



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

November 25, 1996

Dennis A. Scovill, Chief
District Operations-C
Federal Highway Administration
980 9th Street
Suite 400
Sacramento, CA. 95814-2724

Dear Mr. Scovill:

The Environmental Protection Agency (EPA) has reviewed the Notice of Intent (NOI) of a Draft EIR/EIS for the Route 78-111 Project, Imperial County, California. Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration (FHWA), propose to adopt a route alignment and construct 12.4 miles of State Routes 78 and 111 near Brawley, CA. The project is proposed as a four lane expressway. The Notice does not indicate if other alternatives are under consideration such as: no build, expansion of State Routes 78 and 111, or if there are other different alignments for the new expressway. Transportation System Management strategies should be considered along with the build alternatives.

EPA recommends the DEIS include a clear description of the basic project purpose and need, a full range of project alternatives, potential impacts to the environment, and mitigation for these impacts. Particular attention should focus on an evaluation of the environmental impacts of the proposal and alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options for the decisionmaker and the public (40 CFR 1502.14). The no-project alternative should allow the reader of the EIS to distinguish between project-related impacts and impacts due to nonproject background conditions.

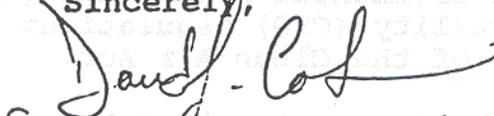
EPA does not believe that transportation components such as HOV lanes, public transit, and overall mobility and safety improvements are mutually exclusive. We urge an approach which considers composite alternatives which have categories of components (e.g., transportation management systems, HOV lanes, lane expansion) within which several possible options can be evaluated. Alternatives which will minimize adverse environmental impacts and optimize environmental benefits of each

alternative component should be developed and evaluated. We urge the FHWA to incorporate the principles of environmental justice and pollution prevention into the proposed project.

NEPA requires evaluation of indirect and cumulative effects which are caused by the action (40 CFR 1508.8(b) and 1508.7). The DEIS should thoroughly evaluate the project alternatives indirect effects which may include growth inducing effects, irrespective of whether that growth is planned for, and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air, water and other natural systems, including ecosystems.

We appreciate the opportunity to respond to this NOI. Additional detailed comments are enclosed. Please send three copies of the Draft EIS to this office at the same time it is officially filed with our Washington D.C. Office. If you have any questions, please call me at (415) 744-1584, or David J. Carlson, of my staff, at (415) 744-1577.

Sincerely,



David J. Farrel, Chief
Office of Federal Activities

Enclosure: (10 pages)
RTE78111.NOI

cc: Tim Vasquez, Caltrans, District 11
David Zoutendyk, ACOE, Los Angeles District
Susan Wynn, US Fish & Wildlife Service
Meril Deskins, FHWA, San Francisco

COMMENTS**Alternatives Analysis**

1. The Draft EIS should rigorously explore and objectively evaluate all reasonable alternatives and briefly discuss the reasons for having eliminated other alternatives from further evaluation. [40 C.F.R. § 1502.14]
2. The alternatives analysis should demonstrate that the project sponsors have selected the least damaging practicable alternative based on costs, logistics and existing technology with respect to waters of the United States, including wetlands. [40 C.F.R. § 230.10(a)]

Direct, Indirect and Cumulative Impacts

1. The DEIS should discuss direct, indirect, and cumulative effects of the proposed action. Direct effects are caused by the action and occur at the same time and place [40 C.F.R. § 1508.8(a)]. Indirect effects are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable. They may include induced changes in land use patterns, population density and growth rate and related effects on air, water and other natural systems [40 C.F.R. § 1508.8(b)]. Cumulative impacts result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency undertakes the action [40 C.F.R. § 1508.7].

Other NEPA Comments

If the DEIS should reference specific documents, briefly describe the contents of the referenced material (assumptions, conclusions, decisions). The project sponsor should ensure that referenced materials are reasonably available for inspection. [40 C.F.R. § 1502.21]. Applicable portions of the Major Investment Study (MIS), should be included as an attachment, if the assumptions that were made in the MIS are going to be carried through into the DEIS.

Environmental Justice

In keeping with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the DEIS should describe the measures taken by the FHWA to: 1) fully analyze the environmental effects of the proposed toll road on minority communities and low-income populations, and 2) present opportunities for affected

communities to provide input into the NEPA process. The intent and requirements of EO 12898 are clearly illustrated in the President's February 11, 1994 Memorandum for the Heads of all Departments and Agencies (Attachment B).

Water Quality

The DEIS should discuss the proposed project's compliance with State and local water quality management plans and State-adopted, EPA-approved water quality standards. The project should be fully coordinated with the Regional Water Quality Control Board to ensure protection of water quality and maintenance of beneficial uses.

Federal agencies must comply with the federal consistency requirements of the State's Nonpoint Source Management Program [Clean Water Act, §§ 319(b)(2)(F), 319(k)]. The DEIS should identify potential sources of nonpoint pollution from building and operating the proposed action. Such sources may include, but are not limited to, sediment, hydrocarbons, heavy metals and herbicides. Provide information on how requirements of the State nonpoint source program will be met by the proposed action.

To minimize erosion and maximize the retention of soil on-site and in siting the roadway and bridges refer to the management practices listed in Attachment A. The DEIS should include a conceptual runoff and sedimentation control plan and discuss the management practices it intends to implement to protect water quality. Discuss how the management practices will be monitored to ensure that the maintenance and protection of water quality can be guaranteed.

The Federal Antidegradation policy (40 CFR 131.12) is designed to help implement the Clean Water Act (CWA) which is intended to restore and maintain the chemical, physical, and biological integrity of the Nation's waters [Section 101(a)]. The Antidegradation Policy states that where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full intergovernmental coordination and public participation, that allowing lower water quality is necessary to accommodate important economic or social development. Even then, the State shall assure water quality adequate to fully protect existing uses.

Evaluate the potential of the proposed activity to cause adverse aquatic impacts such as increased siltation and turbidity; changes in the direction of stream flow, substrate, dissolved oxygen, and temperature; and habitat deterioration.

Identify critical fisheries habitat which may be affected, especially spawning and rearing areas; key wildlife species and acres of habitat affected; and other sensitive aquatic sites such as wetlands. The EIS should describe and map drainage patterns and riparian areas in the proposed project area. Outline existing beneficial uses of these areas, disclose potential impacts from the proposed project, and identify special measures that will be taken to protect vulnerable areas from adverse effects of implementing the project.

NEPA/404 Integration MOU

The DEIS should identify that FHWA has received full concurrence with the basic project purpose and need, and the criteria for selecting alternatives, pursuant to the NEPA/404 MOU. The DEIS should describe the Regional Transportation Plan and project programming stages for the proposed freeway improvements and include a description of how the project adheres to and is made current with MOU requirements. The description of these previous planning stages, should identify alternate route and corridor options, transportation management systems, transportation demand management, and mass transit systems which may have been considered in prior planning stages.

The DEIS should identify impacts to water, floodplains, and wetlands, including identification of Section 404 Clean Water Act requirements and proposals to ensure compliance with these requirements. Of the alternatives that are suggested to be carried through to the DEIS, FHWA should identify the least environmentally damaging alternative as part of the NEPA/404 process.

EPA will review the proposed action for compliance with the Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230) [hereafter referred to as the Guidelines], promulgated pursuant to Section 404(b)(1) of the Clean Water Act (CWA) and the NEPA/404 Integration MOU. To comply with the Guidelines, the proposed action must meet all of the following criteria:

- There is no practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem (40 CFR 230.10(a)).
- The proposed action does not violate State water quality standards, toxic effluent standards, or jeopardize the continued existence of federally listed species or their critical habitat (40 CFR 230.10(b)).

- The proposed action will not cause or contribute to significant degradation of waters of the United States, including wetlands (40 CFR 230.10(c)). Significant degradation includes loss of fish and wildlife habitat, including cumulative losses.

- All appropriate and practicable steps are taken to minimize adverse impacts on the aquatic ecosystem (i.e., mitigation) (40 CFR 230.10(d)). This includes incorporation of all appropriate and practicable compensation measures for unavoidable losses to waters of the United States, including wetlands. The DEIS should fully address the feasibility of "in-kind" habitat mitigation measures.

FHWA and Caltrans should submit a proposed mitigation plan pertaining to the project and insure that the mitigation plan and implementation schedule are considered thoroughly in the context of the NEPA/404 MOU. Please refer to the Compensatory Mitigation Section of the NEPA/404 MOU guidance papers for direction in developing a mitigation plan.

Species Viability

The DEIS should fully evaluate the potential for habitat fragmentation, loss of connectivity, and the cumulative loss of species viability (e.g., from induced growth, increased human and pet presence). Although endangered species, species-of-concern, and fisheries are notable focal points for evaluation, the DEIS should also evaluate potential impacts on other significant or keystone species.

We recommend that the project sponsors coordinate with the U.S. Fish and Wildlife Service (FWS) and California Fish & Game in the evaluation of potential impacts to threatened and endangered species and candidate species. The EIS should include copies of correspondence with FWS and listings of species that could occur in the project area.

Hazardous Substances

If the project sponsors expect to use or encounter hazardous substances (40 C.F.R. § 302.4) in conjunction with the proposed action, the DEIS should discuss how the project sponsors will protect against spills in compliance with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the methods that will be used to clean-up and dispose of spills/wastes in compliance with the Resource Conservation and Recovery Act (RCRA) regulations found at 40 C.F.R. § 260 to 268.

Noise

The DEIS should identify and analyze expected noise impacts and noise abatement measures. In particular, the DEIS should (a) discuss the existing background level data, (b) identify sensitive receptors, (c) analyze future noise levels as related to the No Build and Build alternatives, (d) commit to mitigate measures where projected noise levels exceed acceptable standards.

Air Quality

The project description should be detailed enough to allow an identification of potential air quality impacts. The affected environment section should provide an understanding of any existing air pollution problems in the area, especially existing problems that may worsen as a result of the proposed project. To provide this understanding, the DEIS should identify the air basin in which the project lies, the area's criteria pollutant attainment/nonattainment status, and the climate, topography, and meteorological conditions as they affect basin air quality.

The DEIS should describe the severity of any nonattainment problems. The number and frequency of monitored criteria pollutant violations during the most recent 5 years of record should be presented for air quality monitors located near the proposed project site and identify the particular pollutant(s), and the levels of violations of state and federal standards. The status of air quality planning should be discussed, including the status of existing and proposed air quality plans. Air quality rules and regulations affecting the project should be summarized.

Health and welfare effects of criteria pollutants should be summarized (especially for pollutants likely to be emitted in substantial quantities by the project). Nearby sensitive areas meriting special protection also should be identified (Class I wilderness areas and national parks). Finally, sensitive receptors in the project vicinity (e.g., residences, schools, nursing homes, hospitals, and daycare facilities) should be identified.

The affected environment section should also contain emission inventories for stationary, area, and mobile criteria pollutant sources. If hazardous pollutants would be transported on the proposed transportation facility, then emission inventories of existing hazardous pollutant sources should be included, if available.

Evaluation Criteria. The environmental consequences section should include evaluation criteria that will be used to identify what constitutes a significant air quality impact. The criteria should also specify when dispersion modeling should be conducted. These criteria should be based on ambient air quality standards, existing rules and regulations, or other well-reasoned criteria.

Methodology. The environmental consequences section should include a methodology section. The methodology must identify the years to be included in the analysis and the models and assumptions used to evaluate whether the project would have a significant air quality impact. If the project is subject to EPA's transportation conformity rule, then an analysis must be conducted for each of the years specified by the conformity rule (40 CFR 93 Subpart A).

The methodology and the impact assessment described below should be applied to the proposed project and all project alternatives. Modeling to project air quality impacts should be used. Include traffic volume projections for each alternative and discuss how the model accounted for induced trips. Use a complete range of speeds, including those > 55 mph in the model. We recommend an evaluation of the project's potential effects on regional pollutants, such as ozone precursors (hydrocarbons and nitrogen oxides) and particulate matter, even though the FHWA 1987 Technical Advisory does not recommend a project-by-project evaluation. If the project is located close to areas meriting special protection, such as national parks or wilderness areas, the methodology should identify how pollutant impacts on those areas will be evaluated.

Impact Assessment. The environmental consequences section should include estimates of all project-related criteria pollutant emissions, including both construction and operational emissions. If the project has the potential to release any of the 189 hazardous air pollutants specified in Section 112 of the Clean Air Act Amendments, then estimates of those pollutants should also be included. If hazardous air pollutants would be transported in the alignment of the proposed project, the risk of upset should be evaluated.

The DEIS should describe and evaluate the potential effects of regional pollutants including: the potential levels of HC and NO_x (Ozone Precursors) in areas that are at or near the ozone standards, and Particulate Matter (PM₁₀) levels of direct emissions from construction, vehicles (tire wear, exhaust, brake wear) and reentrained road dust (use AP-42 factors for road dust).

Emissions should be estimated using the latest emission factors available. If the project is subject to EPA's transportation conformity rule, the procedures outlined in CFR Part 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans, should be used to estimate emissions. Planning assumptions used to estimate air pollutant impacts should be derived from the most recent estimates of population, employment, travel, and congestion approved by the Metropolitan Planning Organization (MPO) or other agency authorized to make such estimates. The DEIS should demonstrate that the proposed action will not (a) cause or contribute to any new violation of the NAAQS, (b) increase the frequency or severity of any existing violation of any standard, (c) delay timely attainment of any standard or any required interim emission reductions or other milestones in the project area pursuant to §176(c) of the Clean Air Act.

In addition to evaluating the direct impacts of traffic flows on the proposed project or project alternatives, the impact assessment should evaluate any redistribution of traffic flows that would result from the project. In particular, the assessment should evaluate the impacts on sensitive receptors resulting from increases in traffic flows on project facilities and on facilities in the vicinity of the project.

Motor Vehicle Emission Estimates. To estimate motor vehicle criteria pollutant emissions, the most current version of the motor vehicle emissions model specified by EPA and available for use in the preparation or revision of SIPs must be used in the conformity analysis as described in 40 CFR 93.131. These emission estimates should be based on and consistent with the traffic study assumptions and results for the project.

Carbon Monoxide Modeling. Ambient carbon monoxide (CO) concentrations from mobile sources should be estimated if the project is shown to cause or contribute to significant traffic congestion in the project vicinity. CO modeling is required if existing intersections affected by the project are operating at a level of service (LOS) of D, E, or F or if intersection LOS would be degraded to D, E, or F because of the project.

The CO modeling analysis should focus on congested intersections and those intersections that are expected to be most adversely affected by the proposed project and the project alternatives. Identify and discuss the most current models used for emissions and for dispersions modeling to determine pollutant concentrations. When modeling intersections, use the worst case meteorology, i.e., model at least for every 10° of wind, very stable conditions, low wind speed, low mixing height, cold temperature conditions, conservative background level assumptions

(high). Include project emissions with and without the project. Specify land use build out assumptions for each projection.

The air quality modeling analyses of CO concentrations should be based on EPA's Guideline for Modeling Carbon Monoxide from Roadway Intersections. All assumptions used to conduct the modeling should be described, and any deviations from EPA's modeling guidance should be identified, along with the reasons for those deviations.

PM10 Modeling. Estimates of ambient inhalable particulate (PM10) concentrations attributable to mobile sources will not be required until EPA releases modeling guidance on this subject. The project applicant should be aware that PM10 modeling may be required and should contact EPA for the PM10 modeling guidance release date.

Stationary and Area Source Emission Estimates. If the proposed project or the project alternatives would be closely related to, allow, or facilitate the development of stationary or area sources of emissions, the EIS should include estimates of these emissions. To estimate non-motor-vehicle emissions (which include both stationary and area sources), the latest emission factors specified in EPA's Compilation of Air Pollutant Emission Factors (AP-42) should be used unless more accurate emission factors are available (such as actual stack test data from stationary sources). Emission estimates should be based on a realistic estimate of worst-case operating conditions.

If criteria pollutant emissions from stationary and/or area sources exceed the significance thresholds established for the project, then dispersion modeling should be conducted. Air quality modeling of stationary and/or area source criteria pollutant emissions should be based on the applicable air quality models, databases, and other requirements specified in the most recent version of the Guideline on Air Quality Models (Revised) of 1986, including supplements (EPA pub. no. 450/2-78-027R).

Cumulative Impacts. The project should address cumulative air quality impacts, including direct and indirect emissions associated with the project plus emissions associated with other future economic development. Future scenarios should be carefully specified using the most recent estimates of population, employment, travel, and congestion approved by the relevant MPO.

TRANSPORTATION CONFORMITY

EPA has developed final conformity rules to implement Section 176(c) of the federal Clean Air Act Amendments of 1990.

These rules are to ensure that federal actions conform to the appropriate state implementation plan (SIP). The first rule, known as transportation conformity, only applies to federal highway and transit actions (40 CFR Subpart A - Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded, or Approved Under Title 23 USC or the Federal Transit Act).

For transportation conformity, Section 176(c) of the Clean Air Act requires MPOs and the U.S. Department of Transportation (DOT) to make conformity determinations on transportation improvement plans and programs (TIP) before they are adopted, approved, or accepted. In addition, highway or transit projects that are funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Agency (FTA) must be found to conform before they are approved or funded by DOT or an MPO. EPA has promulgated regulations (58 Federal Register 62188 [November 24, 1993]), to be codified at 40 CFR Section 93.100 et seq.) implementing these provisions for nonattainment and maintenance areas. Generally, the rule requires compliance with different criteria according to the pollutant for which an area is designated nonattainment or maintenance, the type of action (i.e., plan, TIP, project), and the time period in which the determination is made. Certain actions, such as safety and some mass transit projects, may be exempt from these conformity requirements (see Section 93.134). Otherwise, projects must satisfy the applicable criteria and procedures set forth in Sections 93.110 through 93.127 and must comply with all applicable conformity requirements of implementation plans and court orders.

The project applicant must show that the proposed project meets the transportation conformity requirements and the applicant should discuss the criteria used to make that showing and identify the agency(s) responsible for the conformity determination. The DEIS must demonstrate (pursuant to §176(c)) that the project (1) comes from a conforming transportation plan and program, (2) has not changed in design concept and scope from the design concept and scope approved in the program, and in carbon monoxide (CO) nonattainment areas, (3) eliminates or reduces the severity and number of violations of CO standards in the area substantially affected by the project. If the applicant believes that its project is exempt from the transportation conformity requirements, then the applicant must explain the reasons for that exemption.

Mitigation Measures Section. The EIS must identify all relevant, reasonable measures needed to mitigate air quality impacts. The probability of implementing each measure must be adequately discussed. If the mitigation measures are needed to demonstrate

SIP conformity, the process for implementation and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation. Written commitments must be obtained from the appropriate persons or agencies to implement any mitigation measures that are identified as conditions for making the conformity determinations.

Attachment A

Erosion

1. Schedule projects so clearing and grading is done during times of minimum erosion potential.
2. Mark and clear off only areas essential for construction.
3. Avoid disturbing vegetation on steep slopes or other critical areas such as highly erodible soils and areas that drain directly into sensitive water bodies.
4. Route construction to avoid existing and newly planted vegetation.
5. Protect natural vegetation with fencing, tree armoring.
6. Cover or stabilize topsoil stockpiles.
7. Use wind erosion controls to act as wind barriers such as solid board fences, snow fences and bales of hay.
8. Seed and mulch disturbed areas.

Siting Roadways and Bridges

1. Consider the type and location of permanent erosion and sediment controls such as vegetative buffer strips, grass swales, energy dissipators and velocity controls.
2. Avoid marshes, bogs and other low-lying lands subject to flooding.
3. Avoid locations requiring excessive cut and fill.
4. Avoid locations subject to subsidence, land slides, rock outcroppings and highly erodible soils.
5. Size right-of-ways to include space for siting runoff pollution control structures, as appropriate.
6. Avoid locations requiring numerous river crossings.
7. Direct pollutant loadings away from bridge decks by diverting runoff waters to land for treatment.