sales. But the problem with the entire table is that it does not provide any objective quantification of the impacts. Instead, the reader is informed only that a particular environmental factor will be "unchanged," "improved," or "degraded" and whether that change will be "minor" or "major." The reader is not told what data the conclusion was based on, or why objective data cannot be provided. 1 Such an analysis does not satisfy the admonition in Neighbors of Cuddy Mountain that "[g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." 137 F.3d at 1380.

The next subsection of the EA is titled "Future Foreseeable Actions," but the only substance of the section is a tabulated list of five upcoming projects in the area *995 and an estimate of the number of acres to be harvested. A calculation of the total number of acres to be harvested in the watershed is a necessary component of a cumulative effects analysis, but

it is not a sufficient description of the actual environmental effects that can be expected from logging those acres.

The "Future Foreseeable Actions" subsection continues with a three-paragraph comparison of the road and fence construction that is expected to take place on the Indian Soda project and on another sale called the Bieber Wasson project, which is located in an adjacent watershed. It is not clear why the BLM chose to consider the amount of road construction on the out-of-watershed Bieber Wasson project but not that anticipated on the Conde Shell, Deer Lake, and Heppsie projects, all of which are planned for the *same* watershed as Indian Soda. Moreover, while a tally of the total road construction anticipated in the SFLBC watershed is definitely a good start to an adequate analysis, stating the total miles of roads to be constructed is similar to merely stating the sum of the acres to be harvested—it is not a description of *actual* environmental effects.

The last sentence of the "Future Foreseeable Actions" subsection states, "The estimated cumulative effects of the future foreseeable actions are broken down further in Table 12." That table, like the preceding ones, however, does not contain a useful analysis; it is simply a list of environmental concerns such as air quality, water quality, and endangered species, with a "Yes" and "No" checkbox to indicate whether the respective condition, described as a "critical element," will be "affected." The "No" box is checked for each factor, leaving the impression that there will be no impact from the project. Yet, four of the fourteen checkmarks in the "No" boxes are accompanied by asterisks signifying, according to a note under the table, that "[t]hese affected critical elements would be impacted by implementing the proposed action." Three more checkmarks are accompanied by a note that says "[t]hese affected critical elements could be impacted by [] implementing the proposed action. Impacts are being avoided by project design." Thus, even though all of the boxes are checked "No" to indicate that the critical elements in question will not be affected, the report actually states that fully half of the elements either would be or could be in fact "impacted," without giving any details or explanation. It is unclear how the conditions would be "impacted" but not "affected." The EA is silent as to the degree that each factor will be impacted and how the project design will reduce or eliminate the identified impacts. This conclusory presentation does not offer any more than the kind of "general statements about possible effects and some risk" which we have held to be insufficient to constitute

a "hard look." Ocean Advocates, 361 F.3d at 1128.

There are a few pages of purported cumulative analysis in an appendix, which the district court described as "contain[ing] an analysis of cumulative impacts." The conclusion that the appendix considers the cumulative effects of the several projects is belied by the fact that it begins with a table titled "canopy closure calculations by prescription type for the *Indian Soda Project.*" An identical appendix is attached to the Conde Shell EA, except the words "Indian Soda" have been replaced with the words "Conde Shell" throughout. Oddly, the content of the two tables is entirely identical, down to the "Grand Total Acres" of 2.028. ²

*996 Finally, this table is followed in both EAs by a section titled "Aquatic Conservation Strategy Objectives." That section lists various water quality related objectives and explains how the Indian Soda project will affect those objectives. It indicates that while the project will have certain effects on its own minor watershed, those effects will appear increasingly minor when viewed from the scale of increasingly larger watersheds. The problem with this section is the same problem that pervades the bulk of the cumulative effects discussion—it only considers the effects of the very project at issue. It does not appear to take into account the combined effects that can be expected as a result of undertaking the Heppsie, Deer Lake, Conde Shell, and other foreseeable projects, in addition to the Indian Soda project itself.

[8] In sum, the only mention of cumulative effects in the two EAs comes in the form of generalized conclusory statements that the effects are not significant or will be effectively mitigated. At oral argument, counsel for the BLM assured us that to the eye of the "agency specialists," the scant information included in the EAs is sufficient to determine what the cumulative environmental impacts will be and supports the conclusory statements that they will not be significant. But while the conclusions of agency experts are surely entitled to deference, NEPA documents are inadequate if they contain only narratives of expert

opinions. Idaho Sporting Cong. v. Thomas, 137 F.3d 1146, 1150 (9th Cir.1998) ("[A]llowing the Forest Service to rely on expert opinion without hard data either vitiates a plaintiff's ability to challenge an agency action or results in the courts second guessing an agency's scientific conclusions. As both of these results are unacceptable, we conclude that NEPA requires that the public receive the underlying environmental data from which a Forest Service expert derived her opinion."). Indeed, under the CEQ regulations, agencies are told that "public scrutiny [is] essential," 40

C.F.R. § 1500.1(b), and are charged to "encourage and facilitate public involvement in decisions," *id.* § 1500.2(d), so that "environmental information is available to public officials and citizens before decisions are made," *id.* § 1500.1(b). They are also told that NEPA documents "shall be written in plain language ... so that decisionmakers and the public can readily understand them." 40 C.F.R. § 1502.8. Even accepting the BLM's representation that "specialists" can understand the information in these EAs, the documents are unacceptable if they are indecipherable to the public.

Although it might ultimately be appropriate for the agency to conclude, after a proper analysis, that the projects would not have significant cumulative effects, the potential for such serious cumulative impacts is apparent here, such that the subject requires more discussion than these EAs provide. The Indian Soda EA states, for example, that the project will pose a "slight to moderate increase in risk of a higher magnitude [runoff] event" (with consequent damage to soils and endangered salmon habitat) and that this risk will be present for five to fifteen years. The Conde Shell EA likewise states that it will pose a "slight to moderate increase in risk of a higher magnitude [runoff] event." Since Indian Soda and Conde Shell are in the same watershed, there is plainly the potential for a combined effect from the combined runoffs, but nowhere is the combined effect of these two "slight to moderate" increases contemplated, let alone the additional risks posed by the planned Heppsie and Deer Lake sales in the same watershed.

*997 More broadly, Oregon already lists the South Fork of Little Butte Creek as not meeting water quality standards under the Clean Water Act due to "flow modification, habitat modification, sediment, [and high] temperature." Each of the EAs notes that the individual project may have short term adverse impacts on water quality, but nowhere are the combined water quality effects of the four proposed sales contemplated.

Another example of cumulative effect not properly considered in the EAs concerns the habitat for the northern spotted owl. Each of the EAs recognizes that the proposed sales will adversely affect the habitat of spotted owls in a critical habitat unit which the BLM describes as "the single most important link connecting the Oregon Cascades Province to the Klamath Mountains Province." In percentage terms, 33%, 6%, and 20% of the total suitable owl habitat within the Deer Lake, Conde Shell, and Indian Soda project areas, respectively, will be lost. Those percentages amount to

a total of 1,881 acres of critical habitat. But this total number is not presented in either the Conde Shell or Indian Soda EA. More importantly, there is no discussion in any of the EAs about the effect of this loss on the spotted owl throughout the watershed or on the "most important" link between the Cascades and the Klamath Mountains.

In sum, the EAs at issue here do not sufficiently identify or discuss the incremental impact that can be expected from each successive timber sale, or how those individual impacts might combine or synergistically interact with each other to affect the SFLBC environment. As a result, they do not satisfy the requirements of the NEPA.

B. Tiering

[9] The BLM argues that even if the EAs themselves do not adequately consider the cumulative effects of the actions, that shortcoming is cured because the EAs are "tiered" to other documents. "Tiering" is described in the CEQ regulations at 40 C.F.R. § 1508.28:

"Tiering" refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.

In this case, the BLM points to two other documents that the EAs tier to: the EIS prepared for the Medford District's Regional Management Plan ("RMP-EIS") and the Little Butte Creek Watershed Analysis.

Tiering to the RMP-EIS cannot save the EAs. We accept the BLM's argument that the RMP-EIS contains general statements about the cumulative effects of logging across the Medford District. And the EAs at issue here contain general statements about the cumulative effects of logging in the SFLBC watershed. What is missing in the documentation,

however, is any *specific* information about the cumulative effects. Neither in the RMP-EIS nor in the EAs does the agency reveal the incremental impact that can be expected on the SFLBC watershed as a result of each of *these* four successive timber sales.³

*998 In Muckleshoot Indian Tribe v. United States Forest Service, the Forest Service proposed to swap certain land with a timber company in an effort to consolidate the holdings of both organizations. 177 F.3d 800, 803 (9th Cir.1999). In challenging the EIS done for the exchange of one particular parcel, the plaintiffs contended that the Forest Service failed to adequately assess the cumulative impacts of that exchange. Id. at 809–10. As the BLM does here, the Forest Service attempted to save the EIS⁴ by tiering it to the Forest Service's programmatic Land and Resource Management Plan ("LRMP"). Id. at 810. We reviewed the LRMP and found that while it did discuss the land exchange program in general and mentioned the particular exchange at issue by name, it could not save the challenged EIS because it did not "account for the specific impacts of the Exchange..." Id. The Indian Soda and Conde Shell EA suffer from the same shortcoming.

[10] In addition, tiering to the Watershed Analysis cannot save the EAs, because the Watershed Analysis is not a NEPA document. A NEPA document cannot tier to a non-NEPA document. Kern, 284 F.3d at 1073(holding that "tiering to a document that has not itself been subject to NEPA review is not permitted"); Muckleshoot, 177 F.3d at 811 ("The appellees also attempt to tier the Exchange EIS to the Green River Watershed Report to cure the deficiencies of the cumulative impact analysis of the Exchange EIS. Such reliance is impermissible under the NEPA regulations, which only permit tiering to prior EIS's.").

C. Single Document Requirement

KS Wild contends that the BLM also violated NEPA by evaluating each individual timber project in a separate EA, rather than together in a single document. It points to the language in 40 C.F.R. § 1502.4(a) that "[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." Section 1502.4(a) directs the agency to use the "scoping" provisions contained in 40 C.F.R.

§ 1508.25 to determine whether nominally separate proposals are a "single course of action."

The BLM responds that because § 1508.25 only mentions "impact statements," it is inapplicable where only EAs are at issue. That position is not supported by our caselaw, however. As the government recognizes, we have previously stated that the CEQ regulations implementing NEPA "require that an agency consider 'connected actions' and 'cumulative actions' within a single EA or EIS." *999 Wetlands Action Network v. United States Army Corps of Eng'rs, 222 F.3d 1105, 1118 (9th Cir.2000) (emphasis added) (citing 40 C.F.R. § 1508.25).

Under § 1508.25, two or more agency actions must be discussed in the same impact statement where they are "connected" or "cumulative" actions. 40 C.F.R. § 1508.25(a) (1), (2); see also Earth Island Inst. v. United States Forest Serv., 351 F.3d 1291, 1306 (9th Cir.2003). Where the proposed actions are "similar," the agency "may wish" to assess them in the same document and "should do so" when a single document provides "the best way to assess adequately the combined impacts of similar actions...." 40 C.F.R. § 1508.25(a)(3). KS Wild does not contend that the four sales in the SFLBC watershed are "connected" actions, but it does argue that they are "cumulative" and "similar."

1. Cumulative Actions

Cumulative actions are tautologically defined in the pertinent regulation as those that "when viewed with other proposed actions have cumulatively significant impacts." 40 C.F.R. § 1508.25(a)(2). In turn, as noted above, a cumulative impact is defined by the CEQ regulations as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.... Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7.

Part of the problem in determining whether the four SFLBC timber sales constitute cumulative actions that must be analyzed together is caused by the circular nature of the definition—since an adequate assessment has not been done (as detailed above), it is not yet known whether the projects will have "cumulatively significant impacts." We have previously dealt with this problem by requiring that the analysis be done in a single document when the record raises "substantial questions" about whether there will be

"significant environmental impacts" from the collection of anticipated projects. *See Blue Mountains Biodiv. Project v. Blackwood*, 161 F.3d 1208, 1215 (9th Cir.1998); *Thomas v. Peterson*, 753 F.2d 754, 759 (9th Cir.1985).

In *Blue Mountains*, the Forest Service planned to conduct five timber sales in a single watershed as part of a post-fire forest recovery effort. When the EA for the first sale was released, the plaintiffs promptly challenged it. 161 F.3d at 1210. The flaw in that EA was remarkably similar to the main flaw in the Conde Shell and Indian Soda EAs—it failed to consider the cumulative impacts of the other four sales. *Id.* at 1214–15. We held that "[a]t the very least, these sales raise substantial questions that they will result in significant environmental impacts. A single EIS, therefore, was required to address the cumulative effects of these proposed sales." *Id.* at 1215. 6

Blue Mountains did not specifically cite to § 1508.25(a) (2) to support its conclusion. *1000 In a case where § 1508.25(a)(2) was directly at issue though, we analogized to the discussion in Blue Mountains in considering whether a single document was required. See Native Ecosys. Council v. Dombeck, 304 F.3d 886, 895 (9th Cir.2002). In Native Ecosystems, the challenged agency actions were a series of decisions to waive maximum road density rules on certain areas of Forest Service land to permit the construction of sufficient roads to proceed with timber harvest activities. Id. at 890-91. We found it significant that, as with the SFLBC timber sales at issue here, the decisions to waive the road density rules were scheduled to be made incrementally, instead of being approved together simultaneously. *Id.* at 895. Emphasizing that the challenged actions were the waivers themselves and not approval of the actual timber sales, "we [could] not say, on the record before us, that the series of road density amendments are cumulative actions under Section 1508.25(a)(2) so as to require their consideration together in a single NEPA review document." Id.

We reach a similar conclusion here. Mindful of the deference that agencies are to be accorded in scientific matters, in these circumstances we decline at this time to require the BLM to produce a single document. Given the incomplete discussion of cumulative impacts contained in the Conde Shell and Indian Soda EAs, we are not in a position to reach a conclusion on that issue now or to review the BLM's apparent decision that it was unnecessary to evaluate the cumulative effects of these timber sales in a single document.

We simply do not know enough about the cumulative impacts to determine whether they will be significant or whether there are substantial questions as to their significance. ⁷ If the BLM goes forward with these projects, however, it should give serious consideration to evaluating the projects in a single document, since that will be an open issue once the cumulative effects have been better determined.

2. Similar Actions

[11] KS Wild contends that the SFLBC projects must be evaluated in a single NEPA document because, in addition to being "cumulative," they are "similar" actions under 40 C.F.R. § 1508.25(a)(3). Section 1508.25(a)(3) defines "similar actions" as those "which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography." It states that an agency "may wish" to analyze such actions in a single document and "should do so" when that is the "best way to assess adequately the combined impacts." (emphasis added).

The only occasion we have had to squarely consider § 1508.25(a)(3)'s "similar actions" language is **Earth Island Institute v. United States Forest Service, 351 F.3d 1291(9th Cir.2003). That case highlights *1001 the different language used in § 1508.25(a) with respect to "connected," "cumulative," and "similar actions." Id. at 1306. For the first two categories, the agency is told that it "should" analyze them in a single impact statement, which we interpret as a mandatory requirement. Id. For "similar" actions, on the other hand, we held that an agency should be accorded more deference in deciding whether to analyze such actions together. Id.

Here, we agree with KS Wild that the proposed projects are similar in many respects: they are adjacent to each other in the same watershed; are to be harvested under an identical silvicultural prescription; and are supervised by the same personnel. The primary differences between the projects are in their timing and in the fact that they take place on different pieces of land. Keeping in mind the deference that is to be accorded agency decisions, we are unable to conclude that analyzing the projects together is necessarily the "best way" to evaluate them. More precisely, we cannot say that the BLM acted arbitrarily in thinking otherwise.

V. CONCLUSION

The Conde Shell and Indian Soda EAs do not adequately discuss the potential cumulative impacts posed by the four anticipated timber sales in the SFLBC watershed. The EAs do not reflect a hard look at the effects from proceeding with all of the anticipated projects and do not provide sufficient information to permit meaningful public scrutiny. The BLM cannot simply offer conclusions. Rather, it must identify and discuss the impacts that will be caused by each successive timber sale, including how the combination of those various impacts is expected to affect the environment, so as to provide a reasonably thorough assessment of the projects' cumulative impacts.

REVERSED AND REMANDED.

REINHARDT, Circuit Judge, concurring in part and dissenting in part:

I concur in the majority opinion, except with respect to Part IV C. I agree that the BLM did not sufficiently consider the potential cumulative impacts posed by the four anticipated timber sales. I do not agree, however, with the majority's decision not to require the BLM to produce a single NEPA review document at this time. Although federal agencies have considerable discretion to define the scope of NEPA review, "[a] single NEPA review document is required for distinct projects when there is a single proposal governing the projects, or when the projects are 'connected,' 'cumulative' or 'similar' actions under the regulations implementing NEPA."

Native Ecosystems Council v. Dombeck, 304 F.3d 886, 893–94 (9th Cir.2002) (internal citations omitted). In this case, there is both a single proposal governing the four anticipated projects and the projects constitute cumulative actions under the implementing regulations. Therefore, I would require a single NEPA analysis. ¹

I. A Single Proposal Governs the Timber Sales

In early 1999, the BLM created a plan to actively manage the South Fork Little Butte Creek ("SFLBC") watershed under a single silvicultural prescription, titled "SFLBC Project Timbers Sales (FY 2000–2003)." The proposal described the forest management objectives and methods for harvesting and maintaining the SFLBC portion of the watershed. After completing 85% of the environmental review on *1002 the project as a whole, the BLM found that it was unable "to

complete the protocol for Survey and Managed (mullosk) species" as scheduled. In order to avoid delaying the proposed sales while it finished the protocol, the agency decided to split the environmental review of the project into multiple parts. Significantly, even after formally splitting the project into four parts, BLM staff continued to treat the four areas together as part of a single watershed management project, maintaining a "project map" of the four areas and discussing the projects jointly as the "Little Butte Creek" project.

Because the project was conceived as a single project and continued to be discussed and planned as a single project even after division into four parts, I would hold that "a single proposal govern[ed] the projects," and therefore would require a single NEPA review document. *Cf. Earth Island Inst. v. U.S. Forest Serv.*, 351 F.3d 1291, 1305 (9th Cir.2003) ("In this case, because there is no comprehensive plan covering both forests, Plaintiffs may only prevail by showing that the separate actions are 'connected, cumulative or similar'...."); Native Ecosystems, 304 F.3d at 894 (holding that a single NEPA review document was not necessary in part because "there [wa]s no Gallatin II-wide proposal to amend road density standards").

II. The Four Timber Sales Qualify as "Cumulative Actions"

A single NEPA analysis is also required when several actions qualify as "cumulative actions," under the regulations—that is, when the actions will have "cumulatively significant impacts." 40 C.F.R. § 1508.25(a)(2); see also Earth Island, 351 F.3d at 1305–06; Thomas v. Peterson, 753 F.2d 754, 758 (9th Cir.1985). This requirement exists in order "to prevent an agency from 'dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.' "Earth Island, 351 F.3d at 1305 (citing Thomas, 753 F.2d at 758). Significantly, the regulations recognize that "[c]umulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7.

Of course, it is not possible to know definitively whether agency actions will have cumulatively significant impacts before an environmental assessment is completed because the very purpose of an EA is to determine what effect a project

will have on the environment. As the majority recognizes, see op. at 15280, our circuit has addressed this problem by requiring that a single analysis be performed when the record "raise[s] substantial questions that [the proposed agency actions] will result in significant environmental impacts."

F.3d 1208, 1215 (9th Cir.1998); see also Sierra Club v. U.S. Forest Serv., 843 F.2d 1190, 1194–95 (9th Cir.1988); Thomas, 753 F.2d at 759–61.

For example, in *Blue Mountains*, we required a single analysis even though the Forest Service had attempted to assess five distinct timber sales separately. The sales at issue were located in one watershed, were part of a "coordinated" forest management project, were reasonably foreseeable, and an estimated time line was established before the first EA was complete. *Id.* at 1214–15. Although the Forest Service's cumulative impact analysis was flawed-making it impossible to know definitively the extent of the potential cumulative impact—we concluded that "[a]t the very least, these sales raise[d] substantial questions that they [would] result in significant environmental impacts."

Blue Mountains, 161
F.3d at 1215. As a result, we held that a single NEPA document was necessary. *Id*.

*1003 As in Blue Mountains, the four sales at issue in this case are located in one watershed, are part of a coordinated project, are reasonably foreseeable, and an estimated time line was established before the first EA was complete. See op. at 992, 1001. Also as in Blue Mountains, there is at least a substantial question as to whether the four sales will result in cumulatively significant environmental impacts.² See op. at 997. Both of the EAs recognize that each individual timber sale will increase the risk of higher magnitude flow events within the single watershed causing damage to soil and to the habitat of endangered salmon. The EAs also both recognize that each individual sale will adversely affect what the BLM itself identifies as a particularly crucial habitat for the threatened northern spotted owl. In fact, as the majority recognizes, 59% of the total suitable owl habitat within the critical link between the Cascades and the Klamath Mountains—a total of 1,881 acres—will be lost when just three of the projects are considered. Finally, the EAs state that each sale will be detrimental, at least in the short term, to water quality in the area—water quality that is already substandard under the Clean Water Act. Because individually the sales will have adverse impacts on soil, water quality, and the habitats of endangered salmon, the threatened northern spotted owl, and other special status species, ³ and because the sales are within a single watershed, there is, at the least, a substantial question as to whether the cumulative environmental harm will be significant. Therefore, I would hold that a single NEPA document is required.

In concluding otherwise, the majority relies on *Native Ecosystems*, 304 F.3d at 895. However, *Native Ecosystems* is factually distinct. Unlike both *Blue Mountains* and the present case, the plaintiffs in *Native Ecosystems* were not challenging the environmental review of timber sales. Rather, they challenged the Forest Service's site-specific decisions to waive the maximum road density rules on certain areas of Forest Service land to permit the construction of sufficient roads to proceed with timber harvest activities. *Id.* at 890–91. The timber sales themselves were already approved in compliance with NEPA. Furthermore, in *Native Ecosystems*, unlike in both *Blue Mountains* and the present case, the road density amendments were not within a single watershed.

Id. at 894. Finally, in *Native Ecosystems*, unlike in this case and *Blue Mountains*, the challenged actions were not part of a single decision or plan by the agency.

The majority cites only one similarity between *Native Ecosystems* and this case: the incremental timing of the decisions at *1004 issue. But *Native Ecosystems* discussed timing only within its broader point that the challenged actions were not part of a single decision or plan. Furthermore, the NEPA regulations do not require "cumulative actions" to occur simultaneously, but instead define cumulative impacts as "collectively significant actions *taking place over a period of time.*" 40 C.F.R. § 1508.7 (emphasis added).

Indeed, to require agency actions to be simultaneous in order for them to fall within the definition of "cumulative actions," would undermine the purpose of § 1508.25(a)(2). An agency could avoid a single NEPA analysis that fully considers a plan's impact on the environment simply by breaking the project into phases. This is exactly what the regulations of § 1508.25(a)(2) were meant to avoid. *See Earth Island*, 351 F.3d at 1305; 40 C.F.R. § 1508.27(b)(7)("Significance cannot be avoided by ... breaking [an action] down into small component parts."). ⁴

III. Conclusion

Because the four sales were governed by a single proposal and because there are "substantial questions" about the potential cumulative impacts posed by the sales, I would require the BLM to analyze the sales in single NEPA document.

All Citations

387 F.3d 989, 59 ERC 1389, 34 Envtl. L. Rep. 20,127, 04 Cal. Daily Op. Serv. 9643, 2004 Daily Journal D.A.R. 13,198

Footnotes

- For some of the factors, it is understandable why a qualitative description such as "improved" or "degraded" is suitable. For example, the factor "Balance of community condition" is probably not susceptible to easy measurement. Factors such as "Amount of suitable and dispersal spotted owl habitat" and "Road density," on the other hand, are clearly variables that can be quantified.
- There is no telling what this number represents. The total treated acres for Indian Soda are 1,775, and Conde Shell is to be treated on 1,915 acres. The total number of treated acres for all four projects is approximately 7,562.
- Even the generalizations about cumulative impacts contained in the RMP–EIS may no longer be valid in light of a watershed-altering 1997 flood, which occurred after the RMP–EIS was published. In *Blue Mountains Biodiversity Project v. Blackwood*, where a fire of historic magnitude occurred subsequent to the publication of the Forest Plan, we held that "[t]he Forest Plan EIS does not, and could not, evaluate the impacts of this catastrophic fire, or the additional environmental impacts that large scale logging of severely burned areas could bring." 161 F.3d 1208, 1214 (9th Cir.1998). The Watershed Analysis proclaims that streams in the watershed "were heavily impacted by the 1997 flood," which caused "landslides and general slope failures," and that "these types of landslide events are more frequent in areas where road-building and timber harvest is common."
- Like the EAs at issue here, the EIS in *Muckleshoot* was inadequate because, although it contained "twelve sections titled 'cumulative effects,' [those] sections merely provide very broad and general statements devoid of specific, reasoned conclusions." 177 F.3d at 811.
- The introductory paragraph to the Watershed Analysis plainly states, "This document is not a decision document under the National Environmental Policy Act (NEPA) and there is no action being implemented with this analysis. Site-specific analysis incorporating National Environmental Policy Act (NEPA) process would occur prior to any project implementation."
- The opinion did not explicitly detail how it reached the conclusion that there were substantial questions about whether the effects were cumulatively significant, other than to note that the sales "would yield 40–55 million board feet from the same watershed, require approximately 20 miles of road construction and involve tractorskid logging on steep slopes." Blue Mountains, 161 F.3d at 1215. Although that observation may represent an imprecise measure of actual cumulative effects, we note that similar conditions are present here, where the four sales comprise 30 million board feet, five miles of new roads, dozens of miles of reconstructed roads, and tractor-skid logging on steep slopes. Thus, there is a possibility that "substantial questions" as to the significance of the projects' cumulative environmental effects exist here, such that the regulation would require an evaluation in a single document.

- In his partial dissent, Judge Reinhardt concludes that the existence of "substantial questions" here has already been sufficiently established, such that a single NEPA review document should be required. As the discussion above indicates, there are legitimate questions here about possible cumulative effects. The point at which questions become "substantial," such that actions are deemed to be "cumulative" actions that need to be analyzed in a single document, is not so clear, though. The current lack of information about the cumulative impact leads us to conclude, unlike Judge Reinhardt, that the line has not necessarily been crossed yet. That determination can better be made once more information has become available. If and when it becomes apparent that these projects should be deemed "cumulative" actions, then the single document requirement would apply.
- Because I conclude that the timber sales are "cumulative actions" under 40 C.F.R. § 1508.25(a)(2), I do not reach the issue of whether the timber sales are "similar actions" under 40 C.F.R. § 1508.25(a)(3).
- Without denying the similarities between this case and *Blue Mountains*, the majority dismisses *Blue Mountains* simply because it does "not specifically cite § 1508.25(a)(2) to support its conclusion." Op. at 999. However, numerous Ninth Circuit cases cite *Blue Mountains* as authority when interpreting § 1508.25(a)(2).

 See, e.g., Earth Island, 351 F.3d. at 1305; Native Ecosystems, 304 F.3d at 895; Wetlands Action Network v. U.S. Army Corps of Eng'rs, 222 F.3d 1105, 1119 (9th Cir.2000).
- Special status species are those species that are federally listed as endangered, threatened, proposed, or candidate, or that the Oregon State Office of BLM lists as sensitive or assessment species. Other special status species present in the SFLBC watershed that would be adversely affected by the timber sales include: long-legged myotis, fringed myotis, Yuma myotis, western bluebird, pileated woodpecker, great gray owl, western pond turtle, California mountain kingsnake, common kingsnake, bald eagle, northern goshawk, flammulated owl, northern saw—whet owl, Lewis' woodpecker, western meadowlark, Townsend's big-eared bat, long-eared myotis, pacific pallid bat, and silver-haired bat.
- Given the factors that tend to show a substantial question as to cumulatively significant impacts and our conclusion that the agency erred significantly with respect to its environmental assessments, I would not afford dispositive weight to the concept of deference. It is significant that, as the majority points out, less deference is afforded for "cumulative actions" than for "similar actions," op. at 1001; see also Earth Island, 351 F.3d at 1306, and that a single NEPA analysis is mandatory under the regulations when the agency engages in cumulative actions. Op. at 1001.

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CEHAJ2-1

Refer to response to comment CEHAJ-1 on page 552 of this document regarding the retention of analyses for the build alternatives in the Final EIR/EIS and the benefits Alternative 5C would have on air quality. In addition, refer to response to comment CEHAJ-6 on page 553 of this document regarding future projects or programs that would necessitate environmental reviews and approvals following a process separate from the I-710 Corridor Project Final EIR/EIS.

CEHAJ2-2

Refer to response to comment CEHAJ2-1 on page 946 regarding environmental clearance of future projects.

CEHAJ2-3

See responses to comments CEHAJ2-1 and CEHAJ2-2 on page 946.