Appendix A Section 4(f) – No-Use Determination

Appendix A Section 4(f) – No-Use Determination

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because: (1) they are not publicly owned, (2) they are not open to the public, (3) they are not eligible historic properties, or (4) the project does not temporarily or permanently use the property and does not hinder the preservation of the property. Properties near the State Route 37 Flood Reduction Project (Project) were evaluated as follows:

The following recreational facility is not protected under Section 4(f) of the Department of Transportation Act because it is privately owned:

- **StoneTree Golf Club** – The property is a 132-acre golf course. The property is not a Section 4(f) property; therefore, the provisions of Section 4(f) do not apply.

Section 4(f) Properties. The properties listed below are Section 4(f) properties, but no temporary or permanent "use" will occur. Therefore, the provisions of Section 4(f) do not apply.

- **Deer Island Preserve and Open Space** – The property is a 154-acre preserve and open space area owned and operated by Marin County Parks. The property provides recreational opportunities such as hiking. The Project would not have a temporary or permanent use of the property and would not hinder the preservation of the property. The property is a Section 4(f) property, but no "use" will occur. Therefore, the provisions of Section 4(f) do not apply.

- **Vince Mulroy County Park/ Memorial Woodlands and Preserve** – This property, formerly known as the Black Point Nature Preserve, is a 64-acre parcel of public land in Novato, California, adjacent to StoneTree Golf Club. The Project would not have a temporary or permanent use of the property and would not hinder the preservation of the property.

- **Black Point Boat Launch Park** – Located at 148 Harbor Drive, in Novato, California, the Black Point Boat Launch allows recreationists to launch motor boats, kayaks, canoes, or paddle boards from the dock or boat ramp into the Petaluma River. The Project would not have a temporary or permanent use of the property and would not hinder the preservation of the property.

- **San Francisco Bay Trail** – A 0.65-mile Class I bike facility is located near the western Project terminus adjacent to the SMART rail tracks. The existing facility is classified as a Section 4(f) resource. The Project would not have a temporary or permanent use of the property and would not hinder the preservation of the property.

- **Montego Park** – This property is located in Bel Marin Keys in Marin County, California. The park provides recreational opportunities to play tennis and bocce ball and picnic. The western limits of the Project are visible from Montego Park, and the views from Montego Park looking northwest toward the Project area would substantially change. With the Project, State Route 37 would become the dominant visual feature from the park. The elevated roadway would obstruct views of the rolling hills and mountains to the north. The Project would implement avoidance and minimization measure (AMM)-AES-1, Restore Disturbed Areas, AMM-AES-2, Design Contours to Mimic Natural Terrain, AMM-AES-3, Lighting, AMM-AES-4, Screen Construction Area, through AMM-AES-5, Bridge Design Enhancement, to reduce impacts. The Project would not permanently use the property, substantially impair or diminish the protected activities, features or attribute, and would not hinder the preservation of the property.

Appendix B Title VI Policy

California Department of Transportation

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September 2022

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures "*No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.*"

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

Appendix C List of Technical Studies

Appendix C List of Technical Studies

California Department of Transportation (Caltrans). 2022a. *Structure Preliminary Geotechnical Report for Novato Creek Bridges.* January.

California Department of Transportation (Caltrans). 2022b. *Paleontological Identification Report, State Route (SR) 37 Flood Reduction Project*. Marin County, California. June.

California Department of Transportation (Caltrans). 2022d. *Assessment of Hazardous Materials Potentially Affecting Highway 37 Flood Reduction Project in Marin County*. July.

California Department of Transportation (Caltrans). 2023a. *Visual Impact Assessment SR 37 Flood Reduction*. April.

California Department of Transportation (Caltrans). 2023b. Detour Plans. Provided in Memorandum: *Request for Detour Memo for DED*. Prepared by Office of Highway Operations/TMP. July 25.

California Department of Transportation (Caltrans). 2023d. *Office of Cultural Resource Studies (OCRS) Section 106 Close-out Memo for the State Route 37 Flood Reduction Project, at Postmiles 11.2-13.7, on State Route 37, in Marin County, California*. December 12.

California Department of Transportation (Caltrans). 2023e. *Traffic Forecasts for EA4Q320*. March.

California Department of Transportation (Caltrans). 2023g. *State Route 37 Flood Reduction Project Natural Environment Study*. August.

California Department of Transportation (Caltrans). 2024a. *Construction Criteria Air Pollution Emissions Analysis Memorandum*. Caltrans Office of Environmental Engineering. January 17.

California Department of Transportation (Caltrans). 2024b. *Energy Analysis Report Memorandum*. Caltrans Office of Environmental Engineering. January 17.

California Department of Transportation (Caltrans). 2024c. *Construction-Related Greenhouse Gas (GHG) Emissions Analysis Memorandum*. January 17.

HDR. 2023. *Water Quality Assessment Report.* State Route 37 Flood Reduction Project. 04-MRN-37-PM R11.2/13.8. May.

Illingworth and Rodkin. 2023. *State Route 37 Flood Reduction Project Final Noise Study Report*. August.

Jacobs. 2023. *Final Community Impact Assessment for the State Route 37 Flood Reduction Project Memorandum*. August 10. August.

WRECO. 2023. *Location Hydraulic Study*. State Route 37 Flood Reduction Project, Marin County, California Prepared for Caltrans. June.

Appendix D Project Features

Appendix D Project Features

Resource Area	Project Feature Reference	Project Feature Description
Air Quality	PF-AQ-1: Dust Control	During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions would be controlled by regular watering or other dust preventive measures using the following procedures: • All material excavated or graded would be sufficiently watered to prevent excessive amounts of dust. Watering would occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. • All material transported onsite or offsite would be either sufficiently watered or securely covered to prevent excessive amounts of dust. • The area disturbed by clearing, grading, earthmoving, or excavation operations would be minimized to prevent excessive amounts of dust. These control techniques would be indicated in Project specifications. • Visible dust beyond the property line emanating from the Project would be prevented to the maximum extent feasible.
Air Quality	PF-AQ-2: Construction Equipment Controls	Project specifications would include the duration of construction. Emissions from construction equipment vehicles would be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications. Properly operating engines also help reduce greenhouse gas (GHG) emissions.
Air Quality	PF-AQ-3: Hauling and Grading Material	All trucks that are to haul excavated or graded material onsite would comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4), as amended, regarding the prevention of such material spilling onto public streets and roads.
Air Quality	PF-AQ-4: Caltrans Standard Specifications for Air Quality	The contractor would comply with Caltrans standard air pollution control measures as outlined in the Caltrans Standard Specifications.
Air Quality	PF-AQ-5: Asbestos	If the Project geologist determines that asbestos-containing material (ACM) is present at the Project study area during final inspection prior to construction, the appropriate methods would be implemented to remove ACM.
Air Quality	PF-AQ-6: Idling	All construction vehicles both on and offsite would be prohibited from idling in excess of 5 minutes.

Resource Area	Project Feature Reference	Project Feature Description
Biological Resources	PF-BIO-1: Documentation at Project Site	A permit compliance binder would be maintained at the construction site at all times and presented to regulatory agency personnel upon request. The permit compliance binder would include a copy of all original permits and agreements and any extensions and amendments to the permits and agreements.
Biological Resources	PF-BIO-2: Work According to Documents	Except as they are contradicted by measures within the permits and agreements, all work would be conducted in conformance with the Project description in the permits and agreements and the avoidance and minimization measures (AMMs) provided in the permits and agreements.
Biological Resources	PF-BIO-3: Worker Environmental Awareness Training	Prior to the start of construction, a biologist would provide training for all work personnel to identify any sensitive species that may be in the area, their basic habits, how they may be encountered in their work area, and procedures to follow when they are encountered. This training would also include information to train construction crews and contractors involved in in-water work about non-native aquatic species. The training would educate personnel regarding the threat that invasive species pose to San Francisco Bay habitats and native species, as well as the procedures and measures to be implemented as a part of the Project to prevent the release or spread of these species during construction. Any personnel subsequently joining the work crew would receive the same training before beginning work. Upon completion of the education program, employees would sign a form stating they attended the program and understand all protection measures. These forms would be made available to the resource agencies upon request.
Biological Resources	PF-BIO-4: Mark Environmentally Sensitive Areas	Before construction begins, Environmentally Sensitive Areas (ESAs) would be clearly delineated using high-visibility orange fencing, flagging, or similar marking to delineate sensitive habitats. The ESA markings would remain in place throughout construction or until work is completed at a particular location. The marking may be removed during the wet season (and subsequently reinstalled) if needed to prevent materials from being washed away. The final Project plans would depict all locations where ESA markings would be installed and how it would be installed. The bid solicitation package special provisions would clearly describe acceptable marking material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. ESA markings would be maintained in a state of good repair throughout the Project.

Resource Area	Project Feature Reference	Project Feature Description
Biological Resources	PF-BIO-5: Wildlife Exclusion Fencing	Before starting construction, wildlife exclusion fencing (WEF) would be installed where special-status species could enter the Project limits and to prevent wildlife from entering the roadway. WEF locations would be determined in coordination with the onsite biologist to minimize impediments to wildlife movement through the Project site, particularly at culverts or other areas where wildlife may cross under the roadway; exclusion fencing would not be placed in such a way as to block wildlife access to such undercrossings. WEF installation would be located during the design phase of the Project; the final plans would depict the locations where WEF would be installed and how it would be assembled/constructed. The special provisions in the bid solicitation package would clearly describe acceptable WEF material and proper WEF installation and maintenance. The WEF would remain in place throughout the Project duration while construction activities are ongoing and be regularly inspected for stranded animals and fully maintained. The WEF would be removed after construction activities at a particular location.
Biological Resources	PF-BIO-6: Nesting Bird Surveys and Buffers	If Project activities occur from February 1 to August 31, a preconstruction survey(s) would be conducted for nesting birds no more than 3 days before construction. If active nests are found during these surveys or during construction, then an appropriate buffer would be established and the nest would be monitored in compliance with the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code 3503 as follows: If an active raptor nest is observed, then a 300-foot ESA buffer would be implemented to avoid impacting the young until they have fledged; if an active nest of non-raptor migratory birds is observed, a 50-foot ESA buffer would be implemented to protect the young until they have fledged, or as otherwise determined in consultation with U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW).

Resource Area	Project Feature Reference	Project Feature Description
Biological Resources	PF-BIO-7: Construction Site Management Practices	The following Project restrictions would be implemented to avoid or minimize potential impacts on sensitive biological resources within the Project limits: • Enforcing a speed limit of 15 miles per hour for Project vehicles in unpaved portions of the Project site to reduce dust and excessive soil disturbance. • Locating construction access, staging, storage, and parking areas within the Caltrans right of way (ROW) and outside of any designated ESA to the extent practicable (access routes, staging and storage areas, and contractor parking would be limited to the minimum necessary to construct the proposed Project; routes and boundaries of roadwork would be clearly marked before initiating construction). • Certifying, to the maximum extent practicable, borrow material is non-toxic and weed-free. • Enclosing food and food-related trash items in sealed trash containers and removing them from the Project site at the end of each day. • Prohibiting pets from entering the Project limits during construction. • Prohibiting firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.
Biological Resources	PF-BIO-8: Erosion Control Matting	Plastic monofilament netting (that is, erosion control matting) or similar material would not be used. Acceptable substitutes would include coconut coir matting or tackifying hydroseeding compounds.
Biological Resources	PF-BIO-9: Restore Disturbed Areas	Temporarily disturbed areas would be restored to the maximum extent practicable. Exposed slopes and bare ground would be reseeded with native grasses to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species would be replanted, based on the local species composition.

Resource Area	Project Feature Reference	Project Feature Description
Biological Resources	PF-BIO-10: Vegetation and Tree Removal	Vegetation would be cleared only where necessary and cut above soil level, except in areas that would be permanently affected or excavated, allowing plants that reproduce vegetatively to resprout after construction. Only trees that require removal would be removed. Whenever possible, trees would be trimmed rather than removed. Retained trees would be safeguarded during construction through the following measures: • Protected trees would be fenced around the drip line to limit construction impacts to the root zone. • No construction equipment, vehicles, or materials would be stored, parked, or staged within the tree dripline. Work would not be performed within the dripline of remaining trees without Project biologist consultation. If trees are damaged during construction and become unhealthy or die, then the damaged tree(s) would be removed and replaced.
Biological Resources	PF-BIO-11: Landscaping and Revegetation Plan	Vegetation and trees removed during construction within the Project area would be replaced according to Caltrans policy. Appropriate native and climate-appropriate species would be used to the maximum extent possible, and trees, shrubs, and groundcover would be selected for drought tolerance and disease resistance. Mulch would be applied to planted areas to reduce weed growth, conserve moisture, and minimize maintenance operations.
Biological Resources	PF-BIO-12: Prevent Inadvertent Entrapment of Animals	To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep would be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earthen fill or wooden planks at an angle no greater than 30 degrees. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the Project limits overnight would be inspected before they are subsequently moved, capped, or buried.

Resource Area	Project Feature Reference	Project Feature Description
Biological Resources	PF-BIO-13: Night Lighting	During construction, nighttime work would be avoided to the maximum extent practicable. For unavoidable nighttime work, all lighting would be shielded and directed downwards towards the active construction area to avoid exposing nocturnal wildlife to excessive glare. Streetlights that would be installed to replace existing streetlights would have no greater light output than existing lights, would be directed downward, and would be shielded to focus light on the roadway and minimize spillage of light into areas adjacent to the road.
Biological Resources	PF-BIO-14: Agency-approved Biologist	A biologist approved by USFWS and CDFW would conduct preconstruction surveys for federally and state-listed species, and the biologist would be present during construction activities, including vegetation clearing and grubbing, as required by the resource agencies. If, at any point, any listed species is discovered within the Project limits, then the agency-approved biologist, through the Resident Engineer or his/her designee, would halt all work within 50 feet of the animal and contact the corresponding agency (USFWS or CDFW) to determine how to proceed.
Biological Resources	PF-BIO-15: Construction Noise	Construction noise limitations, as they relate to listed species, would be determined through consultation with state and federal agencies.
Biological Resources	PF-BIO-16: Stop-work Authority	Through the Resident Engineer or their designee, the Project biologist(s) would have the authority to stop Project activities to minimize take of listed species or if he/she determines that any permit requirements are not fully implemented. Caltrans would provide appropriate notifications based on language in the permits and agreements to agency(s) with jurisdiction.
Biological Resources	PF-BIO-17: Discovery of Injured or Dead Special-status Species	Immediately upon discovery of any dead, injured, or entrapped special-status species regulated by USFWS, National Marine Fisheries Service (NMFS), or CDFW, then Caltrans would provide appropriate notifications based on language in the permits and agreements to agency(s) with jurisdiction.
Biological Resources	PF-BIO-18: Wildlife Species Relocation	When special-status wildlife species (that do not have state fully protected status) are present and it is determined that they could be injured or killed by construction activities, the Project biologist, in coordination with the appropriate state and federal wildlife agencies and Resident Engineer, would identify appropriate methods for capture, handling, exclusion, and relocation of individuals that could be affected.

Resource Area	Project Feature Reference	Project Feature Description
Biological Resources	PF-BIO-19: In-channel Work Period	With the exception of non-ground-disturbing vegetation removal (to avoid impacts to nesting birds), in-channel work and any dewatering necessary within Novato Creek and Simonds Slough would be scheduled between June 15 and October 31. The in-channel work window may be extended via email request and written resource agency approval. Extension requests must be submitted a minimum of 2 weeks prior to the October 31 work cessation period for in-channel work.
Biological Resources	PF-BIO-20: Work Period in Dry Weather Only	Work in the bed, bank, channel, and any associated riparian habitat would only be conducted during periods of dry weather. Forecasted precipitation would be monitored. When 0.25 inch or more of precipitation is forecasted to occur, work would stop before precipitation commences. No Project activities would be started if its associated erosion control measures cannot be completed before precipitation begins. After any storm event, all construction sites currently under construction and all sites scheduled to begin construction within the next 72 hours would be inspected for erosion and sediment problems, and corrective action would be taken as needed; 72-hour weather forecasts from the National Weather Service would be consulted, and work would not start back up until runoff ceases and less than 50 percent precipitation is forecasted for the following 24-hour period.
Biological Resources	PF-BIO-21: Wetland Protection	The following measures would be implemented in and adjacent to delineated wetland ESAs in the Project limits: • Work in and adjacent to delineated wetlands where flooding has potential to occur would be scheduled outside of the wet-weather season. • Work in and adjacent to delineated tidal wetlands would not occur within 2 hours before or after extreme high tide events (6.5 feet above mean lower low water elevation or greater, as determined from the NMFS tidal gage station nearest to the activity) when the marsh plain is inundated.

Resource Area	Project Feature Reference	Project Feature Description
Biological Resources	PF-BIO-22: Invasive Weed Control	To reduce the spread of invasive, non-native terrestrial plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans would comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. If noxious weeds are disturbed or removed during construction-related activities, the contractor would be required to contain the plant material associated with these noxious weeds and dispose of them in a manner that would not promote the spread of the species. The contractor would be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance would be replanted with fast growing native and climate-appropriate grasses or a native and climate-appropriate erosion control seed mixture. Where seeding is not practical, the target areas within the Project footprint would be covered to the extent practicable with heavy black plastic solarization material until the end of the Project. If work occurs in sensitive habitat, vehicles and equipment would be thoroughly cleaned before arriving on the site to prevent the spread of noxious weeds from other locations.
Biological Resources	PF-BIO-23: Vibratory Pile Driving	Whenever possible, piles would be installed and removed using a vibratory hammer or direct-push methods. All sheet piles would be installed with a vibratory driver or direct-push methods. Where temporary piles cannot be extracted, they would be cut 3 feet below existing mudline. In upland areas out of waters and wetlands, an impact hammer may be used if the vibratory hammer cannot adequately install the pile.
Biological Resources	PF-BIO-24: Invasive Aquatic Species Control	To reduce the potential for introduction and establishment of invasive aquatic species, the following measures would be implemented for work conducted in tidal wetlands or waters, such as at Novato Creek: • Any vegetation, debris, or structures removed from tidal wetlands or waters would be disposed of in appropriate upland locations. • All in-water equipment such as boats and barges would originate from within San Francisco Bay, ideally from harbors or ports in proximity to the Project site, to avoid introducing new invasive species to the area. • All vessels used on the Project during both construction and long-term ferry operations would

Resource Area	Project Feature Reference	Project Feature Description
		adhere to the California State Lands Commission *Guidance Document for Biofouling Management Regulations to Minimize the Transfer of Nonindigenous Species from Vessels Arriving at California Ports* (California State Lands Commission 2017). • A qualified marine biologist with experience identifying marine invasive species of concern would be present on the Project site to inspect all construction equipment or materials prior to their use in tidal wetlands or waters, as well as all vessels that arrive and leave the site. • If marine invasive species are detected on Project equipment, vessels, or other materials, the Project would implement the following remedial measures to minimize the spread and release of marine invasive species: o The qualified marine biologist would identify and document (e.g., photograph) the occurrence and provide recommendations for the proper handling of the invasive species. o If marine invasive species are detected on a Project vessel that is already in the water, the vessel would be removed from the water, and the invasive species would be removed at an established washing station or facility. The invasive species would be contained to avoid contaminating San Francisco Bay waters and would be disposed of at an appropriate upland facility (such as, a landfill). o If marine invasive species are detected on equipment or materials to be placed in the water, or that have been removed from the water on the Project site but may be placed in the water on future projects, the equipment and materials would be cleaned as follows before being placed in the water: ▪ All visible mud, plants, and animals would be removed and disposed of in an appropriate upland area (such as, a landfill) so as not to contaminate San Francisco Bay waters. ▪ The equipment and materials would be cleaned thoroughly. If possible, hot water (140 degrees Fahrenheit) and high-pressure water would be used. ▪ Following cleaning, the equipment and materials would be allowed to completely dry for at least 5 days before entering the water on the Project site.

Resource Area	Project Feature Reference	Project Feature Description
Cultural Resources	PF-CULT-1: Cease Work upon Unanticipated Discovery of Cultural Resources or Tribal Cultural Resources	In the event that archaeological resources (sites, features, or artifacts) or Tribal Cultural Resources (as defined by the Tribe and the CEQA) are exposed during construction activities, all construction work occurring within 60 feet of the find would immediately stop until a qualified archaeologist, who meets the Secretary of the Interior Professional Qualifications for Archaeology, can evaluate the significance of the find in consultation with the Tribe to determine if additional study is warranted. The final disposition of archaeological, historical, and paleontological resources recovered on state land under the jurisdiction of the California State Lands Commission must be approved by the California State Lands Commission.
Cultural Resources	PF-CULT-2: Stop Work upon Discovery of Human Remains	If human remains are uncovered during construction-related activities, all such activities within a 60-foot radius of the find would be halted immediately, and the Caltrans District 4 Office of Cultural Resources (OCRS) Office Chief and/or the District Native American Coordinator (DNAC) would be notified. Once the remains are determined human, the OCRS Office Chief would contact the County Coroner and the Native American Heritage Commission (NAHC) to provide information on the discovery and to assure that appropriate action is being taken. The Coroner is required to examine the discovery of human remains within 48 hours and has the ultimate responsibility to contact the NAHC in accordance with California Health and Safety Code Section 7050.5[b] and 7050.5[c]. If the Coroner inspects the remains and determines that the remains are not Native American and/or determines they are a result of a wrongful death, the Coroner may take possession of the remains for further inquiry, release them to next of kin, or order the body to be reinterred. After the above action has been taken, work may resume on the Project. If the Coroner determines that the remains are those of a Native American, the Most Likely Descendent (MLD), as determined by the NAHC, would determine the ultimate disposition of the remains in cooperation with the property owner, and Caltrans as identified in detail in California Public Resources Code Section 5097.9. The lead Caltrans archeologist ensures that the recommendations are followed and after the appropriate actions are taken, Project work may resume.

Resource Area	Project Feature Reference	Project Feature Description
Geology and Soils	PF-GEO-1: Perform Site-specific Geotechnical and Engineering Analyses	Prior to construction, Caltrans would conduct field investigations and laboratory testing to characterize the site and complete the necessary site-specific geotechnical and engineering analyses.
Hazards and Hazardous Materials	PF-HAZ-1: Health and Safety Plan	Prior to construction, Caltrans or its contractor would prepare and implement a Health and Safety Plan to help prevent exposure of construction workers to hazardous materials during the demolition of bridge and roadway structures and construction of the new bridge and causeway. The plan would require personal protective equipment, soil and air space monitoring, documentation, and reporting.
Hazards and Hazardous Materials	PF-HAZ-2: Lead Compliance Plan	Prior to construction, Caltrans or its contractor would prepare and implement a Lead Compliance Plan. The Lead Compliance Plan would be approved by a certified industrial hygienist to minimize exposure to lead. Construction workers would be required to complete an Occupational Safety and Health Administration (OSHA) training class to safely manage any hazardous substances encountered and ensure that exposures are minimized.
Hazards and Hazardous Materials	PF-HAZ-3: Asbestos and Lead-based Paint Surveys	Prior to demolition of any bridge, Caltrans would require a qualified and licensed inspector to test each bridge for asbestos and lead-based paint. All ACM, if found, would be removed by a certified contractor in accordance with local, state, and federal requirements.
Hazards and Hazardous Materials	PF-HAZ-4: Discovery of Unanticipated Asbestos and Hazardous Substances	In the event that materials suspected to contain asbestos or other hazardous substances are discovered at a Project work area, Caltrans or its contractor would immediately stop work in the area of discovery and notify the engineer regarding the nature of the discovery. Work would resume after the unanticipated asbestos and/or hazardous substances are fully addressed in accordance with federal, state, and local regulations.
Hazards and Hazardous Materials	PF-HAZ-5: Hazardous Waste Management	Caltrans or its contractor would handle, store, and dispose of hazardous waste under 22 California Code of Regulations Division 4.5, as required by Caltrans Standard Specification 14-11.03. As required by the Caltrans Standard Specifications, Caltrans or its contractor would store hazardous waste and potentially hazardous waste separately from non-hazardous waste in sealed, metal containers in secure, temporary containment enclosures within secondary containment facilities.

Resource Area	Project Feature Reference	Project Feature Description
Hazards and Hazardous Materials	PF-HAZ-6: Aerially Deposited Lead from Gasoline	Aerially deposited lead from the historic use of leaded gasoline exists along roadways throughout California. The Project would adhere to Caltrans' standard special provision (SSP) Section 7-1.02K(6)(j)(iii), Unregulated Earth Material Containing Lead, for areas where lower concentrations of lead are identified (SSP Section 71.02K(6)(j)(iii) specifies whether soil must be retained on the job site or may be disposed of by the contractor) and SSP Section 14-11.08, Regulated Material Containing Aerially Deposited Lead, for areas where the lead concentrations have been found to exceed regulatory thresholds. SSP Section 14-11.08 addresses the landfill disposal of regulated soils, including hazardous-waste concentrations of lead, and the reuse of regulated soils if the reuse conditions satisfy the chemical limitations and incorporate the engineering controls specified by the Department of Toxic Substances Control (DTSC).
Hazards and Hazardous Materials	PF-HAZ-7: Preliminary Site Investigations	A preliminary site investigation (PSI) for aerially deposited lead and agricultural chemicals would be conducted during the Project design phase. A PSI would be performed to investigate potential hazardous materials concerns related to soil and groundwater within the Project limits where these materials would be excavated, encountered, or disturbed and managed. Caltrans would prepare a work plan for the PSI. The findings of the PSI would be used to evaluate soil and groundwater handling practices, construction worker health and safety concerns, and soil and groundwater reuse and disposal options. If hazardous materials are identified during the PSI, additional investigation could be required. All environmental investigations for the Project would be provided to Project contractors so the findings can be incorporated into their health and safety and hazard communication programs.
Hazards and Hazardous Materials	PF-HAZ-8: Aerially Deposited Lead Site Investigation Work Plan	Caltrans would prepare a site investigation work plan for aerially deposited lead if required during the design phase. Soil samples collected to evaluate aerially deposited lead would be analyzed for total lead and soluble lead in accordance with DTSC requirements to determine appropriate actions that would ensure the protection of construction workers, future site users, and the environment.

Resource Area	Project Feature Reference	Project Feature Description
Hazards and Hazardous Materials	PF-HAZ-9: Treated Wood Waste	Treated wood waste may be generated from sign posts and guardrail removal or reconstruction. Wood removed from construction area signs is treated wood waste. Handling, storing, transporting, and disposing of treated wood waste would be in compliance with Caltrans Standards Specifications Section 14-11.14, Treated Wood Wastes. Treated wood waste would be disposed of at a California disposal site operating under a DTSC permit to accept such waste.
Hazards and Hazardous Materials	PF-HAZ-10: Hazardous Materials Incident Contingency Plan	Prior to construction, a hazardous materials incident contingency plan would be prepared to report, contain, and mitigate roadway spills. The plan would designate a chain of command for notification, evacuation, response, and cleanup of roadway spills.
Hazards and Hazardous Materials	PF-HAZ-11: Thermoplastic Paint	Residue from the removal of yellow thermoplastic and yellow painted traffic stripes and pavement markings contains lead chromate. Traffic stripes would be removed and disposed of in accordance with Caltrans' SSP Section 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue. Section 14-11.12 includes specifications for removing, handling, and disposing of yellow thermoplastic and yellow painted traffic stripe and pavement marking. The residue from the removal of this material is a Caltrans-generated hazardous waste if the SSP-required sampling and testing by the contractor demonstrates that the lead content is greater than the defined hazardous waste thresholds.
Hazards and Hazardous Materials	PF-HAZ-12: Active Treatment System	An active treatment system would be implemented, as necessary, to treat contaminated groundwater exposed during excavation activities.
Noise	PF-NOI-1: Caltrans Standard Specifications for Noise	Control of noise from construction activities would conform to Caltrans Standard Specifications for noise control. The nighttime noise level from the contractor's operations, between the hours of 9 p.m. and 6 a.m., would not exceed 86 maximum A-weighted decibels (dBA Lmax) at a distance of 50 feet.

Resource Area	Project Feature Reference	Project Feature Description
Noise	PF-NOI-2: Construction Equipment Operations	The Project contractor would comply with the following procedures for all construction activities. • All internal combustion engine driven equipment would be equipped with manufacturer recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Unnecessary idling of internal combustion engines within 100 feet of residences shall be strictly prohibited. • Noise-generating equipment would be located as far as practical from sensitive receptors when sensitive receptors adjoin or are near the construction Project area. • "Quiet" air compressors and other "quiet" equipment would be used where such technology exists.
Transportation and Traffic	PF-TRANS-1: Transportation Management Plan	A Transportation Management Plan (TMP) would be developed by Caltrans. The TMP would include elements such as haul routes and phasing to reduce impacts to local residents as much as feasible and maintain access for police, fire, and medical services in the local area. In addition, the TMP would include public information, motorist information, incident management, and information on construction detours for local residents and tourists. Separate TMPs would be prepared for Phase 1 and Phase 2 of construction. Prior to construction, Caltrans would notify adjacent property owners, businesses, and the Marin County Flood Control District regarding construction activities. In addition, Caltrans would coordinate with the local fire department, California Highway Patrol, and emergency response services prior to construction to minimize potential disruption to emergency services and identify emergency evacuation routes for local residents. Caltrans would prioritize police, fire, emergency and medical service access in the Project area.
Transportation and Traffic	PF-TRANS-2: Coordinate with Adjacent Property Owners	Caltrans would coordinate with adjacent property owners, including the Novato Sanitary District and North Marin Water District, during the design phase of Phase 2.
Utilities and Service Systems	PF-UTIL-1: Notify Utility Owners of Construction Schedule to Protect Utilities	Caltrans would notify all affected utility companies, such as PG&E and AT&T, of construction schedules for proposed Project work so that they can relocate the gas, telephone, cable, and overhead distribution lines prior to construction and minimize disruption of utility service.

Resource Area	Project Feature Reference	Project Feature Description
Utilities and Service Systems	PF-UTIL-2: Trash Management	All food-related trash items, such as wrappers, cans, bottles, and food scraps, would be disposed of in closed containers and removed by the contractor at least once daily from the Project limits. A trash reduction system would also be developed by the contractor, approved by Caltrans, and implemented per Caltrans Statewide National Pollution Discharge Elimination System Permit and San Francisco RWQCB Cease and Desist Order.
Wildfire	PF-WF-1: Implement Fire Prevention Practices during Construction	Caltrans would implement the following fire prevention practices into the Project construction specifications: • Internal combustion engines, stationary and mobile, would be equipped with spark arrestors. Spark arrestors would be in good working order. • Contractor would keep all construction sites and staging areas free of grass, brush, and other flammable materials. • Personnel would be trained in the practices of the fire safety plan relevant to their duties. • Construction and maintenance personnel would be trained and equipped to extinguish small fires. • Work crews would have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the fire department. • Smoking would be prohibited while operating equipment and would be limited to paved or graveled areas or areas cleared of all vegetation. Smoking would be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking would be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the Project area.
Water Quality	PF-WQ-1: Stormwater Pollution Prevention Plan	A Stormwater Pollution Prevention Plan (SWPPP) would be developed, and temporary construction BMPs would be implemented by Caltrans or contractor during construction in compliance with the requirements of the SWRCB as outlined in the Construction General Permit. The SWPPP must be prepared by the contractor and approved by Caltrans, pursuant to Caltrans 2022 Standard Specification 13-3 and Special Provisions. Protective measures would include, at a minimum: a) All equipment cleaning would occur away at least 50 feet from any storm drains or watercourses, and storm drain inlet protection at downgradients would be installed. b) All grindings, asphalt waste, and concrete waste would be hauled offsite by the end of shift, or if

Resource Area	Project Feature Reference	Project Feature Description
		stored in upslope areas, would be a minimum of 150 feet, if feasible, from any aquatic resources; would be stored within previously disturbed areas absent of habitat; and would be protected by secondary containment measures consistent with proposed Caltrans BMPs designed specifically to contain spills or discharges of deleterious materials. c) Dedicated fueling and refueling practices would be designated as part of the approved SWPPP. Dedicated fueling areas would be protected from stormwater run-off and would be located at a minimum of 50 feet from downslope drainage facilities and water courses. d) Fueling must be performed on level-grade areas. Onsite fueling would only be used when and where it is impractical to send vehicles and equipment offsite for fueling. When fueling must occur onsite, the contractor would designate an area to be used subject to the approval of the Caltrans Resident Engineer. Drip pans or absorbent pads would be used during onsite vehicle and equipment fueling. e) Spill containment kits would be maintained onsite at all times during construction operations and/or staging or fueling of equipment. f) Dust control measures consistent with Air Quality Project Features would be implemented. Dust control would be addressed during the environmental education session. g) Coir logs or fiber rolls would be installed in accordance with the Caltrans BMP Guidance Handbook to capture sediment. h) Graded areas would be protected from erosion using a combination of silt fences, erosion control netting (such as jute or coir), and fiber rolls in accordance with the Caltrans BMP Guidance Handbook.

Resource Area	Project Feature Reference	Project Feature Description
Water Quality	PF-WQ-2: Implementation of Construction Site Best Management Practices	Best management practices (BMPs) would be included in the final Project plans and specifications to comply with the conditions of the Caltrans National Pollutant Discharge Elimination System permit. Construction site BMPs for stormwater may include, but are not limited to, the following: • Construction tracking control practices • Job site management • pH Control • Sediment control (fiber rolls and silt fencing) • Waste management and construction materials pollution control • Dust and wind erosion controls • Non-stormwater management

Reference:

California State Lands Commission Marine Invasive Species Program. 2017. *Guidance Document for Biofouling Management Regulations to Minimize the Transfer of Nonindigenous Species from Vessels Arriving at California Ports*. *California Code of Regulations*, Title 2, Section 2298.1 et seq. September 19, 2017.

Appendix E Avoidance Minimization, and/or Mitigation Measures Summary

Appendix E Avoidance, Minimization, and/or Mitigation Measures Summary

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Aesthetics	AMM-AES-1: Restore Disturbed Areas	Caltrans would re-grade and re-vegetate areas disturbed by construction, staging, and storage, and would re-vegetate areas of removed roadways with native and climate-appropriate vegetation species along roadway and bridge embankments.
Aesthetics	AMM-AES-2: Design Contours to Mimic Natural Terrain	Prior to completion of construction activities, slopes would be graded to be consistent with site topography, to increase context sensitivity, and reduce engineered appearance of slopes to the maximum extent practicable.
Aesthetics	AMM-AES-3: Lighting	During construction, lighting for the Project would be of color, height, and design consistent with the overall aesthetic approach of the Project to minimize visual intrusion into the corridor.
Aesthetics	AMM-AES-4: Screen Construction Area	Caltrans or its contractor would set up construction staging and storage areas with opaque screening wherever work would be exposed to public view for extended periods.
Aesthetics	AMM-AES-5: Bridge Design Enhancement	To minimize the degree of visual contrast, Caltrans would incorporate design enhancement measures such as column, bent, and parapet into the final Project design. Caltrans would also consider surface texture treatments to reduce brightness and the potential for concrete reflectivity.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Biological Resources	MM-BIO-1: Compensatory Mitigation for Wetlands and Other Waters	Caltrans will compensate for the unavoidable and permanent loss and degradation of wetlands and other waters within the Project area at a restoration/enhancement to impact ratio. This ratio will be determined during the permitting process with the regulatory agencies. Every effort will be made to contribute to onsite habitat enhancements and restoration as part of the Project's design. Caltrans will offset temporary impacts to wetlands and other waters by restoring disturbed areas to pre-Project conditions, estimated to be at a 1.1:1 ratio. Compensatory mitigation for unavoidable impacts will be obtained through a Project-specific plan that will include purchase of credits at an agency-approved wetland mitigation bank (if any such banks are available, with a service area that includes the Project area, at the time) and/or providing in-lieu funding to a nearby restoration program or restoration project that will enhance, create, or restore wetlands or other waters adversely impacted by the Project. Appropriate compensation will be determined in coordination with state and federal environmental regulatory agencies with jurisdiction.
Biological Resources	AMM-BIO-1: Maternity-season Survey for Roosting Bats	Sometime during the maternity season (April 1 through August 31), within 3 years prior to Phase 1 construction (including demolition), qualified biologists would conduct a survey of the Novato Creek Bridge and the Simonds Slough Bridge to determine the species, and estimate the number of individuals of each species, of bats using each of these two structures as day roosts. Such data would be collected using a combination of visual surveys, dusk emergence surveys, and acoustic monitoring data to document the species using these structures that would be impacted by the Project. A similar survey would be conducted at the transition bridges and at the abutments of the Novato Creek Bridge within 3 years prior to the start of Phase 2 construction.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Biological Resources	AMM-BIO-2: Replacement of Lost Bat Roost Habitat	Based on the results of the survey that would be conducted prior to construction of each Project phase, as well as the detailed design of the Novato Creek Bridge and causeway, a qualified bat biologist would determine whether there would be a loss of bat roost habitat. For example, if Caltrans designs the bridge and/or causeway to incorporate bat roosting habitat into the bridge design itself, no additional replacement of bat roost habitat would be necessary. However if the qualified bat biologist determines that the bridge and/or causeway would not provide enough suitable bat roost habitat to replace existing habitat lost as a result of the Project, the biologist would determine the appropriate type and design of one or more artificial roost structures to be placed either at a suitable off-site location or on the Novato Creek Bridge (immediately following completion of Phase 1 construction) and/or causeway (immediately following completion of Phase 2 construction) to provide day roosting habitat to replace impacts by each Project phase. The artificial roost structure(s) would be large enough to support at least the same number of bats that would be permanently displaced by each phase of the Project. The off-site locations, or locations on the bridge/causeway where the artificial structure(s) would be placed, would be determined by a qualified Caltrans biologist or another qualified bat biologist in coordination with Caltrans.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Biological Resources	AMM-BIO-3: Pre-activity Survey for Roosting Bats	Prior to Phase 1 construction (including demolition), and again prior to Phase 2 construction, a qualified biologist would conduct an initial inspection of the entire Project area and surrounding areas within 250 feet (if accessible) for suitable day roosting bat sites. The biologist would then conduct a pre-activity survey for roosting bats within and under all bridges, culverts, and trees on and within 250 feet of the Project site that are found to provide suitable day roosting habitat. The survey would be conducted by a qualified bat biologist within 7 days prior to the start of demolition or construction activities within a given area. If close inspection of potential roost features during the daytime is infeasible, the focused survey would include a dusk emergence survey when bats can be observed flying out of the roost. If a bat day roost is present, the qualified biologist would identify an appropriate disturbance-free buffer zone to be maintained until either the end of the maternity season or a qualified biologist has determined that all young are volant (i.e., capable of flight) to avoid the loss of dependent young. The exclusion measures described in AMM-BIO-4, Bat Exclusion, would be implemented after dependent young are no longer present and prior to the removal of any portion of the roost (or, prior to the maternity season).

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Biological Resources	AMM-BIO-4: Bat Exclusion	If bats are present in a bridge, culvert, or tree to be removed, or close enough to demolition or construction areas that a qualified biologist determines the bats should be excluded to avoid abandoning young during the maternity season, a qualified biologist would install appropriate exclusion devices on all roost habitat features to allow any roosting bats to vacate the roost and prevent any bats from occupying these features before demolition is initiated. For active roosts that are present in trees, as an alternative to the installation of exclusion devices, the contractor may remove suitable roost trees on the Project site using a two-step tree removal process outside the maternity season (i.e., during the period from September 1 to March 31). The first day of tree removal would involve the removal of tree limbs that do not support roost habitat features, so that the tree and any roosting bats are sufficiently disturbed and thereby encouraged to vacate the tree. The tree may then be removed on the second day. Exclusion of bats would take place during weather when nighttime lows are not less than 45 degrees Fahrenheit (°F) and during dry weather conditions when bats are most active. Bat exclusion may occur proactively, prior to April 1, to prevent breeding bats from constraining dry-season construction activity, or after the maternity season (i.e., after August 31 or after a qualified biologist has determined that all young are capable of flight).
Biological Resources	AMM-BIO-5: Fish Removal and Relocation Plan	As directed by state or federal permitting agencies, the Caltrans biologist would prepare a fish removal and relocation plan for the Project. This plan would include measures to relocate fish within cofferdams and other areas to be dewatered. The plan would include reasonable and prudent efforts that would be taken to prevent and minimize injury, stress, or death of captured fish, while ensuring safety of the biologists conducting the fish removal and relocation. A qualified fisheries biologist would act as the lead monitor during implementation of the plan during construction.
Biological Resources	AMM-BIO-6: Cofferdam Installation	During construction, cofferdams would be installed and sealed during low tides to minimize the potential for fish to be present within them.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Biological Resources	AMM-BIO-7: Salt Marsh Harvest Mouse Vegetation Removal, Pre-construction Surveys, and Monitoring	Within areas where vegetation potentially supporting salt marsh harvest mice would be impacted, vegetation and debris that could provide cover for mice would be removed using only hand tools at least 1 week prior to the commencement of construction activities. Vegetation removal would occur under the supervision of a USFWS- and CDFW-approved biologist. This vegetation would be removed on a progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. In some cases, temporary berms might need to be constructed over borrow ditches to enable suitable escape routes, or temporary shelter consisting of dead vegetation might be positioned to provide escape routes to suitable habitat. A USFWS- and CDFW-approved biologist would monitor the vegetation removal and make specific recommendations with respect to the rate of vegetation removal (to ensure that any harvest mice present are able to escape to cover that would not be impacted) and whether vegetation needs to remain in a certain area temporarily to facilitate dispersal of mice into habitat outside the impact area. During construction, a USFWS- and CDFW-approved biologist would check underneath vehicles and equipment for salt marsh harvest mice before such equipment is moved, unless the equipment is surrounded by harvest mouse wildlife exclusion fencing (WEF).
Biological Resources	AMM-BIO-8: Salt Marsh Harvest Mouse Exclusion Fencing	The following requirements for salt marsh harvest mouse WEF would be implemented: • All supports for the WEF would be placed on the inside of the work area to prevent salt marsh harvest mouse from climbing the stakes into the work area. • The salt marsh harvest mouse-proof WEF would be at least 2 feet high but no higher than 4 feet. • The fencing would be made of a heavy plastic sheeting material that is too smooth for salt marsh harvest mouse to climb. • The toe of the fence would be buried approximately 6 or 8 inches in the ground to prevent salt marsh harvest mouse from crawling or burrowing underneath it. • A 4-foot buffer would be maintained free of vegetation around the WEF and work areas. The final design and proposed location of the fencing would be reviewed and approved by USFWS and CDFW prior to placement.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Biological Resources	AMM-BIO-9: California Ridgway's Rail and California Black Rail Pre-construction Surveys and Buffers	If work would occur during the rail nesting season (February 1 through August 31) within 700 feet of California Ridgway's rail or California black rail habitat along Novato Creek (or within 200 feet if separated by a major slough or other barrier such as SR 37), a pre-construction survey by a USFWS- and CDFW-approved biologist familiar with California Ridgway's rail and California black rail would be conducted to determine whether these species are present. Survey requirements and timing would be determined in consultation with USFWS and CDFW. If California Ridgway's rail and/or California black rail are detected during pre-construction surveys, then Project activities would not occur within 700 feet of an identified detection (or 200 feet if separated from work areas by a major barrier, or a smaller distance if approved by USFWS and CDFW) during the rail nesting season.
Biological Resources	AMM-BIO-10: Swainson's Hawk Pre-construction Surveys and Avoidance	Pre-construction surveys would be conducted prior to any work that would occur during the bird nesting season of February 1 through August 31 for Project activities within a 0.25-mile radius of Swainson's hawk nesting or forage habitat. Surveys would be conducted as follows: • Surveys would be conducted in accordance with applicable guidance and methods found in *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). • Surveys would be conducted between March 1 and April 30. • Caltrans would conduct surveys during two survey periods immediately prior to initiating any Project-related construction activity. If a Swainson's hawk nest is discovered during surveys or monitoring, then a minimum 250-foot buffer (or as otherwise determined in coordination with CDFW) would be kept free from Project-related activities as long as the nest is active.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Biological Resources	AMM-BIO-11: California Red-legged Frog Work Window	In portions of the Project limits where suitable California red-legged frog habitat occurs (i.e., freshwater aquatic and wetland habitats, and vegetated upland habitats), initial ground disturbance (that is, areas that have not been previously disturbed in such a way that removes or destroys access to burrows and migratory habitat or has not previously been enclosed with WEF) would be timed to occur between April 15 and October 31 (with the possibility of extending this work window via email request and written resource agency approval).
Biological Resources	AMM-BIO-12: California Red-legged Frog and Northwestern Pond Turtle Pre-construction Surveys	Pre-construction surveys for the California red-legged frog and northwestern pond turtle would be conducted by a qualified biologist within 14 calendar days of the initiation of Project activities in suitable upland and aquatic habitat prior to ground-disturbing activities, vegetation removal, and WEF installation. Surveys would be conducted as outlined in the 2005 USFWS species survey guidelines for California red-legged frog. Pre-construction surveys would include the following: • Pedestrian surveys of potential frog habitat, which would also be suitable for northwestern pond turtle, would be conducted within the Project limits and accessible adjacent areas (within at least 50 feet of Project limits). • Potential cover sites (burrows, rocks, soil cracks, vegetation, and other potential refuge habitat) and any areas of disturbed soil would be investigated for signs of California red-legged frog or northwestern pond turtle. Native vertebrates found in cover sites within the Project limits would be documented and, if handling is allowed, relocated to an adequate cover site in the vicinity. Species that cannot be relocated because of special protection status would be addressed in coordination with the appropriate agency(s) with jurisdiction.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Biological Resources	AMM-BIO-13: California Red-legged Frog and Northwestern Pond Turtle Monitoring Protocols	During construction in and near potential California red-legged frog and northwestern pond turtle habitat, the following protocols would be observed by the Project biologist during construction monitoring: • Within 24 hours before initial ground-disturbing activities, portions of the Project footprint where potential California red-legged frog and northwestern pond turtle habitat has been identified would be surveyed by a Project biologist(s) to clear the site of frogs and turtles moving above ground or taking refuge in burrow openings or under materials that could provide cover. • A Project biologist(s) would be present during all initial ground-disturbing activities and vegetation removal in suitable refugia habitats for the California red-legged frog and northwestern pond turtle to monitor the removal of the top 12 inches of topsoil. • If potential aestivation burrows are discovered, the burrows would be flagged for avoidance. • After a rain event, and prior to construction activities resuming, a qualified biologist would inspect the work area and all equipment/materials for the presence of California red-legged frog and northwestern pond turtle. • Upon discovery of a California red-legged frog or northwestern pond turtle individual(s) in an active construction area, all work would cease within a 50-foot radius of the individual. The individual would be allowed to leave the site on its own; or if the individual(s) does not leave on its own, it would be relocated to suitable habitat as close to the Project site as feasible by a USFWS-approved biologist. • USFWS would be notified of any California red-legged frog or northwestern pond turtle discovery in the Project area in accordance with conditions of the Biological Opinion.
Biological Resources	MM-BIO-2: California Red-legged Frog Compensatory Mitigation	Caltrans will compensate for the permanent loss of California red-legged frog habitat through the purchase of credits from an approved conservation bank in the Project's service area. At least one such bank currently has available credits for the California red-legged frog, with a service area that includes the Project site. Credits will be purchased according to ratios determined through consultation with USFWS. Caltrans will offset temporary impacts during construction to California red-legged frog habitat by restoring disturbed areas to pre-Project conditions at a 1.1:1 ratio.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Cultural Resources	AMM-CULT-1: Cultural Sensitivity Training	Prior to the initiation of construction for the Project, an agency-approved archaeologist and Tribal representative from Federated Indians of Graton Rancheria would conduct an education program for all construction personnel with a focus on cultural, tribal, and archaeological resources. At minimum, the training would include discussion of archaeological and tribal resources that may be encountered (including the traditional importance of resources such as cultural landscapes, significant waterways, and ethnobotanical plants); the procedures to be following when working within archaeological monitoring areas or near environmentally sensitive areas, if applicable; and state and federal regulations pertaining to cultural resources, as well as the importance of compliance with Caltrans' conditions.
Hazardous Waste/ Materials	AMM-HAZ-1: Dewatering Treatment and Disposal	Groundwater pumped from the subsurface would be contained on-site in safe, labeled containers, and sampled and analyzed prior to treatment and disposal. The Project would comply with applicable federal, state, and local laws, regulations, and policies to avoid exposure of construction workers and the environment to hazardous materials.
Noise	AMM-NOI-1: Pile Driving	The Project contractor would limit pile-driving activities to weekdays between the hours of 7 a.m. and 6 p.m. and between 10 a.m. and 5 p.m. on Saturdays for construction activities within the TCEs. No pile driving would occur Sundays or official federal national holidays, unless authorized by the Community Development Director.
Tribal Cultural Resources	AMM-CULT-1: Cultural Sensitivity Training	Prior to the initiation of construction for the Project, an agency-approved archaeologist and Tribal representative from Federated Indians of Graton Rancheria would conduct an education program for all construction personnel with a focus on cultural, tribal, and archaeological resources. At minimum, the training would include discussion of archaeological and tribal resources that may be encountered (including the traditional importance of resources such as cultural landscapes, significant waterways, and ethnobotanical plants); the procedures to be followed when working within archaeological monitoring areas or near environmentally sensitive areas, if applicable; and state and federal regulations pertaining to cultural resources, as well as the importance of compliance with Caltrans' conditions.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Tribal Cultural Resources	AMM-TCR-1: Tribal Monitoring Area	Caltrans would establish and implement tribal monitoring areas on the Project. Caltrans would work with the Federated Indians Graton Rancheria (FIGR) to develop and implement a construction training monitoring and discovery plan for potential tribal cultural resources in the Project construction area. Also, a tribal representative would monitor job site activities within the tribal monitoring areas to reduce the Project's impacts to the resources within the Project limits. No work would be conducted within the tribal monitoring areas unless the tribal monitor is present or otherwise given explicit authorization from Caltrans' Office of Cultural Resource Studies.
Utilities and Emergency Services	AMM-UTIL-1: Coordinate with Local Emergency Services	During construction, Caltrans would coordinate with local emergency services to minimize delays to emergency services.
Transportation	MM-TRANS-1: Prepare Traffic Analysis	During the Phase 2 design phase, Caltrans will prepare a traffic analysis to evaluate the impacts of Phase 2 detours on traffic during construction. This analysis will evaluate access for local residents, oversized vehicles, and businesses from SR 37, Atherton Avenue, Hannah Ranch Road, and Marsh Road. Caltrans will develop a plan to maintain access for local residents and businesses along existing routes or identify alternate detour routes during Phase 2. The detour traffic analysis will include the estimated detour travel time with the anticipated traffic delays during Phase 2 construction and identify measures to minimize traffic delays. The traffic analysis results will inform the Transportation Management Plan for Phase 2 construction.
Water Quality	AMM-WQ-1. Low-impact Development Controls	Post-construction water quality impacts would be reduced through proper implementation of stormwater treatment measures, such as bioretention swales. The anticipated post construction stormwater treatment obligation would be to require treatment of runoff from the equivalent of the new impervious surface quantity. Stormwater treatment measures would be implemented within Caltrans right of way and/or off-site, as needed. All proposed stormwater treatment measures would be compliant with Caltrans and local requirements. Caltrans or the contractor would implement this AMM during construction.

Resource Area	Measure Reference	Avoidance Minimization, and/or Mitigation Measure
Wildfire	AMM-WF-1. Implement Fire Prevention Practices during Construction	Caltrans would implement the following fire prevention practices into the Project construction specifications prior to construction: • Internal combustion engines, stationary and mobile, would be equipped with spark arrestors. Spark arrestors would be in good working order. • Contractor would keep all construction sites and staging areas free of grass, brush, and other flammable materials. • Personnel would be trained in the practices of the fire safety plan relevant to their duties. • Construction and maintenance personnel would be trained and equipped to extinguish small fires. • Work crews would have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the fire department. • Smoking would be prohibited while operating equipment and would be limited to paved or graveled areas or areas cleared of all vegetation. Smoking would be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking would be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the Project area.

Reference:

California State Lands Commission. 2017. *Guidance Document for Biofouling Management Regulations to Minimize the Transfer of Nonindigenous Species from Vessels Arriving at California Ports*. Marine Invasive Species Program. *California Code of Regulations*, Title 2, Section 2298.1 et seq. September 19, 2017.

Appendix F Notice of Preparation

PROPOSED SR 37 FLOOD REDUCTION PROJECT

PRELIMINARY SUMMARY OF SCOPING COMMENTS RECEIVED AND SCOPING MEETING QUESTIONS

The following tables are a preliminary summary of the scoping comments received during the State Route (SR) 37 Notice of Preparation (NOP) review period. The NOP was released on November 3, 2021, for a 30-day review period ending on December 2, 2021. In response to public input, Caltrans extended the 30-day public review period through December 17, 2021, for a 45-day public scoping period. A public scoping meeting was held on November 17, 2021, through an online WebEx meeting. The purpose of the meeting was to present preliminary information on the Project and receive early input on the proposed environmental studies.

Table 1 is a list of the commenters that submitted a comment letter or email during the scoping review period. Table 2 is a brief summary of the issues raised in the written comments received during the scoping review period.

Table 1. Written Comments Received During Public Scoping Period

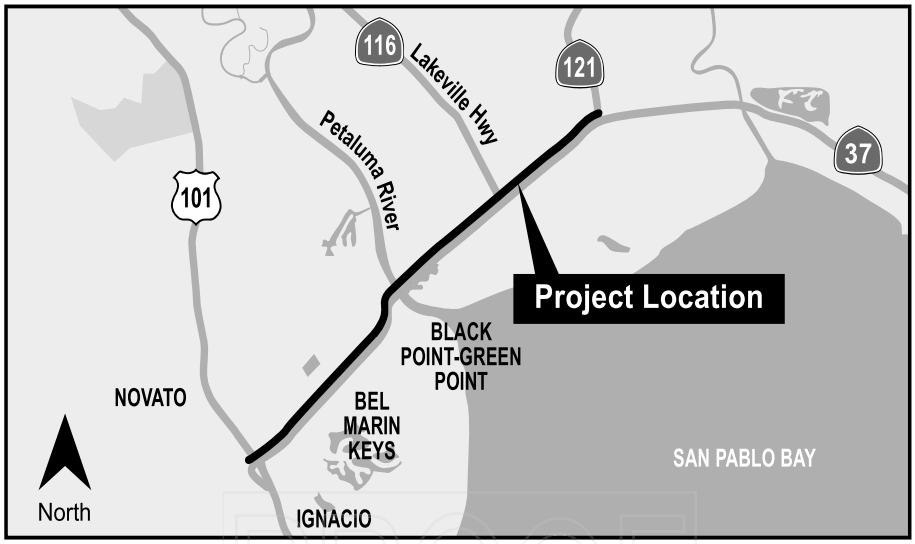
Date	Commenter
STATE	
12/15/2021	State Coastal Conservancy
12/2/2021	California State Lands Commission
12/2/2021	California Department of Fish and Wildlife
11/3/2021	Native American Heritage Commission
LOCAL	
12/13/2021	San Francisco Bay Conservation and Development Commission
12/6/2021	North Marin Water District
12/17/2021	Sonoma Land Trust
12/10/2021	Transportation Authority of Marin
12/17/2021	San Francisco Bay Regional Water Quality Control Board
12/16/2021	Port of Sonoma
ORGANIZATIONS	
12/17/2021	Ducks Unlimited
12/14/2021	Marin Conservation League
12/16/2021	Petaluma River Ranch
12/17/2021	Sierra Club
12/17/2021	Marin Audubon Society
11/19/2021	Marin County Bicycle Coalition
INDIVIDUALS	
11/16/2021	Mike Stedman
11/9/2021	Edward Schulze
12/16/2021	Susan Stompe
12/16/2021	Clint Kellner

Table 2. Summary of Public Scoping Comments (primary points as summarized from formal comments submitted in writing or email during the 45-day review period)

Comment Topic	Summary of Comment Topic
General	General comments included the following topics: support of or opposition to the Project or a specific design alternative; expanding the Project description; suggestions for technical topic discussions; request for information (presentation slides) provided at the scoping meeting; evaluation of alternatives; addressing environmental justice in the environmental document; cost of a short-term solution, and regional economics.
Project and Agency Coordination	Several comments emphasized the importance of Initiating coordination/consultation early within the environmental process.
Design Features	Many comments expressed concern that the design for the build alternative would not allow natural stream flow and sediment transport. Comments suggested evaluating alternatives that include those with causeways that allow for the free movement of water, sediment, and wildlife, instead of pursuing the proposed flood reduction planning efforts to elevate the embankments between U.S. 101 and SR 121. Some comments suggested that elevated roadway structures would improve wildlife connectivity and the embankment would disrupt the connectivity. Comments indicated the preference for a causeway and requested that a thorough analysis be provided.
Environmental Issues to Consider	Several comments included suggestions for the analysis in the environmental document regarding topics such as biological resources, hydrology/water quality, noise, air quality, greenhouse gases, recreational uses, cultural resources, and transportation. Comments included suggestions for mitigation/avoidance measures, technical studies to be included, and potential impacts to be evaluated.
Assess Multiple Alternatives	Many of the comments requested that multiple, less environmentally damaging options (alternatives) be developed and assessed. The request for additional alternatives included a causeway alternative that would be consistent with the design parameters that are being considered by the Ultimate Planning and Environmental Linkages (PEL) Study.[1]
Sediment Fill	Several comments expressed concern over sediment fill and if it would be proposed as part of the Project. Commenters believed the build alternative would result in significant direct fill impacts to San Pablo Bay and surrounding wetlands. Questions were asked regarding where sediment fill would be placed, methods used, and volume and surface area of the Bay and/or wetlands to be filled. The comments requested that a thorough discussion of proposed filling of existing tidal marshes and flats be provided.
Environmental Mitigation	The topic of mitigation included comments related to suggestions for the Project to avoid potential impacts to wildlife movement, wetlands, and terrestrial habitats.
Access Issues	Several comments involved access issues along the Project corridor during operation of the build alternative. Concern was shown with how improvements to the Project corridor would impact access to trails and whether properties along the corridor would lose access.
Consistency with PEL and Causeway	Many of the comments requested that the proposed Project not go forward with the evaluation of environmental impacts until the PEL process has been completed. Other comments suggested that the PEL study goals should also be incorporated into the Project scope upon completion of the PEL process. Comments expressed that the solution to flooding occurring at SR 37 should be compatible with the PEL process.

PUBLIC NOTICE

PUBLIC SCOPING COMMENT PERIOD EXTENSION



WHAT'S BEING PLANNED?

The California Department of Transportation (Caltrans) proposes to elevate the roadway and reconstruct and/or replace waterways crossings along State Route (SR) 37 from the U.S. 101 Interchange to SR 121 to reduce recurrent flooding and address anticipated effects from sea level rise from now through 2050.

WHY THIS AD?

Caltrans, as the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), will prepare an Environmental Impact Report/Environmental Assessment (EIR/EA) to analyze potential effects the proposed project may have on the environment. This notice is to solicit public input on the development of the project scope and the EIR/EA and to inform you that the comment period has been extended to 5 pm on December 17, 2021.

WHERE YOU COME IN?

The public scoping comment period has been extended to 45 days. Comments are being accepted from November 3, 2021, to December 17, 2021. Caltrans will address substantive comments in the Draft EIR/EA. Comments may be emailed to SR37FloodProject@dot.ca.gov or mailed to:

Caltrans, District 4
ATTN: Yolanda Rivas, Senior Environmental Planner
P.O. Box 23660, **MS: 8B**, Oakland, CA 94623-0660

VIRTUAL MEETING

To view the virtual public scoping meeting held on November 17, 2021, please see the website for a link to a recording of the meeting presentation and project information under the meetings and events tab at: http://www.sr37corridorprojects.com/

FOR MORE INFORMATION

Please contact Yolanda Rivas, Senior Environmental Planner, at yolanda.rivas@dot.ca.gov or (510) 506-1461.

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: SR Flood Reduction Project

Lead Agency: California Department of Transportation, District 4 Contact Person: Natalie Escoffier

Mailing Address: P.O. Box 23660, MS 8B Phone: 415-845-9639

City: Oakland Zip: 94623-0660 County: Alameda

Project Location: County: Marin and Sonoma City/Nearest Community: Novato/Sears Point

Cross Streets: Hanna Ranch Rd x SR 37 and SR 37 and SR 121 Zip Code: 94945, 95476

Longitude/Latitude (degrees, minutes and seconds): 38 ° 7 ′ 34.9 ″ N / 122 ° 29 ′ 18.6 ″ W Total Acres:

Assessor's Parcel No.: N/A Section: Twp.: Range: Base:

Within 2 Miles: State Hwy #: 611, 101, 121, 73 Waterways: Novato Creek, Simmons Slough, Petaluma River

Airports: N/A Railways: Sonoma Marin Area Rail Transi Schools: N/A

Document Type:

CEQA: ■ NOP ☐ Draft EIR NEPA: ☐ NOI Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ☐ Draft EIS ☐ Other:
☐ Mit Neg Dec Other: ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other:

Development Type:

☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees ■ Transportation: Type Roadway
☐ Commercial: Sq.ft. Acres Employees ☐ Mining: Mineral
☐ Industrial: Sq.ft. Acres Employees ☐ Power: Type MW
☐ Educational: ☐ Waste Treatment: Type MGD
☐ Recreational: ☐ Hazardous Waste: Type
☐ Water Facilities: Type MGD ☐ Other:

Project Issues Discussed in Document:

■ Aesthetic/Visual	☐ Fiscal	■ Recreation/Parks	■ Vegetation
■ Agricultural Land	■ Flood Plain/Flooding	☐ Schools/Universities	■ Water Quality
■ Air Quality	☐ Forest Land/Fire Hazard	☐ Septic Systems	☐ Water Supply/Groundwater
■ Archeological/Historical	■ Geologic/Seismic	☐ Sewer Capacity	■ Wetland/Riparian
■ Biological Resources	☐ Minerals	■ Soil Erosion/Compaction/Grading	☐ Growth Inducement
■ Coastal Zone	■ Noise	☐ Solid Waste	☐ Land Use
■ Drainage/Absorption	☐ Population/Housing Balance	■ Toxic/Hazardous	■ Cumulative Effects
☐ Economic/Jobs	☐ Public Services/Facilities	■ Traffic/Circulation	☐ Other:

Present Land Use/Zoning/General Plan Designation:

All proposed work would be within Caltrans Right-of-Way

Project Description: *(please use a separate page if necessary)*

The project proposes to elevate the roadway and reconstruct waterway crossings along State Route (SR) 37 from the US 101 Interchange to SR 121 to reduce recurring flooding issues due to sea level rise looking out to 2050. The Project Build Alternatives would not preclude a future project to address sea level rise over the long-term along the entire SR 37 corridor from US 101 to I-80.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

x	Air Resources Board	x	Office of Historic Preservation
	Boating & Waterways, Department of		Office of Public School Construction
	California Emergency Management Agency		Parks & Recreation, Department of
x	California Highway Patrol		Pesticide Regulation, Department of
	Caltrans District #		Public Utilities Commission
	Caltrans Division of Aeronautics	x	Regional WQCB # 2
	Caltrans Planning		Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy	x	S.F. Bay Conservation & Development Comm.
	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of	x	State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of	x	SWRCB: Water Quality
	Energy Commission		SWRCB: Water Rights
x	Fish & Game Region # 3		Tahoe Regional Planning Agency
	Food & Agriculture, Department of		Toxic Substances Control, Department of
	Forestry and Fire Protection, Department of		Water Resources, Department of
	General Services, Department of		
	Health Services, Department of	x	Other: US Fish and Wildlife Service, National Marine Fisheries Service
	Housing & Community Development	x	Other: US Army Corps of Engineers, California Transportation Commission
x	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date November 3, 2021 Ending Date December 2, 2021

Lead Agency (Complete if applicable):

Consulting Firm: N/A
Address:
City/State/Zip:
Contact:
Phone:

Applicant: California Department of Transportation
Address: P.O. Box 23660, MS-8B
City/State/Zip: Oakland California 94623-0660
Phone: (510) 506-1461

Signature of Lead Agency Representative: Yolanda Rivas **Date:** 10/29/21

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Notice of Preparation

To: _____

_____

(Address)

_____

From: Yolanda Rivas, Senior Environmental Planner

Caltrans District 4 Environmental

(Address)

P.O. Box 23660, MS 8B, Oakland CA 94623-0660

Subject: Notice of Preparation of a Draft Environmental Impact Report

Caltrans District 4 will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☐ is ☒ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Natalie Escoffier, Environmental Planner at the address shown above. We will need the name for a contact person in your agency.

Project Title: SR 37 Flood Reduction Project

Project Applicant, if any: N/A

Date 10/29/21

Signature Yolanda Rivas

Title Senior Environmental Planner

Telephone 510-506-1461

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Marin Independent Journal
4000 Civic Center Drive, Suite 301
San Rafael, CA 94903
415-382-7335
legals@marinij.com

JACOBS
1901 TUNNEL ROAD
BERKELEY, CA 94705

Account Number: 3843017

Ad Order Number: 0006620592

Customer's Reference / PO Number: PUBLIC NOTICE- CAL TRANS

Publication: Marin Independent Journal

Publication Dates: 11/03/2021

Amount: $285.25

Invoice Text:

Marin Independent Journal
4000 Civic Center Drive, Suite 301
San Rafael, CA 94903
415-382-7335
legals@marinij.com

3843017

JACOBS
1901 TUNNEL ROAD
BERKELEY, CA 94705

Legal No. **0006620592**

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Marin

I am a citizen of the United States and a resident of the County aforesaid: I am over the age of eighteen years, and not a party to or interested in the above matter. I am the principal clerk of the printer of the MARIN INDEPENDENT JOURNAL, a newspaper of general circulation, printed and published daily in the County of Marin, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Marin, State of California, under date of FEBRUARY 7, 1955, CASE NUMBER 25566; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

11/03/2021

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

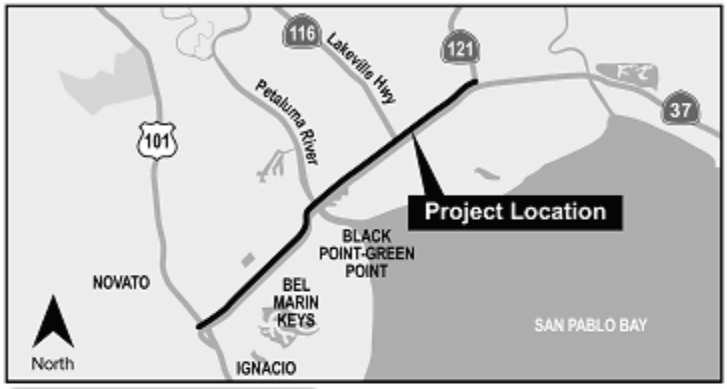
Dated this 3rd day of November, 2021.

Signature

PROOF OF PUBLICATION

PUBLIC NOTICE

NOTICE OF PREPARATION
CALTRANS IS PROCEEDING TO INITIATE AN ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL ASSESSMENT (EIR/EA) AND A VIRTUAL SCOPING MEETING HAS BEEN SCHEDULED FOR THE SR 37 FLOOD REDUCTION PROJECT.



WHAT'S BEING PLANNED?

The California Department of Transportation (Caltrans), proposes to elevate the roadway and reconstruct and/or replace waterways crossings along State Route (SR) 37 from the U.S. 101 Interchange to SR 121 to reduce recurrent flooding and address anticipated effects from sea level rise from now through 2050.

WHY THIS AD?

Caltrans, as the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), will prepare an Environmental Impact Report/Environmental Assessment (EIR/EA) to analyze potential effects the proposed project may have on the environment. This notice is to inform you of the scheduled public scoping meeting and comment period for this project and to solicit public input into the development of the scope of the project and the EIR/EA.

WHERE YOU COME IN?

Comments will be accepted during a 30-day public scoping period from November 3rd, 2021 to December 2nd, 2021. Caltrans will address substantive comments in the Draft EIR/EA. Meeting information will be available and comments may be submitted on the website http://www.sr37corridorprojects.com/ under "Meetings and Events" tab, or email SR37FloodProject@dot.ca.gov or mail to:

Caltrans, District 4
ATTN: Yolanda Rivas, Senior Environmental Planner
P.O. Box 23660, **MS: 8B**, Oakland, CA 94623-0660

VIRTUAL MEETING

Caltrans will host a virtual public scoping meeting on November 17, 2021, from 5:30 PM to 7:30 PM. Meeting information is available at:
http://www.sr37corridorprojects.com/

FOR MORE INFORMATION

Please contact Yolanda Rivas, Senior Environmental Planner, at Yolanda.rivas@dot.ca.gov or (510) 506-1461.

SPECIAL ACCOMMODATIONS

Individuals who require special accommodation (American Sign Language Interpreter, documentation in alternative formats, etc.) are requested to contact the Caltrans District 4 Public Information Office at **(510) 715-7906** at least 10 days prior to the scheduled meeting date. TTY users may contact the California Relay Service TTY line at **(800) 735-2922 (Voice)**, or **711**.

Marin Independent Journal
4000 Civic Center Drive, Suite 301
San Rafael, CA 94903
415-382-7335
legals@marinij.com

JACOBS
JULIE PETERSEN
2525 AIRPARK DR
REDDING, CA 96001

Account Number:	3824145
Ad Order Number:	0006718016
Customer's Reference / PO Number:	Caltrans Project 4Q320 / CAL TRANS
Publication:	Marin Independent Journal
Publication Dates:	12/10/2022, 12/11/2022
Amount:	$1,746.00
Invoice Text:	

Marin Independent Journal
4000 Civic Center Drive, Suite 301
San Rafael, CA 94903
415-382-7335
legals@marinij.com

3824145

JACOBS
JULIE PETERSEN
2525 AIRPARK DR
REDDING, CA 96001

Legal No. **0006718016**

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Marin

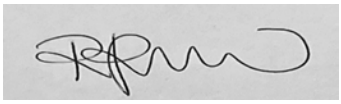
FILE NO. CAL TRANS

I am a citizen of the United States and a resident of the County aforesaid: I am over the age of eighteen years, and not a party to or interested in the above matter. I am the principal clerk of the printer of the MARIN INDEPENDENT JOURNAL, a newspaper of general circulation, printed and published daily in the County of Marin, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Marin, State of California, under date of FEBRUARY 7, 1955, CASE NUMBER 25566; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

12/10/2022, 12/11/2022

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Dated this 13th day of December, 2022.

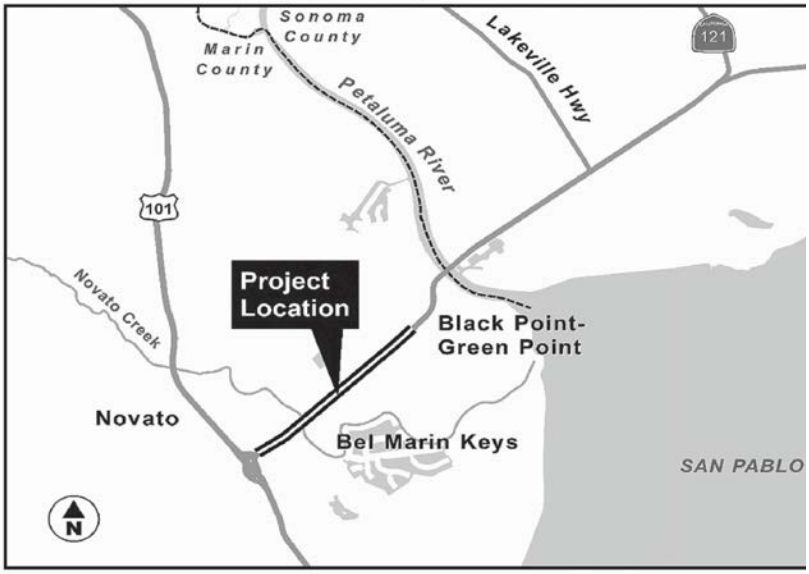


Signature

PROOF OF PUBLICATION

PUBLIC NOTICE

NOTICE OF THE SECOND SCOPING MEETING FOR THE STATE ROUTE 37 FLOOD REDUCTION PR
(State Clearinghouse No. 2021110045)



What's being planned: The California Department of Transportation (Caltrans) proposes to elevate State Route (SR) 37 from the U.S. 101/SR 37 I
Atherton Avenue Undercrossing within Marin County, California to reduce reoccurring flooding and accommodate projected 2130 sea level rise.

Why this ad: Caltrans, as the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NE
Environmental Impact Report/Environmental Assessment (EIR/EA) to analyze potential effects the proposed Project may have on the human and r
Previously, a virtual public scoping meeting was held on November 17, 2021. Based on the comments received, Caltrans has revised the propose
now two build alternatives, which both propose a causeway instead of the originally proposed elevated embankment. This notice is to inform the
public scoping comment period, to solicit public and agency input on the revised scope of the proposed Project, and to notify the public of an upc
meeting with an opportunity for a question and answer session.

Where you come in: Caltrans will host a second virtual public scoping meeting on **Wednesday, December 14, 2022, from 5:30-7:00 pm PST**, w
can watch a live presentation about the revised scope of the Project and the environmental process, followed by an opportunity for attendees to a
provide comments. The link to join the online public scoping meeting will be made available on the project website at: http://www.sr37corridorpro
the "What's New" section.

We welcome your comments on the revised scope of the Project during the 30-day public scoping comment period from **December 14, 2022 thr**
2023. Comments may be submitted via the following methods:

- Email to: SR37FloodProject@dot.ca.gov
- Postal Mail addressed to:

  Caltrans, District 4
  ATTN: Cody Ericksen, Senior Environmental Scientist
  P.O. Box 23660, MS: 8B, Oakland, CA 94623-0660

All comments must be received by 5:00 pm on January 13, 2023. All comments will be shared with the project development team and all substar
the scope of the EIR/EA will be considered during preparation of the environmental document.

Contact:

For more information about this Project, or if you have comments, questions, or concerns please contact Cody Ericksen, Senior Environmental Sci
cody.ericksen@dot.ca.gov or (510) 506-9678. TDD users may contact the California Relay Service TDD line at 1-800-735-2929 or Voice Line at 1

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-800-735-2922.

PUBLIC NOTICE

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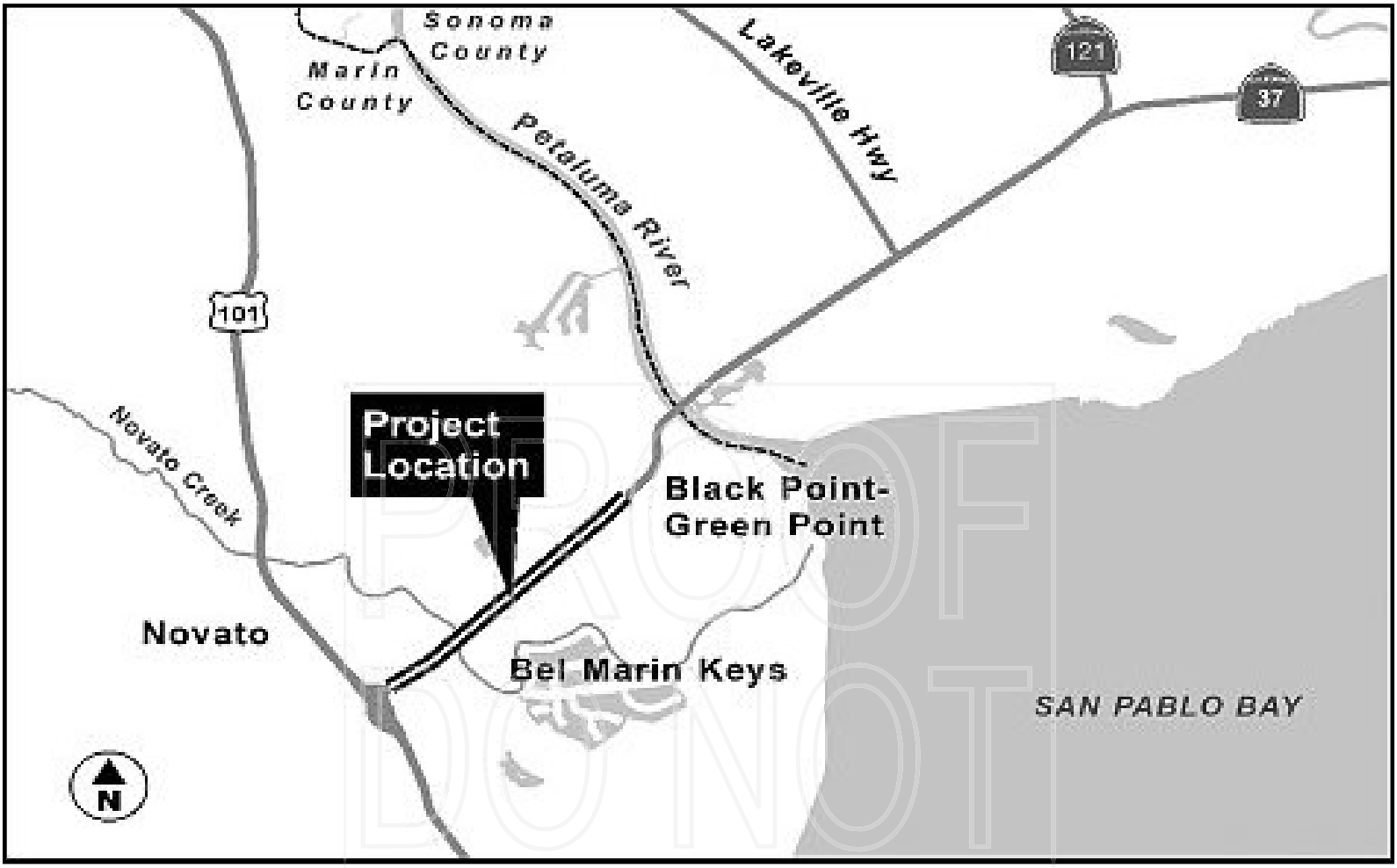


What's being planned: The California Department of Transportation (Caltrans) proposes to elevate State Route (SR) 37 from the U.S. 101/SR 37 Interchange to the Atherton Avenue Undercrossing within Marin County, California to reduce reoccurring flooding and accommodate projected 2130 sea level rise.

Why this ad: Caltrans, as the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), will prepare an Environmental Impact Report/Environmental Assessment (EIR/EA) to analyze potential effects the proposed Project may have on the human and natural environment. Previously, a virtual public scoping meeting was held on November 17, 2021. Based on the comments received, Caltrans has revised the proposed Project. There are now two build alternatives, which both propose a causeway instead of the originally proposed elevated embankment. This notice is to inform the public of a second public scoping comment period, to solicit public and agency input on the revised scope of the proposed Project, and to notify the public of an upcoming virtual public meeting with an opportunity for a question and answer session.

Where you come in: Caltrans will host a second virtual public scoping meeting on **Wednesday, December 14, 2022, from 5:30-7:00 pm PST**, where the public can watch a live presentation about the revised scope of the Project and the environmental process, followed by an opportunity for attendees to ask questions and provide comments. The link to join the online public scoping meeting will be made available on the project website at: http://www.sr37corridorprojects.com/ under the "What's New" section.

We welcome your comments on the revised scope of the Project during the 30-day public scoping comment period from **December 14, 2022 through January 13, 2023.** Comments may be submitted via the following methods:

- Email to: SR37FloodProject@dot.ca.gov
- Postal Mail addressed to:

  Caltrans, District 4

  ATTN: Cody Ericksen, Senior Environmental Scientist

  P.O. Box 23660, MS: 8B, Oakland, CA 94623-0660

All comments must be received by 5:00 pm on January 13, 2023. All comments will be shared with the project development team and all substantive comments on the scope of the EIR/EA will be considered during preparation of the environmental document.

Contact:

For more information about this Project, or if you have comments, questions, or concerns please contact Cody Ericksen, Senior Environmental Scientist at cody.ericksen@dot.ca.gov or (510) 506-9678. TDD users may contact the California Relay Service TDD line at 1-800-735-2929 or Voice Line at 1-800-735-2922.

PROOF DO NOT

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Sonoma

I am a citizen of the United States and a resident of the county aforesaid: I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of The Press Democrat, a newspaper of general circulation, printed and published DAILY IN THE City of Santa Rosa, County of Sonoma; and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Sonoma, State of California, under the date of November 29, 1951, Case number 34831, that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates to wit:

The Press Democrat - Legal Notices

12/9, 12/10 - 12/10/2022

I certify (or declare) under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct.

Dated at Santa Rosa, California, on

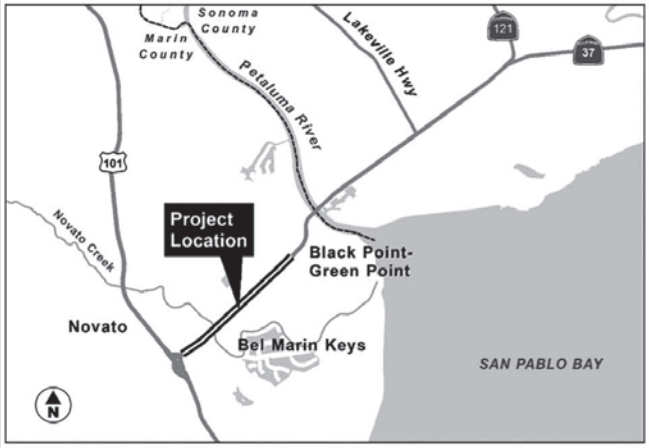
Dec 10, 2022

SIGNATURE

This space for County clerk's Filing Stamp

Proof of Publication of

PUBLIC NOTICE
NOTICE OF THE SECOND SCOPING MEETING FOR THE STATE ROUTE 37 FLOOD REDUCTION PROJECT
(State Clearinghouse No. 2021110045)



What's being planned: The California Department of Transportation (Caltrans) proposes to elevate State Route (SR) 37 from the U.S. 101/SR 37 Interchange to the Atherton Avenue Undercrossing within Marin County, California to reduce reoccurring flooding and accommodate projected 2130 sea level rise.

Why this ad: Caltrans, as the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), will prepare an Environmental Impact Report/Environmental Assessment (EIR/EA) to analyze potential effects the proposed Project may have on the human and natural environment. Previously, a virtual public scoping meeting was held on November 17, 2021. Based on the comments received, Caltrans has revised the proposed Project. There are now two build alternatives, which both propose a causeway instead of the originally proposed elevated embankment. This notice is to inform the public of a second public scoping comment period, to solicit public and agency input on the revised scope of the proposed Project, and to notify the public of an upcoming virtual public meeting with an opportunity for a question and answer session.

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We welcome your comments on the revised scope of the Project during the 30-day public scoping comment period from **December 14, 2022 through January 13, 2023.** Comments may be submitted via the following methods:

- Email to: SR37FloodProject@dot.ca.gov
- Postal Mail addressed to:
  Caltrans, District 4
  ATTN: Cody Ericksen, Senior Environmental Scientist
  P.O. Box 23660, MS: 8B, Oakland, CA 94623-0660

All comments must be received by 5:00 pm on January 13, 2023. All comments will be shared with the project development team and all substantive comments on the scope of the EIR/EA will be considered during preparation of the environmental document.

Contact:

For more information about this Project, or if you have comments, questions, or concerns please contact Cody Ericksen, Senior Environmental Scientist at cody.ericksen@dot.ca.gov or (510) 506-9678. TDD users may contact the California Relay Service TDD line at 1-800-735-2929 or Voice Line at 1-800-735-2922.

148220 – Pub Dec 9, 10, 2022 2ti.

Appendix G Bay Plan Policy Consistency Matrix

Appendix G Bay Plan Policy Consistency Matrix

A summary of the Project's consistency with applicable Bay Plan policies is shown in Table G-1.

Table G-1. Consistency with Bay Conservation and Development Commission San Francisco Bay Plan and McAteer-Petris Act Policies

Policy Source	Policy Overview	Project
Fish, Other Aquatic Organisms, and Wildlife Policy 1	To ensure the benefits of fish, other aquatic organisms, and wildlife for future generations, to the greatest extent feasible, the bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored, and increased.	**Consistent.** The Project would minimize impacts to fish, other aquatic organisms and wildlife. Most potential habitat impacts would occur outside of tidal marshes, tidal flats and subtidal habitat. Mitigation measures and avoidance and minimization measures (Appendix E) would reduce potential impacts to wetlands and aquatic organisms to a less than significant level.
Water Quality Policy 2	Water quality in all parts of the bay should be maintained at a level that will support and promote the beneficial uses of the bay, as identified in the San Francisco Bay RWQCB's Water Quality Control Plan, San Francisco Bay Basin. The bay should be protected from harmful or potentially harmful pollutants. The policies, recommendations, decisions, advice, and authority of the State Water Resources Control Board and the RWQCB, should be the basis for carrying out the BCDC's water quality responsibilities.	**Consistent.** A 401 Water Quality Certification from the RWQCB, and a 404 permit from the USACE would be required for this Project because of work and fill in jurisdictional Waters of the United States. The Project would comply with RWQCB's Trash Management Order and NPDES permit conditions which would address potential water quality impacts. Proposed avoidance, minimization measures to avoid or minimize such water quality impacts are in Appendix E and Sections 2.2.2 (Water Quality) and 3.3.10, (Hydrology and Water Quality).

Policy Source	Policy Overview	Project
Water Quality Policy 3	New projects should be sited, designed, constructed, and maintained to prevent or, if prevention is infeasible, minimize the discharge of pollutants into the bay. This should be accomplished by: (1) controlling pollutant sources at the project site; (2) using construction materials that contain nonpolluting materials; and (3) applying appropriate, accepted, and effective best management practices, especially where water dispersion is poor and near shellfish beds and other significant biotic resources.	**Consistent.** Implementation of Project features (Appendix D) and avoidance and minimization measures (Appendix E) would be used for sediment control and material management, as detailed in Sections 2.2.2 (Water Quality) and 3.3.10, Hydrology and Water Quality, thereby applying appropriate and effective best management practices for minimizing discharge of pollutants into the bay.
Transportation Policy 4	Transportation projects on the bay shoreline and bridges over the bay or certain waterways should include pedestrian and bicycle paths that will either be a part of the Bay Trail or connect the Bay Trail with other regional and community trails. Transportation projects should be designed to maintain and enhance visual and physical access to the bay and along the bay shoreline.	**Consistent.** The Project would provide a dedicated pedestrian and bicycle path at Project completion. Under Phase 1, the Novato Creek Bridge would provide a barrier-separated pedestrian and bicycle path that would connect to the SR 37 shoulders. At completion of Phase 2, the pedestrian and bicycle path would extend along the entirety of the Project limits on SR 37. This new bicycle and pedestrian path would become part of the SF Bay Trail. Bay views would be similar to existing views. The SR 37 Flood Reduction Project would install replacement railings that would be see-through bridge rails, similar to existing railings, which allow views to the San Pablo Bay and beyond.
Recreation Policy 3.a.9	Complete segments of the Bay and Ridge trails, where appropriate, consistently with policy 4-a-6.	**Consistent.** The Project would provide a dedicated pedestrian and bicycle path at Project completion. Under Phase 1, the Novato Creek Bridge would provide a dedicated pedestrian and bicycle path that would connect to the SR 37 shoulders. At completion of Phase 2, the pedestrian and bicycle path would extend along the entirety of the Project limits on SR 37 (2.5 miles).

Policy Source	Policy Overview	Project
Appearance, Design, and Scenic Views Policy 2	All bayfront development should be designed to enhance the pleasure of users and viewers of the bay. Maximum efforts should be made to provide, enhance, or preserve views of the bay and shoreline, especially from public areas, the bay itself, and the opposite shore.	**Consistent.** The SR 37 replacement of the Novato Creek Bridge (Phase 1) and the full build out of a new causeway at 35 feet elevation (Phase 2) would increase and widen the bay views of motorists and bicyclists/pedestrians using SR 37 because of the higher elevation.
Appearance, Design, and Scenic Views Policy 6	New or remodeled bridges across the bay should be designed to permit maximum viewing of the bay and its surroundings by both motorists and pedestrians. Guardrails and bridge supports should be designed with views in mind.	**Consistent.** The bridge railing replacement would consist of see-through railings to allow motorists, pedestrians and bicyclists to have increased views of the bay.
Appearance, Design, and Scenic Views Policy 7	Guardrails, fences, landscaping, and other structures related to access routes to bay crossings should be designed and located to maintain and take advantage of bay views.	**Consistent.** The bridge railing replacement would consist of see-through railings to allow motorists, pedestrians and bicyclists to have increased views of the bay.
Developing the Bay and Shoreline to Their Highest Potential 3.a.2	All other shoreline areas should be used in any manner that would not adversely affect enjoyment of the bay and shoreline by residents, employees, and visitors within the area itself or adjacent areas of the Bay and shoreline, in accordance with the BCDC's policies for Other Uses of the Bay and Shoreline. The McAteer-Petris Act specifies that for areas outside the priority use boundaries, BCDC may deny a permit application for a proposed project only on the grounds that the project fails to provide maximum feasible public access to the bay and shoreline.	**Consistent.** During construction, all four lanes would remain open to traffic for most of construction. A temporary increase in construction traffic would occur along SR 37 but during Phase 1, this would not prevent motorized or non-motorized traffic to access Harbor Drive for access to the Black Point Boat Launch and adjacent parking area, or other portions of the SF Bay Trail in the SR 37 Project vicinity. During Phase 2, the SR 37 on- and off-ramps would be temporarily closed. Project feature TRANS – 1: TMP addresses this in Appendix D. Implementation of MM-TRANS-1, Prepare Traffic Study, would minimize impacts during construction of Phase 2.

Policy Source	Policy Overview	Project
Public Access and Recreation: Section 66602 of the McAteer-Petris Act	Maximum feasible public access, consistent with a proposed project, should be provided.	**Consistent.** The proposed Project would provide a barrier-separated pedestrian and bicycle path at Project completion. Under Phase 1, the Novato Creek Bridge would provide a barrier-separated pedestrian and bicycle path that would connect to the SR 37 shoulders. At completion of Phase 2, the pedestrian and bicycle path would extend along the entirety of the Project limits on SR 37.
Environmental Justice and Social Equity	Bay Plan policies that address how proposed projects can address Environmental Justice and Social Equity and incorporate measures for disadvantaged communities.	**Consistent.** The SR 37 Flood Reduction Project limits and environs did not identify any Environmental Justice communities.
Climate Change Policy 5.	Wherever feasible and appropriate, effective, innovative sea level rise (SLR) adaptation approaches should be encouraged.	**Consistent.** The Project would build resiliency by adapting to projected 2130 SLR by elevating the highway to 35 feet (NAVD 88).
Climate Change Policy 8.	To effectively address sea level rise and flooding, if more than one government agency has authority or jurisdiction over a particular issue or area, project reviews should be coordinated to resolve conflicting guidelines, standards or conditions.	**Consistent.** Caltrans would continue collaborating with appropriate government agencies to approve permits, agreements and certifications required for the Project during the design phase and after certification of this Final EIR/EA/FONSI.

Appendix H Air Quality Conformity Exemption

Mareddy, Shilpa@DOT

From: Harold Brazil <HBrazil@bayareametro.gov>
Sent: Monday, April 10, 2023 6:42 PM
To: Mareddy, Shilpa@DOT
Cc: Fund Management System; John Saelee; Adam Crenshaw; Harold Brazil
Subject: FMS POAQC Project TIP ID VAR170005 (SR 37 Flood Reduction Project) update: Project is exempt

EXTERNAL EMAIL. Links/attachments may not be safe.

Dear Project Sponsor

The Air Quality Conformity Task Force has reviewed and concurred that project TIP ID VAR170005 (FMS ID: 6348.00) is exempt. As the project sponsor, you are receiving this email notifying you that the project is exempt from PM2.5 project level conformity requirements. Please save this email as documentation of completing the PM2.5 project level conformity process.

If there are any questions regarding the status of the project, please direct them to Harold Brazil at hbrazil@bayareametro.gov or by phone at 415-778-6747.

Appendix I Observed Plant Species

Appendix I Observed Plant Species

Family	Scientific Name	Common Name
Aizoaceae	*Carpobrotus edulis*	Iceplant
Alismataceae	*Alisma* sp.	Water-plantain *sp.*
Anacardiaceae	*Schinus molle*	Peruvian pepper tree
Apiaceae	*Conium maculatum*	Poison hemlock
	Daucus carota	Wild carrot
	Foeniculum vulgare	Fennel
	Torilis arvensis	Field hedge parsley
Apocynaceae	*Nerium oleander*	Oleander
Asteraceae	*Baccharis pilularis*	Coyote brush
	Madia sativa	Coastal tarweed
	Carduus pycnocephalus	Italian thistle
	Cirsium vulgare	Bull thistle
	Cortaderia jubata	Andean pampas grass
	Cotula coronopifolia	Brass buttons
	Centaurea solstitialis	Yellow star thistle
	Cynara cardunculus	Artichoke thistle
	Cynodon dactylon	Bermuda grass
	Dittrichia graveolens	Stinkwort
	Grindelia stricta	Gumweed
	Helminthotheca echioides	Bristly-ox tongue
	Hypochaeris radicata	Hairy cat's ear
	Lactuca serriola	Prickly lettuce
	Hemizonia congesta ssp. *lutescens*	Hayfield tarweed
	Pseudognaphalium luteoalbum	Jersey cudweed
	Senecio vulgaris	Common groundsel
	Silybum marianum	Milk thistle
	Spartina foliosa	California cordgrass
	Xanthium strumarium	Rough cockleburr
Brassicaceae	*Brassica nigra*	Black mustard
	Lepidium latifolium	Perennial pepperweed
	Hirschfeldia incana	Hoary mustard
Casuarinaceae	*Allocasuarina* sp.	Sheoak
Chenopodiaceae	*Atriplex prostrata*	Fat-hen
	Atriplex semibaccata	Australian saltbush
	Salicornia pacifica	Pickleweed

Family	Scientific Name	Common Name
Cupressaceae	*Cyperus eragrostis*	Tall flatsedge
	Sequoia sempervirens	Coast redwood
Cyperaceae	*Bolboschoenus fluviatilis*	River bulrush
	Bolboschoenus maritimus	Alkali bulrush
Dipsacaceae	*Dipsacus fullonum*	Fuller's teasel
Fabaceae	*Acacia melanoxylon*	Blackwood acacia
	Genista monspessulana	French broom
	Medicago polymorpha	California burclover
	Trifolium hirtum	Rose clover
	Trifolium repens	White clover
	Trifolium subterraneum	Subterranean clover
Fagaceae	*Quercus agrifolia*	Coast live oak
	Quercus douglasii	Blue oak
Frankeniaceae	*Frankenia salina*	Alkali heath
Geraniaceae	*Erodium cicutarium*	Coastal heron’s bill
	Geranium molle	Dove's foot crane bill
	Geranium purpureum	Little robin
Lamiaceae	*Mentha pulegium*	Pennyroyal
Lauraceae	*Umbellularia californica*	Bay laurel
Malvaceae	*Malvella leprosa*	Alkali mallow
Myrtaceae	*Eucalyptus globulus*	Blue gum
Oleaceae	*Olea europaea*	Olive
Plantaginaceae	*Plantago elongata*	Coast plantain
Platanaceae	*Platanus racemosa*	California sycamore
Poaceae	*Avena fatua*	Wild oats
	Bromus diandrus	Ripgut brome
	Bromus hordeaceus	Soft chess
	Bromus madritensis ssp. *rubens*	Foxtail brome
	Cynosurus echinatus	Dogtail grass
	Distichlis spicata	Salt grass
	Elymus triticoides	Creeping ryegrass
	Festuca perennis	Italian rye grass
	Holcus lanatus	Common velvetgrass
	Hordeum murinum	Foxtail barley
	Juncus sp.	Rush *sp.*
	Polypogon monspeliensis	Rabbitsfoot grass
	Phalaris aquatica	Harding grass
	Stipa miliacea ssp. *miliacea*	Smilo grass

Family	Scientific Name	Common Name
Polygonaceae	*Rumex acetosella*	Sheep sorrel
	Rumex crispus	Curly dock
	Rumex pulcher	Fiddle dock
Rosaceae	*Cotoneaster* sp.	Cotoneaster *sp.*
	Rubus armeniacus	Himalayan blackberry
Rubiaceae	*Galium aparine*	Common bedstraw
Salicaceae	*Salix lasiolepis*	Arroyo willow
	Salix babylonica	Weeping willow
Typhaceae	*Typha latifolia*	Broadleaf cattail

Appendix J Species List

Nikirk, Neil

From: Nikirk, Neil
Sent: Friday, November 3, 2023 12:00 PM
To: NMFS SpeciesList - NOAA Service Account
Subject: Official Species List for the State Route (SR) 37 Sea Level Rise Adaptation Project

I'm requesting concurrence with the official species list pasted below for the State Route (SR) 37 Sea Level Rise Adaptation Project Marin County, California. The project is located within the Novato USGS 7.5 Quadrangle.

Neil Nikirk
Neil Nikirk | Jacobs | 916.804.5954 | Neil.Nikirk@jacobs.com| www.jacobs.com

Quad Name **Novato**
Quad Number **38122-A5**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) - **X**
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - **X**
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat - **X**
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - **X**
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - X

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - X
Chinook Salmon EFH - X
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Nikirk, Neil

From: NMFS SpeciesList - NOAA Service Account <nmfs.wcrca.specieslist@noaa.gov>
Sent: Friday, November 3, 2023 12:00 PM
To: prvs=567193caa5=neil.nikirk@jacobs.com
Subject: [EXTERNAL] Federal ESA - - NOAA Fisheries Species List Re: Official Species List for the State Route (SR) 37 Sea Level Rise Adaptation Project

Please retain a copy of each email request that you send to NOAA at nmfs.wcrca.specieslist@noaa.gov as proof of your official Endangered Species Act SPECIES LIST. The email you send to NOAA should include the following information: your first and last name; email address; phone number; federal agency name (or delegated state agency such as Caltrans); mailing address; project title; brief description of the project; and a copy of a list of threatened or endangered species identified within specified geographic areas derived from the NOAA Fisheries, West Coast Region, California Species List Tool. You may only receive this instruction once per week. If you have questions, contact your local NOAA Fisheries liaison.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Novato (3812215) OR Petaluma (3812226) OR Petaluma Point (3812214) OR Petaluma River (3812225) OR Sears Point (3812224) OR San Geronimo (3812216) OR Bolinas (3712286) OR San Rafael (3712285) OR San Quentin (3712284))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
Adela oplerella Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Allium peninsulare var. franciscanum Franciscan onion	PMLIL021R1	None	None	G4G5T2	S2	1B.2
Alopecurus aequalis var. sonomensis Sonoma alopecurus	PMPOA07012	Endangered	None	G5T1	S1	1B.1
Ambystoma californiense pop. 3 California tiger salamander - Sonoma County DPS	AAAAA01183	Endangered	Threatened	G2G3T2	S2	WL
Amorpha californica var. napensis Napa false indigo	PDFAB08012	None	None	G4T2	S2	1B.2
Amsinckia lunaris bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S1	
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aplodontia rufa phaea Point Reyes mountain beaver	AMAFA01012	None	None	G5T2	S2	SSC
Arctostaphylos montana ssp. montana Mt. Tamalpais manzanita	PDERI040J5	None	None	G3T3	S3	1B.3
Arctostaphylos virgata Marin manzanita	PDERI041K0	None	None	G2	S2	1B.2
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Asio flammeus short-eared owl	ABNSB13040	None	None	G5	S2	SSC
Astragalus pycnostachyus var. pycnostachyus coastal marsh milk-vetch	PDFAB0F7B2	None	None	G2T2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Blennosperma bakeri Sonoma sunshine	PDAST1A010	Endangered	Endangered	G1	S1	1B.1
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
Bombus occidentalis western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Caecidotea tomalensis Tomales isopod	ICMAL01220	None	None	G2	S2S3	
Calamagrostis crassiglumis Thurber's reed grass	PMPOA17070	None	None	G3Q	S2	2B.1
Calicina diminua Marin blind harvestman	ILARAU8040	None	None	G1	S1	
Callophrys mossii marinensis Marin elfin butterfly	IILEPE2207	None	None	G4T1	S2	
Calochortus tiburonensis Tiburon mariposa-lily	PMLIL0D1C0	Threatened	Threatened	G1	S1	1B.1
Cardamine angulata seaside bittercress	PDBRA0K010	None	None	G4G5	S3	2B.1
Carex lyngbyei Lyngbye's sedge	PMCYP037Y0	None	None	G5	S3	2B.2
Castilleja affinis var. neglecta Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	G4G5T1T2	S1S2	1B.2
Ceanothus decornutus Nicasio ceanothus	PDRHA04440	None	None	G1	S1	1B.2
Ceanothus masonii Mason's ceanothus	PDRHA04200	None	Rare	G1	S1	1B.2
Centromadia parryi ssp. parryi pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
Chloropyron molle ssp. molle soft salty bird's-beak	PDSCR0J0D2	Endangered	Rare	G2T1	S1	1B.2
Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	PDPGN04081	None	None	G2T1	S1	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chorizanthe valida Sonoma spineflower	PDPGN040V0	Endangered	Endangered	G1	S1	1B.1
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Cirsium hydrophilum var. vaseyi Mt. Tamalpais thistle	PDAST2E1G2	None	None	G2T1	S1	1B.2
Coastal Brackish Marsh Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
Coastal Terrace Prairie Coastal Terrace Prairie	CTT41100CA	None	None	G2	S2.1	
Collinsia corymbosa round-headed collinsia	PDSCR0H060	None	None	G1	S1	1B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Cypseloides niger black swift	ABNUA01010	None	None	G4	S3	SSC
Danaus plexippus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	Candidate	None	G4T1T2Q	S2	
Delphinium bakeri Baker's larkspur	PDRAN0B050	Endangered	Endangered	G1	S1	1B.1
Delphinium luteum golden larkspur	PDRAN0B0Z0	Endangered	Rare	G1	S1	1B.1
Dermatocarpon meiophyllizum silverskin lichen	NLTEST91L0	None	None	G3G5	S3	2B.3
Dicamptodon ensatus California giant salamander	AAAAH01020	None	None	G2G3	S2S3	SSC
Dirca occidentalis western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Entosthodon kochii Koch's cord moss	NBMUS2P050	None	None	G1	S1	1B.3
Eriogonum luteolum var. caninum Tiburon buckwheat	PDPGN083S1	None	None	G5T2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	
Fissidens pauperculus minute pocket moss	NBMUS2W0U0	None	None	G3?	S2	1B.2
Fritillaria lanceolata var. tristulis Marin checker lily	PMLIL0V0P1	None	None	G5T2	S2	1B.1
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
Gilia capitata ssp. chamissonis blue coast gilia	PDPLM040B3	None	None	G5T2	S2	1B.1
Gilia capitata ssp. tomentosa woolly-headed gilia	PDPLM040B9	None	None	G5T2	S2	1B.1
Gilia millefoliata dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
Helianthella castanea Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
Hemizonia congesta ssp. congesta congested-headed hayfield tarplant	PDAST4R0W1	None	None	G5T2	S2	1B.2
Hesperoleucus venustus subditus southern coastal roach	AFCJB19032	None	None	GNRT2	S2	SSC
Hesperolinon congestum Marin western flax	PDLIN01060	Threatened	Threatened	G1	S1	1B.1
Holocarpha macradenia Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
Horkelia tenuiloba thin-lobed horkelia	PDROS0W0E0	None	None	G2	S2	1B.2
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Kopsiopsis hookeri small groundcone	PDORO01010	None	None	G4?	S1S2	2B.3
Lasiurus cinereus hoary bat	AMACC05032	None	None	G3G4	S4	
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
Lessingia micradenia var. micradenia Tamalpais lessingia	PDAST5S063	None	None	G2T2	S2	1B.2
Lilium pardalinum ssp. pitkinense Pitkin Marsh lily	PMLIL1A0H3	Endangered	Endangered	G5T1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Melospiza melodia pusillula Alameda song sparrow	ABPBXA301S	None	None	G5T2T3	S2	SSC
Melospiza melodia samuelis San Pablo song sparrow	ABPBXA301W	None	None	G5T2	S2	SSC
Microcina tiburona Tiburon micro-blind harvestman	ILARA47060	None	None	G2	S2	
Microseris paludosa marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
Microtus californicus sanpabloensis San Pablo vole	AMAFF11034	None	None	G5T1T2	S1S2	SSC
Mielichhoferia elongata elongate copper moss	NBMUS4Q022	None	None	G5	S3S4	4.3
Nannopterum auritum double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Navarretia leucocephala ssp. bakeri Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
Navarretia rosulata Marin County navarretia	PDPLM0C0Z0	None	None	G2	S2	1B.2
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Northern Vernal Pool Northern Vernal Pool	CTT44100CA	None	None	G2	S2.1	
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Oncorhynchus kisutch pop. 4 coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	G5T2Q	S2	
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T3Q	S3	
Pentachaeta bellidiflora white-rayed pentachaeta	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
Plagiobothrys glaber hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
Plagiobothrys mollis var. vestitus Petaluma popcornflower	PDBOR0V0Q2	None	None	G4?TX	SX	1A
Pleuropogon hooverianus North Coast semaphore grass	PMPOA4Y070	None	Threatened	G2	S2	1B.1
Pogonichthys macrolepidotus Sacramento splittail	AFCJB34020	None	None	G3	S3	SSC
Polygonum marinense Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1
Pomatiopsis binneyi robust walker	IMGASJ9010	None	None	G1	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Pomatiopsis californica Pacific walker	IMGASJ9020	None	None	G1	S1	
Quercus parvula var. tamalpaisensis Tamalpais oak	PDFAG051Q3	None	None	G4T2	S2	1B.3
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP
Rana boylii pop. 1 foothill yellow-legged frog - north coast DPS	AAABH01051	None	None	G3T4	S4	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S3	FP
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Sidalcea calycosa ssp. rhizomata Point Reyes checkerbloom	PDMAL11012	None	None	G5T2	S2	1B.2
Sidalcea hickmanii ssp. viridis Marin checkerbloom	PDMAL110A4	None	None	G3TH	SH	1B.1
Sorex ornatus sinuosus Suisun shrew	AMABA01103	None	None	G5T1T2Q	S1S2	SSC
Sorex vagrans halicoetes salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
Spergularia macrotheca var. longistyla long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2
Speyeria zerene sonomensis Sonoma zerene fritillary	IILEPJ6083	None	None	G5T1	S1	
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Stebbinsoseris decipiens Santa Cruz microseris	PDAST6E050	None	None	G2	S2	1B.2
Streptanthus anomalus Mount Burdell jewelflower	PDBRA2G520	None	None	G1	S1	1B.1
Streptanthus batrachopus Tamalpais jewelflower	PDBRA2G050	None	None	G2	S2	1B.3
Streptanthus glandulosus ssp. niger Tiburon jewelflower	PDBRA2G0T0	Endangered	Endangered	G4T1	S1	1B.1
Streptanthus glandulosus ssp. pulchellus Mt. Tamalpais bristly jewelflower	PDBRA2G0J2	None	None	G4T2	S2	1B.2
Stygobromus hyporheicus hyporheic amphipod	ICMAL05D80	None	None	G1	SX	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Syncaris pacifica California freshwater shrimp	ICMAL27010	Endangered	Endangered	G2	S2	
Talanites ubicki Ubick's gnaphosid spider	ILARA98030	None	None	G1	S1	
Taricha rivularis red-bellied newt	AAAAF02020	None	None	G2	S2	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thaleichthys pacificus eulachon	AFCHB04010	Threatened	None	G5	S1	
Trachusa gummifera San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	G1	S1	
Trifolium amoenum two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Trifolium polyodon Pacific Grove clover	PDFAB402H0	None	Rare	G1	S1	1B.1
Triquetrella californica coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Vespericola marinensis Marin hesperian	IMGASA4140	None	None	G2	S2	

Record Count: 136

CNPS Rare Plant Inventory

Search Results

12 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [1A:1B:2A:2B:3:4] Fed List is one of [FE:FT:FC] and State List is one of [CE:CT:CR:CC] , 9-Quad include [3812225:3812215:3812216:3812214:3812226:3812224:3712284:3712285:3712286]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Blennosperma bakeri	Sonoma sunshine	Asteraceae	annual herb	Mar-May	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Calochortus tiburonensis	Tiburon mariposa-lily	Liliaceae	perennial bulbiferous herb	Mar-Jun	FT	CT	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Castilleja affinis var. *neglecta*	Tiburon paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Jun	FE	CT	G4G5T1T2	S1S2	1B.2	Yes	1974-01-01	No Photo Available
Chloropyron molle ssp. *molle*	soft salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Nov	FE	CR	G2T1	S1	1B.2	Yes	1974-01-01	No Photo Available
Chorizanthe valida	Sonoma spineflower	Polygonaceae	annual herb	Jun-Aug	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Delphinium bakeri	Baker's larkspur	Ranunculaceae	perennial herb	Mar-May	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Delphinium luteum	golden larkspur	Ranunculaceae	perennial herb	Mar-May	FE	CR	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Hesperolinon congestum	Marin western flax	Linaceae	annual herb	Apr-Jul	FT	CT	G1	S1	1B.1	Yes	1974-01-01	 © 2009 Neal Kramer
Holocarpha macradenia	Santa Cruz tarplant	Asteraceae	annual herb	Jun-Oct	FT	CE	G1	S1	1B.1	Yes	1974-01-01	 © 2011 Dylan Neubauer

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Lilium pardalinum ssp. *pitkinense*	Pitkin Marsh lily	Liliaceae	perennial bulbiferous herb	Jun-Jul	FE	CE	G5T1	S1	1B.1	Yes	1974-01-01	 © 2020 Jason Matthias Mills
Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	annual herb	Mar-May	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Streptanthus glandulosus ssp. *niger*	Tiburon jewelflower	Brassicaceae	annual herb	May-Jun	FE	CE	G4T1	S1	1B.1	Yes	1974-01-01	Available

Showing 1 to 12 of 12 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 3 November 2023].

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: November 03, 2023
Project Code: 2024-0012442
Project Name: State Route 37 Flood Reduction Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2024-0012442
Project Name: State Route 37 Flood Reduction Project
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The California Department of Transportation is proposing the State Route (SR) 37 Flood Reduction Project. The purpose of the project is to build resiliency to the effects of projected 2130 sea level rise and stormwater overtopping onto SR 37 from Post Mile (PM) R11.2 to PM 13.8 in Marin County.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.093457,-122.52657753497405,14z



Counties: Marin County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Salt Marsh Harvest Mouse *Reithrodontomys raviventris* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/613	Endangered

BIRDS

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

REPTILES

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

FISHES

NAME	STATUS
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Marin Dwarf-flax *Hesperolinon congestum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5363	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Steve Rottenborn
Address: 983 University Ave., Bldg. D
City: Los Gatos
State: CA
Zip: 95032
Email srottenborn@harveyecology.com
Phone: 4087220931

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

Appendix K Responses to Comments

Introduction

This appendix to the State Route 37 Flood Reduction Project (Project) Final Environmental Impact Report/Environmental Assessment and Finding of No Significant Impact (EIR/EA/FONSI) includes all comments received on the Draft Environmental Impact Report/Environmental Assessment (EIR/EA) during the public comment period that began August 25 and ended October 8, 2023. Comments were in the form of letters, emails, and comment cards. Verbal comments were also received during the public meeting held September 21, 2023. Comments and responses are organized by Agency, Business, Individual, Organization, and Transcript (the written record of the public meeting).

Master Response 1: SMART

The California Department of Transportation (Caltrans) acknowledges the comments regarding improvements to Sonoma Marin Area Rail Transit (SMART) facilities along State Route (SR) 37. SMART currently operates freight service three times per week along SR 37. Improvements to SMART facilities are not part of this Project.

Caltrans has partnered with SMART to assist with developing a project study report. The objective of the project study report is to assist SMART in incorporating resiliency (including flood reduction) to their rail facilities that run parallel with SR 37 and as a result, alongside the Flood Reduction Project area. The project study report will produce various alternatives for SMART track improvements and is anticipated to be complete in 2024. This SMART project was included in Table 2.4.3-2 (Cumulative Projects: Current and Foreseeable Projects within Two Miles of the Project Area) of this Final EIR/EA/FONSI. Coordination between SMART and Caltrans is summarized in Chapter 4 of this Final EIR/EA/FONSI.

Master Response 2: Tolling and Transit

Caltrans acknowledges the comments regarding a lack of transit throughout the 21-mile SR 37 corridor. This Project does not include transit improvements such as bus or rail since it is not in the Project scope and not aligned with the Project's purpose and need. Improvements to SR 37 that include alternative forms of transit would be evaluated in future phases, such as incorporating SMART passenger rail service.

Caltrans acknowledges the comments regarding tolling as a form of subsidizing the cost of this Project. Tolling would not be a source of funding for this Project and is not included in this Project because it does not meet the purpose and need of the Project. This Project will receive state and federal funding.

Caltrans acknowledges the comments regarding providing tolling for this Project in Marin so that there is equity between Marin, and communities to the east that commute west on SR-37 for jobs.

The authority to toll was granted to the Metropolitan Transportation Commission (MTC) on the Sears Point to Mare Island Improvement Project, which, although on the SR 37 corridor, is not related to the Flood Control Project in Marin where funding is concerned. Caltrans is not involved in the collection or administration of toll funds.

Additional information on the Sears Point to Mare Island Improvement Project, which includes tolling, can be found at the following SR 37 websites: https://scta.ca.gov/resilient37/ and https://dot.ca.gov/caltrans-near-me/district-4/d4-projects/d4-37-corridor-projects/.

Caltrans acknowledges the comments regarding a lack of transit throughout the 21-mile SR 37 corridor. Although this Project meets criteria established in the Planning and Environmental Linkages report that helps guide the ultimate outcome of future projects on SR-37, the Project does not include direct transit improvements because it is not aligned with the Project's purpose and need. Any improvements to SR 37 that include alternative forms of transit would be evaluated in future phases, such as incorporating SMART passenger rail service.

Master Response 3: Biological Mitigation

Caltrans acknowledges comments seeking more information about onsite and offsite compensatory mitigation for this Project.

On January 25, 2023, Caltrans entered into a Partnership Agreement with state and federal resource and other Partner Agencies to confirm our commitment to achieve ecological goals and objectives along with our transportation goals and objectives in near-term and long-term projects on SR 37. Our Partner Agencies who are signatories to this Partnership Agreement include the California State Transportation Agency; Metropolitan Transportation Commission; California Natural Resource Agency; California Department of Fish and Wildlife; and San Francisco Bay Conservation and Development Commission. The ecological goals agreed on by the agencies include to "conserve California's biodiversity and ecosystems," "provide important ecosystem services such as improved water quality and flood risk reduction," and "enhance wildlife and ecological connectivity." Among other purposes, this Partnership Agreement helps set transparent expectations and procedural and substantive commitments to guide development and implementation of both near-term and long-term SR 37 resiliency projects.

To fulfill our mitigation requirements for this Project and advance our commitments in the Partnership Agreement, Caltrans has developed Mitigation Measures (MM)-BIO-1, Compensatory Mitigation for Wetlands and Other Waters, and MM-BIO-2, California Red-legged Frog Compensatory Mitigation. For California Red-legged Frog compensatory mitigation, Caltrans has advance mitigation conservation bank credits purchased that can be applied to this Project. Currently, Caltrans is exploring opportunities for mitigation of impacts in or near the Project corridor, including the possibility of contributing to the North Bay Baylands Resource Conservation Investment Strategy as part of California Department of Fish and Wildlife's (CDFW's) Regional Conservation Investment Strategies Program. At this time, the North Bay Baylands Regional Conservation Investment Strategy is not final, and guidelines to obtain mitigation credit agreements are not finalized. Both Phase 1 and Phase 2 of the Project propose to elevate the roadway above areas of sensitive habitat and riparian corridors, which would result in improved wildlife and habitat connectivity, reduced wildlife-vehicle collisions, and result in potential for creation of new habitats. Caltrans anticipates these improvements to habitat connectivity would reduce the overall need for compensatory mitigation. Once the Project design is further advanced, Caltrans would determine the exact acreage of mitigation or credits needed to compensate for Project impacts in coordination with regulatory agencies. The feasibility of specific mitigation and restoration opportunities will be fully explored by Caltrans in coordination with Partner and regulatory agencies during the permitting process.

Responses to Comments: Agencies

FEDERAL AGENCIES

Comment FA-1: United States Coast Guard (USCG), page 1 of 2

U.S. Department of Homeland Security
United States Coast Guard

Commander
Eleventh Coast Guard District

Coast Guard Island, Bldg 50-2
Alameda, CA 94501-5100
Staff Symbol: (dpw)
Phone: (510) 437-3516
Fax: (510) 437-5835
Email: Carl.T.Hausner@uscg.mil

16590
Novato Creek (3.7)
Simonds Slough (0.58)
October 3, 2023

Caltrans, District 4
ATTN: Skylar Nguyen
P.O. Box 23660, MS 8B
Oakland, CA 94623-0660

Dear Skylar Nguyen:

The Coast Guard has completed its review of the draft environmental assessment, dated August 2023, for the State Route 37 (SR 37) Flood Reduction Project, extending from U.S. Highway 101 to Atherton Ave on SR 37, at Novato, Marin County, California

FA-1-1

In response to your proposal regarding the replacement of the SR 37 bridge, mile 3.7, across Novato Creek, we have determined that reach of the waterways meets the Coast Guard's requirements for advance approval under 33 CFR 115.70. Therefore, a Coast Guard bridge permit is not required for the subject bridge project.

Advance approval is based upon the current use of the waterway and may not apply to future projects in the event navigation on the waterway changes. For advance approval waterways, the clearances provided for high water stages are considered adequate to meet the needs of current navigation.

FA-1-2

Although this project will not require a bridge permit, we do require certain information to ensure we have accurate records for all bridges across this waterway. Please submit photographs and as-built drawings of both plan and elevation views of the bridge upon completion of the project. Plans should be in the standard 8 ½ x 11 inch format. The drawings, along with the enclosed Completion Report Form, must indicate the vertical clearance from mean high water to the lowest portion of the bridge and horizontal clearance, pier face to pier face, or bank to bank, in the main navigation span.

In addition, the requirement to display navigational lighting at the aforementioned bridge is hereby waived, as per Title 33 Code of Federal Regulations, Part 118.40(b). This waiver may be rescinded at anytime in the future should nighttime navigation through the proposed bridge be increased to a level determined by the District Commander to warrant lighting.

Please note this decision relates only to Coast Guard bridge permitting and does not relieve the applicant of the responsibility to comply with any other applicable federal, state or local laws and regulations that may apply to this project. I recommend you contact the U.S. Army Corps of Engineers San Francisco District to determine whether they have any permitting requirements on

Comment FA-1: United States Coast Guard (USCG), page 2 of 2

16590
Novato Creek (3.7)
Simonds Slough (0.58)
October 3, 2023

the waterway.

FA-1-3

In response to your proposal regarding the replacement of the SR 37 box culvert bridge, mile 0.58, across Simonds Slough, we have confirmed that the Coast Guard has not previously determined the navigability of Simonds Slough at the project site. Furthermore, the waters in this location are neither tidally influenced nor currently used for substantial interstate or foreign commerce. Due to these factors, the Coast Guard does not intend to make a navigability determination in accordance with 14 USC § 563.

Absent such a determination, the Coast Guard hereby declines to assert jurisdiction under our bridge authorities on the above-described waterway or reach thereof. As such, a Coast Guard bridge permit is not required for the subject bridge project and other associated permit conditions related to lighting, navigational clearances, etc. will not be prescribed by our office.

This decision relates only to Coast Guard bridge permitting and does not relieve the applicant of the responsibility to comply with any other applicable federal, state or local laws and regulations that may apply to this project. I recommend you contact the U.S. Army Corps of Engineers San Francisco District to determine whether they have any permitting requirements on the waterway.

If you have any further questions concerning these determinations, please contact me at (510) 219-4366.

Sincerely,

CARL T. HAUSNER
Chief, Bridge Section
Eleventh Coast Guard District
By direction of the District Commander

Enclosure: Project Completion Report Form

e-Copy: U.S. Coast Guard Sector San Francisco, Waterways Management
U.S. Army Corps of Engineers, San Francisco District, Regulatory Division
U.S. Federal Highway Administration, California Division

Response to FA-1: United States Coast Guard (USCG)

Response to Comment FA-1-1:

Caltrans acknowledges USCG's determination that the Project at Novato Creek on SR 37 meets the requirements for advance approval under 33 Code of Federal Regulations 115.70; and therefore, a Coast Guard bridge permit is not required for the Project at the Novato Creek Bridge. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment FA-1-2:

Caltrans acknowledges USCG's determination that a bridge permit is not required for the Project. Caltrans acknowledges USCG's request for additional information for the purpose of accurate record keeping and would provide requested information for waterways within the Project limits at completion of the Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment FA-1-3:

Caltrans acknowledges that USCG had not previously determined the navigability of Simonds Slough and, furthermore, has declined to assert jurisdiction under their authority for the Simonds Slough waterway, thereby informing Caltrans that a bridge permit is not required for the Project at Simonds Slough. Edits to the Final EIR/EA/FONSI are not required.

STATE AGENCIES

Comment SA-1: California Department of Fish and Wildlife (CDFW), page 1 of 15

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

Governor's Office of Planning & Research

Oct 10 2023

STATE CLEARINGHOUSE

October 9, 2023

Skylar Huyen Nguyen
California Department of Transportation, District 4
111 Grand Avenue
Oakland, California 94612
Skylar.Nguyen@dot.ca.gov

Subject: State Route 37 Flood Reduction Project, Draft Environmental Impact Report, SCH No. 2021110045, Marin County

Dear Skylar Nguyen:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a Draft Environmental Impact Report (EIR) from the California Department of Transportation, District 4 (Caltrans) for the State Route 37 Flood Reduction Project (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] CDFW previously submitted comments in response to the Notice of Preparation (NOP) of the draft EIR.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife resources. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Comment SA-1: California Department of Fish and Wildlife (CDFW), page 2 of 15

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CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As **proposed, for example, the Project may be subject to CDFW's** Lake and Streambed Alteration (LSA) regulatory authority. (Fish & G. Code, § 1600 et seq.). Likewise, to the **extent implementation of the Project as proposed may result in "take" as defined by** state law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: Caltrans

Objective: The objective of the Project is to build resiliency to the effects of projected 2130 sea level rise (SLR) and stormwater overtopping onto State Route (SR) 37 from Post Mile (PM) R11.2 to PM 13.8. Primary Project activities include elevating 2.5 miles of SR 37 on a causeway. The Project would be phased with the most flood-prone project, the Novato Creek Bridge and connecting structures being built in Phase 1. Phase 2 would raise the rest of SR 37 within the Project area to reduce flooding and improve resiliency. The Project Build Alternative would raise the existing pavement elevation, which ranges between 3 feet and 9 feet (NAVD 88), to 35 feet (NAVD 88), and the elevated SR 37 would be constructed along the existing alignment.

Location: Unincorporated area of Novato, Marin County, Post Mile R11.2 to PM 13.8 along State Route 37.

Timeframe: Replacement of the Novato Creek Bridge (Phase 1) is anticipated to begin in May 2027 and end in June 2029 for a maximum duration of 26 months. Construction of Phase 2 would start in 2041 and end in 2045.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Caltrans in **adequately identifying and/or mitigating the Project's significant, or potentially** significant, direct, and indirect impacts on fish and wildlife (biological) resources.

COMMENT 1: Project Design and Phasing

SA-1-1

Issue: CDFW appreciates the changes made to the Project to include the Phase 2 design alternative that allows natural sediment deposition, natural flooding and SLR adaption mechanisms to occur within the Project boundary. CDFW believes the updated Project design will better avoid and minimize impacts to wetlands and intertidal habitats considered vital to wildlife and fisheries and will allow for improved wildlife passage and

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connectivity compared to the previous Project design. CDFW supports the updated Project design that includes building an elevated causeway. However, it is unclear if a staged EIR approach will be taken to provide additional analysis of potential natural resource impacts from Phase 2 at a later date. Currently, the draft EIR focuses on plans and impacts associated with Phase 1 but leaves out detailed analysis of estimated Project impacts from Phase 2. CDFW will need additional details to fully assess the potential impacts of Phase 2 such as those associated with the Phase 2 Project footprint, including any temporary access routes.

SA-1-1 cont'd

Recommendation 1: CDFW recommends the draft EIR clarify if a staged environmental analysis approach will be taken. Per CEQA guidelines section 15167, **"the staged EIR shall evaluate the proposal in light of current and contemplated plans** and produce an informed estimate of the environmental consequences of the entire **project."**

Recommendation 2: Additional analysis of the Project as a whole is recommended to demonstrate the relationship between Phase 1 and Phase 2 potential impacts and potential benefits to fish and wildlife resources.

Recommendation 3: CDFW recommends Phase 2 of the Project be initiated as soon as possible. Although CDFW understands and recognizes that Phase 2 is based on funding, CDFW encourages Caltrans to seek state and federal funding opportunities including the evaluation of the causeway for habitat and species credits through the Senate Bill (SB) 790 and Mitigation Credit Agreement (MCA) programs which would cover any species and habitats listed in the North Baylands Resource Conservation Investment Strategy (RCIS). CDFW believes an elevated causeway and modifying 20 culverts to improve aquatic and terrestrial wildlife passage would be well suited for SB 790 credits, though the Project would need to go through the evaluation process in the Guidelines.

COMMENT 2: Project Design Analysis and Coordination

SA-1-2

Issue: The draft EIR does not provide detailed design plans showing where Project abutments and piers may be located during Phase 1 and Phase 2 of construction. Abutment and pier placement within the stream channel can cause scour impacts, loss of habitat value and fish and/or wildlife passage obstructions. Site-specific locations will be needed to ensure abutments and pier locations are designed to be protective of biological resources.

Recommendation 1 – Design Coordination: Early coordination with **CDFW's** Habitat Conservation Program and Conservation Engineering Branch is recommended to provide review and analysis of any proposed structures or Project elements with the potential to impact fish and wildlife resources. CDFW**'s** Conservation Engineering

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Branch should be provided engineered drawings and design specification planning sheets during the initial design process, prior to design selection and re-initiating design consultation at 30 percent design at minimum and through the permitting process for review and comment as identified in the Interagency Agreement (Agreement Number 43A0398).

SA-1-2 cont'd

Recommendation 2 – Bridge and Stream Crossing References: CDFW recommends utilizing the design principles outlined in the California Salmonid Stream Habitat Restoration Manual, Part XII (CDFW, 2009) and NOAA Fisheries Service Guidelines for Salmonid Passage at Stream Crossings (National Marine Fisheries Service (NMFS), 2001) into stream crossing designs. CDFW strongly recommends the above manuals are included and referenced when designing the structure and creek work aspect of the Project. Such designs allow natural stream flow and sedimentation processes to continue for long term dynamic channel stability.

COMMENT 3: Fish Passage Assessment

Issue: The draft EIR identifies in Table 1-2, 20 culverts are proposed for improvements. The draft EIR does not provide sufficient information to determine if any of the streams where culverts will be replaced are fish bearing either currently or historically.

Recommendation 1: CDFW recommends all 20 culverts that are proposed for improvements to be assessed to determine if any culvert is a fish barrier and for that assessment to be disclosed in the draft EIR. If a culvert is determined to be a fish barrier, Caltrans shall fix the fish barrier as directed under SB 857.

SA-1-3

Multiple potential fish passage barriers and unassessed locations exist within the identified Project limits, as described within this comment section. Senate Bill 857 (SB-857), which amended Fish and Game Code § 5901 and added § 156 to the Streets and Highways Code states in § **156.3, "For any project using state or federal transportation** funds programmed after January 1, 2006, [Caltrans] shall ensure that, if the project affects a stream crossing on a stream where anadromous fish are, or historically were found, an assessment of potential barriers to fish passage is done prior to commencing project design. [Caltrans] shall submit the assessment to the [CDFW] and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with the [CDFW]."

Evidence: The Project contains stream crossings within areas mapped as historic or current watersheds where anadromous fish are, or historically were, found. The species include but are not limited to Steelhead – California Central Valley Distinct Population

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SA-1-3 cont'd

Segment (DPS) (BIOS; DS-810), Steelhead – Central Coast DPS (BIOS; DS-806), Chinook Salmon – Central Valley Fall Run/Late Fall Run Evolutionarily Significant Unit (ESU) (BIOS; DS-802), Chinook Salmon – Spring Run of the Sacramento River Drainage/Central Valley Spring Run (BIOS; DS-801), Chinook Salmon – Winter Run (BIOS; DS-800), Longfin Smelt (BIOS; DS-1324) and Delta Smelt (BIOS; DS-1249). The decline of naturally spawning salmon and steelhead trout is primarily a result of the loss of appropriate stream habitat and the inability of fish to get access to habitat, according to reports to the Fish and Game Commission and by CDFW (CDFW, 1996). Restoration of access to historical spawning and rearing areas should be incorporated into the Project design through barrier modification, fishway installation, or other means (CDFW, 1996).

Recommendations: If barriers or unassessed barriers within the Project limits obstruct fish passage (including seasonally), remediation of the problem should be designed into the Project by the implementing agency as a Project feature in consultation with CDFW and other natural resource agencies.

The fish passage section should discuss the current status of the crossing locations noted in the California Fish Passage Assessment Database, conduct first pass and or second pass fish assessments, as necessary, as well as provide images of the upstream and downstream ends of water conveyance structures (culverts). CDFW requests a fish passage discussion section is included to address potentially significant impacts and how Caltrans will avoid or minimize the potentially significant impacts.

COMMENT 4: Project Lighting

SA-1-4

Issue: A significant portion of the proposed Project limits within the SR 37 corridor do not contain any overhead artificial light sources. It is unclear if the Project proposes the installation of new or replacement light sources. Artificial light spillage beyond the prism of the roadway into natural areas may result in a potentially significant impacts through substantial degradation of the quality of the environment.

Evidence: Artificial night lighting can disrupt the circadian rhythms of many wildlife species, and lead to a significant impact on resident and migratory species that utilize the Project area and surrounding lands and waters. Many species use photoperiod cues for communication (e.g., bird song; Miller 2006), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). A number of species in the Project area travel only during the evening, including salt marsh harvest mice and bats. Impacts to nocturnal species movement with lighting can expose them to predators and force them to take less preferred routes, leading to mortality and/or indirect impacts to the population. Nighttime lighting also attracts insects, which in turn attracts insectivorous species. Attracting these species to lights at night can increase the likelihood of direct mortality from traffic

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and construction equipment. Artificial night lighting has also been found to impact juvenile salmonid overwintering success by delaying the emergence of salmonids from benthic refugia and reducing their ability to feed during the winter (Contor and Griffith 1995), while larval green sturgeon avoid light at night (Nguyen and Crocker 2006). For nocturnally migrating birds, direct mortality as a result of collisions with anthropogenic structures due to attraction to light (Gauthreux, 2006) is another direct effect of artificial light pollution. There are also more subtle effects, such as disrupted orientation (Poot et al. 2008) and changes in habitat selection (McLaren et al. 2018). There is also growing evidence that light pollution alters behavior at regional scales, with migrants occupying urban centers at higher-than-expected rates as a function of urban illumination (La Sorte et al. 2021). While artificial light pollution can act as an attractant at both regional (La Sorte et al. 2021) and local (Van Doren et al. 2017) scales, there is also evidence of migrating birds avoiding strongly lit areas when selecting critical resting sites needed to rebuild energy stores (McLaren et al. 2018).

Recommendation 1: CDFW strongly recommends limits to nighttime work and no new artificial lighting is installed as a result of Project completion in areas where no lighting currently exists to avoid a potentially significant impacts to biological resources.

SA-1-4 cont'd

Recommendation 2 – Light Output Analysis: The lead agency should submit as part of the draft EIR Isolux Diagrams that note current light levels present during pre-Project conditions and the predicted Project light levels that will be created upon completion of the Project and during construction. If an increase in light output from current levels to the projected future levels is evident additional avoidance, minimization or mitigation shall be developed in coordination with the natural resource agencies to offset indirect impacts to State listed species. Within 60 days of Project completion the lead agency shall conduct a ground survey that compares projected future light levels with actual light levels achieved upon completion of the Project through comparison of Isolux Diagrams. If an increase from the projected levels to the actual levels is discovered additional avoidance, minimization or mitigation measures may also be required in coordination with the natural resource agencies.

Recommendation 3 – Light Output Limits: All LED's or bulbs installed as a result of the Project shall be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum.

Recommendation 4 – Vehicle Light Barriers: Solid barriers at a minimum height of 3.5 feet should be installed in areas where they have the potential to reduce illumination from overhead lights and from vehicle lights into areas outside of the roadway. Barriers should only be utilized as a light pollution minimization measure if they do not create a significant barrier to wildlife movement. Additional barrier types should be employed when feasible, such as privacy slats into the spacing of cyclone fencing to create light barriers for areas outside the roadway.

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Recommendation 5 – Reflective Signs and Road Striping: Retroreflectivity of signs and road stripping should be implemented throughout the Project to reduce the need for electrical lighting.

SA-1-4 cont'd

Recommendation 6 – Light Pole Modifications and Shielding: All light poles or sources of illumination that shall be new or replacement installations of existing light sources should be installed with the appropriate shielding to avoid excessive light pollution into natural landscapes or aquatic habitat with the Project area in coordination with CDFW. In addition, the light pole arm length and mast heights should be modified to site-specific conditions to reduce excessive light spillage into natural landscapes or aquatic habitat within the Project corridor. In areas with sensitive natural landscapes or aquatic habitat, the lead agency should also analyze and determine if placing the light poles at non-standard intervals has the potential to further reduce the potential for excessive light pollution caused by decreasing the number of light output sources in sensitive areas.

COMMENT 5: Swainson's Hawk Nesting

SA-1-5

Issue: The draft EIR states that if a Swainson's hawk nest is discovered during surveys or monitoring, then a minimum 250-foot buffer (or as otherwise determined in coordination with CDFW) would be kept free from Project-related activities as long as the nest is active.

Evidence: The Project is located within and adjacent to grassland habitat that may be suitable foraging, and suitable nesting habitat for Swainson's hawk, a State threatened species, also protected under Fish and Game Code § 3503, 3503.5 and the federal Migratory Bird Treaty Act.

Recommendation 1: CDFW recommends avoiding all Project-related disturbance within a minimum of 0.5 miles of an active Swainson's hawk nest during the nesting season. Please refer to the CDFW guidance document on Swainson's hawk, which is available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83992&inline, on take avoidance, minimization and mitigation measures. Early consultation with CDFW and other natural resource agencies on Swainson's hawk take avoidance, minimization measures and mitigation measures are strongly recommended.

COMMENT 6: Habitat Connectivity and Wildlife Passage Through Project Features

SA-1-6

Issue: Construction of Phase 2 is not expected to begin until 2041 and is contingent on funding. The completion of the Project through Phase 2 is anticipated to provide additional habitat connectivity for wildlife in and adjacent to the Project area. However, the draft EIR does not provide sufficient information to determine the impacts of Phase 1 on wildlife connectivity, or the existing conditions regarding connectivity through and under the Project's structures.

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SA-1-6 cont'd

Limited information is provided in the draft EIR to adequately determine impacts and/or benefits for wildlife connectivity from the Project. While the elevated roadway planned for the Project provides for additional connectivity for aquatic species, many of the anticipated benefits may not be realized until Phase 2 of the Project is constructed. Terrestrial species often utilize roads when culverts and other passages flood during high tide and storm events, common in the Project area, and could be impacted if high tide and flood refugia are not included in Project designs. Species vary in their mobility and ability to pass over and under roads, and species-specific data are necessary to implement designs that will not impact those species.

Evidence the impact would be significant: Salt marsh harvest mouse require connected patches of habitat, and even small, connected patches are beneficial to the species (1984 Recovery Plan; Aylward et al., 2023), and are mostly active at night indicating that shading under the bridge span can support connectivity. Since salt marsh harvest mouse often reside in the intertidal zone, they may require refuge during high tides, benefiting from high tide escape vegetation (Aylward et.al, 2023), which would be supported by providing connectivity between marshes along Novato Creek. Flooding can force salt marsh harvest mouse to take temporary refuge either in emergent vegetation (Johnston 1957; Smith et al. 2014) or by movement to non-inundated habitat (Hadaway and Newman 1971), including habitat approaching urbanized areas and road (Marcot et al., 2020).

California wildlife is losing the ability to move and migrate as habitat conversion and built infrastructure disrupt species habitat and cut off migration corridors (SB 790). The ecological footprint of roads extends beyond their physical footprint due to road mortality, habitat fragmentation, and indirect impacts (Spencer et al., 2010). Combined impacts of sea-level rise combined with wetland-specific accretion rates could result in loss of significant habitat of marsh habitat, reducing connectivity in the Project area. SB 790 and Assembly Bill 2344 both address wildlife connectivity in California and assert authority and responsibility to CDFW and/or local and state transportation agencies to make wildlife connectivity actions by identifying where they are needed, coordinate and implement those actions, and establish compensatory mitigation credits for actions taken. The Project is immediately adjacent to protected lands that could support connectivity across the Project, including Petaluma Marsh Wildlife Area – Novato Creek **Unit, Marin County's Deer Island Open Space Preserve, land protected through the Marin County Flood Control District, and Marin Audubon's Marin Audubon**- Simmons Slough Wildlife Corridor.

SA-1-7

Recommendation 1: The draft EIR should expand the Project impact buffer (BSA) to account for wildlife corridors and habitat connectivity through the structures; including the impacts of future flooding (Figure 3.3-4) on wildlife movement and connectivity under and around the proposed structures. The draft EIR should include the results of a Project wildlife movement study that evaluates the potential for the Project to

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SA-1-7 cont'd

significantly impact wildlife connectivity, and to develop measures to encourage connectivity. During this process, CDFW recommends that Caltrans identify if any of the Project facilities replacement or reconstruction projects are within state or regional linkage design areas, species core recovery areas or critical habitat, or in locations with high vehicle-animal collisions, and consider measures to incorporate movement of both aquatic and terrestrial species to allow for safe passage over or under and determination of broader impacts on connectivity. CDFW recommends the study occur over a period of at least 24 months prior to the development of designs so they may be incorporated into the Project and include an assessment of intra- and interannual changes in species movement and changes in hydrology and climate. The study should occur within the limits of the proposed Project to develop a baseline understanding of the areas where wildlife movement and crossings are most prevalent. The study should monitor and evaluate wildlife movement adjacent to and through structures, including **the 20 culverts that will be replaced "in-kind".** The study should include an evaluation of culverts for passage of native and non-native terrestrial/aquatic species. The protocol for the baseline survey, post-construction surveys, site selection criteria and design criteria for the development of the wildlife connectivity structures should follow the protocols outlined in; *The California Department of Transportation (Caltrans), Wildlife Crossings Design Manual* (Caltrans, 2009) and the *Federal Highway Administration Wildlife Crossing Structure Handbook (FHWA, 2011)*.

SA-1-8

Recommendation 2: Habitat connectivity requires space for wildlife to move through a matrix of high- and low-quality habitat. The draft EIR should include an analysis of potential indirect impacts of the Project on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands, open space, natural habitats, riparian ecosystems, and wildlife corridors especially as they relate to connectivity. The draft EIR should also include an evaluation of potential indirect impacts of the Project on any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Conservation or Recovery Plan, or other conserved lands). This discussion should include a review of lands identified in the draft North Baylands RCIS.

SA-1-9

Recommendation 3 – Wildlife Connectivity and Advanced Mitigation: CDFW recommends incorporating facets in the EIR of existing CDFW programs that can be used to promote habitat connectivity, such as RCIS/MCAs and SB 790 wildlife connectivity actions. CDFW recommends the draft EIR utilize information from Recommendations 1 and 2 to guide Caltrans in developing mitigation for the Project and potentially for future projects through the development of advance mitigation projects. **Caltrans' Advance Mitigation Program has the potential to use the RCIS (Fish** & G. Code § 1850 et. seq.) as an instrument to establish MCAs that may coincide with the goal of both pieces of legislation.

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SA-1-9 cont'd

This recommendation aligns with the draft North Baylands RCIS which includes the Project area. Caltrans should keep in mind that SB 790 is not only focused on establishing mitigation credits for improving aquatic or terrestrial habitat connectivity or wildlife migration, but also includes recolonization, and breeding opportunities inhibited by built infrastructure or habitat fragmentation. Wildlife connectivity actions may include, but are not limited to, road overpasses or underpasses solely for use by wildlife and actions to connect fragmented habitat. Therefore, CDFW recommends that Caltrans analyze and consider wildlife connectivity actions in the draft EIR that can improve conditions for a variety of species including bats, birds, fish species, amphibians, and other aquatic and terrestrial plant and wildlife species.

SA-1-10

Recommendation 4: As part of a larger wildlife connectivity study, the draft EIR should include the results of a site-specific bridge shade study that evaluates the potential for salt marsh harve**st mouse, California Ridgway's Rail, and California Black Rail to utilize** habitat below shaded bridge spans in the Project area. CDFW recommends the study occur over a period of at least 24 months prior to the development of designs so they may be incorporated into the Project and include an assessment of intra- and interannual changes in species movement and changes in hydrology and climate, as the species are sensitive to seasonal changes in hydrology, salinity, and vegetation.

Recommendation 5: Results of information collected in the study described above should be used to develop additional avoidance, minimization and/or mitigation measures to ensure impacts to biological resources are less than significant and should be included in the draft EIR for Phase 1 and considered in the development of CEQA documents for Phase 2.

SA-1-11

COMMENT 7: Wildlife Fencing

Issue: The draft EIR states that wildlife exclusion fencing would be installed where special-status species could enter the Project limits. Additionally, the replacement of culverts as part of the Project could result in the placement of additional fencing, yet this detail is not included in the draft EIR.

Evidence: Fencing can impact the ability of species to pass through barriers created by roads and associated infrastructure. Placement of fencing in the Project boundaries can impact wildlife passage, as can placement of fencing in front of culvert openings.

Recommendation 1: The draft EIR should evaluate the Project impacts of fencing on wildlife crossing and passage to reduce injury and mortality and so that terrestrial and aquatic wildlife are able to safely pass **over or under the Project's structures.**

Recommendation 2: Culvert fencing should not be placed where it could impede movement of wildlife (e.g., block culvert inlets or outlets). Fencing should also be

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SA-1-11 cont'd

designed to deter wildlife from crossing over the road and to reduce wildlife-vehicle collisions, during both dry and wet seasons.

COMMENT 8: Take of a Fully Protected Species

Issue: Both phases of the Project have the potential to result in take of fully protected species. The only current pathway for CDFW to authorize take of a fully protected species for this Project is through provisions created under SB 147. If construction of Phase 2 starts in 2041 as currently projected within the draft EIR, SB 147 will have expired and CDFW may not be able to issue an Incidental Take Permit for fully protected species.

SA-1-12

Evidence: SB 147 has been approved by the Governor and allows CDFW to issue Incidental Take Permits that meet the requirements of 2081 (b) and (c) between the time it was enacted and December 31, 2033 for certain type of projects, including transportation projects, including any associated habitat connectivity and wildlife crossing project, undertaking by a state, regional, or local agency, that does not increase highway or street capacity for automobile or truck travel.

Recommendation 1: The draft EIR should assess all potential impacts of the Project on fully-protected species. If complete impact avoidance cannot be achieved, Caltrans shall obtain incidental take coverage before Project construction. Any Project impacts to fully protected species, including clapper rail, black rail and salt marsh harvest mouse shall be mitigated consistent with Fish and Game Code section 2081.15(a) to minimize and fully mitigate the impacts of the authorized take.

Recommendation 2: The draft EIR should clearly state if it meets the requirements of SB 147 to allow take of a fully protected species and if so, provide additional rationale why. If it does not, CDFW recommends the Project be revised to meet the requirements of SB 147 so Caltrans can pursue incidental take coverage through this permitting mechanism.

REGULATORY AUTHORITY

Fish and Game Code § 5901

Except as otherwise provided in this code, it is unlawful to construct or maintain in any stream in Districts 1, 13/8, 11/2, 17/8, 2, 21/4, 21/2, 23/4, 3, 31/2, 4, 41/8, 41/2, 43/4, 11, 12, 13, 23, and 25, any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and down stream.

Fish are defined as a wild fish, mollusk, crustacean, invertebrate, amphibian, or part, spawn, or ovum of any of those animals (Fish & G. Code § 45).

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ENVIRONMENTAL DOCUMENT FILING FEES

SA-1-13

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

ENVIRONMENTAL DATA

SA-1-14

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals

CONCLUSION

CDFW appreciates the opportunity to comment on the draft EIR to assist Caltrans in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Will Kanz, Environmental Scientist, [redacted] or [redacted] or Wesley Stokes, Senior Environmental Scientist (Supervisory), [redacted]

Sincerely,

DocuSigned by:
[redacted]
Erin Chappell
Regional Manager
Bay Delta Region

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2021110045)
Craig Weightman, CDFW Bay Delta Region - [redacted]
Brenda Blinn, CDFW Bay Delta Region – [redacted]

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Comment SA-1: California Department Fish and Wildlife (CDFW), page 15 of 15

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United States Fish and Wildlife Service, 2010. Draft recovery plan for tidal marsh ecosystems of Northern and Central California. Sacramento, California, USA.

Response to SA-1: California Department of Fish and Wildlife (CDFW)

Response to Comment SA-1-1:

Caltrans acknowledges CDFW's support for the Build Alternative and inquiry about when additional analysis for the potential Phase 2 impacts would be available. CDFW recommends the Draft EIR/EA clarify if a staged EIR will be prepared in the future and that Caltrans initiate Phase 2 of the Project as soon as possible.

As discussed in the Final EIR/EA/FONSI, Caltrans is committed to completing additional analysis during the design phase of Phase 2. As stated in Section 2.3, Biological Resources, Caltrans would re-evaluate biological conditions and impacts from Phase 2 during final design of that phase. Because environmental conditions such as natural communities and wildlife species potentially present change over time, re-evaluating biological conditions at a later date would result in a more accurate analysis of the potential impacts. As described in the Final EIR/EA/FONSI, Phase 2 would be constructed by 2050. Caltrans would investigate options for funding of Phase 2 in accordance with CDFW's recommendations. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-2:

Caltrans acknowledges the comment that the Draft EIR/EA does not include detailed design plans showing the abutments and piers for Phase 1 and Phase 2. The proposed bridge, under Phase 1, would free-span the active channel of Novato Creek; and the existing piles would be cut 3 feet below the surface, resulting in less obstruction to the movement of water, sediment, wildlife, and fish in the creek. The detailed bridge and causeway designs for Phase 1 and Phase 2 would be developed during the design phase of Phase 1 and Phase 2, respectively, after this Final EIR/EA/FONSI is approved. During the design and permitting of each phase, Caltrans would coordinate with CDFW and provide detailed design plans as part of the permitting early coordination. Caltrans acknowledges the recommendation to use the *California Salmonid Stream Habitat Restoration Manual, Part XII* and National Oceanic and Atmospheric Administration Fisheries Service *Guidelines for Salmonid Passage at Stream Crossings*. Caltrans would refer to these guidance documents during Project design, as applicable. However, the Project is expected to enhance fish passage through the Project alignment in Novato Creek by lengthening the Novato Creek Bridge in Phase 1 and constructing the causeway in Phase 2. The new lengthened bridge would not further increase constrictions, relative to baseline conditions, at the Novato Creek Bridge during high flows; and the new bridge and causeway would improve the passage of floodwaters (and thus fish) under the roadway. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-3:

Caltrans acknowledges the comments recommending revisions to the Final EIR/EA/FONSI and additional assessments related to fish passage.

The California Fish Passage Assessment Database identifies two SR 37 crossings in the Project alignment – at Novato Creek and Simonds Slough – with potential for anadromous fish; however, the database simply states "unknown passage status" with respect to the barrier status of these two crossings. As discussed in Response to Comment SA-1-2, fish passage is expected to improve as a result of the Project. The lengthened bridge at Novato Creek would not further increase constrictions, relative to baseline conditions; and the causeway would allow floodwaters (and thus fish) to pass under the roadway. The Simonds Slough Bridge crossing consists of two box culverts that would be removed during Phase 2 of the Project, resulting in an open channel. However, anadromous fish are unable to access Simonds Slough because of a downstream barrier (not associated with SR 37 or the Project) that prevents fish from moving to Simonds Slough at the SR 37 crossing. Therefore, even though the Project would improve the SR 37 crossing of Simonds Slough from the perspective of fish passage, anadromous fish would still be unable to move through Simonds Slough at SR 37 because of the downstream barrier. In conclusion, the Project would result in a net benefit to fish passage in Novato Creek and would enable fish passage in Simonds Slough to be improved should the downstream barrier ever be removed. As a result, no further discussion of fish passage in the Final EIR/EA/FONSI is necessary, and edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-4:

Caltrans acknowledges the comment about new Project lighting, limiting nighttime work, and potential effects on wildlife species from lighting. As stated in Section 3.1.1, Aesthetics, the existing streetlights within the Project footprint would be replaced, and no new permanent lighting would be introduced. Because the Project would not introduce new lighting, a light output analysis is not required.

Caltrans understands night lighting can disrupt the circadian rhythms of many wildlife species. As such, Caltrans would implement Project Feature (PF)-BIO-13, Night Lighting, and Avoidance and Minimization Measure (AMM)-AES-3, Lighting. As discussed in Chapter 1, Proposed Project, of the Final EIR/EA/FONSI, lighting would be required during nighttime construction and all lighting would be directed downward and away from traffic to minimize glare. The Caltrans 2023 Standard Plans and Standard Specifications, 86-1.02K(1) Luminaires (8) states that a luminaire must have a nominal correlated color temperature of 3,000 Kelvin under American National Standards Institute (ANSI) C78.377 and a color rendering index of 70 or greater. A deviation from the 2023 Standard Plans and Standard Specifications would require approval from

Traffic Safety. However, Caltrans would consider the feasibility of using light produced at or under 2,700 Kelvin that results in a warmer white color spectrum during the Phase 1 and Phase 2 design phase.

Furthermore, PF-BIO-13, Night Lighting, has been revised in the Final EIR/EA/FONSI to state that streetlights installed to replace existing streetlights would have no greater light output than existing lights, would be directed downward, and would be shielded to focus light on the roadway and minimize spillage of light into areas adjacent to the road. With these edits, vehicle light barriers, retroreflectivity, and light pole modifications would not be necessary to avoid significant impacts from lighting.

No further edits to the Final EIR/EA/FONSI are required.

Response to Comment SA-1-5:

Caltrans acknowledges the comment recommending a minimum 0.5-mile buffer between active Swainson's hawk nests and Project-related disturbance, as well as early consultation with CDFW regarding Swainson's hawk take avoidance, minimization, and mitigation measures. As indicated in the Final EIR/EA/FONSI, AMM-BIO-10, Swainson's Hawk Pre-construction Surveys and Avoidance, if a Swainson's hawk nest is discovered during surveys or monitoring, then a minimum 250-foot buffer (or as otherwise determined in coordination with CDFW) would be kept free from Project-related activities as long as the nest is active. Caltrans would coordinate with CDFW regarding the Project's potential impacts on Swainson's hawks and other CDFW-regulated resources to ensure all activities are permitted. Caltrans anticipates that if an active Swainson's hawk nest were detected, Caltrans would coordinate with CDFW regarding the appropriate compliance needs and buffer for the nest. A blanket 0.5-mile buffer would not be necessary in all situations to avoid disturbance of an active nest, as intervening vegetation or topography may allow for a reduced buffer, and some Project activities may not result in noise or visual disturbance that would adversely affect Swainson's hawks. As a result, coordinating with CDFW on a case-by-case basis would ensure that an effective buffer would be provided without excessively constraining the Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-6:

Caltrans acknowledges the comment stating that the Draft EIR/EA does not provide sufficient information to determine the impacts of Phase 1 on wildlife connectivity or existing conditions regarding connectivity through and under the Project's structures and stating that terrestrial species may use roads when culverts or other passages flood during high tide and storm events. However, the Project would improve wildlife movement and connectivity. During Phase 1, the lengthened Novato Creek Bridge would allow animals to move more easily under SR 37, as discussed in the Section 2.3,

Biological Resources. Because the bridge would be longer and higher than it is currently and two temporary transition bridges would be constructed (one at either end of the new Novato Creek Bridge), there would be a greater ability for animals to move under SR 37 than currently exists.

Table 1-3 (Permit or Approval Document and Approving Agency) in Chapter 1 lists culvert replacements. Culvert replacement locations are additional opportunities to improve habitat and wildlife connectivity. Opportunities to enlarge culverts to enhance wildlife passage would be evaluated by Caltrans during the design phase, and this decision would be based off future hydraulic modeling and Caltrans design standards.

Furthermore, as noted by the comment, the effects of Phase 2 replacement of the at-grade roadway with a causeway would improve connectivity and passage. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-7:

Caltrans acknowledges the comment recommending that the biological study area be expanded to account for wildlife corridors and habitat connectivity, that a wildlife movement study be conducted to evaluate significant impacts to wildlife connectivity, and that the study monitor wildlife movement adjacent to and through the culverts that would be replaced in-kind. However, as noted in Response to Comment SA-1-6, the Project would have a net benefit to wildlife movement and connectivity. Replacement of culverts in-kind would not result in any change to the functionality of those culverts, from the perspective of wildlife movement, relative to baseline conditions. However, opportunities to enlarge culverts to enhance wildlife passage would be evaluated by Caltrans during the design phase, and this decision would be based off future hydraulic modeling and Caltrans design standards. Furthermore, Phase 2 would improve wildlife movement and habitat connectivity across this segment of SR 37. Therefore, edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-8:

Caltrans acknowledges the comment recommending that the EIR/EA include an analysis of potential indirect impacts of the Project on biological resources and designated and/or proposed reserve or mitigation lands as part of the analysis of impacts on habitat connectivity. However, as noted in Response to Comment SA-1-6 and Response to Comment SA-1-7, the Project would have a net benefit to wildlife movement and connectivity. Indirect impacts of the Project would be limited, since impacts would be confined to SR 37 and immediately adjacent areas. None of the proposed Project components would create indirect adverse effects on habitats outside of the Project impact area (e.g., see Response to Comment SA-1-4 for information on the Project's measures to minimize potential lighting impacts on adjacent areas). Therefore, relative

to existing conditions, the Project would not have substantial impacts on adjacent or nearby sensitive biological resources or preserves. In addition, raising and lengthening the bridge would reduce sound and light effects on wetlands along Novato Creek and improve habitat connectivity under the bridge, providing a beneficial effect. For further information on this topic, please see Master Response 3: Biological Mitigation. No additional analysis of indirect impacts is necessary, and edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-9:

Caltrans acknowledges the comment recommending incorporating facets of existing CDFW programs to promote habitat connectivity, such as Regional Conservation Investment Strategies/Mitigation Credit Agreements and Senate Bill (SB) 790 wildlife connectivity actions. However, as noted in the Responses to Comments SA-1-6, SA-1-7, and SA-1-8, the Project would benefit wildlife movement and connectivity. Incorporation of additional wildlife connectivity measures is not necessary to avoid a significant impact, and edits to the Final EIR/EA/FONSI are not required. Nevertheless, Caltrans would coordinate with CDFW and other agencies regarding appropriate compensatory mitigation for impacts on sensitive habitats and special-status species. For further information on this topic, please refer to Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-10:

Caltrans acknowledges the comment recommending a site-specific bridge shade study to evaluate the potential for the salt marsh harvest mouse, California Ridgway's rail, and California black rail to use habitat below shaded bridge spans in the Project area. However, such a study is not necessary to avoid a significant impact on these species nor to inform development of appropriate mitigation measures. A total of 0.46 acre of tidal salt marsh would be impacted by shading that would result from slight widening of the Novato Creek Bridge and closure of the existing narrow gap between the two existing bridge spans. As noted in the Final EIR/EA/FONSI, the disturbance associated with traffic noise on SR 37 and the presence of less-disturbed marsh along Novato Creek farther upstream and downstream from the bridge make it unlikely that the small amount of potential habitat for these species that would be affected by shading is heavily used. Furthermore, minor adverse effects of potential habitat loss due to shading are expected to be offset by the increased length of the new Novato Creek Bridge, which would allow these species to move more readily under the roadway following completion of Phase 1, and the increase in connectivity following construction of the causeway in Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-11:

Caltrans acknowledges the comment that wildlife exclusion fencing used to keep special-status species from entering construction areas could impede wildlife movement and that additional fencing associated with culvert replacement could also impede wildlife movement. PF-BIO-5, Wildlife Exclusion Fencing, has been revised to indicate that a qualified biologist would determine where temporary wildlife exclusion fencing should be installed during construction to balance the objectives of excluding sensitive species from work areas, excluding wildlife from crossing over the road to reduce wildlife-vehicle collisions, and minimizing adverse effects on wildlife movement, including wildlife use of culvert undercrossings, through the Project area during construction. Caltrans would coordinate with CDFW and United States Fish and Wildlife Service regarding where exclusion fencing is appropriate during construction. Such fencing would not pose a permanent impediment to wildlife movement because it would be removed following completion of construction in any given area.

Response to Comment SA-1-12:

Caltrans acknowledges the comment recommending that the EIR/EA assess all potential impacts of the Project on fully protected species and that if take avoidance cannot be achieved, Caltrans should obtain incidental take coverage in accordance with SB 147. The Final EIR/EA/FONSI analyzed impacts of the Project on fully protected species potentially affected by the Project, namely the salt marsh harvest mouse, California Ridgway's rail, California black rail, and white-tailed kite. Take of the latter three (bird) species, as defined by the Fish and Game Code, would be avoided. As described in the Final EIR/EA/FONSI, Project activities would not result in impacts on adult rails or kites, and implementation of AMM-BIO-9, California Ridgway's Rail and California Black Rail Pre-construction Surveys and Buffers, and PF-BIO-6, Nesting Bird Surveys and Buffers, would avoid impacts on active nests of these species. Therefore, no incidental take coverage for these species would be necessary. The Final EIR/EA/FONSI also includes AMM-BIO-7, Salt Marsh Harvest Mouse Vegetation Removal, Pre-construction Surveys, and Monitoring, and AMM-BIO-8, Salt Marsh Harvest Mouse Exclusion Fencing, with the intent of avoiding take of the salt marsh harvest mouse. Caltrans would coordinate with CDFW to obtain concurrence that take of the salt marsh harvest mouse as a result of the Project would be avoided. If Caltrans determines that take of that species could potentially occur, then Caltrans would apply for incidental take coverage for Phase 1 of the Project through the permitting mechanism created under SB 147. The Project does meet the criteria for eligibility under SB 147 because it does not increase highway or street capacity for automobile or truck travel. If no incidental take approval mechanism is available for fully protected species when Phase 2 commences, Caltrans would coordinate with CDFW to ensure that AMMs are adequate to avoid take of the salt marsh harvest mouse. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-13:

Caltrans acknowledges the comment regarding the Project's impact on fish and/or wildlife, and assessment of environmental document filing fees. Caltrans will submit the California Environmental Quality Act (CEQA) filing fee and Notice of Determination to the State Clearinghouse. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-1-14:

Caltrans acknowledges the comment requesting that any special-status species and natural communities detected during Project surveys be reported to the California Natural Diversity Database. No special-status species were detected during Project surveys. Sensitive natural communities detected during Project surveys would be reported to California Natural Diversity Database. Edits to the Final EIR/EA/FONSI are not required.

Comment SA-2: California Highway Patrol, page 1 of 1



Alexandra Owens

From: Egide, Erik [redacted]
Sent: Friday, October 6, 2023 1:33 PM
To: Nguyen, Skylar@DOT
[redacted]
Subject: EIR Response - SCH 2021110045

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Comments

Good afternoon,

SA-2-1 The California Highway Patrol's Marin Area has reviewed the Environmental documents submitted by Caltrans District 4 for the State Route 37 Flood Reduction Project (SCH #2021110045). The two phased project will present transportation issues and have an effect on vehicular traffic primarily due to the construction related lane closures and detours. There is nothing in the project description that stands out though as impacting public safety, congestion, or traffic safety beyond what is expected for such a large scale project. We anticipate there will be an impact to CHP operations with increased response times because of the lane closures and detours.

SA-2-2 As is the case with any State Highway related construction project, the CHP Marin Area requests all anticipated project related transportation issues be communicated to our office well in advance. The advanced notification will allow us to adjust operations accordingly and maintain our ability to provide the highest level of safety, service, and security. Please let me know if you have any questions.

Thank you, Erik

Erik J. Egide, Lieutenant
California Highway Patrol, Marin Area
[redacted]

Response to SA-2: California Highway Patrol

Response to Comment SA-2-1:

Caltrans acknowledges the comment which regards the transportation issues from the Project and effect on vehicular traffic to be primarily due to the construction-related lane closures and detours. Section 2.1.7, Traffic and Transportation, discusses the Build Alternative's impact during construction of both phases and operation, including proposed detour routes shown on Figure 1-9 (Detour Route). Traffic impacts would be minimized with implementation of PF-TRANS-1, Transportation Management Plan. As stated in Section 2.1.7, Traffic and Transportation, the Transportation Management Plan (TMP) would be prepared in accordance with Caltrans guidelines; and it would address public and motorist information, incident management, construction strategies, demand management, and alternate routes (detours). The TMP would include requirements to coordinate with local agencies and California Highway Patrol to notify businesses and local residents. In addition, Caltrans would implement PF-TRANS-2, Coordinate with Adjacent Property Owners, during the design of Phase 2 to discuss access to adjacent properties.

In addition, construction activities during Phase 2 would increase travel times with the potential to have an adverse effect on traffic in the Project area. Therefore, Caltrans will implement mitigation measure, MM-TRANS-1, Prepare Traffic Analysis, which will require Caltrans to conduct a traffic analysis during the design of Phase 2 to determine travel delays based on construction strategies, detour routes, and future traffic volumes. Refer to Appendix D, Project Features, for a description of PF-TRANS-1 and PF-TRANS-2; and refer to Appendix E, Mitigation Measure, for the full description of MM-TRANS-1.

Response to Comment SA-2-2:

Caltrans acknowledges the request for advanced communication with the California Highway Patrol. Refer to Response to Comment SA-2-1.

Comment SA-3: California State Lands Commission (SLC), page 1 of 5

STATE OF CALIFORNIA GAVIN NEWSOM, Governor

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Established in 1938

JENNIFER LUCCHESI, *Executive Officer*
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from Voice Phone **800.735.2929**
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Contact Phone: 916.574.1900

October 9, 2023

File Ref: SCH #2021110045

Caltrans, District 4
ATTN: Skylar Nguyen
Department of Transportation, Environmental Planning
P.O. Box 23660, MS 8B
Oakland, CA 94623-0660

Sent via email: SR37FloodProject@dot.ca.gov

Subject: Draft Environmental Impact Report/Environmental Assessment for State Route 37 Flood Reduction Project, Marin County

Dear Skylar Nguyen:

California State Lands Commission (Commission) staff has reviewed the Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the State Route (SR) 37 Flood Reduction Project (Project), which is being prepared by the California Department of Transportation (Caltrans). Caltrans, as the public agency responsible for the State Highway System and the agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), and the lead agency under the National Environmental Policy Act (42 U.S.C. § 4321 et seq.). The Commission is a trustee agency for projects that could directly or indirectly affect State sovereign land and their accompanying Public Trust resources or uses. Additionally, because the Project may involve work on State sovereign land, the Commission will act as a responsible agency.

Commission Jurisdiction and Public Trust Lands

The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and

Comment SA-3: California State Lands Commission (SLC), page 2 of 6

waterways, are subject to the protections of the common law Public Trust Doctrine.

SA-3-1 At least two areas of the proposed Project, including the crossing over Simonds Slough, may lie outside of Caltrans' existing right-of-way, and therefore may be located on State sovereign land under the jurisdiction of the Commission. As a result, the Commission must approve any portion of the Project temporarily or permanently encroaching on State sovereign land that does not have existing authorization.

SA-3-2 Please also be advised that Novato Creek and Simonds Slough may lie in an area that is subject to a public navigation easement. This easement provides that members of the public have the right to navigate and exercise the incidences of navigation in a lawful manner on State waters that are capable of being physically navigated by oar or motor-propelled small craft. Such uses may include, but not be limited to, boating, rafting, sailing, rowing, fishing, fowling, bathing, skiing, and other water-related public uses. This easement right of the public must not be restricted or impeded.

Project Description

Caltrans proposes to replace the Novato Creek Bridge and to elevate 2.5 miles of SR 37 on a causeway to an elevation of 35 feet to build resiliency to the effects of projected 2130 sea level rise and stormwater overtopping SR 37 from United States Highway 101 (U.S. 101) to Atherton Avenue. The newly elevated SR 37 will be constructed along the existing alignment.

From the Project Description, the Project would include a causeway that will be built in two phases. Staff understands that the following Project components have the potential to affect State sovereign land:

- Phase 1. Construction of a temporary transition bridge and replacement/extension of various culverts.
- Phase 2: Removal of the Phase 1 temporary bridge as well as construction of a causeway from both U.S. 101 to the new Novato Creek Bridge and from the eastern end of the new Novato Creek Bridge to Atherton Avenue.

Two alternatives were discussed in the EIR/EA. The Build Alternative, which is described above, and the No-Build Alternative. The No-Build Alternative would leave SR 37 with no improvements. The Draft EIR/EA did not appear to identify the environmentally superior alternative.

Comment SA-3: California State Lands Commission (SLC), page 3 of 6

Environmental Review

Staff requests that Caltrans consider the following comments on the Draft EIR/EA, to ensure that impacts to State sovereign land are adequately analyzed for the Commission's use of the EIR when considering a future lease application for the Project.

General Comments

SA-3-3

1. Project Description: The Project Description should be as precise as possible in describing the details of Phase 1 construction activities. This includes the types of equipment or methods that may be used, the maximum area of impact or volume of sediment removed or disturbed during temporary bridge and culvert construction, seasonal work windows, locations for material disposal, and construction activity timelines. These details are necessary to support the impact analyses in Sections 2.2.6, *Air Quality*, and *3.1.8, Greenhouse Gas Emissions,* which provide criteria pollutant and greenhouse gas (GHG) emissions without any supporting information and calculations. Staff could locate neither a construction equipment/activity narrative nor an appendix with the Sacramento Metropolitan Air Quality Management District's Roadway Construction Emissions Model results. Including a more robust project description in and model calculation results accompanying the Final EIR/EA will reduce the potential for the Commission to require subsequent environmental review.

SA-3-4

Project Description, Phase 2: The project description states that Phase 2 is subject to funding availability. The EIR/EA should evaluate any potential environmental impacts that could arise if Phase 2 is not funded by the planned construction year of 2050.

Climate Change

SA-3-5

2. Sea Level Rise: While the EIR/EA discusses how SR 37 will have greater resilience to sea level rise and stormwater after Phases 1 and 2 are completed, the document does not describe sea level rise impacts to SR 37 post-Phase 1 but prior to 2041 (when Phase 2 would begin). According to the Ocean Protection Council's *State of California Sea Level Rise Guidance*, the 2040 sea level rise projection is 1.3 feet under a medium-high risk aversion scenario. Since the project area already experiences episodic flooding, the EIR/EA should describe how a 1.3-foot increase in sea levels will affect flood-related closures between the completion of Phase 1 and the construction of Phase 2. Considering funding for Phase 2 has not yet been secured, the EIR/EA should also assess the Project's resilience to sea level rise and the associated level of flood-related closure improvements that would occur if the Project is only able to implement Phase 1 activities.

Comment SA-3: California State Lands Commission (SLC), page 4 of 6

Biological Resources

SA-3-6

3. Invasive Species: One of the major stressors in California waterways is introduced species. Therefore, the EIR/EA should consider the Project's potential to encourage the establishment or proliferation of aquatic invasive species (AIS) or other nonindigenous, invasive species including aquatic and terrestrial plants beyond just invasive weeds. For example, construction boats and barges brought in from long stays at distant projects may transport new species to the Project area via vessel biofouling, wherein marine and aquatic organisms attach to and accumulate on the hull and other submerged parts of a vessel. If the analysis in the EIR/EA finds potentially significant AIS impacts, possible mitigation could include contracting vessels and barges from nearby or requiring contractors to perform a certain degree of vessel cleaning. The CDFW's Invasive Species Program and Commission Marine Invasive Species Program could assist with this analysis as well as with the development of appropriate mitigation (information at https://www.wildlife.ca.gov/Conservation/Invasives and https://www.slc.ca.gov/misp/).

Cultural Resources

SA-3-7

4. Submerged Cultural Resources: The EIR/EA does not evaluate potential impacts to submerged cultural resources in the Project area. The Commission maintains a shipwrecks database that can assist with this analysis. Staff requests that Caltrans contact the shipwrecks database email (contact information below) to obtain shipwrecks data and Commission records for the Project site. The Commission's database includes known and potential vessels located on the State's tide and submerged lands; however, the locations of many shipwrecks remain unknown.

   Please note that any submerged archaeological site or submerged historic resource that has remained in state waters for more than 50 years is presumed to be significant. Because of this possibility, please add a mitigation measure requiring that in the event historic or cultural resources are discovered during construction activities, Project personnel shall halt all activities in the immediate area and notify a qualified archaeologist to determine the appropriate course of action.

SA-3-8

5. Title to Resources Within Commission Jurisdiction: The EIR/EA should state that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the Commission (Pub. Resources Code, § 6313). Staff requests consultation with Caltrans should any cultural resources on state lands be discovered during construction of the proposed Project.

Comment SA-3: California State Lands Commission (SLC), page 5 of 6

SA-3-8 cont'd

Staff requests that the following statement be included in the EIR's Mitigation Monitoring Program: "The final disposition of archaeological, historical, and paleontological resources recovered on State land under the jurisdiction of the California State Lands Commission must be approved by the Commission."

Recreation

SA-3-9

6. Public Access: The EIR/EA should include a section describing the potential for the Project to affect recreational uses and public access to the subject waterways. The EIR/EA should discuss the recreational uses and recreational access points in the Project vicinity, whether and to what extent these uses would be facilitated or disrupted by the Project, and what, if any, measures could be implemented to reduce any potential negative impacts. This discussion should also identify any safety measures Caltrans will put in place to ensure public safety for recreational activities. Measures could include a public notice and Project area signage provided in advance of the Project, notifying the public of any disruptions or creation of alternate access points or use areas.

SA-3-10

Pursuant to California Streets and Highways Code section 84.5, during the design hearing process, full consideration of, and a report on, the feasibility of providing public access to the subject waterway is required to be provided. The report should consider the following:

- An assessment of public access needs and the alternative ways for the public to access Novato Creek and Simonds Slough at the Project location.
- A description of existing public access points and facilities in the Project vicinity, including the existing condition of these resources and entity responsible for maintenance.
- An assessment of existing constraints and hazards that could make on-site public access infeasible.
- A feasibility assessment of proposed on-site public access infrastructure, such as construction of trails, stairs, parking areas, trash cans, restrooms, etc.
- If on-site public access is infeasible, a feasibility assessment of alternatives, such as improving existing public access in the Project vicinity or creating new public access points to the subject waterway within the project vicinity.
- Environmental impacts of providing public access.
- A conclusion on the feasibility of providing public access.

If the report determines that public access is feasible, the EIR/EA must reflect how public access improvements will be incorporated into the Project and

Comment SA-3: California State Lands Commission (SLC), page 6 of 6

SA-3-10

identify any associated environmental impacts. Planning for preparation of the report should occur during the earliest stages of Project planning, and the report should be used to support the environmental impact analysis of the EIR/EA.

The EIR/EA should, therefore, include the requested analysis on feasibility of providing public access to avoid delays with staff's processing of the application.

Thank you for the opportunity to comment on the EIR/EA for the Project. The Commission will rely on the certified EIR/EA when issuing a lease, temporary construction easement, or other approval as specified above (see Section "Commission Jurisdiction and Public Trust Lands"). We request that you consider our comments before certifying the EIR/EA.

SA-3-11

Please send electronic copies of the Final EIR/EA, Mitigation Monitoring Program, Notice of Determination, approval document, CEQA Findings, and Statement of Overriding Considerations when they become available. Please note that federal and state laws require all government entities to improve accessibility of information technology and content by complying with established accessibility requirements. (29 U.S.C. § 794d; 36 C.F.R. § 1194.1 et seq.; Gov. Code, § 7405.) California State law prohibits State agencies from publishing on their websites content that does not comply with accessibility requirements. (Gov. Code, § 115467.) Therefore, any documents submitted to staff during the processing of a lease or permit, including all CEQA documentation, must meet accessibility requirements for staff to place the application on the Commission agenda.

Refer questions concerning environmental review to Christine Day, Environmental Scientist, at [redacted]. For questions concerning Commission leasing jurisdiction, please contact Ninette Lee, Public Land Manger, at [redacted] or via email at [redacted]. Please send inquiries regarding the Commission's shipwrecks database to [redacted].

Sincerely,

Nicole Dobroski, Chief
Division of Environmental Science,
Planning, and Management

cc: Office of Planning and Research
C. Day, Commission
M. Wells, Commission
N. Lee, Commission

Response to SA-3: California State Lands Commission (SLC)

Response to Comment SA-3-1:

Caltrans acknowledges two areas of the Project, including crossing over Simonds Slough, may be outside the existing right of way (ROW) and may be located on state sovereign land under the jurisdiction of SLC. Removal of the existing Simonds Slough Bridge would require a temporary construction easement on the southern side. Caltrans would coordinate with SLC and obtain required authorization for activities within SLC jurisdiction prior to construction. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-3-2:

Caltrans acknowledges that local waterways include uses by the public and watercraft for water-related public uses. For the safety of the public, access to Novato Creek within the Project area would be restricted during construction. Replacement of the Novato Creek Bridge is anticipated to begin in May 2027 and end in June 2029 for a maximum duration of 26 months. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-3-3:

Caltrans acknowledges the request for a construction equipment/activity narrative or appendix with the Sacramento Metropolitan Air Quality Management District's Roadway Construction Emissions Model results. The types of equipment needed for construction, as listed in Section 2.2.7.3, Environmental Consequences, include, but are not limited to, the following: crawler tractors, excavators, signal boards, cranes, graders, rollers, rubber-tired loaders, scrapers, backhoes, bore/drill rigs, cement and mortar mixers, air compressors, generator sets, plate compactors, pumps, rough-terrain forklifts, pavers, and paving equipment. Refer to Final EIR/EA/FONSI Appendix L, *Construction Criteria Air Pollution Emissions Analysis*, for Sacramento Metropolitan Air Quality Management District's Roadway Construction Emissions Model results. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-3-4:

Caltrans acknowledges the comment regarding the evaluation of impacts should Phase 2 not receive funding. The No-Build Alternative proposes no improvements to the existing Project area. The No-Build Alternative analysis found in Chapter 2, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures, of the Final EIR/EA/FONSI addresses conditions of SR 37 if the Project is not constructed. Construction of Phase 1 would not meet the Project purpose and need. Under the construction of only Phase 1, the Project area, with the exception of Novato Creek Bridge, would continue to experience stormwater overtopping and would not be resilient to the effects of projected 2130 sea level rise (SLR) in the Project area. Under this scenario, for instance, there would be no benefits to wildlife connectivity, and

detours would continue to be required during closure of the roadway during storm events.

SR 37 is a critical transportation corridor of economical and regional importance. Caltrans will actively continue to seek funding for Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-3-5:

Caltrans acknowledges the suggestion that the environmental document should describe how a 1.3-foot increase in sea levels would affect flood-related closures between the completion of Phase 1 and the construction of Phase 2. The commenter also suggests that the EIR/EA should have also assessed the Project's resilience to SLR and the associated level of flood-related closure improvements that would occur if the Project were only able to implement Phase 1 activities.

Final EIR/EA/FONSI Section 2.2.1, Hydrology and Floodplain, summarizes the *Location Hydraulic Study* prepared for the Project (WRECO 2023). Refer to Appendix M for this analysis. The existing Novato Creek Bridge is at approximately 9 feet (North American Vertical Datum of 1988 [NAVD 88]), and the remainder of the Project area, excluding the begin and end points, is at an elevation between 4 to 6 feet (NAVD 88).

As stated in Section 2.2.1, Hydrology and Floodplain, under the medium-high risk aversion SLR scenario, a levee or highway elevation of 9 feet (NAVD 88) is projected to have a 22 percent chance of flooding due to inundation by 2030, a 38 percent chance by 2035, a 64 percent chance by 2040, and a 100 percent chance by 2045.

The hydraulic analyses summarized in Section 2.2.1, Hydrology and Floodplain, were performed for the 100-year storm event with current tide conditions for existing, Phase 1, and Phase 2 conditions (Table 2.2.1-4, Summary of Existing and Proposed Water Surface Elevation Conditions with No Sea Level Rise); 2050 SLR for the existing, Phase 1, and Phase 2 conditions (Table 2.2.1-5, Summary of Existing and Proposed Water Surface Elevation Conditions with 2050 Sea Level Rise); and 2030 SLR for the existing and Phase 1 conditions (Table 2.2.1-6, Summary of Existing and Proposed Water Surface Elevation Conditions with 2030 Sea Level Rise). Phase 2 would not be complete in 2030 and, therefore, was not modeled.

The analysis presented in the Final EIR/EA/FONSI included a scenario with only Phase 1 completed for year 2030. The analysis prepared for this year provides a flooding scenario in the Project area before Phase 2 is constructed. Refer to Table 2.2.1-6 (Summary of Existing and Proposed Water Surface Elevation Condition with 2030 Sea Level Rise) in Section 2.2.1, Hydrology and Floodplain, of the Final EIR/EA/FONSI. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-3-6:

Caltrans concurs that the Project has the potential to encourage the introduction or establishment of aquatic invasive species. Text is added to Section 2.3.6.2, Affected Environment, of the Final EIR/EA/FONSI to discuss the potential for occurrence of aquatic invasive species on the Project site and to Section 2.3.6.3, Environmental Consequences, to discuss potential impacts of the Project pertaining to aquatic invasive species. PF-BIO-3, Worker Environmental Awareness Training, is revised to include information on aquatic invasive species; and PF-BIO-24, Invasive Aquatic Species Control, is added to describe the measures that would be implemented to reduce the potential for introduction and establishment of aquatic invasive species. Refer to Appendix D for the full description PF-BIO-3, Worker Environmental Awareness Training, and PF-BIO-4, Mark Environmentally Sensitive Areas. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment SA-3-7:

Caltrans acknowledges the information regarding submerged cultural resources such as shipwrecks. Caltrans placed a request for a search of SLC's Shipwreck Database on October 12, 2023. SLC responded on October 17, 2023, indicating that there are no records of shipwrecks in the Project area. If any cultural resources are encountered during Project-related ground-disturbing activities, Project activities would cease, and a qualified archaeologist would evaluate for significance of the resource and determine appropriate avoidance or treatment measures as detailed in PF-CULT-1, Cease Work upon Discovery of Cultural Resources. Refer to Appendix D for edits to PF-CULT-1, Cease Work upon Unanticipated Discovery of Cultural Resources or Tribal Cultural Resources.

Response to Comment SA-3-8:

Caltrans acknowledges SLC's request for consultation should any cultural resources on state lands be discovered during construction. As requested, the following statement is added to the relevant Project feature (PF-CULT-1, Cease Work upon Discovery of Cultural Resources) in Appendix D of the Final EIR/EA/FONSI: "The final disposition of archaeological, historical, and paleontological resources recovered on state land under the jurisdiction of the California State Lands Commission must be approved by the California State Lands Commission." No further edits to the Final EIR/EA/FONSI are required.

Response to Comment SA-3-9:

Caltrans acknowledges the request to include a section in the EIR/EA describing the potential for the Project to affect recreational uses and public access to subject waterways and the request to discuss whether recreational uses and access points in the Project vicinity would be disrupted. Section 2.1.3, Parks and Recreational Facilities,

describes the nearest recreational facilities within a 1-mile radius of the Project area, including Black Point Boat Launch adjacent to the Project area. Recreational facilities like the Port of Sonoma Marina and Harbor Drive (which provides direct access to a water trail on the Petaluma River) are also mentioned. As discussed in the Final EIR/EA/FONSI, the Build Alternative would occur within the Caltrans ROW. Construction would result in temporary effects to public access, but recreational users would continue to have access during lane closures and detours. As also noted in Section 2.1.3.4, Avoidance, Minimization, and/or Mitigation Measures, Caltrans would implement Project features and avoidance and minimization measures to provide advanced public notice of road closures and detours, and appropriate signage near construction areas. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-3-10:

Caltrans acknowledges the importance of providing public access to waterways within the Project limits to the extent feasible during Project construction. For the safety of the public, access to Novato Creek and Simonds Slough within the Project limits would be restricted during construction. Caltrans would perform an assessment of public access needs to include use of the waterways prior to construction of the Project. Public access to waterways within the Project area would not be affected during operation of the Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment SA-3-11:

Caltrans acknowledges SLC's request for electronic copies of Project documents in a format to meet federal and state accessibility requirements and would provide requested documents as part of the permitting process with SLC. Table 1-3 (Permit or Approval Document and Approving Agency) in Chapter 1, Proposed Project, of the Final EIR/EA/FONSI is revised to reflect the need for a temporary easement. No further edits to the Final EIR/EA/FONSI are required.

Comment SA-4: California Transportation Commission, page 1 of 1

From: Zamora, Cherry@CATC [redacted]
Sent: Thursday, October 5, 2023 3:55 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Cc: Pennebaker, Laura@DOT [redacted]; Nguyen, Skylar@DOT [redacted]
Subject: SR 37 Flood Reduction Project - Draft EIR

Dear Skylar Nguyen:

The California Transportation Commission (Commission) has received Caltrans' August 25, 2023 notification letter regarding the availability of the *Draft Environmental Impact Report (EIR) for the State Route 37 Flood Reduction Project (04-4Q320/0419000376)*. Commission staff do not have comments at this time.

SA-4-1

For all projects that are anticipated to require Commission approval for discretionary actions, including route adoptions, new public road connections, or funding allocation requests, full compliance with the California Environmental Quality Act (CEQA) is required. The Commission will not allocate funds to projects for design, right-of-way, or construction, or approve route adoptions or new public road connections, until the environmental document is complete, and the Commission has approved the environmentally cleared project. The CEQA lead agency must contact and work with the Commission directly to ensure the final environmental document is brought forward to the Commission for action.

Regards,

Cherry Zamora
Assistant Deputy Director – Transportation Planning
California Transportation Commission
[redacted]

Response to SA-4: California Transportation Commission

Response to Comment SA-4-1:

Thank you for your comment. Caltrans, as the CEQA lead agency, will comply with the requirements of the California Transportation Commission to ensure that future funding requests can be approved. Edits to the Final EIR/EA/FONSI are not required.

LOCAL AGENCIES

Comment LO-1: Marin County, page 1 of 4

From: Leventhal, Roger [redacted]
Sent: Friday, October 6, 2023 10:55 AM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Cc: [redacted]
Subject: Marin County Comments to the HY 37 EIR State Route 37 Flood Reduction Project MARIN COUNTY, CALIFORNIA DISTRICT 4 – MRN – 37 (PM R11.2 to 13.8)

EXTERNAL EMAIL. Links/attachments may not be safe.

Please find Marin County comments to the State Route 37 Flood Reduction Project Marin County, California, DISTRICT 4 – MRN – 37 (PM R11.2 to 13.8)

Please let me know any questions, thank you for the opportunity to provide comments to this important project. We look forward to working with Caltrans as the project moves forward.

Roger Leventhal, P.E.
Senior Engineer
Marin DPW Flood Control
[redacted]

Email Disclaimer: https://www.marincounty.org/main/disclaimers

Comment LO-1: Marin County, page 2 of 4

Marin County DPW/CDA Comments on Caltrans 2023 State Route 37 EIR (August 2023)
sent 10/6/23

Comments from Marin County Flood Control District (*R.Leventhal*)

LO-1-1
1. Caltrans to ensure that the existing levee system and flood protection has been maintained or improved for Phase I of the bridge replacement project and for Phase II as well. This includes but not limited to the integrity and continuity of the levee system protecting adjacent properties as the bridge is raised. This is not specifically addressed in the modeling report and in the design information provided in the EIR. The specifics of new levee design and construction need to be detailed and evaluated in the EIR or confirmed to be in future design documents.

LO-1-2
2. Figure 1.8 profile is unreadable (way too small). A profile of the Phase I and II projects showing flows under the raised bridge and approaches needs to be shown for each Phase. For Phase Ii in particular, the hydraulic impacts to existing County maintenance roads following each project needs to be evaluated and mitigation measures to protect the maintenance access roads developed.

LO-1-3
3. Impacts to existing roadways, maintenance roads and trails needs to be in the evaluation under current and SLR projections within the life span of both Phase I and Phase II of the project. And mitigation measures taken to protect these facilities used by the Flood Control District to maintain flood protection in the Novato watershed.

LO-1-4
4. Page 2-4 Table – The Novato Creek Bypass Study is due to be presented in February 2024 not 2023

LO-1-5
5. Page 1-35 describing the ramps for the new access roads at Atherton, Hannah Ranch Road and Marsh Drive need to be more fully described who there will look and be constructed.

LO-1-6
6. Page 1-36 The EIR described the quantity but does not show the final pile design and spacing for the new bridge. Caltrans needs to evaluate with hydraulic models to confirm that the proposed bridge piles and support to ensure that they do not worsen debris or flow characteristics (i.e. downstream erosional eddying) that have eroded the existing levee system leading to levee breaches in 2017 and 2019. This is in additional to water level analysis under flooding conditions.

LO-1-7
7. Page 1-42 – No details on the temporary bridge and piles being proposed. What is the timeline and footprint for this "temporary structure" and what are the impacts to flooding and sediment transport

LO-1-8
8. All roadway fill under the raised road needs to be removed and the ground graded to allow for wetlands restoration with tidal channels

LO-1-9
9. Caltrans should not assume that the SMART train levee will remain in its current configuration. It is a known project that SMART is in the process of designing a new, raised embankment and this future, known project needs to be taken into account in this EIR. The includes impacts to downstream channel properties.

Comment LO-1: Marin County, page 3 of 4

LO-1-10

10. Caltrans shall evaluate that the Phase I bridge opening and pile design is sufficient to pass the flows and sediment from known restoration project upstream currently in planning, specifically the Deer Island complex wetlands restoration project. Phase I could be the condition for many years depending on funding so it should not be assumed that the Phase II construction which is currently unfunded will necessarily happen.

LO-1-11

11. Caltrans should evaluate the impacts of SLR on upstream properties due to the raising of the bridge under Phase I and the ultimate project (Phase II) is in CEQA form that project as well.

LO-1-12

12. Page 2-66 – Novato creek flows past a series of "diked off marshes", these marshes are important to restore for flood protection and the ecological benefits to the Novato Baylands. The EIR should acknowledge as important to restore to

LO-1-13

13. Page 2-77 Write-up does not include higher upstream flows from sea level rise from fluvial flows. Under climate change conditions there will be increased upstream flooding due to changes in rainfall precipitation. Most studies expect at least a 15% to 20 % increase in rainfall intensity.

LO-1-14

14. Page 2-78 - Table 2.2.1-5 How is this table correct? How can future SLR not raise water surface elevation from existing and why is Phase II not being evaluated for 2130 SLR conditions which is 10 feet? Please explain how 10 feet of SLR can have no impacts? Showing three tables with the exact same results and no changes is not useful so appears to be an error. Need to evaluate future design SLR which is 10 feet.

LO-1-15

15. Page 2-78 Clarify flooding of SMART tracks and how the tracks are over toped but no rise in water surface elevation directly upstream?

LO-1-16

16. Biological Resources (L. Michl). The Marin County Flood Control and Water Conservation District (District) preforms yearly maintenance in and near the proposed Caltrans project. Part of the maintenance includes wildlife surveys. The following information is from the District's database collected over several years. Northwestern pond turtles (Actinemys marmorata) have been seen in ponds (Duck Bill and Pacheco Pond) both north and south of the project area, as close as 0.6 miles away. Pond turtles have been observed using brackish water, so they could be using Novato Creek to move between the freshwater ponds. Cliff swallows, red-winged blackbirds, and black phoebes have nested within the project area in past years.

LO-1-17

17. Caltrans should participate in the Novato Baylands Strategy working group currently forming and provide both technical and financial support to this group that will be assessing project alternatives to SLR impacts in the Novato Baylands over the next 12 to 24 months.

Comment LO-1: Marin County, page 4 of 4

Comments from Marin Community Development Agency (*I. Pearlman)*

LO-1-18

1. The County Housing Element identifies several Atherton/Black Point-Green Point area sites for future housing, hopefully project design & construction will avoid any impact/delay on potential housing development.
    a. The 2023-2031 Marin County Housing Element Appendix C, Table C-4 (link here) identifies 6 total sites in the Atherton/Black Point-Green Point area for future housing, hopefully project design & construction will avoid any impact/delay on potential housing development. They are:
    b. -300 Olive Ave, Blackpoint
    c. -275 Olive Ave, Blackpoint
    d. -4 Atherton Corridor sites (761, 777, 791, & 805 Atherton Ave)

LO-1-19

2. CDA supports the Phase 2 traffic analysis of construction impact, especially if Atherton Ave will be the detour. This is listed as a mitigation measure MM-TRANS-1 in the draft EIR executive summary on page XIV

3

Response to LO-1: Marin County

Response to Comment LO-1-1:

Caltrans acknowledges the comment suggesting that the specifics of new levee design and construction need to be evaluated in the EIR or confirmed to be in future design documents. Caltrans is a state agency that manages California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Modifications or maintenance of public or privately owned levees do not fall within Caltrans' jurisdiction, unless a levee is owned by Caltrans.

Caltrans would continue to engage with the Marin Department of Public Works Flood Control throughout Project development. Caltrans revised the Final EIR/EA/FONSI to include a new Project feature in Appendix D, PF-TRANS-2, Coordinate with Adjacent Property Owners, which would involve continued coordination with adjacent property owners.

Response to Comment LO-1-2:

Caltrans acknowledges the commenter input regarding the font size of Figure 1-8 (Conceptual Profile of Phase 2) and request for a profile figure that shows flows under the raised bridge and approaches. The commenter also requests an evaluation of hydrologic impacts on existing Marin County maintenance roads following the Project.

Figure 1-8 (Conceptual Profile of Phase 2) in the Final EIR/EA/FONSI is revised with larger font size. The intent of this figure is to show a conceptual profile of Phase 2 noting the creek is a feature without additional details.

Under CEQA and the National Environmental Policy Act, a mitigation measure is proposed when the Project would have a significant impact on a resource and a measure is needed to minimize, rectify, reduce, or compensate for the impact. Because SR 37 within the Project area is low-lying (0 to 4 feet NAVD 88), it does not provide hydrologic benefits; and construction of Phase 2 would not exacerbate flooding on the local access roads. Caltrans revised the Final EIR/EA/FONSI to include a new Project feature in Appendix D, PF-TRANS-2, Coordinate with Adjacent Property Owners, which would involve continued coordination with adjacent property owners. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-1-3:

Caltrans acknowledges the suggestion that Caltrans should evaluate impacts on existing roadways, maintenance roads, and trails under current and SLR projections with the life

span of both Phase 1 and Phase 2. The comment recommends the adoption of mitigation measures to protect facilities used by the Flood Control District.

The Final EIR/EA/FONSI evaluates potential impacts on resources that would be directly impacted by the Project. Local roadways, maintenance roads, and trails outside the Project area, as defined in Chapter 1, Proposed Project, of the Final EIR/EA/FONSI, are not within the scope of the Project's analysis. However, the *Location Hydraulic Study* (Appendix M) prepared for the Project considered the nine points shown on Figure K-1 (Hydrologic Model Observation Points) in the hydrologic modeling and found the Project has a less than significant impact for the following scenarios:

1. 100-year storm event with the current tide condition for the existing, Phase 1, and Phase 2 conditions.

2. 2030 SLR for the existing and Phase 1 conditions (Phase 2 would not be completed in 2030, so it was not modeled).

3. 2050 SLR for the existing, Phase 1, and Phase 2 conditions.

Refer to Appendix M for the *Location Hydraulic Study*.

As stated in Response to Comment LO-1-2, mitigation is proposed when the Project would result in a significant impact. Because SR 37 within the Project area is low-lying (0 to 4 feet NAVD 88), it does not provide hydrologic benefits; and construction of Phase 2 would not exacerbate flooding on the local access roads. Edits to the Final EIR/EA/FONSI are not required.

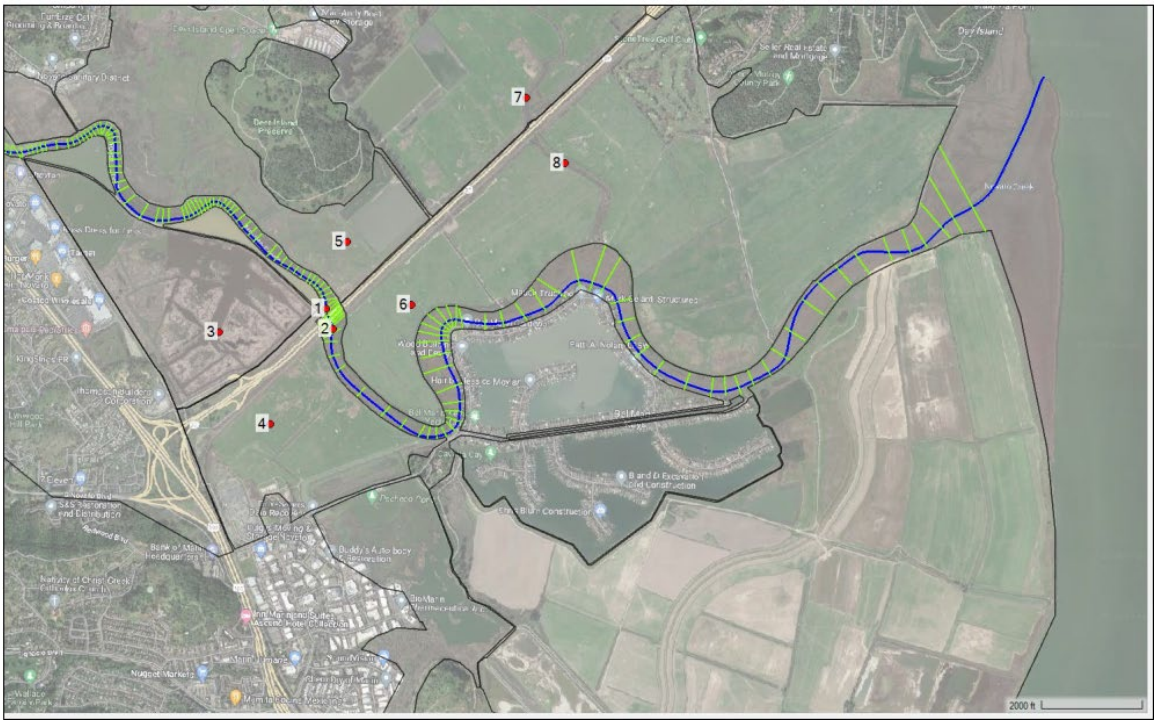

Figure K-1. Hydrologic Model Observation Points

Response to Comment LO-1-4:

Caltrans acknowledges the request for an edit to a table on page 2-4 of the Final EIR/EA/FONSI. Table 2.1.1-1 (Current and Proposed Land Use Developments within One Mile of the Project Area), for the Novato Creek Bypass Study, is revised to state that an update will be presented in February 2024.

Response to Comment LO-1-5:

Caltrans acknowledges the comment that the new access roads at Atherton, Hanna Ranch Road, and Marsh Drive need to be more fully described. The ramps are proposed for reconstruction under Phase 2 of the Project. Caltrans would further refine the design of the ramps when funding for Phase 2 is available. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-6:

Caltrans acknowledges the Draft EIR/EA does not show the final pile design and spacing for the new bridge. Proposed structural foundation details are not complete at this time; conservative pier size and spacing were assumed for this hydraulic study. The hydraulic study in the Final EIR/EA/FONSI is limited in scope to the Project's effects, if any, on the Federal Emergency Management Agency (FEMA) Base Floodplain. Additional hydraulic studies to evaluate effects to the levee system would follow in the design phase, if

needed, and would include the bridge pier design. This type of study was not completed to support this environmental document because the bridge design is in the preliminary phase. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-7:

Caltrans acknowledges the comment regarding the limited details on the temporary bridge and piles that are being proposed. Section 1.3.2.3, Construction Methodology, of the Final EIR/EA/FONSI describes the proposed use of a temporary construction trestle to serve as a temporary bridge access area during the construction of the Novato Creek Bridge. The trestle would consist of up to 50 piles that would be installed to a maximum depth of 100 feet. As stated in Section 1.3.2.8, Schedule, replacement of Novato Creek Bridge would occur during the dry season, which is when the temporary construction trestle would be used. In response to this comment, Section 1.3.2.8, Schedule, of the Final EIR/EA/FONSI is revised to specify that the temporary construction trestle would be removed from Novato Creek before the end of the dry season, thereby avoiding potential impacts on flooding conditions and sediment transport. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-1-8:

Caltrans acknowledges the comment recommending the removal of the existing road. Where the causeway would be constructed, the existing roadway pavement would be removed after construction of Phase 2. However, the elevation of the finished grade following road removal would be determined during detailed design of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-9:

Caltrans acknowledges the suggestion that Caltrans should not assume that the SMART train levee will remain in its current configuration. Section 2.4, Cumulative Impacts, considers the ongoing SMART planning study as a cumulative project. Furthermore, Chapter 4, summarizes the ongoing coordination between Caltrans and SMART. Please refer to Master Response 1: SMART for additional discussion about SMART. Impacts from the re-configuration of the SMART tracks would be analyzed under a separate environmental document once a proposed project is funded and programmed. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-10:

Caltrans acknowledges the suggestion for Caltrans to evaluate the Novato Creek Bridge (Phase 1) opening and pile design is sufficient to pass the flows and sediment from a known restoration project upstream currently in planning, specifically the Deer Island Complex Wetlands Restoration Project. The *Location Hydraulic Study* (Appendix M) prepared for the Final EIR/EA/FONSI is focused on the Project's effects on the natural

and beneficial values of the floodplain and on the FEMA Base Floodplain and does not include future improvements by others.

Future projects such as the Deer Island Complex would undergo a separate environmental review, which would consider this Project in its analysis. Depending on the timing of the Deer Island project, the new Novato Creek Bridge could be part of its existing conditions. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-11:

Caltrans acknowledges the suggestion to evaluate the impacts of SLR on upstream properties due to the raising of the bridge under Phase 1 and Phase 2. As stated in Section 1.2.2, Need, the roadway within the Project limits is relatively low-lying, except in the immediate vicinity of the U.S. Highway 101 (U.S. 101) and Atherton Avenue Undercrossing (near the Project begin and end points), where the roadway climbs to higher elevations. The low-lying roadway relies on levees and berms that were not originally designed to protect the road, but to reclaim the area for agricultural use. Because of the low-lying nature of the roadway, it does not currently provide any benefit to properties upstream of the Project area.

The *Location Hydraulic Study* (Appendix M) found that for Phase 2 with 2050 SLR (projected SLR is 1.9 feet), the 100-year water surface elevation change within the footprint of the hydraulic model was approximately 0.1 foot or less (refer to Table 2.2.1-5, Summary of Existing and Proposed Water Surface Elevation Conditions with 2050 Sea Level Rise, of the Final EIR/EA/FONSI). Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-12:

Caltrans acknowledges the comment that Novato Creek flows past a series of “diked off marshes” that are important to restore for flood protection and ecological benefits to the Novato Baylands. The marshes referred to in this comment are upstream and outside of the Project area. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-13:

Caltrans acknowledges the Draft EIR/EA does not include higher upstream flows from SLR from fluvial flows. The hydraulic study does not include consideration of increased future flow resulting from increased rainfall intensity due to climate change. According to Caltrans’ current policy (Highway Design Manual Topic 818.3), Caltrans hydrology methods assume “stationarity”; i.e., the past accurately represents the future. Caltrans acknowledges that the assumption of stationarity may not accurately represent the future; however, until a multi-disciplinary consensus is reached on future trends, stationarity will continue to be used. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-14:

Caltrans acknowledges the comment regarding the accuracy of Table 2.2.1-5 (Summary of Existing and Proposed Water Surface Elevation Conditions with 2050 Sea Level Rise) and the effects of SLR on water surface elevation for Phase 1 and Phase 2. The information presented in Table 2.2.1-5 (Summary of Existing and Proposed Water Surface Elevation Conditions with 2050 Sea Level Rise) of the Final EIR/EA/FONSI corresponds to the year 2050. The SLR projection for the Project area for that year is 1.9 feet (WRECO 2023). Under the 2130 SLR scenario with projected 10 feet of SLR, the backwater dominance of the bay water surface extends well upstream of the Project area. In other words, most of the Project area would be submerged by SLR in 2130. As such, the interim year 2050 SLR scenario was used to identify potential Project impacts with SLR. Refer to Appendix M for the *Location Hydraulic Study,* which includes the hydraulic modeling prepared for the Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-15:

Caltrans acknowledges the comment regarding stormwater overtopping of SMART tracks with no rise in upstream water surface elevation. The SMART tracks are currently submerged by FEMA Base Flood inundation. The water surface elevation directly upstream of the SMART tracks is not impacted because the tracks are already submerged with 2030 SLR and 2050 SLR conditions. Refer to Figures 19, 25, and 30 in the *Location Hydraulic Study* (Appendix M). Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-16:

Caltrans appreciates the information provided regarding the northwestern pond turtle. The Final EIR/EA/FONSI is revised to incorporate this information, specifically in Table 2.3-6 (Threatened and Endangered Animals Species with Potential to Occur within the Biological Study Area) and in a new species account added to Section 2.3.5.2, Affected Environment. In addition, text is added to Section 2.3.5.3, Environmental Consequences, regarding potential Project impacts to this species; and AMM-BIO-12, California Red-legged Frog and Northwestern Pond Turtle Pre-construction Surveys, and AMM-BIO-13, California Red-legged Frog and Northwestern Pond Turtle Monitoring Protocols, are revised to include the northwestern pond turtle as well as the California red-legged frog.

Caltrans acknowledges the information provided regarding nesting birds within the Project area; the species listed in this comment are mentioned in the Final EIR/EA/FONSI as breeding on the Project site.

No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-1-17:

Caltrans acknowledges the comment's suggestion that Caltrans participate in the Novato Creek Baylands Strategy working group and provide both technical and financial support to this group. For further information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-1-18:

Caltrans acknowledges the comment regarding future housing sites in the Atherton/Black Point and Green Point area of Novato. These future housing sites have been added to Table 2.4.3-2 (Cumulative Projects: Current and Foreseeable Projects within Two Miles of the Project Area) in Section 2.4, Cumulative Impacts, of the Final EIR/EA/FONSI. The Project would not have an impact on the future development of housing in the above-defined areas of Novato. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-1-19:

Caltrans acknowledges the support for the Phase 2 traffic analysis. Thank you for your comments.

Comment LO-2: North Marin Water District, page 1 of 4

NORTH MARIN WATER DISTRICT

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October 6, 2023

Caltrans, District 4
Attn: Skylar Nguyen, Senior Environmental Scientist
P.O. Box 23660 MS: 8B
Oakland, CA 94623-0660
submitted via email: SR37FloodProject@dot.ca.gov

Re: North Marin Water District Comments in Response to the
Caltrans Draft Environmental Impact Report/Environmental Assessment
State Route 37 Flood Reduction Project, D4-MRN-37 (PM R11.2 to 13.8)

Dear Skylar Nguyen:

Thank you for the opportunity to comment on the subject Draft Environmental Impact Report/Environmental Assessment, dated August 2023. North Marin Water District (District) has reviewed the report and has the following comments:

Section 2.1.6 Utilities and Emergency Services

LO-2-1

1) The District owns and operates a recycled water treatment facility located on APN 153-200-41. The District currently accesses this facility via a local access from Westbound SR-37, located at the approximate eastern limit of the Project's Phase 1. The proposed Phase 2 causeway and associated modifications to the access roads in the vicinity of this parcel will create a hardship for the District in accessing this facility.

   The District requests coordination and consideration in maintaining access to the District facility.

LO-2-2

2) The District owns and operates buried water distribution facilities within the Project Area at both the western and eastern Project boundaries. The Project exhibits for Phase 1 and Phase 2 included in the DEIR/EA do not appear to be in conflict with the District's existing facilities.

   The District requests coordination and consideration to ensure potential impacts to water distribution facilities are mitigated as part of the Project.

If you have any questions please contact me at (415) 761-8947 or emiller@nmwd.com.

Sincerely,

Eric Miller, PE
Assistant General Manager
North Marin Water District

Attachments: NMWD Facility Maps; J21, K18, and M16

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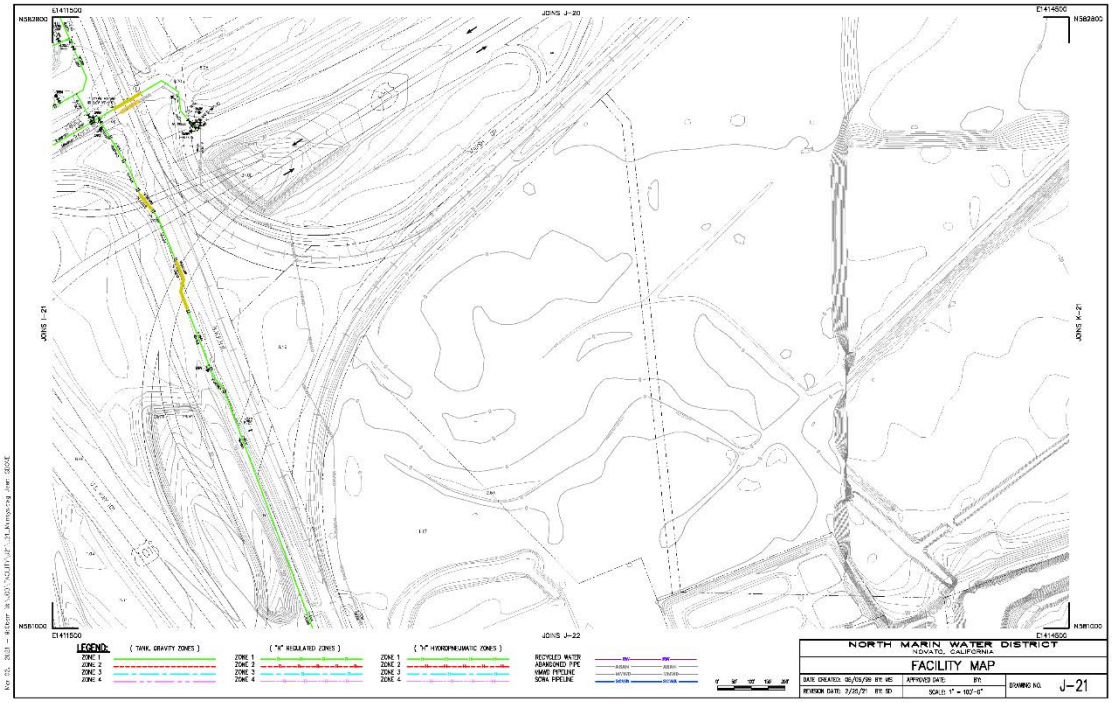
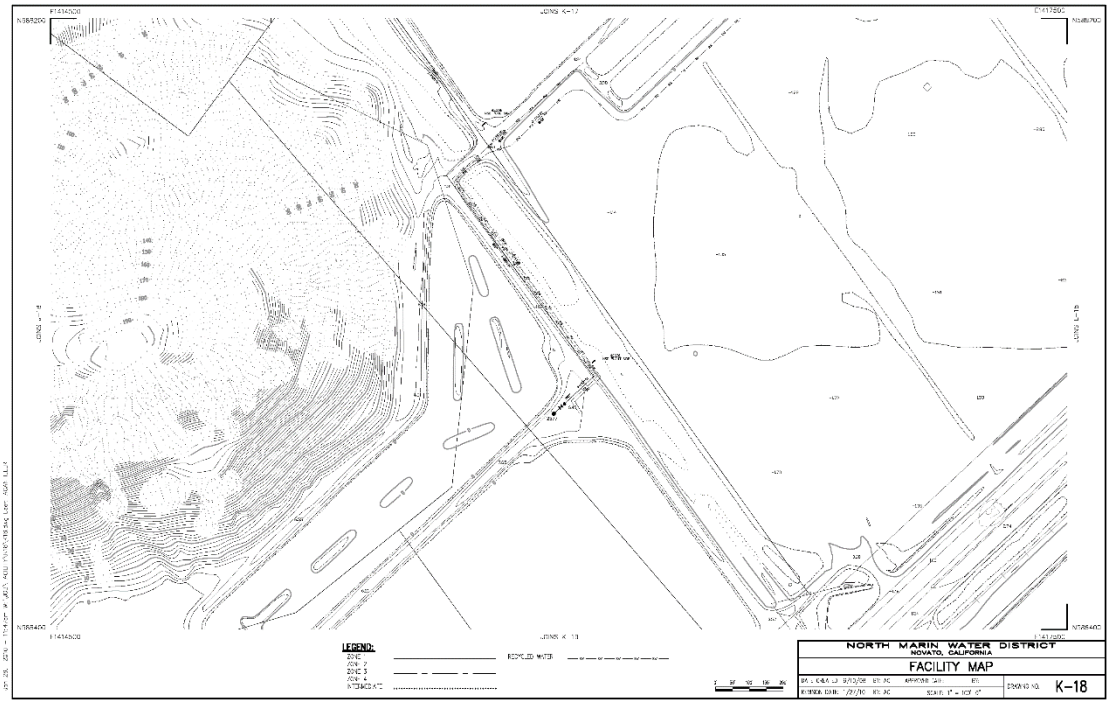
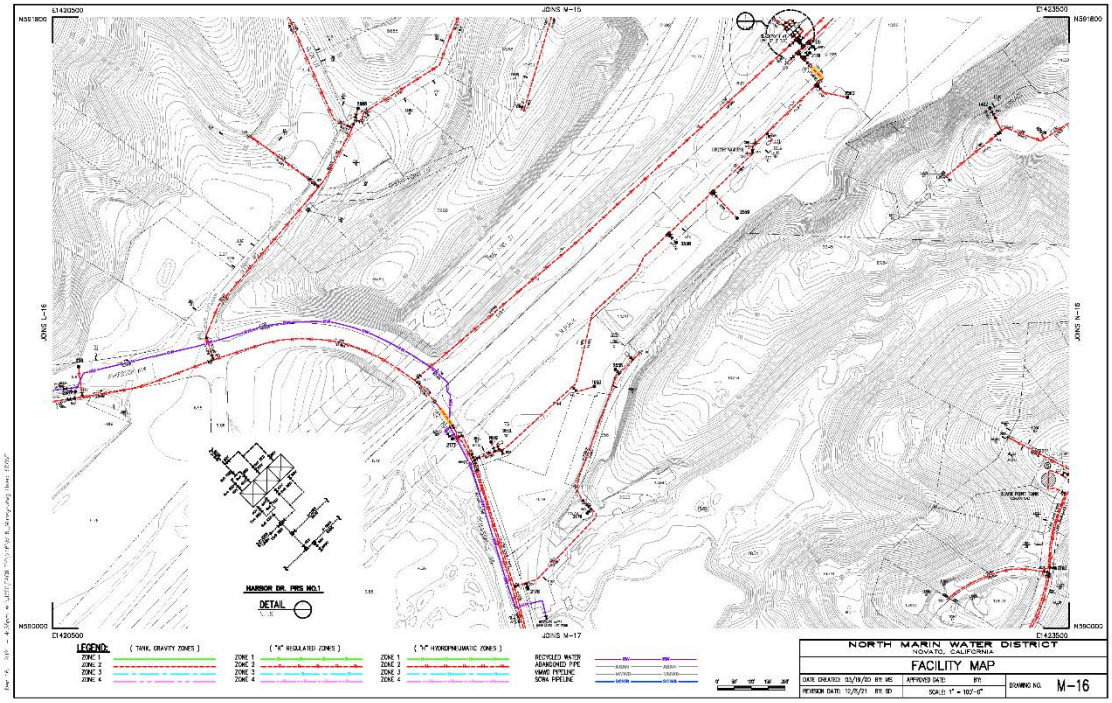
Comment LO-2: North Marin Water District, page 2 of 4



Comment LO-2: North Marin Water District, page 3 of 4



Comment LO-2: North Marin Water District, page 4 of 4



Response to LO-2: North Marin Water District

Response to Comment LO-2-1:

Caltrans acknowledges North Marin Water District's concern about access to its facility from the local access road from westbound SR 37 at Project completion. Caltrans revised the Final EIR/EA/FONSI to include a new Project feature in Appendix D, PF-TRANS-2, Coordinate with Adjacent Property Owners, in response to this comment. According to the new Project feature, Caltrans would coordinate with adjacent property owners during the Phase 2 design.

Response to Comment LO-2-2:

Caltrans acknowledges North Marin Water District's review of their buried water distribution facilities within the Project area. Caltrans would coordinate with the district during future Project phases to determine if any potential conflicts exist with the district's utilities. Edits to the Final EIR/EA/FONSI are not required.

Comment LO-3: Novato Public Works (City of), page 1 of 1

From: David Dammuller [redacted]
Sent: Monday, October 2, 2023 8:23 AM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Cc: [redacted]
Subject: Public Comment for SR 37 Flood Project - How will Phase 1 of the SR 37 Flood Project impact the access to Hanna Ranch Road?

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello

LO-3-1 There is a commercial business on Hanna Ranch Road. SR 37 is the only access onto Hanna Ranch Road and into the property. How will Phase 1 of the SR 37 Flood Project impact the access to Hanna Ranch Road and the commercial business?

Thanks
Dave

David Dammuller
Engineering Services Manager
CITY OF NOVATO
PUBLIC WORKS
City of Novato
[redacted]
www.novato.org

Response to LO-3: Novato Public Works (City of)

Response to Comment LO-3-1:

Caltrans acknowledges the commenter's inquiry about Phase 1's impact on access to Hanna Ranch Road and commercial business. Access to the Hanna Ranch Road via the Hanna Ranch Road and Marsh Drive on- and off-ramps would remain open during construction of Phase 1. However, as described in Section 1.3.2.5, Traffic Management, of the Final EIR/EA/FONSI, there would be two weekend closures to construct the median on the new Novato Creek Bridge. During the design phase, as part of the Transportation Management Plan, a Local Detour Plan would be developed. The Local Detour Plan would include U.S. 101, Harbor Drive, and Atherton Avenue. During closure of the Novato Creek Bridge, the U.S. 101 traffic wanting to travel eastbound on SR 37 would be diverted to northbound U.S. 101 and then to the Atherton Avenue exit. At the highway exit, traffic would be directed south to access Atherton Avenue (Figure 1–9, Detour Route). Edits to the Final EIR/EA/FONSI are not required.

Comment LO-4: Novato Sanitary District, page 1 of 2

From: Erik Brown [redacted]
Sent: Thursday, September 28, 2023 10:52 AM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Cc: Jeff Boheim [redacted]
Subject: SR 37 Flood Reduction Project Draft EIR Comments from Novato Sanitary District

EXTERNAL EMAIL. Links/attachments may not be safe.

ATTN: Skylar Nguyen

Thank you for the opportunity to provide comments on the SR 37 Flood Reduction Project Draft EIR. The Novato Sanitary District (NSD) is a stakeholder for the project and property owner along the project corridor. We have the following comments:

LO-4-1

1. Chapter 1., Page 1-15 Local Access Roads and Figure 1-7, Map 3 and 4 of 8: It is unclear on how one would access the proposed local access road east of Novato Creek after Phase 2. It appears one would have to access from back of City of Novato's Corporation Yard on Davidson Street and then vi the levee on the East side of Novato Creek. How will the project guarantee accessibility year-round?

LO-4-2

2. Chapter 1., Page 1-15 Local Access Roads and Figure 1-7, Map 4 and 5 of 8: There doesn't appear to be any provisions for local access on the south side of 37. On Figure 1-7, Map 5 an access driveway is shown on the left side of the map on the south side of HWY 37. The driveway accesses pasture land for agricultural purposes, but more importantly, there is access to a drainage pump station that is critical in keeping the area from flooding. How will the project guarantee accessibility to this area?

LO-4-3

3. Figure 2.1-1: A good portion of the area identified as Open Space, to the East of Deer Island Preserve, North and South of HWY 37 is currently agricultural land used for grazing cattle. Additionally, NSD facilities (treated effluent storage ponds, sludge lagoons and dedicated land disposal site) east of Deer Islan preserve and north side of Hwy 37 are not shown. Unclear on what the designation for NSD facilities should be, but they are publicly owned critical

Comment LO-4: Novato Sanitary District, page 2 of 2

LO-4-3 cont'd

infrastructure and should be identified other than "Open Space".

LO-4-4

4. Table 2.1.4-1: The population numbers for City of Novato and State of California do not look correct.

LO-4-5

5. Figure 2.1.5-1: NSD's treated effluent storage pond is identified as "Urban and Built up Land". This is critical infrastructure.

LO-4-6

6. Chapter 2., Page 2-31, Section 2.1.6.1 Utilities: There is no mention of NSD's critical utilities crossing the proposed project area. NSD has a 16-inch sanitary sewer force main within a 36-inch casing crossing HWY 37 on the west side of the proposed project. This may be mislabeled as a Marin Municipal water line in the report. Additionally, there is a 48-inch RCP Sewer Outfall pipe within a 72-inch steel casing and a 24-inch irrigation line within a 42-inch casing crossing HWY 37 east of Novato Creek. NSD can provide a CAD file that includes these utilities. These utilities need to be identified in the EIR and all future planning/design documents.

Please let me know if you have any questions on the comments above.

Best regards,

Erik Brown, P.E.
Deputy General Manager
Novato Sanitary District
[redacted]

Creating Worth From all of Novato's Waste

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Response to LO-4: Novato Sanitary District

Response to Comment LO-4-1:

Caltrans acknowledges the Novato Sanitary District's comment pertaining to access of the proposed local access road east of Novato Creek after Phase 2. During the design phase of Phase 2, Caltrans will prepare a traffic analysis study, under MM-TRANS-1, Prepare Traffic Analysis, to evaluate potential traffic impacts from construction and operation of Phase 2. The results of these analyses could require additional CEQA and National Environmental Policy Act documentation, including new measures to avoid, minimize and/or mitigate impacts. As described in PF-TRANS-2, Coordinate with Adjacent Property Owners, Caltrans would coordinate with the Novato Sanitary District during the design phase of Phase 2 about maintaining local access Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-4-2:

Caltrans acknowledges the Novato Sanitary District's comment pertaining to accessing a driveway south of SR 37 after Phase 2. Refer to Response to Comment LO-4-1.

Response to Comment LO-4-3:

Caltrans acknowledges Novato Sanitary District's comments pertaining to the land use designations on Figure 2.1.1-1 (Land Use Designations) and their current uses according to the District. The data collected for Figure 2.1.1-1 and 2.1.5-1 (Farmlands) are sourced from Marin County and the Natural Resources Conservation Service (as part of the California Department of Conservation). Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-4-4:

The population numbers for the city of Novato and the state of California were sourced from the United States Census Bureau in 2022, which held data that were counted as of April 1, 2020. Given that these were the most recent data available, edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-4-5:

Refer to Response to Comment LO-4-3. In response to the Novato Sanitary District's comment pertaining to critical infrastructure, Caltrans revised the Final EIR/EA/FONSI to include a new Project feature in Appendix D, PF-TRANS-2, Coordinate with Adjacent Property Owners, which would involve continued coordination with adjacent property owners during the Phase 2 design phase. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-4-6:

Caltrans acknowledges Novato Sanitary District's review of their critical utilities that are within the Project area and could potentially be affected by the Project. Caltrans' ROW staff would coordinate with the district during future Project phases to determine if potential utility conflicts exist and to take measures to avoid or reduce impact to the district's facilities. Section 2.1.6, Utilities and Emergency Services, of the Final EIR/EA/FONSI was revised to include the utilities owned by the Novato Sanitary District. No further edits to the Final EIR/EA/FONSI are required.

Comment LO-5: San Francisco Bay Conservation and Development Commission (BCDC), page 1 of 7

San Francisco Bay Conservation and Development Commission
375 Beale Street, Suite 510, San Francisco, California 94105 tel 415 352 3600 fax 888 348 5190
State of California | Gavin Newsom – Governor | info@bcdc.ca.gov | www.bcdc.ca.gov

October 6, 2023

Caltrans District 4
P.O. Box 23660, MS:8B
Oakland, CA 94623-0660
Attn: Skylar Nguyen, Senior Environmental Scientist
Via Email: <SR37FloodProject@dot.ca.gov>

SUBJECT: Comments on the State Route 37 Flood Reduction Project Draft Environmental Impact Report (DEIR), SCH# 2021110045

Dear Ms. Nguyen:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (EIR) for the State Route 37 (SR 37) Flood Reduction Project (the Project), received by our office on August 25, 2023. These staff comments are based on the Commission's law, the McAteer-Petris Act, and the policies of the Commission's San Francisco Bay Plan.

We acknowledge the importance of this Project because this portion of SR 37 floods under certain scenarios and is projected to be permanently inundated at some point during the life of the project. The Project is one piece of a larger effort to create both a near-term and long-term equitable Resilient SR 37, a critical transportation corridor of statewide significance, whose goal is to integrate superior traffic circulation, create ecological and public access benefits, and is resilient to flooding and rising sea levels.

BCDC is proud to be part of the Partnership Agreement that includes Caltrans, the State Transportation Agency, and others in the effort to make SR 37 resilient. As such, BCDC views this Resilient SR 37 effort as not just a highway project, but as a large-scale program to create equitable mobility, vast habitat restoration, and increased public access. Indeed, successful integration of these goals will be recognized nationally as an example of how to integrate increased mobility with environmental and access solutions and will be viewed as a prime example of working successfully to adapt to existing and future climate change challenges.

The project under consideration is Part One of a suite of near-term solutions. We shall continue to work with Caltrans on the next steps of both the near-term and longer-term solutions that sit within our jurisdiction.

Commission Jurisdiction

The Commission's jurisdiction includes both the Bay itself and the "shoreline band." The shoreline band extends 100 feet inland from and parallel to the Bay shoreline, that shoreline being defined as all tidal areas of the Bay up to the line of mean high tide, or where there is tidal marsh, including such areas up to five feet above mean sea level. Jurisdiction also includes

Comment LO-5: San Francisco Bay Conservation and Development Commission (BCDC), page 2 of 7

certain waterways that are considered part of the San Francisco Bay consisting of all areas that are tidally influenced, but our jurisdiction in Novato Creek is limited bayward of the eastern high-tension line as it existed on Sept. 17, 1965, per BCDC regulation codified at 14 CCR section 10121(c). Within its jurisdiction, Commission permits are required for activities including the placement of fill, substantial changes in use, and dredging/extraction of materials.

LO-5-1

Due to the Novato Creek jurisdiction line, the Project would not require a permit from the Commission. That being said, demonstrated in the flooding analysis for the Project, sometime during the life of the Project, San Francisco Bay is projected to expand into the Project area due to sea level rise. The date this may happen is not projected in the DEIR, and depends on numerous factors, such as whether and how the levees are maintained and how groundwater emergence impacts the Project area. Additionally, as stated in the Commission's recently adopted Strategic Plan, the Commission intends to examine whether and how to "enlarge the focus of BCDC's regulatory program to permit larger-scale and more complex subregional projects that are aligned with [a] Regional Shoreline Adaptation Plan." For thoroughness, BCDC staff are providing comments on the Project to share our expertise as a Project partner, but also to assess potential consistency with BCDC plans and policies as if the project were within BCDC's jurisdiction in case jurisdictional conditions change before project permit applications are submitted in order to realize the Project. As a Project partner, we appreciate you providing a review of BCDC Bay Plan Policies in Appendix G, and we have some additional comments herein.

Project Description

The purpose of the Project is to build resiliency to the effects of projected 2130 sea level rise (SLR) onto SR 37 from PM R11.2 to PM 13.8. Highway flooding currently occurs during winter rain and high tide events causing delays and highway closures and will get worse over time with SLR.

The Build Alternative adapts to 2130 SLR by constructing a causeway at an elevation of 35 feet and replacing the Novato Creek Bridge. The Project would be phased with the most flood-prone component, the Novato Creek Bridge and connecting structures, being built in Phase 1.

Phase 2 would raise about 2.2 miles of SR 37 onto a causeway elevated above future coastal flooding and Bay waters on either side of the Novato Creek Bridge between Hwy 101 and Atherton Avenue with a bridge elevated also to 35 feet. Construction of the Phase 2 causeway is estimated to occur in 2041-2045. The causeway would include four lanes of traffic and a 14-foot-wide bicycle and pedestrian pathway, for a total roadway width of 114 feet.

The No-Build Alternative would result in no project.

Proposed Project Details

The following project details should be clarified in the DEIR:

LO-5-2

1. In various places in the DEIR, the causeway is described as "35 feet in elevation", with no vertical datum provided, and "35 feet high" in other places. To understand the impacts of the causeway it would be helpful to clearly state both the general height of the causeway above

Comment LO-5: San Francisco Bay Conservation and Development Commission (BCDC), page 3 of 7

LO-5-2 cont'd

ground and the design elevation of the roadway, with a vertical datum specified, such as NAVD88, to compare to future Bay elevations, as well as the design elevation of the bottom of the causeway, to compare to Novato Creek flood modeling. Please provide these elevations and correct this terminology throughout the document, as appropriate. It would be also helpful to have a figure showing current ground surface elevations along the project area, to examine groundwater emergence risk.

LO-5-3

2. The Study "State Route 37 – Segment A Sea Level Rise Corridor Improvement Study" (June 2018) recommends a minimum roadway elevation for this project of 21.8 ft NAVD88 for resilience to 2100; please explain the discrepancy or provide a different reference for the derivation of the design elevation of the project.

COMMISSION LAW AND BAY PLAN POLICIES RELEVANT TO THE PROJECT

Biological Resources

LO-5-4

Protection of biological resources, including wildlife and habitat, is addressed through several sections of the Bay Plan. Fish, Other Aquatic Organisms, and Wildlife Policy No. 1 states "to assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased." The DEIR describes several mitigation measures that will be used to minimize direct impacts to species present near the project site and their habitat. If the Project ultimately becomes subject to BCDC's permit requirement by virtue of the Project coming within BCDC's regulatory jurisdiction, these same mitigation measures will inform the Commission's review of the Project for consistency with Fish, Other Aquatic Organisms, and Wildlife Policy No. 1.

Transportation, Public Access and Recreation, Appearance, Design, and Scenic views

LO-5-5

Supporting the buildout of the San Francisco Bay Trail is an objective described in many Bay Plan policies including Transportation Policy No. 4 that states "(t)ransportation projects on the Bay shoreline and bridges over the Bay or certain waterways should include pedestrian and bicycle paths that will either be a part of the Bay Trail or connect the Bay Trail with other regional and community trails." This is further supported by Recreation Policy 3.a.9 that states projects should "(c)omplete segments of the Bay and Ridge trails, where appropriate, consistent with policy 4-a-6." The Project includes bicycle and pedestrian facilities in both Phase 1 and the final project, ultimately to be part of the San Francisco Bay Trail.

LO-5-6

Transportation Policy No. 4 further states "(t)ransportation projects should be designed to maintain and enhance visual and physical access to the Bay and along the Bay shoreline." Appearance, Design, and Scenic Views Policies 2, 6, and 7 also speak to designing structures and railing to maximize views to the bay.

LO-5-7

If the Project ultimately becomes subject to BCDC's permit requirement by virtue of the Project coming within BCDC's regulatory jurisdiction, the proposed bicycle and pedestrian facilities will inform the Commission's review of the Project for consistency with the aforementioned Bay Plan policies.

Comment LO-6: San Francisco Bay Conservation and Development Commission (BCDC), page 4 of 7

Water Quality

LO-5-8

Bay Plan Water Quality Policy No. 1 state "Bay water pollution should be prevented to the greatest extent feasible." Policy No. 4 goes on to say, "When approving a project in an area polluted with toxic or hazardous substances, the Commission should coordinate with appropriate local, state and federal agencies to ensure that the project will not cause harm to the public, to Bay resources, or to the beneficial uses of the Bay." The new causeway will be enlarging and changing the configuration of the impervious surface of SR 37, and modeling shows the causeway will likely be in the Bay due to sea level rise by 2050 (implied by Figure 3.3-4). Although not described, current bioswales along the current highway will no longer be functional once inundated and, therefore, it is expected that the stormwater management of the new causeway be redesigned in order to protect water quality in the Bay.[1] Page 2-94 of the DEIR states regarding stormwater management: "If the Project cannot treat the entirety of the new impervious surface on-site, alternative stormwater treatment compliance (off-site treatment) would be required. Alternative stormwater treatment compliance locations would need to be coordinated between Caltrans and local agencies and municipalities." These potential stormwater biotreatment areas should be resilient to sea level rise and, therefore, be located outside the floodplain anticipated during the life of the project.

LO-5-9

The Project Description and Section 1.3.2.3 Construction Methodology does not discuss the final disposition of the existing highway once the causeway is built. The existing highway is assumed to consist of asphalt and aggregate roadbase, plus adjacent earthen areas potentially contaminated with aerially deposited lead (ADL). Since the area under the causeway is predicted to be inundated by Bay waters, there are water quality concerns associated with leaving asphalt and ADL-contaminated soils in place. Please describe planned demolition of the highway and removal of soil contaminated with ADL and if any restoration of the area under the new causeway is planned.

LO-5-10

Because the Phase 2 causeway is being planned so far in advance of its implementation, this affords Caltrans the unique opportunity to implement aspects of the project this decade, while the project lands are dry and implementation will avoid Bay impacts, as opposed to in later decades when sea level rise will result in increased wetlands and inundated areas. It is recommended that the project team analyze the expected date that the project property will become inundated and schedule activities including ADL remediation prior to that date.

LO-5-11

Environmental Justice and Social Equity

Policy No. 3 requires meaningful engagement with potentially impacted communities in "underrepresented and/or identified vulnerable and/or disadvantaged communities... and that

[1] In this scenario, where it is presumed the causeway will likely be in the Bay due to sea level rise by 2050 and stormwater management of the causeway is expected and needed to be redesigned in order to protect water quality in the Bay, if the redesign requires placement of fill, extraction of materials, or substantial change in use of any water, land or structure within BCDC's jurisdiction, a BCDC permit will be required.

Comment LO-5: San Francisco Bay Conservation and Development Commission (BCDC), page 5 of 7

LO-5-11 cont'd

evidence of how community concerns were addressed be provided." Appendix G indicates consistency with BCDC Environmental Justice and Social Equity policies because the project team did not identify any Environmental Justice (EJ) communities in the immediate area of the Project. While BCDC's Community Vulnerability map identifies the immediate area as having low vulnerability, adjacent communities are highly vulnerable. Our Community Vulnerability map helps identity potential EJ communities, but it is not the sole determinant in identifying a vulnerable community, which is why robust, geographically significant, and meaningful engagement is required to ensure the Project does not adversely impact an existing vulnerable community or cause a community to become vulnerable due to Project construction and its implementation.

LO-5-12

Additionally, Policy No. 4 requires that "if a project is proposed within an underrepresented and/or identified vulnerable and/or disadvantaged community, potential disproportionate impacts should be identified in collaboration with the potentially impacted communities to require mitigation for disproportionate adverse project impacts on the identified vulnerable or disadvantaged communities in which the project is proposed."

In consideration of the above-referenced policies, BCDC staff recommends that the project team engage in broader community outreach in adjacent and commuter communities that may be affected by and/or use the highway and provide evidence of how community concerns were addressed. BCDC's Community Based Organization tool identifies organizations in the project vicinity that should be contacted. It is imperative that genuine outreach to community organizations, including tribes, occur to eliminate past historic disparities and achieve tangible equitable results for those impacted by inequities caused by SR 37. It is also imperative that SR 37 perform meaningful outreach with commuters who use the road, which means that Caltrans may need to expand its impact area to get an accurate account of the significance of the Project's impact. As SR 37 aims to serve and support these communities, it is important that the extent of meaningful engagement captures said voices.

Climate Change

BCDC Climate Change Policy No. 2 requires, in part, that "a risk assessment should be prepared by a qualified engineer,...based on the estimated 100-year flood elevation that takes into account the best estimates of future sea level rise and current flood protection and planned flood protection....A range of sea level rise projections for mid-century and end of century based on the best scientific data available should be used...[the] assessment should identify all types of potential flooding, degrees of uncertainty, consequences of defense failure, and risks to existing habitat from proposed flood protection devices." Policy No. 3 states that where such risk assessments show vulnerability to public safety, projects should be designed to be resilient to a mid-century sea level rise projection, and an adaptive management plan should be developed to address sea level rise impacts beyond mid-century through the life of the project.

LO-5-13

Section 3.3.5.12 of the DEIR on Sea Level Rise presents data on projected sea level rise at 2050, 2100, and 2130, and discusses riverine inundation from Novato Creek, pointing out that the site is currently within a FEMA floodplain with 100-year flood elevations of 10 and 11 NAVD88 flooding the entire project area. An additional and possibly more immediate flooding risk is

Comment LO-5: San Francisco Bay Conservation and Development Commission (BCDC), page 6 of 7

LO-5-13 cont'd

groundwater emergence. Since the highway has elevations of 4-6 feet NAVD88, it is currently about even with mean high water in the adjacent Bay of 5.7 ft NAVD88. This groundwater emergence is likely to affect various aspects of the project and will get worse with SLR. BCDC staff recommends that a discussion of flooding from groundwater emergence and sea level rise be added to the DEIR, particularly an examination of the following questions: How do local groundwater levels respond to tidal changes? Does the adjacent agricultural community pump groundwater and is this expected to decrease or increase in the 13 or so years leading up to Phase 2?

Compensatory Mitigation

LO-5-14

Section 2.3.2 of the DEIR describes impacts to wetlands and other waters, and states that the project would permanently impact 0.50 acres of tidal salt marsh and 0.04 acres of open water through shading. There would also be approximately 0.28 acres of temporary impacts to open water and 2.11 acres of temporary impacts to tidal salt marsh during construction. These impacts would result from construction access into wetlands and other waters, replacement of existing culverts, and dewatering. There would also be additional permanent and temporary impacts to non-tidal aquatic resources.

In addition, the DEIR states that Caltrans will compensate for the unavoidable and permanent loss and degradation of wetlands and other waters and describes various mitigation options including purchasing credits at an approved mitigation bank and/or providing in-lieu funding to a nearby restoration program or project.

LO-5-15

The San Francisco Bay Plan includes Mitigation policies that should be reviewed and considered by the project team as the project design progresses, including the following. Policy No. 1 requires that all projects be designed to avoid and minimize adverse impacts to the natural resources of the Bay, and that compensatory measures should be required to mitigate for unavoidable adverse impacts. Additional policies describe how mitigation projects should be designed. Among these, Policy No. 2 states, in part, that mitigation projects be sited and designed within a Bay wide ecological context, as close to the impact site as possible. Policy No. 3 states, in part, that communities surrounding both the project and the compensatory mitigation site be meaningfully involved in development of the mitigation program in an equitable and culturally-relevant manner (see also our comments on Environmental Justice and Social Equity). Finally, Policy No. 12 states that fee-based mitigation may be allowed only when other compensatory mitigation measures are infeasible. Therefore, the project team should closely analyze and describe whether on-site or nearby compensatory mitigation actions may be feasible before proposing fee-based mitigation options.

Overall, we want to thank you for providing the staff with an opportunity to review the Draft DEIR for the SR 37 Flood Reduction Project. We look forward to working with you as a partner as the project, future near-term projects, and the long-term program are developed. If you have any questions regarding this letter or the Commission's policies and permitting process, please do not hesitate to contact me at julie.garren@bcdc.ca.gov or 415-352-3624.

Comment LO-5: San Francisco Bay Conservation and Development Commission (BCDC), page 7 of 7

[redacted]

Julie Garren
45B0F28FF0CE409...

JULIE GARREN
Bay Resources Program Manager

cc: State Clearinghouse, state.clearinghouse@opr.ca.gov

Response to LO-5: San Francisco Bay Conservation and Development Commission (BCDC)

Response to Comment LO-5-1:

Caltrans acknowledges BCDC's comment regarding the Novato Creek jurisdiction line, permit requirement, and consistencies with its policies. Caltrans appreciates BCDS's partnership on this Project. As noted in the comment, the Project is not currently within BCDC's jurisdiction, but due to SLR, BCDC's jurisdiction line may extend into the existing Project area in the future. Caltrans would re-evaluate BCDC's jurisdiction line during Phase 2 design and would coordinate with BCDC, if needed. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-2:

Caltrans acknowledges the comment regarding the inconsistent use of vertical datum in the Draft EIR/EA when referring to the elevation of the causeway. Because this is a global comment, the Final EIR/EA/FONSI is revised to consistently reference the vertical datum throughout the entire document.

Caltrans adheres to Order S-13-08 by following the guidance summarized in the *State of California Sea-Level Rise Guidance* (2018) published by the California Natural Resources Agency and California Ocean Protection Council. According to the *State of California Sea-Level Rise Guidance* and the Highway Design Manual Topic 883.2(3) "Sea-Level Rise," under a medium-high risk aversion, the projected SLR for 2130 is 10 feet. Several other factors, in addition to projected SLR, are also taken into consideration to establish minimum elevation; these factors include 100-year flood: 11 feet; wave action: 3 feet; free board: 3 feet; and bridge structure. Figure K-2 (Roadway Elevation Requirements) shows how the 35-foot elevation was established. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-5-3:

Caltrans acknowledges reference to the *State Route 37 – Segment A Sea Level Rise Corridor Improvement Study*, which recommended a minimum roadway elevation of 21.8 feet NAVD 88 for resiliency 2100. Furthermore, the comment requests an explanation for the discrepancy between the referenced study and the Final EIR/EA/FONSI.

As noted in Chapter 1, Proposed Project, of the Final EIR/EA/FONSI, the purpose of the Project is to build resiliency to the effects of projected 2130 SLR and stormwater overtopping onto SR 37 from Post Mile (PM) R11.2 to PM 13.8. Refer to Response to Comment LO-5-2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-4:

Caltrans acknowledges the comment describing how BCDC would use proposed minimization measures in the document to inform BCDC's future review of the Project if the Project is subject to BCDC jurisdiction. Edits to the Final EIR/EA/FONSI are not required.

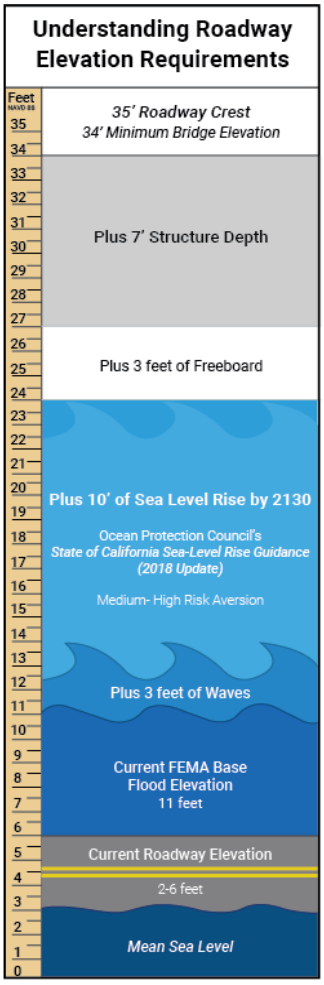


Figure K-2. Roadway Elevation Requirements

Response to Comment LO-5-5:

Caltrans acknowledges the comment regarding the Bay Plan policies that support the provision of bicycle and pedestrian paths along SR 37 to become part of the San Francisco Bay Trail. The proposed Project includes a new bicycle and pedestrian path to be built within the Project area. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-6:

Caltrans acknowledges the comment regarding Transportation Policy No. 4 and Appearance, Design, and Scenic Views Policies No. 2, 6, and 7. The Project would include a bicycle and pedestrian path along the SR 37 corridor within the Project limits, which would provide visual access to the San Francisco Bay. In addition, the Project would be designed with see-through railings that would not restrict views of the Bay for motorists, bicyclists, and pedestrians. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-7:

Caltrans acknowledges the comment regarding BCDC's future jurisdiction. For further information, refer to Response to Comment LO-5-1. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-8:

Caltrans acknowledges the comment regarding Bay Plan Water Quality Policy No.1. During the design phase, Caltrans would coordinate with the regulatory agencies to design and place stormwater biotreatment in areas resilient to SLR. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-9:

Caltrans acknowledges the comment regarding the final disposition of the existing highway and water quality concern from asphalt and aerially deposited lead-

contaminated soils. Following construction of Phase 2 of the Project, the existing SR 37 roadway pavement would be removed. During earthmoving activities, aerially deposited lead potentially present in the surface and near-surface soils in proximity to the roadway edge could be encountered. Typically, any measurable influence from aerially deposited lead is gone below a depth of 3 feet. However, due to the large area to be affected by Project groundwork, Caltrans would implement PF-HAZ-5, Hazardous Waste Management, PF-HAZ-6, Aerially Deposited Lead from Gasoline, PF-HAZ-7, Preliminary Site Investigations, PF-HAZ-8, Aerially Deposited Lead Site Investigation Work Plan, PF-HAZ-12, Active Treatment System, and PF-WQ-2, Implementation of Construction Site Best Management Practices to minimize the potential impact on health and the environment from hazardous substances. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-10:

Caltrans acknowledges BCDC's recommendation for the Project team to analyze the expected date that the Project area would be inundated. As discussed in Section 1.1, Introduction, of the Final EIR/EA/FONSI, Phase 2 construction is estimated to be $1.475 billion. Caltrans is continuing to work with its partners to identify and obtain the necessary funds for Phase 2. Caltrans is committed to minimizing impacts on wetlands and would initiate design of Phase 2 to avoid potential impacts on wetlands when funding becomes available. Caltrans would coordinate with the appropriate agencies to adequately mitigate any permanent impacts on wetlands. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-11:

Caltrans acknowledges the comment regarding potential Environmental Justice (EJ) communities within or adjacent to the SR 37 Project limits and BCDC policies that support outreach to these communities. According to Caltrans' planning and research, no EJ communities were identified adjacent to the SR 37 corridor or in the Novato and Marin County areas east of U.S. 101. The nearest EJ community would be outside the Project limits in Solano County. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-12:

Caltrans acknowledges the comment regarding public outreach to vulnerable and EJ communities and commuters that use SR 37 that may reside in EJ communities. As part of the Planning and Environmental Linkages (PEL) planning study, significant public outreach was undertaken with the four counties (Solano, Marin, Sonoma, and Napa) that have portions of SR 37 within their county jurisdiction. For more information on studies and public outreach for the PEL planning study, please refer to this link: Planning and Environmental Linkages (PEL) | Caltrans. This Project has also engaged in broad public outreach which includes two public scoping meetings, newspaper notices, social media

postings, and public presentations to commuters that use SR 37. For more information on this Project's outreach, please visit this link: 37 Project Meetings & Events | Caltrans. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-13:

Caltrans acknowledges the comment and concern about the effects of groundwater emergence. Groundwater levels in the Project area are shallow and would fluctuate. The local groundwater is influenced by tidal changes and rain, and would also be influenced by SLR. Under CEQA, the analysis is focused on physical changes to the environment and not the environment's effect on a Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-5-14:

Caltrans acknowledges the comment summarizing results of the impact assessment provided in the Draft EIR/EA. Edits to the Final EIR/EA/FONSI area not required.

Response to Comment LO-5-15:

Caltrans acknowledges the comment providing guidance on determining appropriate compensatory mitigation as the Project progresses. To satisfy mitigation proposed in this environmental document, Caltrans is exploring opportunities for integrating restoration opportunities into the design of the Project itself in partnership with groups, such as the Baylands Group, and developing mitigation opportunities along the Project corridor, including the possibility of contributing to the Baylands Group's Novato Creek Restoration Strategy. Through Caltrans' regional vision for advance mitigation, Caltrans would evaluate the causeway for habitat and species credits through the SB 790 and Mitigation Credit Agreement programs, which would cover any species and habitats listed in the North Bay Baylands Resource Conservation Investment Strategy. The feasibility of specific restoration and mitigation opportunities would be fully explored by Caltrans in coordination with resource agencies and environmental organizations during the design phase. Sufficient details regarding various strategies are not available at this time. For further information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Comment LO-6: San Francisco Bay Trail, page 1 of 2

October 4, 2023

Caltrans, District 4
Attn: Skylar Nguyen
Department of Transportation, Environmental Planning
P.O. Box 23660, MS 8B
Oakland, CA 94623-0660

RE: Comments on Draft Environmental Impact Report/Environmental Assessment for State Route 37 Flood Reduction Project

Dear Skylar Nguyen:

The San Francisco Bay Trail Project is pleased to provide comments on the Draft Environmental Impact Report/Environmental Assessment for State Route 37 Flood Reduction Project (SR 37 Project).

State Route 37 (SR 37) is a critical regional connection of the Bay Trail, a 500-mile planned pathway around the San Francisco Bay and San Pablo Bay. More than 350 miles of the Bay Trail exist today which provides space for recreation and active transportation to work, school and other destinations in the community. The SR 37 section of the Bay Trail project is a critical regional active transportation and recreation connection for all North Bay counties including Marin, Sonoma, Napa, and Solano.

The San Francisco Bay Trail Project has the following comments:

- For Phase 1, please ensure that there is a safe pathway connection from the existing Bay Trail near US 101 to the new segment of Bay Trail on the Novato Bridge. On Figure 1-6 Map 1, there is no connection between the Bay Trail segments. Additional signage and pavement markings are needed to ensure that people using the Bay Trail understand how to navigate to the new pathway on the Novato Bridge. At a minimum, it is necessary to coordinate with regional partners to assist with improved wayfinding for Phase 1. LO-6-1
- For Phase 2, please ensure that there is a safe pathway connection from the existing Bay Trail near US 101 to the new segment of Bay Trail. On Figure 1-7 Map 1, there is no connection between the existing Bay Trail along the SMART corridor and the new Bay Trail section along SR 37. The Phase 2 Bay Trail begins on Marsh Drive, east of the US 101 interchange, which is not currently identified as a future Bay Trail route segment. The SR 37 project team needs to continue closely coordinating with the San Francisco Bay Trail Project to ensure consistent planning of the Bay Trail on SR 37 and the LO-6-2

Comment LO-6: San Francisco Bay Trail, page 2 of 2

LO-6-2 cont'd

necessary connections to the SR 37 Bay Trail alignment from existing Bay Trail segments.

LO-6-3

- The bicycle and pedestrian pathway will be an extensive system passing through four Bay Area counties. As such, amenities for bicyclist, pedestrians, and other trail users should be provided to provide stops for rest, points of interest, and needed facilities such as rest stops, overlooks, interpretive signage, water fountains/bottle fill stations, restrooms, and bicycle repair stations.

LO-6-4

- As the project continues through the design process, please be sure to incorporate these design concepts and elements to ensure that it meets the needs and goals of the Bay Trail. 1) The Bay Trail is fundamentally an all ages and abilities trail system. As such, the bicycle and pedestrian pathway must be designed to be low-stress, safe, and attractive to use for all trail users. The low-stress factor requires developing a trail that is physically separated from the roadway and "feels" like it is removed and separate from the main roadway. Issues such as proximity to the roadway, physical separation, roadway noise, lighting, and road generated wind and debris are all factors that contribute to perceptions of stress, safety, and attractiveness. Design elements that create separation of the pathway from the roadway could address many of these issues. Such design elements could include bioswales and low-profile landscaping as buffers, k-rails or other barrier separation, and grade separation of the pathway from the roadway.

LO-6-5

- Caltrans' Complete Streets Policy (Director's Policy 37, December 2021) dictates that all transportation projects funded or overseen by Caltrans will provide comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documented and approved.

LO-6-6

- MTC's Complete Streets Policy (Resolution No. 4493, adopted in March 2022) requires that projects funded with regional funds must implement local Complete Streets plans and implement All Ages and Abilities design guidelines on the Active Transportation Network. SR 37 is on MTC's Active Transportation Network.

LO-6-7

- It is critical to conduct continuous coordination through joint meetings that includes the Bay Conservation and Development Commission, State Coastal Conservancy, San Francisco Bay Trail Project, and Caltrans on a quarterly basis at a minimum throughout the life of the project. This ensures consistent coordination with key resource and public access agencies.

LO-6-8

- The bicycle and pedestrian pathway is a critical facility to enhance access to transit for people biking, walking, and rolling. This pathway can connect people to SMART stations and bus stops to further expand access to jobs, services, and goods.

The Bay Trail Project appreciates Caltrans' efforts to incorporate the development of the Bay Trail as a part of the SR 37 Project. We look forward to our continued partnership with Caltrans on this and many other Bay Trail improvements. Caltrans staff needs to have regular, ongoing coordination with the San Francisco Bay Trail Project team.

Sincerely,

[redacted]

John Woodbury
Chair, San Francisco Bay Trail Project Board of Directors

Response to LO-6: San Francisco Bay Trail

Response to Comment LO-6-1:

Caltrans acknowledges the comment regarding the safe pathway connection from the existing Bay Trail near U.S. 101 to the new segment of Bay Trail on the Novato Bridge. Access to the pedestrian and bicycle pathway, shown on Figure 1-6 (Build Alternative – Phase 1 Novato Creek Bridge), would be similar to current access via the shoulders on the Marsh Drive on-ramp to eastbound SR 37.

Caltrans would install wayfinding signage and pavement markings directing bicyclists to the proposed pathway at completion of Phase 2. Section 1.3.2.1, Phase 1: Replace Novato Creek Bridge, of this Final EIR/EA/FONSI is revised to state that wayfinding signage and pavement markings would be installed within the Project area. Caltrans would coordinate with the San Francisco Bay Trail on the wayfinding and signage during the design phase of Phase 2. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-6-2:

Caltrans acknowledges the comment regarding the safe pathway connection from the existing Bay Trail near U.S. 101 to the new segment of Bay Trail. Refinements to the design of the bicycle and pedestrian pathway would resume when funding for Phase 2 becomes available. Caltrans would engage the San Francisco Bay Trail on the design refinements of the bicycle and pedestrian pathway. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-6-3:

Caltrans acknowledges the comment regarding amenities for bicyclist, pedestrians, and other trail users on the causeway. Refinements to the design of the bicycle and pedestrian pathway would resume when funding for Phase 2 becomes available. Caltrans would engage the San Francisco Bay Trail on the design refinements of the bicycle and pedestrian pathway. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-6-4:

Caltrans acknowledges the comments about the design concepts and elements of the bicycle and pedestrian pathway. Caltrans would consider the design concepts suggested by the commenter during the Phase 2 design. As discussed in Section 1.1, Introduction, of the Final EIR/EA/FONSI, the Project proposes a 14-foot-wide bicycle or pedestrian path with a 2-foot-wide barrier, between the pathway and the outside shoulder. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-6-5:

Caltrans acknowledges the commenter's reference to the Complete Street Policy (Director's Policy 37, December 2021). The proposed Project is consistent with Director's Policy 37, which states "all transportation projects funded or overseen by Caltrans will provide comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documents and approve." The policy is intended to provide comfortable bicycle and pedestrian connectivity on public streets and to public transit.

As discussed in Section 3.1.17, Transportation, of the Final EIR/EA/FONSI, the Project would adhere with Director's Policy 37 by providing a wider, dedicated and barrier-separated bicycle and pedestrian pathway at Project completion. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-6-6:

Caltrans understands that the MTC Complete Streets Policy (Resolution No. 4493, adopted in March 2022) requires that projects funded with regional funds implement local Complete Streets plans and All Ages and Abilities design guidelines on MTC's Active Transportation Network. The Project is on the MTC Active Transportation Network, which includes local streets and the highway system within MTC's nine counties. As a state agency, Caltrans has a similar policy, Director's Policy 37, to provide comfortable use and accessibility for bicyclists and pedestrians on the highway system. As discussed in Response to Comment LO-6-5, the Project would provide a wider, dedicated and barrier-separated bicycle and pedestrian facility on SR 37 at Project completion. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-6-7:

Caltrans acknowledges the comment's emphasis on continuous coordination with local, regional, and state agencies. Caltrans coordinates closely with MTC, BCDC, and the State Coastal Conservancy through various committees. Caltrans understands the Bay Trail is a joint project of MTC and Association of Bay Area Governments. Caltrans would coordinate with the San Francisco Bay Trail Project during the design of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-6-8:

Caltrans acknowledges the comment about the importance of a bicycle and pedestrian pathway to enhance accessibility to transit for people biking, walking, and rolling. Edits to the Final EIR/EA/FONSI are not required.

Comment LO-7: San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), page 1 of 6





San Francisco Bay Regional Water Quality Control Board

Sent via email; no hard copy to follow

October 9, 2023

California Department of Transportation
P.O. Box 23660 MS: 8B
Oakland, CA 94623-0660
Attn. Skylar Nguyen
Senior Environmental Scientist
SR37FloodProject@dot.ca.gov

Subject: Comments on Draft Environmental Impact Report/Environmental Assessment (Draft EIR/EA)

Dear Ms. Nguyen:

Thank you for the opportunity to comment on the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) for the proposed State Route 37 (SR 37) Flood Reduction Project (Project) between U.S. Highway 101 (US 101) and Atherton Ave. in Marin County.

The Water Board is an active participant in multiple SR 37 planning processes, including the Ultimate Sea Level Rise (SLR) Resilience Project (US 101 to Interstate 80 (I-80)) Planning and Environmental Linkages (PEL) Study and several short-term improvement studies related to flooding and traffic congestion. We are also actively engaged in developing the SR 37 Sears Point to Mare Island Improvement Project (SPMIIP), which integrates ecological restoration while addressing traffic congestion between State Route 121 and I-80.

As directed by 14 CCR §15096, the Water Board is a Responsible Agency under the California Environmental Quality Act (CEQA) that must determine the adequacy of CEQA analysis. We therefore offer the following comments on the Draft EIR. We commented on the Notice of Preparation for the Project on December 17, 2021; those comments are attached and incorporated by reference. Based on the information provided in the DEIR/EA and at the meeting held by the Project Team on Sep 21, 2023, we offer the following comments. These comments are meant to advise Caltrans and its partners of our policies and requirements, so they may be incorporated into the environmental documentation and design processes, and facilitate Water Board review and permitting.

Comment LO-7: San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), page 2 of 6

Alternatives

LO-7-1 In previous feedback to the California Department of Transportation (Caltrans) and its partners, we have repeatedly emphasized the importance of taking a phased approach to SR 37 improvements that builds towards a sustainable long-term solution for flooding and transportation challenges along the corridor. In the fall of 2022, the SR 37 PEL Study ultimately identified a causeway as the preferred alternative to reduce flooding from stormwater overtopping and adapt to the projected 2130 SLR. The Project's Notice of Preparation, published on November 3, 2021, proposed to elevate SR 37 between US 101 and SR 121 on an embankment to reduce flooding from stormwater overtopping and only accommodate SLR to mid-century. We urged Caltrans to explore a causeway alternative and to build the Project to accommodate the long-term solution that was anticipated from the SR 37 PEL study. We are encouraged that the revised Project appears to incorporate the findings of the PEL study and reflect the spirit of the ultimate PEL design alternative by proposing a causeway at an elevation of 35 feet to accommodate the end-of-century SLR, which aligns well with the ultimate improvement vision of the SR 37 corridor.

LO-7-2 That said, we continue to encourage Caltrans to consider mechanisms to co-locate the SMART rail line through the corridor on the same ultimate causeway structure. Until the SMART rail line is elevated above current and likely future flood elevations, it will continue to impede flood flows in Novato Creek, increasing the risk of track damage that could lead to structural failure and discharge events that threaten water quality. We encourage Caltrans to continue to cooperate with SMART and to design the new Novato Creek bridge to accommodate the eventual co-location of rail.

Culvert Replacement

LO-7-3 Table 1-2 describes the culverts that the Project proposes to replace along the subject portion of SR 37. Of the 17 culverts proposed for replacement in Phase 1, only one (Culvert #1) is proposed for replacement with a larger culvert (current diameter: 12 inches; proposed diameter: 18 inches). Climate change is increasing the intensity, duration, and frequency of severe storms that can overwhelm stormwater infrastructure such as culverts. Given that this portion of SR 37 traverses a highly flood-prone region, we encourage Caltrans to take advantage of the opportunity the Project provides to increase the size of the roadway's culverts wherever practicable. Enlarging culverts in Phase 1 is especially important given the uncertain timing of the improvements proposed for Phase 2 of the Project.

Hydraulic Modeling

DEIR Section 2.2.1 addresses the Project's potential impacts on local/regional hydrology, which is a primary driver of beneficial uses and water quality in the region's waters (including wetlands). Most of the analysis in this section is based on the *Draft Location Hydraulic Study* (WRECO 2023); however, a number of key elements of the modeling are unclear or incompletely described:

Comment LO-7: San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), page 3 of 6

LO-7-4
- The amounts of sea level rise (SLR) that are modeled in the 2030 and 2050 scenarios are not described.

LO-7-5
- It is unclear if the modeling considers the influence of planned tidal wetland restoration in the region (see projects listed in DEIR Table 2.1.1-1), especially projects such as the Deer Island Basin Tidal Wetland Restoration Project that may be implemented on a similar schedule as Phase 1 of the proposed Project (and are very likely to be implemented by 2030). This restoration would significantly increase tidal prisms upstream of the bridge, and would therefore influence water surface elevations and flood velocities at the bridge cross-section and other modeled locations.

LO-7-6
- The low-lying SMART rail trestle presumably exerts a considerable influence on flood passage through Novato Creek and its floodplain, yet the modeling does not appear to evaluate the potential cumulative impacts on flood flows of elevating both SR 37 and the SMART rail (see discussion above under "Alternatives"). While we recognize that elevation of the SMART rail is not yet formally proposed, it is being studied and may occur by 2050.

We request that Caltrans revise the hydraulic modeling to address these uncertainties and incorporate the resulting analyses into the final EIR.

Mitigation Measures

LO-7-7
The EIR/EA must consider the reasonably foreseeable potential impacts of project alternatives on the current and anticipated future beneficial uses of waters of the State, which include estuarine habitat, cold freshwater habitat, fish migration, fish spawning, warm freshwater habitat, wildlife habitat, preservation of rare and endangered species.

LO-7-8
As stated in the Draft EIR, the Project will result in the placement of permanent and temporary fill material within jurisdictional waters, wetlands, and riparian habitats. Both a Clean Water Act (CWA) Section 401 water quality certification and a CWA Section 404 Permit from the U.S. Army Corps of Engineers are necessary for projects involving discharge of fill to waters of the U.S. Additionally, the Department may need to file a Report of Waste Discharge if the project may result in a discharge of waste to waters of the State. The Water Board adopted U.S. EPA's Section 404(b)(1) "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, in its Basin Plan for determining the circumstance under which filling of wetlands, streams, or other waters of the State may be permitted.

Section 404(b)(1) Guidelines prohibit all discharges of fill material into regulated waters of the United States if there is a less environmentally damaging practicable alternative to the proposed discharge that would have lesser effects on waters of the U.S. and that would achieve the basic project purpose.

The Guidelines sequence the order in which proposals shall be approached: 1) Avoid - avoid impacts to waters; 2) Minimize - modify project to minimize impacts to waters; and 3) Mitigate - once impacts have been fully minimized, compensate for unavoidable impacts to waters. Disturbance should be minimized when it is not possible to avoid impacts to water bodies. Mitigation for lost water body acreage, length, and functions through restoration or creation should only be considered after disturbance has been

Comment LO-7: San Francisco Bay Control Board (SFBRWQCB), page 4 of 6

minimized. The creation, restoration, enhancement of adequate mitigation habitat to compensate for the loss of water body acreage and linear feet, and functions and values must be provided for any anticipated adverse impacts.

MM-BIO-1: Compensatory Mitigation for Wetlands and Other Waters

LO-7-9 The DEIR/EA notes that Caltrans will offset temporary impacts by restoring disturbed areas to pre-project conditions at a 1.1:1 ratio, and the mitigation measure BIO-7 proposes mitigation for unavoidable permanent impacts to wetlands and waters in the Project area via mitigation credits from a wetland mitigation bank and/or in-lieu funding to local restoration projects determined in coordination with regulatory and resource agencies. When there are no conservation banks with credits available in the project's service area or approved in-lieu fee program to compensate for impacts to the species habitat, we encourage Caltrans to start early coordination with restoration project planners, resource agencies such as USFWS, CDFW, and the Water Board to develop an off-site mitigation project or an in-lien-fee program specific to the Project.

LO-7-10 Table 2.1.1-1 describes numerous tidal wetland and associated habitat restoration projects in the vicinity of the proposed Project, including the Deer Island Basin Tidal Wetlands Restoration Project (which proposes to restore tidal wetlands north of the SR 37 Project area) and the development of the Novato Creek Baylands Strategy (which is anticipated to describe a phased, spatially explicit strategy for tidal restoration of baylands both north and south of the SR 37 Project area). We recommend that Caltrans consider the Deer Island Basin project and projects identified by the Novato Creek Baylands Strategy as potential candidates for in-lieu funding of compensatory mitigation needs, and we look forward to working with Caltrans to develop an acceptable mitigation strategy.

LO-7-11 DEIR page 2-196 describes the proposed construction of a 720 ft long, 20 ft wide temporary construction trestle to facilitate construction of the new Novato Creek bridge without necessitating equipment access into sensitive Novato Creek habitats. The DEIR states that construction of this trestle would require up to 50 piles driven to a maximum depth of 100 ft below the existing ground (marsh) surface, and that the trestle would be removed once bridge construction is complete. Though this is a temporary structure, the resulting disturbance to local marsh habitats from installation, operation (shading) and removal of the trestle will likely last well over a year. As a result, the Water Board will require these impacts to be mitigated as if they were permanent impacts. We encourage Caltrans to instead consider less impactful strategies, such as compressing the bridge construction schedule into a shorter schedule that could be facilitated with a brief but complete highway shutdown period.

<u>Stormwater Treatment and Trash Controls</u>

The DEIR states that construction of Phase 1 and Phase 2 of the Project would result in 14.3 acres and 33.7 acres of new and reworked impervious surface, respectively, for a total of 48 acres of impervious area. Stormwater runoff from impervious areas may contain hydrocarbons, metals, volatile organic compounds, trash, sediment, and other pollutants that may significantly impacts water quality. Added impervious areas may

Comment LO-7: San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), page 5 of 6

result in alterations to existing hydrologic regimes, resulting in erosion and/or changes of sediment transport in receiving waters (hydromodification).

LO-7-12

As required by Provision 3.10.2 of Caltrans' Statewide Stormwater NPDES Permit No. CAS000003, SWRCB Order No. 2022-0033-DWQ, the Department must implement Low Impact Development (LID)-based stormwater treatment controls for all new development and/or redevelopment projects. Also, to obtain 401 water quality certification or waste discharge requirements from the Water Board, the Department will be required to provide appropriate stormwater treatment and hydromodification mitigation on-site, or if impracticable on-site, at an off-site location that treats an equivalent area of impervious surface with similar pollutant loading to the Project site. The off-site projects must be constructed no later than the current project.

LO-7-13

The current location of SR 37 could make onsite construction and maintenance of stormwater treatment BMPs difficult, so incorporating stormwater treatment planning and identifying off-site alternative compliance projects into the Project's early development stages will be beneficial.

LO-7-14

The Project is required to control trash from significant trash generating areas within the Project limits, as required by Cease and Desist Order No. R2-2019-0007, issued to the Department on February 13, 2019. Structural trash controls must be installed within the Project's proposed storm drain system and/or stormwater treatment BMPs to the extent practicable to prevent trash from discharging to receiving waters through existing or proposed storm drain outfalls. While the Draft EIR/EA notes trash capture devices will be installed in areas with moderate trash generation or higher ratings, it does not show the locations of the devices and areas that will be controlled for trash. Caltrans is also required to provide trash controls to any additional significant generating areas identified by updated visual trash generation assessments required by the trash Cease and Desist Order.

Closing

We appreciate the opportunity to comment on the DEIR and we are available to meet to discuss the above comments. If you have any questions, or would like to set up a meeting to further discuss this comment letter, please contact Qi Yan of my staff at [redacted]

Sincerely,

[redacted]

Keith H. Lichten, Chief
Watershed Management Division

Attachment: December 17, 2021, letter: Water Board comments on Notice of Preparation of an EIR/EA for the State Route 37 Flood Reduction Project

Comment LO-7: San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), page 6 of 6

Draft EIR Caltrans SR 37 Flood Reduction - 6 - October 9, 2023

cc: Corps, Katerina Galacatos, [redacted]
CDFW, Greg Martinelli, [redacted]
BCDC, Anniken Lydon, [redacted]
Eric Buehmann, [redacted]
USFWS, Melisa Amato, [redacted]
U.S. EPA, Carolyn Mulvihill, [redacted]
State Coastal Conservancy, Jessica Davenport, [redacted]
NMFS, Gary Stern, [redacted]
Brian Meux, [redacted]
Caltrans, Lindsay Vivian, [redacted]
Hardeep Takhar, [redacted]

Response to LO-7: San Francisco Bay Regional Water Quality Control Board (SFBRWQCB)

Response to Comment LO-7-1:

Caltrans is pleased with SFBRWQCB's comment regarding the revised Build Alternative presented in the Draft EIR/EA. The Project presented in the Final EIR/EA/FONSI would build resiliency to the effects of projected 2130 SLR and stormwater overtopping onto SR 37 by elevating the highway to 35 feet. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-2:

Caltrans acknowledges the encouragement to consider mechanisms to co-locate the SMART rail line through the corridor on the same causeway structure, and to continue cooperation with SMART. Please refer to Master Response 1: SMART for a discussion of the partnership between SMART and Caltrans and ongoing development of the passenger study and planning document. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-3:

Caltrans acknowledges the recommendation to increase the size of the roadway's culverts wherever practicable. Caltrans would pursue and evaluate this opportunity during the design phase and base this decision off hydraulic modeling and Caltrans design standards. Opportunities to enlarge culverts to enhance wildlife passage would also be evaluated. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-4:

Caltrans acknowledges the commenter's inquiry about the amounts modeled for SLR in the 2030 and 2050 scenarios.

According to Executive Order S-13-08 (November 14, 2008), all state agencies planning to construct projects in areas vulnerable to future SLR must consider a range of sea level projections. Caltrans adheres to Order S-13-08 by following the guidance summarized in the *State of California Sea-Level Rise Guidance* (2018) published by the California Natural Resources Agency and California Ocean Protection Council, which provides scenario-based SLR projections at local active tidal gage locations.

The nearest tide gage to the Project site is in San Francisco. According to the *State of California Sea-Level Rise Guidance* and the Highway Design Manual Topic 883.2(3) "Sea-Level Rise," medium-high risk aversion is determined to be appropriate for SR 37. According to Table 13 of the *State of California Sea-Level Rise Guidance*, the projected SLR is 0.8 foot for 2030 and 1.9 feet for 2050.

Section 2.2.1.2, Affected Environment, Sea Level Rise, is revised to include the projected SLR for 2030. Edits to capture the 2050 projects were not made because the projects were stated in this section of the Draft EIR/EA. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-7-5:

Caltrans acknowledges the comment regarding the modeling inputs. The *Location Hydraulic Study* (Appendix M) prepared for the Draft EIR/EA is focused on the Project's effect on the natural and beneficial values of the floodplain and on the FEMA Base Floodplain, and it does not include future improvements by others. Under CEQA, the lead agency of a Project is responsible for analyzing the potential environmental impacts from a Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-6:

Caltrans acknowledges the comment that suggests the SMART rail trestle exerts influence on flood passage through Novato Creek and its floodplain, which does not appear to be reflected in the modeling. The *Location Hydraulic Study* (Appendix M) prepared for the Draft EIR/EA is focused on the Project's effect on the natural and beneficial values of the floodplain and on the FEMA Base Floodplain. The Project's potential impacts on the existing SMART railroad tracks are analyzed in Appendix M and presented in Section 2.2.1, Hydrology and Floodplain. As stated in Section 2.2.1, Hydrology and Floodplain, the Project would have minimal impacts to the existing SMART railroad tracks. Cumulative impacts of elevating both SR 37 and SMART rail should be evaluated in any future SMART rail project since detailed information regarding improvements to the SMART rail sufficient to include in this Project is not currently available. Please refer to Master Response 1: SMART for a discussion of the ongoing passenger study and planning document, and Caltrans' partnership with SMART. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-7:

Caltrans acknowledges the suggestion to consider reasonably foreseeable potential impacts of project alternatives on the current and anticipated future beneficial uses of waters of the State. Section 2.4, Cumulative Impacts, discusses the Project's cumulative impacts on resources. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-8:

Caltrans acknowledges the comment that a CWA Section 401 water quality certification and a CWA Section 404 permit from the United States Army Corps of Engineers are necessary for projects involving discharge of fill to waters of the United States. Caltrans will seek both permits prior to construction as listed in Table 1-3 (Permit or Approval Document and Approving Agency) of Section 1.5, Permits and Approval Needed, in the Final EIR/EA/FONSI. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-9:

Caltrans acknowledges the comment providing guidance on determining appropriate compensatory mitigation as the Project progresses. Caltrans intends to partner with local agencies and organizations to develop a restoration and mitigation strategy for the Project, including the possibility of contributing to the Baylands Group's Novato Creek Restoration Strategy. Caltrans is also aware of the North Bay Baylands Regional Conservation Investment Strategy and will explore opportunities for advance mitigation or developing a project-specific in-lieu fee program as the SFBRWQCB suggests. The feasibility of specific mitigation opportunities to satisfy mitigation proposed in this environmental document would be fully explored by Caltrans in coordination with resource agencies during the permitting process. For further information, refer to Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-10:

Caltrans acknowledges the comment providing guidance on determining appropriate compensatory mitigation as the Project progresses. Refer to the Response to Comment LO-7-9, which discusses Caltrans' interest in exploring mitigation options and discussing options with resource agencies during the permitting process. The potential mitigation opportunities described in this comment (e.g., the Deer Island Basin Tidal Wetlands Restoration Project and development of the Novato Creek Baylands Strategy) are opportunities that can be included in these discussions. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-11:

Caltrans acknowledges the comment recommending alternative Novato Creek Bridge construction methods to avoid the need for the construction trestle. Upon approval of the Final EIR/EA/FONSI, Caltrans would start the design phase of Phase 1, at which point the details of construction and bridge design would be further refined to minimize environmental impacts to the extent practicable. Permitting occurs during the design phase. Caltrans would coordinate closely with SFBRQWCB to obtain the necessary permits and refine the AMMs. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-12:

Caltrans acknowledges the comment pertaining to Provision 3.10.2 of Caltrans' Statewide Stormwater National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000003, SWRCB Order No. 2022-0033-DWQ, which requires that Caltrans implement low impact development-based stormwater treatment controls for all new development and/or redevelopment projects. This has been captured in the Final EIR/EA/FONSI under AMM-WQ-1 in Appendix E. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-13:

Caltrans acknowledges the comment pertaining to stormwater treatment best management practices and the importance of incorporating stormwater treatment planning and identifying offsite alternative compliance projects into the Project's early development stages. This would be further refined and incorporated during the design phase of the Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment LO-7-14:

Caltrans acknowledges the comment pertaining to identifying locations of trash capture devices. Full trash capture controls would be installed for moderate or higher rated significant trash generation areas. Caltrans would investigate the appropriate locations to install the trash capture devices during the design phase. Edits to the Final EIR/EA/FONSI are not required.

Comment LO-8: Sonoma-Marin Area Rail Transit, page 1 of 1

Eric Lucan, Chair
Marin County Board of Supervisors

Melanie Bagby, Vice Chair
Sonoma County Mayors' and Councilmembers Association

Kate Colin
Transportation Authority of Marin

Chris Coursey
Sonoma County Board of Supervisors

Rachel Farac
Transportation Authority of Marin

Debora Fudge
Sonoma County Mayors' and Councilmembers Association

Patty Garbarino
Golden Gate Bridge, Highway/Transportation District

Barbara Pahre
Golden Gate Bridge, Highway/Transportation District

Gabe Paulson
Marin County Council of Mayors and Councilmembers

David Rabbitt
Sonoma County Board of Supervisors

Chris Rogers
Sonoma County Mayors' and Councilmembers Association

Mary Sackett
Marin County Board of Supervisors

Eddy Cumins
General Manager

5401 Old Redwood Highway
Suite 200
Petaluma, CA 94954
Phone: 707-794-3330
Fax: 707-794-3037
www.SonomaMarinTrain.org

October 6, 2023

Skylar Nguyen
Caltrans District 4
P.O. Box 23660, MS: 8B
Oakland, CA 94623-0660

RE: Draft Environmental Impact Report and Environmental Assessment (Draft EIR/EA) for the proposed State Route (SR) 37 Flood Reduction Project (Project)

Dear Mr. Ngyuen,

Thank you for the opportunity to review the Draft Environmental Impact Report and Environmental Assessment (Draft EIR/EA) for the proposed State Route 37 Flood Reduction Project. As the owner and operator of active freight rail in the SR 37 Corridor and a member of the SR37 Executive Steering Committee, SMART is committed to partnering with Caltrans to deliver the Resilient State Route 37 Program.

The railroad connects Marin and Sonoma counties to the general railroad system and is currently active. As such, SMART has interstate common carrier obligations to maintain, and the Project must not negatively impact the ability to move freight.

We respectfully offer the following comments on the Draft EIR:

LO-8-1 1. p.1-7, Table 1-1: Add *SMART Passenger Rail – East-West Alignment Project Study Report.* Sponsor: Caltrans.

LO-8-2 2. p. 2-35, "These planned station areas are currently served by bus service (SMART 2022a)." Remove this line and update referenced link in appendix; bus service suspended during pandemic.

LO-8-3 3. p. 2-42 and p. 2-267. Footnote indicates "SMART rail service along SR 37 is currently not in operation." This is not accurate; SMART is actively running freight service three days per week on the rail line.

Sincerely,

Eddy Cumins
General Manager

Response to LO-8: Sonoma-Marin Area Rail Transit

Response to Comment LO-8-1:

Caltrans acknowledges the comment to include the *SMART Passenger Rail - East-West Alignment Project Study* in Table 1-1 (Other Studies or Proposed Projects within the SR 37 Corridor). The *SMART Passenger Rail Service (Novato to Suisun City) Feasibility Study Report*, published in May 2019, is added to Table 1-1 of the Final EIR/EA/FONSI. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-8-2:

Caltrans acknowledges the comment to remove a sentence discussing planned station areas that are currently served by bus service and update the referenced link. The Final EIR/EA/FONSI is revised to reflect SMART's comment. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment LO-8-3:

Caltrans acknowledges operation of the SMART rail line was misrepresented in a footnote on page 2-42 of the Draft EIR/EA. The footnote is revised to state that SMART runs freight service 3 days per week. Refer to Final EIR/EA/FONSI Section 2.1.8.2, Affected Environment, Visual Setting, for the revised footnote. No further edits to the Final EIR/EA/FONSI are required.

Responses to Comments: Organizations

Comment ORG-1: Bay Area Transportation Working Group (BATWG), page 1 of 3

From: Cautn1 [redacted]
Sent: Sunday, October 8, 2023 9:38 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: BATWG Reponses to SR37 DEIR

EXTERNAL EMAIL. Links/attachments may not be safe.



October 8, 2023

Skylar Nguyen, Senior Environmental Scientist
In any event the prime objective should be to ease the gridlock on Hwy 37 without letting the VMT on that roadway increase in the process. , District 4
P.O. Box 23660 MS: 8B
Oakland, CA 94623-0660

Re: SR-37 Flood Reduction Project DEIR

Dear Ms. Nguyen,

The Bay Area Transportation Working Group (BATWG) is an all-volunteer organization comprised mostly of transportation professionals. The group, formed in 2012, is dedicated to improving the non-automotive travel modes in

Comment ORG-1: Bay Area Transportation Working Group (BATWG), page 2 of 3

the Greater Bay Area in order to better serve the needs of Bay Area travelers and ease regional traffic congestion.

Here is a brief last minute response to the SR37 EIR:

The 21-mile two-lane existing section of Hwy 37 between Sears Point and the Mare Island cutoff is a bottleneck of very long standing that is clearly in need of redress.

ORG-1-1 The proposal for a four-lane roadway, consisting of two HOV lanes and two toll lanes is very appealing to us. An excellent plan, provided that the tolls are set high enough to provide a significant incentive to car pool or use transit.

ORG-1-2 We oppose the idea of giving discounts to some people using the toll lanes because the prevention of fraud would be very difficult and expensive to effectively enforce. Those in financial need would have a choice; they could either ride a bus or form a carpool or pay the same as everyone else.

ORG-1-3 There would also be a need to effectively enforce the car pool lanes. As anyone accustomed to car pool lanes knows full well, they are routinely violated with impunity. To hold the line on carpool fraud, you would need to either deploy technology capable of accurately ascertaining the number of adults in each vehicle or randomly or perhaps regularly stop and check HOV vehicles adjacent to the toll gates.

ORG-1-4 An overall roadway width of 114 feet is both excessive and much more expensive than necessary. It appears that four 12-foot traffic lanes plus a 5-foot median plus two 10-foot outside shoulders + four 2-foot barriers, plus an 8-foot bicycle lane for a total of 89 feet would suffice. No need for so wide a median. No need for inside shoulders on a four lane highway. No need for a 14-foot wide bike-way.

ORG-1-5 From what is stated in the EIR, it sounds as if the Novato Creek Bridge is to be 35 feet high at its highest point. That presumably gives some indication of the anticipated sea level and/or flooding conditions expected by 2130. We therefore strongly recommend that any and all sections of the 21 mile section being expanded to four lanes be elevated to withstand oncoming sea level and flooding conditions. Since in 2021 flood waters were seven feet above the existing roadway there is no excuse to leave it at its current elevation. Past climate, hydrologic and flooding data is in all likelihood no longer relevant.

Comment ORG-1: Bay Area Transportation Working Group (BATWG), page 3 of 3

ORG-1-6

The prime objective of the project should be to ease the gridlock and inundation risks on Hwy 37 without letting the VMT on that roadway increase in the process.

Gerald Cauthen P.E.
President,
Bay Area Transportation Working Group (BATWG)
510 708 7880
www.batwgblog.com

Response to ORG-1: Bay Area Transportation Working Group (BATWG)

Response to Comment ORG-1-1:

Caltrans acknowledges the comment about a four-lane highway and tolling. The Project does not propose two high-occupancy vehicle (HOV) lanes or tolling. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-1-2:

Caltrans acknowledges the opposition to giving discounts to some people using the toll lanes. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-1-3:

Caltrans acknowledges the comment that suggests the effective enforcement of carpool lanes. The Project does not propose a new carpool lane. At Project completion, the Project would continue to have two general purpose lanes in the westbound and eastbound direction on SR 37. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-1-4:

Caltrans acknowledges the comment regarding the proposed SR 37 roadway width. Design features for Phase 2 align with the PEL study recommendation and are based on Caltrans' design guidance (Caltrans Highway Design Manual Chapter 300 and 1000 and Design Information Bulletin 89).

Response to Comment ORG-1-5:

Caltrans acknowledges the comment regarding the proposed SR 37 elevation. Final design elevation would be based on the California Ocean Protection Council 2018 study and Caltrans' design guidance. Phase 1 of the Project, which is the replacement of the Novato Creek Bridge, would be the first construction package. During Phase 2 of the current Project, the rest of SR 37 within the Project limits would be elevated to target design elevation. Any area that is not within the Project limits is beyond the scope of the Project.

Response to Comment ORG-1-6:

Caltrans acknowledges this comment regarding the objective of the Project. In Section 1.2, Purpose and Need, of the Final EIR/EA/FONSI, the purpose of the Project is to build resiliency to the effects of projected SLR and stormwater overtopping on SR 37. The Build Alternative would not add any travel lanes to SR 37 and, therefore, would not increase VMT. In addition, the Project would add bicycle and pedestrian facilities to this segment of SR 37 that are currently non-existent. Edits to the Final EIR/EA/FONSI are not required.

Comment ORG-2: Marin Audubon Society, page 1 of 4

Marin Audubon Society

P.O. Box 599 | Mill Valley, CA 94942-0599 | marinaudubon.org

October 8, 2023

Skylar Nguyen, Senior Environmental Scientist
Caltrans District 4
P.O.Box 23660, MS:88
Oakland, CA 94623-0660
VIA SR37FloodProject@dot.ca.gov

RE: COMMENTS ON STATE ROUTE 37 FLOOD PROTECTION PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)

Dear Mr. Nguyen:

The Marin Audubon Society (MAS) appreciates the opportunity to comment on the DEIR for the State Route 37 (SR 37) Flood Protection Project (Project) DEIR for SR 37 in Marin County. We are in full support of the change Caltrans has made in the project design from an embankment to a causeway in conformance with the recommendation of the PEL. A causeway has significant environmental benefits including the ability to restore the currently diked bayands of lower Novato Creek, avoiding the need to import many cubic yards of earthen fill, and accommodating sea level rise (SLR).

In the overall, we found the DEIR data and analyses to have some gaps and inconsistencies. Of particular concern are several areas where the information provided at the public hearing and in the DEIR differ. These inconsistencies should be clarified in the Final EIR. Our specific comments, questions, and recommendations are as follows:

ORG-2-1

1) Discuss what will happen to the current segment of SR 37 under the causeway. The DEIR does not discuss this issue, but Caltrans reported at the public hearing that the existing SR 37 structure under the causeway would be removed. The EIR should confirm this approach and discuss the plan for the fill removal area. What elevation would the area be lowered to and what condition would the area be left in? We recommend the fill be removed to an elevation suitable for tidal marsh to restore naturally.

ORG-2-2

2) Describe the adjacent diked baylands and the importance of these baylands to the restoration of the lower Novato Creek. Usually there is a Setting section in EIRs but this does not have one. Reference should be made to the Novato Creek Baylands Strategy (Strategy) and its goal of maximizing tidal marsh restoration and flood protection that are resilient to climate change. Discuss how the Project will facilitate, or at least not impede, the efforts of the Strategy to implement a comprehensive, integrated

Comment ORG-2: Marin Audubon Society, page 2 of 4

ORG-2-2 cont'd

restoration of the Novato Creek baylands. It is anticipated that the Strategy can offer opportunities to partner in the restoration of the Novato Creek baylands.

ORG-2-3

3) Discuss the potential for flooding at the west end of the causeway, along the section of SR 37 road that will remain, and at the east end, particularly at Simmons Slough, after the Project is constructed?

ORG-2-4

4) There is no mention of the row of sheetpiles that were erected along SR 37 apparently to block flood water. Show the sheetpiles on a figure and discuss: who installed them; how they tie into SRS 37 at the west end; will they need to be maintained to protect against flooding where the existing SR 37 structure will remain; will they remain in place on the east end at Novato Creek? If it is planned to retain them, what length would remain? Would they be needed, and continue to be effective until Phase 2 is built, twenty or more years from now?

ORG-2-5

5) The discussion of the proposed wetland mitigation is vague and confusing. It states that "every effort will be made to contribute to onsite habitat enhancements and restoration as part of the project design." And that "mitigation will be obtained through a project specific plan that would occur sometime in the future and that a plan that will include purchase of credits in an agency-approved mitigation bank and/or providing in-lieu funding to a nearby restoration program or restoration project that will enhance, create or restore wetlands or other waters adversely impacted by the project." In contrast, staff at the public meeting stated definitively that the mitigation would occur on site. We agree. The EIR should clearly state that mitigation for impacts will occur on-site or immediately adjacent to the project site, through a Caltrans project and/or another marsh habitat restoration project.

ORG-2-6

6) The mitigation Caltrans proposes should be described, including where it would be located, the habitat type and acreage that would be restored. At least Caltrans needs to commit to the habitat type, minimal acreage and location on-site or nearby the site of loss, in case the mitigation is modified later as a result of discussions with agencies.

ORG-2-7

7) As conditions at Simmons Slough are not projected to change, do existing conditions allow for passage of tidal and flood waters through the double box culvert? We have been advised that flooding occurs currently at Simmons Sough. Is the culvert size adequate to allow for restoration of baylands to the north? Are existing conditions sufficient to allow passage of flows anticipated with sea level rise? We note that for many years MAS has owned several bayland properties north of SRS 37 on Simmons Slough. All of our legal documents spell the Slough as Simmons Slough and we continue to spell it as Simmons Slough in our comments herein.

ORG-2-8

8) A Third Alternative of extending the causeway over Simmons Slough should be presented. In view of the existing and ongoing risks of increased flooding conditions, extending the project to the east should be considered. Extending the causeway over Simmons Slough would provide flood protection for the SR 37 and ensure flows adequate to restore baylands to the north.

It doesn't make much sense to prevent flooding at Novato Creek while leaving existing conditions at Simmons that will worsen with SLR, undoubtedly leading to more flooding.

Comment ORG-2: Marin Audubon Society, page 3 of 4

It would be more cost effective and environmentally sound to extend the causeway the short distance to address both Novato Creek and Simmons Slough at this same time.

ORG-2-9

9) A total of 763 pilings would be installed to support the bridge and temporary structures. Discuss and show on a figure where would piles be placed? While they may not be installed in Novato Creek channel, would any be in wetlands? If so are they calculated in the acreage of wetlands file? Since the temporary bridges would not be removed until Phase 2, which would be 20 years away if it ever happens, it should be considered permanent fill and mitigated accordingly.

ORG-2-10

10) Table 1-2 presents ***Culvert Details***. Twenty culverts are listed with only one culvert, #1, increasing in diameter during Phases 1 and 2. Is this a mistake or is only one culvert going to have increased capacity for conveyance of flood waters? We expect there would be a need to convey increased volumes of flood waters through the culverts with climate change, SLR and the potential for increased precipitation.

ORG-2-11

11) Table 2.1.1.1. ***Current and Proposed Land Use Developments within One Mile of the Project Area.*** The Tam Energy Storage Project applicants are not pursuing the project and have allowed the county applications to lapse. It should be deleted from the table. Listed in the Jurisdiction column are a mix of jurisdictional agencies, project proponents, property owners and funders. For the Novato Creek Baylands Strategy the project partners are the Marin County Department of Public Works, San Francisco Estuary Institute, San Francisco Estuary Partnership and Marin Audubon Society, and the local jurisdictional agencies are the Marin County Department of Public Works and Community Development Agency. Other agencies/organizations mentioned are supporters.

ORG-2-12

12) Within the Caltrans right-of-way, the Project proposes to extend two existing unnamed local access roads owned by Marin County, on the east to "meet existing local access road" and west to meet Hannah Ranch Road. Discuss the need for, and impact of, extending these roads. What is the local road to the east? Extending the access road would block the movement of wildlife and impede the flow of water between the north and south, limiting the hydrologic connection needed to restore an integrated tidal marsh system. In addition, the DEIR reports that the extension would meet the existing road at 8.5 (NAVD?) elevation, an elevation that is expected to be subject to flooding or overtopping during very high and extreme high tides now, and certainly in the future. Other alternatives should be investigated to avoid these adverse impacts.

ORG-2-13

13) Discuss the potential for shading of marsh habitat under the elevated structure. How large an area is expected to be shaded? How would this area be mitigated?

ORG-2-14

14) Would there be any impacts of the project on the PG&E towers? If so, what measures would address these impacts?

ORG-2-15

15) Why does the causeway structure need to be so wide? Why are so many shoulders (two 10 foot wide inside and two 12 foot wide outside shoulders) needed? Discuss reducing the number of shoulders to reduce the marsh coverage and associated impacts.

Comment ORG-2: Marin Audubon Society, page 4 of 4

ORG-2-16

Finally, while this document is intended to be the environmental review for Phase 2 as well as Phase 1, it is not realistic to think that environmental and/or other conditions will not change over the next 20 years, warranting additional environmental review.

ORG-2-17

And, we would like to express our concern that Phase 2 may never be built and that the fill for the pilings and embankment will ever be removed. With so many needs along SR 37, there may be little incentive or funding to implement Phase 2. We may be left with a situation as exists at Tolay Creek where the temporary fill placed in 1955 is still in place.

Thank you for responding to our comments.

Sincerely,

Barbara Salzman, Co-chair
Conservation Committee

Response to ORG-2: Marin Audubon Society

Response to Comment ORG-2-1:

Caltrans acknowledges the comment recommending the removal of the existing road. Where the causeway would be constructed, the existing road would be removed after construction of Phase 2. Caltrans would determine the elevation of the finished grade during detailed design of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-2:

Caltrans acknowledges the comment recommending the addition of text describing adjacent diked baylands and recommendations for appropriate coordination to support goals of tidal marsh restoration and flood protection that are resilient to climate change. The existing environmental setting is described in a number of locations in the Final EIR/EA/FONSI; with respect to wetlands and baylands, the environmental setting is described in Sections 2.3.1.1, Affected Environment, and 2.3.2.2, Affected Environment. The Final EIR/EA/FONSI does not need to discuss the importance of adjacent baylands to future restoration of lower Novato Creek because CEQA requires that the impacts of the Project be evaluated relative to existing conditions.

To satisfy mitigation proposed in this environmental document, Caltrans is exploring opportunities for mitigation of impacts in or near the Project corridor, including the possibility of contributing to the Baylands Group's Novato Creek Strategy development and implementation. The feasibility of specific design elements that support tidal marsh improvement and restoration opportunities would be fully explored by Caltrans in coordination with resource agencies during the permitting process. Whether or not Caltrans becomes directly involved in restoration of the Novato tidal marshes and wetlands, the Project would not preclude or inhibit future restoration. For more information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-3:

Caltrans acknowledges the comment regarding flooding at the western end of the causeway and eastern end of the causeway, particularly at Simonds Slough. Similar to the rest of the causeway, the western end of the causeway near the U.S. 101 interchange would be elevated to 35 feet (NAVD 88) to be resilient to the effects of 2130 SLR. The Project, a causeway at an elevation of 35 feet (NAVD 88) would extend on SR 37 from U.S. 101 to Atherton Avenue. With Phase 2, the existing double-box culvert at Simonds Slough would be replaced with the causeway, creating an open-face slough under the causeway. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-4:

Caltrans acknowledges the comment regarding the row of sheet piles along SR 37 and Novato Creek. Caltrans is not planning to raise the elevation of the sheet piles. All the sheet piles are owned by Caltrans and would remain in place, and it is anticipated for them to be needed after construction. These structures would be protected during construction. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-5:

Caltrans acknowledges the comment requesting more detail on wetland mitigation. Caltrans intends to partner with local agencies and organizations to develop a restoration and mitigation strategy for the Project, including considering any and all opportunities for mitigation within Caltrans' ROW and the possibility of contributing to the Novato Creek Baylands Strategy Group. Caltrans is also a participant on the North Bay Baylands Regional Conservation Investment Strategy and would pursue opportunities for advance mitigation or for developing a Project-specific in-lieu fee program.

The feasibility of specific mitigation opportunities would be fully explored by Caltrans in coordination with resource agencies during the permitting process. For more information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-6:

Caltrans acknowledges the comment providing guidance on determining appropriate compensatory mitigation as the Project progresses. Refer to Response to Comment ORG-2-5. The details of the compensatory mitigation, including the location, target habitat types, and minimum acreage would be determined in discussions with resource agencies during the permitting process. For more information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-7:

Tidal flows do not pass through the double box culvert because a levee along Novato Creek prevents these flows from passing up through Simonds Slough. Recent flood events at Simonds Slough have been the result of levee breaches along Novato Creek, resulting in floodwater flowing up Simonds Slough and not attributable to the double box culvert. Caltrans currently does not have information related to hydrology or hydraulic requirements for baylands restoration efforts north of SR 37. Phase 2 of the Project proposes removing the double box culvert and constructing an open channel in its place. Caltrans would coordinate with the Novato Creek Baylands Strategy Group to appropriately size the open channel. Prior to Phase 2, the double box culvert is not anticipated to be subject to the effects of SLR since the levee along Novato Creek would continue to prevent tidal flows from passing up through Simonds Slough. In Phase 2, the

double box culvert would be removed and replaced with an open channel. The open channel would be designed with consideration of the future effects of SLR.

Response to Comment ORG-2-8:

Caltrans acknowledges the suggestion to extend the causeway over Simonds Slough. As described in Chapter 1, Proposed Project, and presented on Figure 1-7 (Build Alternative – Phase 2 Causeway), at completion of Phase 2, the causeway would extend from U.S. 101 to Atherton Avenue, replacing the existing Simonds Slough Bridge, which consists of two box culverts, at Simonds Slough with an open-span channel (that is, causeway). Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-9:

Caltrans acknowledges the comment asking for details of new pile locations. A figure showing the locations of all proposed pilings is not available at this time. Details of pile locations would be refined during the design phase. Some of these piles would be within wetlands, and the impacts of such piles have been estimated and included in the impact acreages provided in Section 2.3, Biological Resources, of the Final EIR/EA/FONSI. Compensatory mitigation for all piles within wetlands and waters would be developed in close coordination with the resource agencies. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-10:

Caltrans acknowledges the comment, which inquires about the size of the culverts under the Project. Caltrans acknowledges the desire to increase the size of the roadway's culverts wherever practicable. Caltrans would pursue and evaluate this opportunity during the design phase and base this decision off hydraulic modeling and Caltrans' design standards. Opportunities to enlarge culverts to enhance wildlife passage would also be evaluated. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-11:

Caltrans appreciates the edits offered for Table 2.1.1-1 (Current and Proposed Land Use Developments within One Mile of the Project Area); as such, the Ronsheimer Survivors Trust (TAM Energy Storage Project) P3932 is deleted from Table 2.1.1-1 in the Final EIR/EA/FONSI. For the Novato Creek Baylands Strategy, the Marin County Community Development Agency, San Francisco Estuary Institute, San Francisco Estuary Partnership, and Marin Audubon Society are added to the jurisdiction column. Coastal Conservancy, City of Novato, and State Lands Commission are removed because they have been noted as supporters. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment ORG-2-12:

Caltrans acknowledges the comment regarding potential effects of the extension of two local access roads. The purpose of extending the two local access roads is described in Section 1.3.2.1, Phase 1: Replace Novato Creek Bridge, of the Final EIR/EA/FONSI, under “Local Access Roads.” These roads would be extended to maintain access off SR 37 after construction of the new Novato Creek Bridge since the transition bridges preclude access from existing access locations due to the changes in grade.

Relative to existing conditions, in which SR 37 impedes wildlife movement along its entire length, the lengthened Novato Creek Bridge and new transition bridges would improve connectivity for wildlife between the north and south sides of the road. The local access roads would not block wildlife movement since they experience little vehicular use and would be low and narrow, and wildlife would be able to easily traverse these roads. Habitat connectivity would be enhanced even further during Phase 2 via construction of the elevated causeway.

Extending the local access roads would not impede the flow of water, relative to existing conditions. These roads would be immediately adjacent to the existing road shoulder and, thus, would not block hydrology any more than the existing roadway. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-13:

Caltrans acknowledges the comment regarding potential impacts of the elevated bridge and causeway on wetlands via shading. As discussed in the Final EIR/EA/FONSI, the wider configuration of the new Novato Creek Bridge, coupled with closure of the existing gap between the bridge spans, would directly shade 0.50 acre of tidal salt marsh beneath the bridge. The higher bridge and causeway could potentially result in shading of additional wetlands adjacent to (i.e., not directly beneath) these structures. However, such indirect shading would not be complete, as light would still reach adjacent wetlands during much of the day. As a result, any impacts of shading on adjacent wetlands due to elevation of the roadway are not expected to result in substantial degradation of wetland habitats. Details of any impacts and resulting mitigation would be determined by Caltrans in coordination with resource agencies during permitting. For more information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-14:

Caltrans acknowledges the comment regarding impacts on the Pacific Gas and Electric Company towers. There would be no direct or indirect impact on the Pacific Gas and Electric Company towers. Caltrans would coordinate with Pacific Gas and Electric Company prior to construction. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-15:

Caltrans acknowledges the comment regarding the proposed roadway width as excessive. Design features for Phase 2 aligns with the PEL study recommendation and are based on Caltrans' design guidance. In accordance with the PEL study recommendation, Caltrans is proposing a possible 12-foot outside shoulder running lane in each direction for Phase 2. The need for this shoulder running lane would be evaluated during the design period for Phase 2. For Phase 1, Caltrans is proposing 5 feet of inside shoulder and 8 feet of outside shoulder in each direction.

Response to Comment ORG-2-16:

Caltrans acknowledges the comment regarding potential effects of Phase 2, which is included in the Final EIR/EA/FONSI. Caltrans recognizes that the timeframe between implementation of Phase 1 and Phase 2 could be up to 20 years and that environmental conditions would possibly change during this period. Caltrans would re-evaluate biological conditions and prepare a traffic analysis during the design phase for Phase 2, including any re-evaluation required per new environmental regulations. The need for a subsequent environmental impact report (EIR) would be determined by Caltrans during the design phase of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-2-17:

Caltrans acknowledges the comment regarding the potential that Phase 2 may never be built, given all the needs to address for the SR 37 corridor. Caltrans is partnering with other agencies to pursue funding for the construction of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Comment ORG-3: Marin Conservation League, page 1 of 3

MARIN CONSERVATION LEAGUE
Protecting Marin Since 1934

October 8, 2023

Skylar Nguyen, Senior Environmental Scientist
Caltrans District 4
P.O. Box 23660, MS: 88,
Oakland, CA 94623-0660

Via email: SR37FloodProject@dot.ca.gov

RE: Draft Environmental Impact Report for the State Route (SR) 37 Flood Reduction Project

Dear Ms. Nguyen:

Marin Conservation League (MCL) is an environmental organization that has actively pursued and advocated for conservation in Marin County for over 89 years. The mission of MCL is to preserve, protect, and enhance the natural assets of Marin in a changing world.

Members of MCL have been tracking the planning process for the reconstruction of SR 37 since around the time that the SR 37 Policy Committee was formed. MCL has previously commented on the Design Alternative Assessments for both SR 37 Segments A and B and participated in Caltrans' Planning and Environmental Linkages (PEL) study for the Ultimate Project.

MCL advocated for and fully supports Caltrans' decision to revise the project proposal to lift the segment of SR 37 through Marin County (both the Novato Creek Bridge and the highway) onto a causeway which is in alignment with the recommendations of the PEL Study. This revised approach adapts the roadway to sea level rise. It also not only reduces the potential impacts that would have resulted from raising the height of roadway embankment, as previously proposed, but creates potential beneficial impacts on biological resources in the wetlands and on the flow of water, sediment and wildlife connectivity through the Novato Creek Watershed and Simmons Slough. The beneficial impacts could be given overriding consideration in light of the significant and unavoidable impacts of the project on Visual Resources and Aesthetics.

175 N. Redwood Dr., Ste. 135, San Rafael, CA 94903 | 415.485.6257 | mcl@marinconservationleague.org
Marin Conservation League was founded in 1934 to preserve, protect and enhance the natural assets of Marin County.

Comment ORG-3: Marin Conservation League, page 2 of 3

The following are MCL's comments on the Draft Environmental Impact Report.

ORG-3-1 We ask that the DEIR describe how planning and implementation of restoration of the Baylands adjacent to this segment of SR 37 will be integrated with the planning and construction of the highway project to best reap the multiple-benefit opportunities of the transportation and restoration projects together and to avoid creating unnecessary obstacles or constraints to either purpose.

ORG-3-2 The DEIR does not describe plans for the existing roadbed and base. The EIR should address the impacts of decommissioning and removing the existing roadway so that future wetland and aquatic resource restoration can be integrated into the project design vs leaving the roadway in place.

ORG-3-3 Caltrans should commit in the EIR to participating in the restoration planning efforts during construction and once the causeway is in place. The agency will be one of many stakeholders in those projects since it is a landowner in the footprint of where the restoration will occur. construction of SR 37 on a causeway.

ORG-3-4 Include Deer Island Tidal Basin Wetlands Restoration Project in Table 1-1. "Other Studies or Proposed Projects within the SR 37 Corridor" (page 1-7)

ORG-3-5 Air Quality and Greenhouse Gas Emissions

State the purpose of lane-width shoulders, both on the inside and outside, in each direction. Since it is stated under Traffic and Transportation that ***there would be an increase*** in vehicular capacity on SR 37, under Greenhouse Gas Emissions, the topic states that ***there would be no increase*** in travel lanes and no operational GHG emissions. Include Air Quality and GHG Emissions analysis if one or more of the shoulders were converted to a travel lane.

ORG-3-6 Biological Resources

The DEIR should describe contingency plans if species, especially those of special status, are encountered in the project area during preconstruction surveys and it is determined there may be potential impacts of disturbance or destruction from construction.

In Phase 2 of the project, fifteen plus years after construction of Phase 1, the EIR should be reviewed for adequacy. An updated biological assessment that is made available for public review and evaluation of whether an amended, supplemental or new EIR should be conducted to address the current circumstances of the time should be prepared and appropriate biological resource mitigations proposed.

Mitigations should be within the Novato Creek watershed wherever possible and/or Marin's baylands or the baylands of San Pablo Bay.

175 N. Redwood Dr., Ste. 135, San Rafael, CA 94903 | 415.485.6257 | mcl@marinconservationleague.org
Marin Conservation League was founded in 1934 to preserve, protect and enhance the natural assets of Marin County.

Comment ORG-3: Marin Conservation League, page 3 of 3

ORG-3-7

Hydrology and Floodplain

We also ask that prior to design and construction of Phase 2, that an additional hydraulic study be conducted and that the recent hydraulic study be included in the technical studies for the current EIR. Since restoration projects are planned in the vicinity of the project, the hydraulic study should include updated information from those projects.

ORG-3-8

Hazardous Waste/Materials

The DEIR should include a soil management plan that identifies specifically where it is determined that soil conditions may be volatile how that material would be off-hauled and identifies the location of where it would be exported to. Include planning for beneficial reuse of sediment within the baylands that meets pollution thresholds.

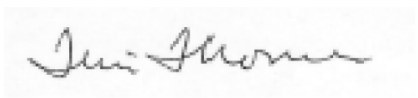
ORG-3-9

Water Quality and Stormwater Runoff

The DEIR should clearly delineate how Caltrans and the construction of the elevated causeway will meet current regulations for stormwater runoff and protections of water quality and how those will specifically occur within, or outside of, the narrow project right of way.

Thank you for this opportunity to comment.

Sincerely,





Terri Thomas
President

Kate Powers
Co-Chair Land Use, Transportation, and Water

175 N. Redwood Dr., Ste. 135, San Rafael, CA 94903 | 415.485.6257 | mcl@marinconservationleague.org
Marin Conservation League was founded in 1934 to preserve, protect and enhance the natural assets of Marin County.

Response to ORG-3: Marin Conservation League

Response to Comment ORG-3-1:

Caltrans acknowledges Marin Conservation League's comment on the planning and implementation for restoration of the Baylands adjacent to the SR 37 Flood Reduction Project. To satisfy mitigation proposed in this environmental document, Caltrans is exploring opportunities for mitigation of impacts in or near the Project corridor, including the possibility of contributing to the Baylands Group's Novato Creek Strategy development and implementation. The feasibility of specific design elements that support tidal marsh improvement and restoration opportunities would be fully explored by Caltrans in coordination with resource agencies during the permitting process. Whether or not Caltrans becomes directly involved in restoration of the Novato tidal marshes and wetlands, the Project would not preclude or inhibit future restoration. For more information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-3-2:

Caltrans acknowledges Marin Conservation League's comment on the Draft EIR/EA regarding plans for decommissioning the existing road. The existing roadway pavement would be removed after completion of Phase 2. During the design phase of Phase 2, Caltrans would determine the grade to which the existing roadway would be removed. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-3-3:

Caltrans acknowledges Marin Conservation League's comment on the planning and implementation for restoration of the Baylands adjacent to the SR 37 Flood Reduction Project. Please see Response to Comment ORG-3-1. This response is included in the Final EIR/EA/FONSI, as the comment requests.

Response to Comment ORG-3-4:

Caltrans acknowledges Marin Conservation League's comment on adding Deer Island Tidal Basin Wetlands Restoration project to Table 1-1 (Other Studies or Proposed Projects within the SR 37 Corridor) of the Final EIR/EA/FONSI. This project was included in Table 1-1 of the Final EIR/EA/FONSI. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-3-5:

Caltrans acknowledges Marin Conservation League's comment on the Draft EIR/EA for the SR 37 Flood Reduction Project. Design features for Phase 2 align with the PEL study recommendation and are based on Caltrans' design guidance. In Section 2.17, Traffic and Transportation/Pedestrian and Bicycle Facilities, page 2-39, it states, "The

Build Alternative would not increase the vehicular capacity on SR 37 or local streets." Caltrans acknowledges a typographical error in the Draft EIR/EA, Table S-1 (Summary of Impacts and Avoidance, Minimization, and/or Mitigation Measures), which stated that at Project completion there would be an increase in vehicular capacity. This error is revised to correctly state in this Final EIR/EA/FONSI that there would be no increase in vehicular capacity within the Project area. Therefore, preparation of additional technical studies is not required. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment ORG-3-6:

Caltrans acknowledges the comment regarding potential impacts to special-status species, re-evaluation of biological resources prior to Phase 2, and appropriate wetlands mitigation. The Project incorporates Project features and avoidance and minimization measures that would avoid impacts to special-status animals that may be encountered in the Project area during pre-construction surveys and during construction. For example, the following would all reduce such impacts: PF-BIO-3, Worker Environmental Awareness Training, PF-BIO-12, Prevent Inadvertent Entrapment of Animals, PF-BIO-14, Agency-approved Biologist, PF-BIO-16, Stop-work Authority, and PF-BIO-18, Wildlife Species Relocation, as well as AMM-BIO-3, Pre-activity Survey for Roosting Bats, AMM-BIO-5, Fish Removal and Relocation Plan, AMM-BIO-7, Salt Marsh Harvest Mouse Vegetation Removal, Pre-construction Surveys, and Monitoring, AMM-BIO-9, California Ridgway's Rail and California Black Rail Pre-construction Surveys and Buffers, AMM-BIO-10, Swainson's Hawk Pre-construction Surveys and Avoidance, AMM-BIO-12, California Red-legged Frog and Northwestern Pond Turtle Pre-construction Surveys, and AMM-BIO-13, California Red-legged Frog and Northwestern Pond Turtle Monitoring Protocols.

As stated in Section 2.3, Biological Resources, Caltrans intends to re-evaluate biological resources on the Project site prior to initiation of Phase 2 and would ensure that appropriate measures are implemented in light of conditions at that time.

To satisfy mitigation proposed in this environmental document, Caltrans is exploring restoration opportunities for on-site mitigation for impacts to wetlands and waters, and mitigation near the Project corridor. Caltrans would facilitate any and all restoration opportunities within its ROW, would explore opportunities to integrate wetland enhancements into the Project, and would consider the possibility of contributing to the Baylands Group's Novato Creek Baylands Strategy. Through Caltrans' regional vision for advance mitigation, Caltrans would evaluate the causeway for habitat and species credits through the North Baylands Resource Conservation Investment Strategy. For more information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-3-7:

Caltrans acknowledges the comment, which suggests the inclusion of the hydraulic study as an appendix and for a new hydraulic study to be prepared prior to design and construction of Phase 2. Refer to Appendix M for the *Location Hydraulic Study* prepared for the Final EIR/EA/FONSI. If the analysis completed in Appendix M no longer meets professional engineering standards and practices prior to Phase 2, Caltrans would prepare a new analysis prior to finalizing the design of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-3-8:

Caltrans acknowledges the comment that suggests the Project should include a soil management plan for handling contaminated soils or using uncontaminated soils for beneficial use within the baylands.

As required, Caltrans would implement PF-HAZ-7, Preliminary Site Investigations, which is an investigation that involves the collection and testing of deeper soils and sampling groundwater to determine the presence of hazardous materials in deeper soils and groundwater. Edits to the Final EIR/EA/FONSI are not required. If contaminated soils encountered during the site investigation are found in concentrations above regulatory levels defined for any particular compound or element, Caltrans would use construction contract specifications to define the appropriate management and disposal requirements for the soils to protect the construction workers and the environment, thereby implementing PF-HAZ-6, Aerially Deposited Lead from Gasoline, PF-HAZ-7, Preliminary Site Investigations, and PF-HAZ-8, Aerially Deposited Lead Site Investigation Work Plan. In addition, Caltrans would implement PF-HAZ-5, Hazardous Waste Management, which would require handling, storing, and disposing of hazardous waste, such as contaminated soils, under 22 California Code of Regulations Division 4.5, as required by Caltrans Standard Specification 14-11.03.

Response to Comment ORG-3-9:

Caltrans acknowledges the comment that suggests that Caltrans should delineate how construction of the elevated causeway would meet current regulations for stormwater runoff and protect water quality, and how those would specifically occur within, or outside of, the narrow Project ROW. Refer to Section 2.2.2.3, Water Quality and Stormwater Runoff, of the Final EIR/EA/FONSI, which discusses how construction and operation of the Build Alternative would impact water quality and stormwater runoff and addresses how impacts would be avoided and minimized. Edits to the Final EIR/EA/FONSI are not required.

Comment ORG-4: Napa Solano Working Families Coalition, page 1 of 2

NAPA-SOLANO
WORKING FAMILIES
COALITION

October 8, 2023

Re Comments on State Route 37 Flood Reduction Project

The Napa/Solano Working Families Coalition is a broad based group of stakeholders working together to promote an equitable, sustainable and thriving economy in Napa and Solano Counties. We have a significant interest in the future of State Route 37 because this is a vital lifeline for workers from our counties who rely on this link to access jobs in Marin County.

Flooding along this route has already impacted our workers, so we understand the urgency of getting started with the limited money already in hand on a first segment in Marin County. This has been the first segment to suffer from climate induced flooding. We also appreciate and support the long term goal of building a set of elevated causeways that provide protected travel and marsh land restauration all the way to Mare Island.

ORG-4-1

One important challenge we would like to see addressed up front is to ensure an equitable distribution of tolling to support improvements across the whole span. If the first segment is built toll free, with the expectation that later segments would bear tolls, that could disproportionately burden residents from Napa and Solano Counties who are on average far less wealthy than the residents of Marin County.

To better apportion the burden of tolling across the full span, we would like to encourage exploration of tolling for the first Marin County segment. There are several reasons to considering tolling. One, as mentioned, is to ensure that when the full span from 101 to Mare Island is complete, years from now, that the pattern of tolling doesn't disproportionately fall on Napa and Solano County residents. For Marin residents to pay their fare share is an important principle.

ORG-4-2

A second reason could be to support transit. Marin County users of the Golden Gate Bridge are already used to seeing their toll revenue pay for transit. Applying that same principle to the Hwy 37 corridor and using tolling from the first segment for this purpose would provide immediate relief from existing congestion, mitigate greenhouse gas impacts of induced demand and set the stage for a more equitable pattern of tolling for the corridor as a whole.

Currently there is no transit across this corridor. The result is both more congestion and a complete failure to serve the needs of the transit dependent population. Discussions with Solano Transit about providing service are stuck on the question of available funds. Tolling the first segment could provide a timely source of revenue to address the funding gap.

ORG-4-3

A final note we will leave you with is that to make tolling equitable requires careful attention to ease the burden on vulnerable users. We favor discounts for low income users and for workers from heavily

Comment ORG-4: Napa Solano Working Families Coalition, page 2 of 2

ORG-4-3 cont'd

impacted industries such as construction or home health care whose workers are especially freeway dependent and vulnerable to high transportation costs.

Napa-Solano Central Labor Council, Jon Riley
Napa-Solano Building and Construction Trades Council, Danny Bernardini
Napa Climate Now, Chris Benz
Sierra Club Solano Group, Paul Thiess
Fairfield Suisun Unified Teachers Association, Audrey Jacques
Progressive Women of Napa Valley, Carol Whichard
Center for Sustainable Neighborhoods, Tim Frank

Response to ORG-4: Napa Solano Working Families Coalition

Response to Comment ORG-4-1:

Caltrans acknowledges the comment about the equitable distribution of tolling. The Project does not propose tolling. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-4-2:

Caltrans acknowledges the comment about supporting transit from toll revenue. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-4-3:

Caltrans acknowledges the comment about the equitable distribution of tolling. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Comment ORG-5: Sierra Club, page 1 of 5

From: Steve Birdlebough [redacted]
Sent: Sunday, October 8, 2023 2:41 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Cc: David Rabbitt [redacted] Alfredo Pedroza [redacted]; Eric Lucan [redacted] Susan Gorin [redacted]; Gregory Ryker [redacted] Stephanie Moulton-Peters [redacted] Robert McConnell [redacted]; Victoria Fleming [redacted] Leon Garcia [redacted]
Subject: SR-37 - Comment on Draft Environmental Report | Sierra Club

EXTERNAL EMAIL. Links/attachments may not be safe.

Greetings Mr. Nguyen—
Attached are the comments of the Sierra Club regarding the SR-37 Draft Environmental Report.

The Sierra Club appreciates this opportunity to contribute to the success of the project.
Steve Birdlebough, Chair, SR-37 Sierra Club Work-Group
[redacted]

Comment ORG-5: Sierra Club, page 2 of 5

SIERRA CLUB

P.O. Box 466
Santa Rosa, CA 95402
707-576-6632

To: Skylar Nguyen Caltrans District 4, Dept. of Transportation,
Environmental Planning via email to: SR37FloodProject@dot.ca.gov
From: Stephen Birdlebough, Chair, Sierra Club, SR-37 Work Group
Date: October 8, 2023
Re: Comment on Draft Environmental Report, SR-37 Flood Reduction Project

For many years, the Sierra Club has participated in the effort to develop an environmentally sound and equitable plan to cope with the challenges to Highway 37 where it crosses the marshes between the cities of Vallejo and Novato. The Sierra Club commends Caltrans for its decision to convert the existing highway in Marin County to a causeway that will enable tidal flows into and out of the wetlands north of the highway. We recognize that the high cost of the ultimate 21-mile project requires it to be built in stages. However, it is vital for each stage and element to support immediate reductions of vehicle miles traveled (VMT) by facilitating carpooling and transit.

The Air Resources Board's Scoping Plan of 2022 states that substantial and immediate action is needed to reduce VMT and support achieving carbon neutrality by 2045.[i] Previously, the Governor's Executive Order N-19-19 and the development of the Climate Action Plan for Transportation Infrastructure (CAPTI), called for this reversal of trends; it establishes a framework to achieve it.[ii] Each element of the 21-mile SR-37 long-term causeway project will depend upon, and influence the others.

With these factors in mind, we urge that the following matters be addressed in the Environmental Report for the Flood-Reduction Project:

EFFECTIVE, EQUITABLE, AND DYNAMIC PROJECT TOLLS:

ORG-5-1

Should dynamic tolling and HOV or HOT lanes be implemented to manage congestion near the Highway 101 interchange, and to reduce VMT? How will the effects of tolling on highways that connect with the causeway (Atherton Ave. Lakeville Hwy, and SR-121) be estimated, and then monitored in action? In view of the number of access points to the future causeway, is tolling in both directions less likely to affect traffic on nearby highways? Should the flood-reduction project include a toll gantry between Hwy 101 & Atherton Ave? Can low-income drivers be allowed to pay a reduced toll?

ORG-5-2

Tolling has been authorized to fund a new general-purpose lane for the 9-mile Congestion Relief Project between Sears Point and Mare Island. To equalize the effects of tolling on all road users and to equalize the effects of tolling on nearby road networks, more than one toll gantry is likely to be required. Equitable tolls will be based on the approximate length of the causeways used by each vehicle, and possibly by the traffic conditions at the time of use. It does not seem equitable for a toll to be tied to the source of funding that is used to fund a particular element of the SR-37 multi-faceted causeway project.

Comment ORG-5: Sierra Club, page 3 of 5

ORG-5-3 Tolling may also be needed to help fund various elements of both the Flood Reduction Project and the causeway between the Petaluma River and Sears Point. Tolling for these elements would appear to be compatible with Federal "Section 129" financial assistance.[iii]

A dynamic toll system can help manage rush hour traffic.[iv] Tolls can also fund transit and incentivize shared-vehicle use.

FUTURE TRAFFIC BOTTLENECKS:

ORG-5-4 What is the extent to which shared vehicles can experience minimized congestion delays when approaching the Highway 101 interchange by using a dedicated westbound lane of the causeway?

ORG-5-5 At present the Interchange at Highway 101 has only a minor morning traffic bottleneck on SR-37. (See the attached excerpts from the CTC Toll Application, pages 9 & 10, Figure 1). However, the bottleneck at the Interchange is likely to become 3 or 4-times longer when the two-lane highway between Mare Island and Sears Point is widened! Unconstrained westbound traffic will move quickly past Sears Point, and much of it will back-up at the interchange. Carpools and buses are likely to need a lane to bypass the backup. (Note that it is likely to take many years for a new express bus service to attract very many riders.) An HOV or HOT lane between Atherton Ave. and the interchange is likely to be required to provide reasonable traffic demand management during peak hours.

SMART GRADE SEPARATION:

ORG-5-6 Will the western edge of the Project Area (as illustrated at p. 53 of the DEIR require modification when flooding events begin to require elevation of the SMART tracks near Marsh Rd? Does the project's design take this matter into consideration? (See, DEIR p. 69.)

Thank you for your attention to our concerns. If you would like to discuss any of these issues, please contact me at [redacted] or by phone at [redacted] The Sierra Club looks forward to working with Caltrans and MTC on these issues.

cc: Each member of the SR-37 Policy Committee

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[i] See p. 5 of Appendix E of the Scoping Plan, which projects a 25% per capita reduction of VMT by 2030. https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-e-sustainable-and-equitable-communities.pdf

[ii] See, California State Transportation Agency, Climate Action Plan for Transportation Infrastructure: https://calsta.ca.gov/-/media/calsta-media/documents/capti-july-2021-a11y.pdf

[iii] The Federal General Tolling Program (23 U.S.C. § 129(a)) Generally allows states to implement tolling on (1) new highways, (2) new lanes on existing highways, (3) reconstructed non-interstate highways, and (4) new or reconstructed bridges and tunnels. See: Poole, *Tolls and Federal Highway Funding Consequences* (2018) https://cga.ct.gov/2018/rpt/pdf/2018-R-0244.pdf#

[iii] https://catc.ca.gov/-/media/ctc-media/documents/programs/toll-facilities-program/sr-37-spmiip-ctc-toll-facility-application-attachment-dor.pdf

[iii] See, https://virginiadot.org/info/resources/congestion_pricing/cp_fact_sheet.pdf, https://www.mdpi.com/2076-3417/11/11/4778, and https://bpb-us-w2.wpmucdn.com/sites.gatech.edu/dist/f/3571/files/2023/03/hot.pdf

Comment ORG-5: Sierra Club, page 4 of 5

ATTACHMENT

Comment ORG-5: Sierra Club, page 5 of 5

traffic flow and safety, while minimizing environmental impacts.

Corridor Performance Improvements

Existing Conditions:
The 21-mile-long SR 37 Corridor follows the northern shore of San Pablo Bay, linking US 101 in Novato, Marin County, with I-80 in Vallejo, Solano County. The western section of the corridor from US 101 to SR 121 is a four-lane expressway, and the eastern section from Mare Island to I-80 is a four-lane freeway. The middle section, the location of this Project, is a two-lane conventional highway. Two bottlenecks form where the existing two lanes merge into one lane in both the eastbound and westbound directions:

- During the a.m. peak period, westbound is the peak direction of travel. The westbound SR 37 bottleneck is located at the mainline lane drop west of the Mare Island Interchange. The queue from this bottleneck extends about 2.1 miles to the Wilson Avenue interchange during the AM peak period.
- During the p.m. peak period, eastbound is the peak direction of travel. The eastbound SR 37 bottleneck is located east of the SR 121 intersection at the mainline lane drop, just before the at-grade railroad crossing. The queue from this bottleneck extends about 4.7 miles, which is close to the Railroad Avenue (Sears Point Road) intersection.

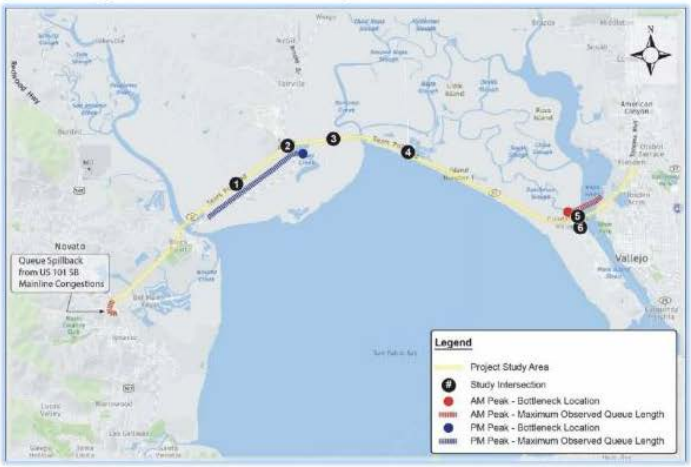
Motorists experience significant recurring traffic congestion and delays at the bottlenecks. In addition, within the Project limits, unsignalized intersections experience high delays during the peak periods and operate at unacceptable conditions at Noble Road. Existing conditions and forecast traffic growth indicate the SR 37 Corridor infrastructure is inadequate to meet current and future demand.

The existing congestion impacts commuters from the surrounding communities, goods movement, and the viability of transit services on the corridor. Figure 1 shows the existing bottleneck locations and queue lengths.

BAIFA SR 37 Toll Facility
CTC Application

Page 9
March 27, 2023

Figure 1 – Existing Bottleneck Locations and Queue Length



Response to ORG-5: Sierra Club

Response to Comment ORG-5-1:

Caltrans acknowledges the inquiries about tolling. The Project does not propose tolling. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-5-2:

Caltrans acknowledges the comment about tolling on the Congestion Relief Project. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-5-3:

Caltrans acknowledges the comment about tolling as source for revenue to fund elements of this Project and the causeway between the Petaluma River and Sears Point. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-5-4:

Caltrans acknowledges the commenter's inquiry about shared vehicles experiencing minimized congestion delays when approaching the U.S. 101 interchange by using a dedicated westbound lane of the causeway under future conditions. The Project does not propose a dedicated lane for HOVs. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-5-5:

Caltrans acknowledges the commenter's inquiry about adding an HOV or high-occupancy toll lane between Atherton Avenue and the U.S. 101 interchange, which may mitigate the consequences of worsening bottleneck congestion caused by doubling the number of lanes of westbound SR 37 between Mare Island and Sears Point. During the design phase of Phase 2, MM-TRANS-1, Prepare Traffic Analysis, would be implemented, and a traffic analysis would be completed. The Project does not propose an HOV or high-occupancy toll lane. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-5-6:

Caltrans acknowledges comments regarding modification to the SMART tracks when flooding events begin. Improvements to the SMART tracks are not part of the proposed Project. Please refer to Master Response 1: SMART for more detail about collaboration between SMART and Caltrans. Edits to the Final EIR/EA/FONSI is not required.

Comment ORG-6: Transportation Solutions Defense and Education Fund (TRANSDEF), page 1 of 4

Transportation Solutions Defense and Education Fund

P.O. Box 151439 San Rafael, CA 94915 415-331-1982

October 8, 2023
By E-Mail to:
SR37FloodProject
@dot.ca.gov

Skylar Nguyen, Senior Environmental Scientist
Caltrans, District 4
P.O. Box 23660 MS: 8B
Oakland, CA 94623-0660

Re: SR-37 Flood Reduction Project DEIR

Dear Ms. Nguyen,

TRANSDEF, the Transportation Solutions Defense and Education Fund, has been focused on reducing the growth in Vehicle Miles Travelled (VMT) for 29 years. This expertise is relevant to offering our comments on the Draft Environmental Impact Report/Environmental Assessment for the SR-37 Flood Reduction Project ("DEIR"). All page references are to the DEIR unless otherwise noted.

TRANSDEF finds this DEIR grossly deficient, both from a CEQA legal perspective and from a good governance point of view. The one-alternative Proposed Project fails to carry its burden of justifying its choice of elements. As a result, it is arbitrary and not optimized for cost-effectiveness or environmental sensitivity.

Overall Project Features

ORG-6-1

Appropriateness of the proposed Project elevation
The methodology needs to be articulated for having selected the project goal of a 35' NAVD 88 elevation. Why, precisely, was 2130 selected as the target year? What is the confidence interval for the projection for SLR then? The closest thing we found was the inadequate discussion on p. 2-38. Mere reference to other documents is inadequate to justify this crucial choice. A brief restatement is required. See below: Hydrologic Assessment.

ORG-6-2

Alternatives
Caltrans should be considering least-cost alternatives, which include public-private agreements to raise, strengthen and maintain existing levees. It is long past time for Caltrans to cease considering itself as a silo, alone in securing benefits for the public. This century is one of partnerships for mutual benefit.

Comment ORG-6: Transportation Solutions Defense and Education Fund (TRANSDEF), page 2 of 4

ORG-6-3

Caltrans should explore the feasibility of a structure designed to be jacked to increase its elevation as waters rise. The pier design would have similarities to a construction crane, for which additional sections are inserted to raise it. The need to jack multiple points simultaneously would be similar to house jacking. This approach would require modular sections of roadway similar to those bolted onto the Golden Gate Bridge when it was retrofitted about 10 years ago. A flexible technology like this would enable Caltrans to respond to climate change with just-in-time expenditures, instead of needing to commit massive (and unaffordable) sums to projects that replace earlier infrastructure.

ORG-6-4

Project cross-sections

The proposed project is obviously a cookbook implementation. The location of the Project in sensitive environmental habitat calls for a context-sensitive design. Therefore, the Project needs to justify the need for Phase 2's inner and outside shoulders, which are wider than even the Highway Design Manual minimum widths. (See Table 302.1, HDM.) Especially when the wider shoulders **just happen to be** the width of travel lanes, the Phase 2 design seems clearly intended to serve as a means of sneaking capacity increases into the Proposed Project. Nothing in the Project Description as it currently stands would prevent the conversion of the shoulders into travel lanes.

ORG-6-5

If Caltrans insists on its proposed Phase 2 cross-section, the inner and outside shoulders must be evaluated as travel lanes, thereby changing the DEIR's conclusions about future VMT.

ORG-6-6

Project constructability

The absence of Existing Conditions plans, with an indication of median width, makes it impossible to evaluate the constructability of the Project, especially for one in sensitive habitat. References to median on p. 1-36 are unhelpful without a plan.

Project Impacts

ORG-6-7

Hydrologic Assessment

The practice of hydrology has been turned upside down as a result of climate change. Just last week, New York City experienced record-breaking rainfall in a day. The very concept of 100-year peak discharge statistics is no longer valid as the foundation for hydrologic design, because of highly improbable occurrences. The hydrologic record is no longer a reliable basis for predicting future flows. Therefore, the assessment starting on p. 2-75 is worthless when it comes to predicting water surface elevations in the future. If Caltrans cannot find and validate a scientifically reliable methodology for designing future structures that are safe from flooding, there is no legitimate basis for proceeding with the Proposed Project (unless the jacking alternative mentioned above is shown to be feasible).

ORG-6-8

Visual impacts

The existing conditions are markedly different from Project conditions: Compare "The existing highway is generally subordinate to the overall landscape setting." (p. 2-45.)

Comment ORG-6: Transportation Solutions Defense and Education Fund (TRANSDEF), page 3 of 4

TRANSDEF 10/8/23 Page 3

ORG-6-8 cont'd

"Within the Project limits, SR 37 is a bucolic, moderately intact corridor. …Overall, the existing visual quality of the Project area viewshed is high." (p. 2-46.) to the following: "… the elimination of the wide, unpaved median and the addition of new, taller barriers would give the roadway a more enclosed, urban character." (p. 2-51.)

ORG-6-9

It is false to assert that "However, the impact would be temporary until the construction of Phase 2" (p. 2-52), given the admission that "… construction is estimated to being in 2041, subject to funding availability, (2 decades from the Draft EIR/EA publication) and [traffic] is too speculative to be modeled at this time." (p. 2-269.) As a result, the DEIR cannot classify Phase 1's visual impacts as temporary. The finding that the Project would detract from the scenic vistas of the surrounding environment triggers the need for context-sensitive design, which should be applied to the entire project, and not just the grading plan. (p. 2-60.)

ORG-6-10

If Caltrans finds the jackable project design (discussed above) to be feasible, this design would make it possible to build the bridge to a lower height, thereby lowering the visual impacts. One other idea to consider: Could the piers be painted to match the sky or the earth, so that the distant view of the project would make the piers seem to disappear?

ORG-6-11

CEQA impact conclusion 3.1.1(a) [Less than Significant Impact] is inconsistent with the analysis for (a): "The Project would detract from the scenic vista of the surrounding environment. The impact of the Build Alternative would be potentially significant impact." (p. 3-4.) The correct conclusion is the one in the text, cited above, as well as Mandatory Finding of Significance (a): "Visual/Aesthetics: Significant Impact." (p. 3-56.)

ORG-6-12

<u>Transportation and GHG impacts</u>
TRANSDEF vehemently objects to the claim that "The Build Alternative would not increase the vehicular capacity on SR 37…" (p. 2-39.) As discussed above, the design includes travel-lane width shoulders that could be easily converted to active travel lanes. This is typical Caltrans practice: Caltrans is currently converting right-of-way in the Highway 101 Corridor into additional lanes. The proposed project design would enable an eventual eight-lane configuration. The Project's vehicular capacity needs to be treated as an increase over existing capacity, with associated analyses of induced demand, increased VMT, and GHG emissions increase, unless the Phase 2 design is either scaled back or features are installed that would permanently prevent such conversions.

ORG-6-13

Because of this additional future capacity, TRANSDEF asserts that Impacts 3.1.17(a) and (b) (p. 3-47) should be listed as significant impacts, because increasing VMT is contrary to State climate policy, as expressed in CARB's 2022 Scoping Plan. Note that the conclusions on p. 3-47 are inconsistent with Table S-1 (p. xvii.), which states:

- Increase vehicle miles travelled. At Project completion, there would be an increase in vehicular capacity on SR 37.

Comment ORG-6: Transportation Solutions Defense and Education Fund (TRANSDEF), page 4 of 4

ORG-6-14 While the cumulative impacts analysis purportedly includes the impacts of the SR 37 Sears Point to Mare Island Improvement Project (p. 2-261), the CEQA impact conclusion (p. 3-47) failed to recognize the increase in VMT that will result from the widening of another segment of SR-37. The VMT and GHG impacts need to be studied, as well as the lengthened queues at the Hwy. 101 interchange resulting from the other project.

ORG-6-15 While TDM was eliminated as an alternative, it must be included as a feasible mitigation for increases in VMT. One feasible mitigation would be to designate one lane in each direction as HOV. These lanes would meet up with the new HOV lanes constructed between SR 121 and Mare Island to provide a continuous route with reliable travel time savings, and therefore create the incentive to carpool or take the newly added transit in the Corridor. In support of this suggestion, note that "Expanding transportation demand management initiatives" is part of the Regional Plan GHG Reduction Policies. (p. 3-74.)

ORG-6-16 TRANSDEF objects to GHG Impact Conclusions 3.1.8 (a) and (b) (p. 3-27) because the following statement is false: "Because the Project would not increase the number of travel lanes on SR 37, no increase in VMT would occur." (p. 3-75.) Increasing highway capacity, and the resulting increases in VMT and GHG emissions are inconsistent with the policy guidance listed on pp. 3-67 - 3-69, and the reference to "reduction of VMT" on p. 3-77.

ORG-6-17 Editorial Comments
Include a legend for Figures 1-4 explaining the meaning of "ES" and "ETW." The 12' indication left of Center appears to be an error, as it describes a 5' wide shoulder.

ORG-6-18 Footnote 2 on p. 2-267 is incorrect. SMART currently operates freight service on the tracks parallel to the Project.

ORG-6-19 In "3. Determine whether, collectively, the Project and foreseeable condition combine to result in a cumulative impact," on p. 2-257, impact should be plural.

Conclusion

ORG-6-20 Because of the deficiencies identified in these comments, the DEIR must be recirculated. Before doing so, TRANSDEF believes this project should be reconceived, as suggested herein. We appreciate this opportunity to comment on this DEIR. We can be reached at the email below.

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn,
President
[redacted]

Response to ORG-6: Transportation Solutions Defense and Education Fund (TRANSDEF)

Response to Comment ORG-6-1:

Caltrans acknowledges the inquiry about the methodology and selected Project goal of 35 feet NAVD 88. The SLR projections were obtained from the California Ocean Protection Council's *State of California Sea-Level Rise Guidance Update* (2018) ; confidence intervals are not provided in the document. Refer to Response to Comment LO-5-3 for how the 35-foot elevation (NAVD 88) was established. The year 2130 was chosen by following the Caltrans standard design guidance based on the anticipated 100-year service life of the structure and it also aligns with the PEL Study recommendation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-2:

Caltrans acknowledges the suggestion to consider least-cost alternatives, which include public-private agreements to raise and strengthen existing levees. As discussed in Response to Comment LO-1-1, Caltrans is a state agency that manages California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Modifications or maintenance of public or privately owned levees do not fall within Caltrans' jurisdiction, unless a levee is owned by Caltrans. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-3:

Caltrans acknowledges the comment regarding a bridge design that can be jacked up in elevation as sea levels rise. This Project would replace the existing SR 37 from U.S. 101 to Atherton Avenue with a causeway and would be built in two phases. Phase 1 of the Project is the replacement of the Novato Creek Bridge, which would be the first construction package. During Phase 2, Caltrans would design and construct the rest of the Project. According to Caltrans' design guidance, a bridge is always designed for a 100-year design period. By following this guidance, Caltrans is designing to year 2130. This design year dictates the bridge elevation, which incorporates SLR, base flood elevation, and other components. However, the feasibility of this recommended bridge design and construction strategy would be analyzed during the design period for Phase 2.

Regarding the comment of jacking up the bridge to cover future SLR or a need for higher future elevation, this is not a feasible option for transition bridges where the total increase in height is on the order of 25 to 30 feet. The structure is not designed to handle that much differential elevation change, where the first bent would need the most

jacking and the last bent would need very little jacking. This puts a lot of residual stress into the superstructure – stress for which design would not be feasible. Additionally, there are complications regarding meeting seismic demands in areas where there is an increase to the length of the columns, which would require splicing in a no-splice zone for many of the columns, thus violating Caltrans' seismic design criteria. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-4:

Caltrans acknowledges the comment regarding the proposed width of shoulders to SR 37. The design features for Phase 2 are based on Caltrans' Highway Design Manual and align with the PEL study. If during the design phase of Phase 2, the Project changes the intended use of the outside shoulders, Caltrans would be required re-evaluate whether any changes would result in a significant impact and the need to prepare a subsequent EIR. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-5:

Caltrans acknowledges the comment regarding the proposed width of shoulders to SR 37. The design features for Phase 2 are based on Caltrans' Highway Design Manual and align with the PEL study. If during the design phase of Phase 2, the Project changes the intended use of the outside shoulders, Caltrans would be required re-evaluate whether any changes would result in a significant impact and the need to prepare a subsequent EIR. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-6:

Caltrans acknowledges the comment regarding the absence of existing conditions plans and constructability. The design plans with the existing survey line would be available during the design phase. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-7:

Caltrans acknowledges the comment regarding the practice of hydrology. Caltrans is required to assess project impacts, if any, to the FEMA Base Flood Elevation (100-year water surface). The hydraulic study does not include consideration of increased future flows resulting from climate change. According to Caltrans' current policy (Highway Design Manual Topic 818.3), Caltrans hydrology methods assume "stationarity"; i.e., the past accurately represents the future. Until a multi-disciplinary consensus is reached on future trends, stationarity will continue to be used. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-8:

Caltrans acknowledges the comment regarding that the existing conditions are markedly different than the Project conditions as described and illustrated in the visual/aesthetics section of the Draft EIR/EA. The proposed Project would change the visual setting; this change would result in a "Significant Impact." Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-9:

Caltrans acknowledges the comment regarding the temporary impact of the Project until Phase 2 is constructed. The Project would have a temporary impact "during construction;" however, Phase 1 would have a significant (not temporary) impact on the visual setting surrounding the SR 37 corridor. To clarify, the Final EIR/EA/FONSI is modified to address this by deleting the sentence in question. The Project would incorporate context-sensitive design during the design phase, using the Project features and avoidance and minimization measures included in Section 2.1.8, Visual/Aesthetics, of the Final EIR/EA/FONSI. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment ORG-6-10:

Caltrans acknowledges the comment regarding a bridge design that can be jacked up in elevation as sea levels rise. Refer to Response to Comment ORG-6-3. According to Caltrans' design guidance, a bridge is always designed for a 100-year design period. By following this guidance, Caltrans is designing to year 2130. This design year dictates the bridge elevation which incorporates SLR, base flood elevation, and other components. Caltrans will consider your suggestion during the design phase. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-11:

Caltrans acknowledges the comment regarding the CEQA impact conclusion for Section 3.1.1 (a), Aesthetics, CEQA Significance Determinations for Aesthetics, Less than Significant Impact. The impact finding of "Less than Significant" is incorrect and is revised in the Final EIR/EA/FONSI to be "Significant Impact." No further edits to the Final EIR/EA/FONSI are required.

Response to Comment ORG-6-12:

Caltrans acknowledges the comment on SR 37 vehicle capacity. The Build Alternative does include a 10-foot interior shoulder and a 12-foot exterior shoulder for each direction. The Project does not propose converting the shoulders to travel lanes. In the future, if the shoulders were converted to travel lanes, additional environmental analysis would be required that would analyze increased VMT, air quality, and GHG emission. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-13:

Caltrans acknowledges the comment on significant impacts from increased VMT. As stated in the Final EIR/EA/FONSI, the Project would not add capacity to SR 37 and, therefore, would not increase VMT. The text in Table S-1 (Summary of Impacts and Avoidance, Minimization, and/or Mitigation Measures) was a typographical error and is revised in the Final EIR/EA/FONSI. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment ORG-6-14:

Caltrans acknowledges the comment regarding the cumulative analysis of the SR 37 Sears Point to Mare Island Improvement Project. As stated in the SR 37 Sears Point to Mare Island Improvement Project Final EIR/EA with FONSI, that project is anticipated to reduce regional VMT, compared to the No Build Alternative, with project features including an HOV lane and tolling in one or both directions (page 3-41). There would be a temporary delay due to lane closures (Phase 1) and detours (Phase 2) during construction. Phase 2 construction activities would increase travel time with potential to have an adverse effect on traffic in the Project area. A traffic analysis would be completed to determine travel delays based on construction strategies, detour routes, and future traffic volumes. MM-TRANS-1, Prepare Traffic Analysis, will be implemented during the design of phase of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-15:

Caltrans acknowledges the comment regarding transportation demand management. Transportation Demand Management is a feasible mitigation for increases in VMT. It is not anticipated that the Project would significantly increase VMT since travel lanes are not being added; and therefore, mitigation is not required. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-16:

Caltrans acknowledges the comment regarding VMT and GHG emissions. For the VMT analysis, Caltrans followed guidance in the *Technical Advisory on Evaluating Transportation Impacts in CEQA* from the California Office of Planning and Research (2018) [1] and *Transportation Analysis under CEQA, First Edition* (Caltrans 2020e).[2] According to the California Office of Planning and Research and Caltrans documents, a VMT analysis should be conducted when through lanes are added. Through lanes are

[1] Governor's Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. April.

[2] California Department of Transportation (Caltrans). 2020e. Transportation Analysis under CEQA, First Edition. September.

not part of the Project; and therefore, operational GHG emissions would not increase. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment ORG-6-17:

Caltrans acknowledges the comment regarding Figure 1-4 (Conceptual Cross Section of the Proposed Novato Creek Bridge). The acronyms “ES” and “ETW” are removed from the figure, and “12’” is removed from the figure. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment ORG-6-18:

Caltrans acknowledges operation of the SMART rail line was misrepresented in a footnote on page 2-67 of the Draft EIR/EA. The footnote is revised to state that SMART runs freight service 3 days per week. Refer to Final EIR/EA/FONSI Section 2.4.4, Resource Trends/Historical Context, for the revised footnote. Please refer to Master Response 1: SMART for additional information about the collaboration between SMART and Caltrans. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment ORG-6-19:

Caltrans acknowledges the comment regarding whether “impact” under Section 2.4, Cumulative Impacts, No. 3 should be plural. The word “impact” is revised in the Final EIR/EA/FONSI to be plural as requested by the commenter. No other edits to the Final EIR/EA/FONSI are required.

Response to Comment ORG-6-20:

Caltrans acknowledges the commenter’s suggestion that the Draft EIR/EA must be recirculated because of the commenter’s perceived deficiencies in the document. CEQA Guidelines, Section 15088.5, state that a lead agency is required to recirculate an EIR when significant new information is added to the EIR after the public notice is given of the availability of the draft EIR for public review under Section 15087, but before certification. As described in this section of the CEQA Guidelines, information can include the following:

- Changes in the project or environmental setting as well as additional data or other information.

- New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of meaningful opportunity to comment upon a substantial adverse environmental effects of the project or a feasible way to mitigate or avoid such an effect (including feasible project alternative) that the project’s proponents have declined to implement. “Significant” information requiring recirculation include, for example, a disclosure showing that:

- A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
- The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaning public review and comment were precluded.

Because the edits made to this document do not meet the requirements set forth in Section 15088.5, recirculation of the environmental document is not necessary. Edits to the Final EIR/EA/FONSI are not required.

Responses to Comments: Businesses

Comment BUS-1: Thompson Builders Corporation, page 1 of 1

From: Shannon Miller [redacted]
Sent: Thursday, September 28, 2023 1:29 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: State Route 37 Flood Reduction Project from US 101 to Atherton Avenue
Importance: High

EXTERNAL EMAIL. Links/attachments may not be safe.

BUS-1-1 Hi can you Hi Can you please send over any schematics drawings you have for the project "State Route 37 Flood Reduction Project from US 101 to Atherton Avenue"? Our office is located on the Hanna Ranch Road exit and we would like to see the proposed on/off ramps for the access to our office.

Thank you,

Shannon Miller
Real Estate Assistant

Thompson Builders Corporation
5400 Hanna Ranch Road
Novato, CA 94945
Office: (415) 456-8972
Cell: (415) 747-4670

Response to BUS-1: Thompson Builders Corporation

Response to Comment BUS-1-1:

Caltrans acknowledges the request for the schematic drawings for the Project and interest in access to their office. The design plans for Phase 2, which is the phase that includes the ramps, are preliminary and would be refined during the design phase of Phase 2. As discussed in Section 2.1.7, Traffic and Transportation/Pedestrian and Bicycle Facilities, of the Final EIR/EA/FONSI, temporary overnight closures would be required during construction. PF-TRANS-1, Transportation Management Plan, would be implemented to minimize traffic impacts for this Project. This TMP would be prepared in accordance with Caltrans guidelines, and would address public and motorist information, incident management, construction strategies, demand management, and alternate routes (detours). The TMP would include requirements to coordinate with local agencies and California Highway Patrol to notify businesses and local residents. In addition, Caltrans would implement PF-TRANS-2, Coordinate with Adjacent Property Owners, during the design of Phase 2 to discuss access to adjacent properties. Edits to the Final EIR/EA/FONSI are not required.

Responses to Comments: Individuals

Comment IND-1: Afable, S.

From: SIMONA AFABLE [redacted]
Sent: Saturday, September 16, 2023 7:25 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: TIME TABLE FOR THE SR37 PROJECTS

EXTERNAL EMAIL. Links/attachments may not be safe.

IND-1-1 When would these projects begin? And, speculation for how long the projects would take to be completed?

Concerned Solano County Resident(s)

Response to IND-1: Afable, S.

Response to Comment IND-1-1:

Caltrans acknowledges the inquiries about the Project schedule. Phase 1 of the Project, replacement of the Novato Creek Bridge, is anticipated to start in May 2027 and end in June 2029. Phase 2 is anticipated to be completed by 2050. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-2: Conlon, T., page 1 of 3

Caltrans District 4
ATTN: Skylar Nguyen, Senior Environmental Scientist
P.O. Box 23660, MS: 88, Oakland, CA 94623-0660

RE: Flood Reduction Project Draft Environmental Document (PDF)

Dear Ms. Nguyen,

I am pleased to to have the opportunity to submit the following comments on the August 2023 draft of the "State Route 37 Flood Reduction Project Draft Environmental Impact Report/ Environmental Assessment" (DEIR). I am impressed by and appreciate this draft effort to assess, model, quantify, and where necessary mitigate the environmental impacts of this project, as summarized in Table S-1.

However, I am struck by what appear to be two rather glaring flaws in the DEIR's assessments of:

1. Embodied Energy and GHG Emissions Impacts of the Recommended "Build Alternative", and
2. GHG Emissions Impacts of the "No Build" alternative.

Recommended "Build Alternative" Fails to Account for the Embodied Energy and GHG Emissions Impacts of Materials Used in Construction

Having read a press release[1] from Caltrans about the benefits of using low-carbon portland limestone cement to help reduce the carbon footprint of California's transportation system, I was surprised to see no mention of building materials-related impacts documented in the DEIR. In the January 25, 2022 press release, Caltrans Director Toks Omishakin was quoted as saying, "Using low-carbon cement can cut Caltrans' concrete-related carbon dioxide emissions annually by up to 10 percent. This is a big step in supporting California's efforts to achieve carbon neutrality by 2045."

IND-2-1

A more thorough general discussion of these impacts of Caltrans' construction activities was provided in the "Caltrans Greenhouse Gas Emissions and Mitigation Report" (Caltrans 2020d, August 2020)[2].

This report by ICF states:

> "Large volumes of materials are used on Caltrans projects in any given year, offering potential for *significant* GHG reduction. For example, in 2017 Caltrans projects used more than 1 million cubic yards of concrete, which involved approximately 325,000 tons of Portland cement, a highly GHG-intensive material." (p.11, emphasis added).

Of course, I would expect the DEIR to leave out any assessment of embodied GHG emissions impacts if the project will not be using concrete, steel, or any other GHG emissions intensive materials.

Is that really Caltrans' intention, to build the project without using any concrete?

If not, why are these potentially "significant" GHG emissions impacts not documented in the DEIR?

1https://dot.ca.gov/news-releases/news-release-2022-003
2https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/office-of-smart-mobility-and-climate-change/ghg-emissions-and-mitigation-report-final-august-2-2020-revision9-9-2020-a11y.pdf

Comment IND-2: Conlon, T., page 2 of 5

In the discussion of CEQA significance determinations for Greenhouse Gas Emissions, the DEIR says, "Construction-generated GHGs include emissions resulting from construction equipment, workers commuting to and from the Project, and traffic delays due to construction of the Project" (Section 3.1.8, p. 3-27).

IND-2-2

Conspicuously absent from this list of "construction-generated" GHG emissions are those that are necessarily embodied directly in the mining, production, and transportation of the actual construction materials which would be used on the project.

Does this mean Caltrans believes that these same quantities of materials would be mined, produced, and transported regardless of whether Caltrans ever orders them and has them shipped to the project site (i.e., that Caltrans' materials specification decisions have no effect, and that identical levels of embodied GHG emissions would result from the No Build alternative)?

If so, this belief should be stated clearly in the DEIR, and substantial evidence should be provided to help the public understand what alternative facts of supply and demand Caltrans believes may drive these construction materials markets.

The DEIR also states, "Construction-related GHG emissions were calculated using RCEM, version 9.0.0 to quantify CO2 emissions. Construction of the Project would emit a total quantity of 10,404.67 metric tons of carbon dioxide equivalent (CO2e)." (p. 3-27).

IND-2-3

It is my understanding that RCEM lacks any methodology for counting the GHG emissions embodied directly in the mining, production, and transportation of the construction materials. However, it is also my understanding that the ICF report (op. cit.) based its estimates on,

> "Annual material usage data for steel, concrete, asphalt, and aggregate from Caltrans, 2017 Contract Cost Data: A Summary of Cost by Items for Highway Construction Projects. Lifecycle GHG emission factors from CARB, Life-Cycle Assessment and Co-Benefits of Cool Pavements, Prepared by Lawrence Berkeley National Laboratory, Contract #12-314, April 2017.

Is it Caltrans' contention that because embodied GHG emissions are not captured in the RCEM software, that CEQA does not require at least a good faith effort, based on substantial evidence, to estimate what the ICF report (op. cit.) described to be a potentially "significant" environmental impact?

With respect to the question as to whether the project will "[c]onflict with an applicable plan, policy or regulation", the DEIR concludes "No Impact" (Table on page 3-27). However, the narrative on page 3-28, lists several plans and policies adopted for the purposes of reducing GHG emissions in California, but fails to cite Caltrans' own policy to approve the use of portland limestone cement.

IND-2-4

Again, does this conspicuous omission suggest that cement will not be used on the project?

Or is it Caltrans' contention that the previously acknowledged benefits of using this lower GHG-intensity building material are meaningful only on a statewide basis[3], but are not "cumulatively considerable" at the level of this individual project?

Either way, the administrative record should be clarified to ensure consistency and that there is no conflict with applicable plans, policies, or regulations, including Caltrans' own.

3 A "potential to reduce carbon dioxide emissions by 28,000 tons a year" (January 25, 2022 press release, op. cit.).

Comment IND-2: Conlon, T., page 3 of 5

"No Build Alternative" Fails to Estimate the GHG Emissions Impacts of Reduced VMT

IND-2-5

As noted in Table S-1 (Greenhouse Gas Emissions), the DEIR concludes that for the recommended "Build Alternative", "[t]here would be no increase in travel lanes. There would be no increase in operational GHG emissions." This appears to make sense, because while it is well known that adding new lanes to a highway induces demand for new vehicle trips, this project would elevate, but not add any new lanes.

IND-2-6

However, for the "No-Build Alternative", the DEIR comes to the same conclusion, that there would be "No Impact" on GHG emissions. This does not make sense, given the rather conclusive finding reported later in Table S-1 (Traffic and Transportation/ Increase Vehicle Miles Travelled): "Potential adverse impacts to transportation would occur as a result of projected effects of SLR and increased flooding."

The DEIR states that under the "No Build" alternative,

> "SR 37 would continue to be affected by operational closures, in particular near Novato Creek, from flooding during 10-year storm surge events, and may be permanently inundated around the year 2050 with projected roadway flooding depths ranging up to 5 feet (Caltrans 2021e). SR 37 would be unable to continue linking job markets and housing within the four counties and would no longer provide access to recreational areas and the Sonoma and Napa wine regions or commercial freight movement within Marin, Sonoma, Napa, and Solano Counties… The No-Build Alternative would disrupt connectivity and accessibility during SR 37 highway closures during winter rains and high tide events. Furthermore, SLR would impact traffic circulation and the regional economy in the North Bay Area."

IND-2-7

Despite this rather stark but entirely realistic forecast, the "No Build" alternative provides no estimate of how much **VMT demand-destruction** would occur if the project does not get built. Demand-destruction is simply the inverse of "induced demand" (which all transportation planners know will occur when roadway capacity is increased). It is something we need to begin to forecast and validate when roadway capacity becomes no longer available. No one disputes that when inevitable widespread sea-level rise meets limited infrastructure spending capacity, "managed retreat" from certain parts of Bay Area infrastructure will become our only viable option.

IND-2-8

It is unreasonable (and certainly not supported by substantial evidence) to assume that VMT and GHG emissions would remain the same in the "No Build" Alternative if the roadway over Novato Creek was to become more frequently flooded. Obviously some drivers would drive around (increasing the length of their trips), but many more (including many Solano County commuters and visitors to and from Sonoma Valley) would likely adjust their lifestyles and abandon their trips altogether.

Even a cursory review of the behavior previously seen during several past periods of multi-day flooding on this segment of roadway will confirm this. The DEIR should integrate these historical data into the "No Build" VMT forecast, and not overlook the significant impacts of VMT demand-destruction in its assessment of GHG emissions for the "No Build" alternative.

Sincerely,
Thomas Conlon, Sonoma CA

Response to IND-2: Conlon, T.

Response to Comment IND-2-1:

Caltrans acknowledges the comment regarding the benefits of using low-carbon Portland limestone cement to help reduce carbon footprint of California's transportation system and no mention in the Draft EIR/EA of the Project proposing to use it. Portland limestone concrete is in the Caltrans Standard Specifications Book and on the list of authorized materials list. About 20 producers are on the authorized materials list, and four of those materials are produced in California's Los Angeles Basin and one in Redding. Portland limestone concrete could be used for construction of this Project; however, this level of detail is not included in the environmental document because the type of material used in construction is included in the contractor's bidding package. Therefore, it is up to the discretion of the contractor to identify materials approved by Caltrans for construction.

As discussed in Section 3.1.8, Greenhouse Gas Emissions, of the Final EIR/EA/FONSI, construction-generated greenhouse gases (GHGs) include emissions resulting from construction equipment, workers commuting to and from the Project, and traffic delays due to construction of the Project. The emissions would be produced at different rates throughout the Project, depending on the construction-related activities occurring in the three stages of construction.

As summarized in Section 3.1.8, Greenhouse Gas Emissions, of the Final EIR/EA/FONSI, construction-related GHG emissions were calculated using Road Construction Emission Model, version 9.0.0 to quantify carbon dioxide (CO_2) emissions. Construction of the Project would emit a total quantity of 10,404.67 metric tons of carbon dioxide equivalent (CO_2e). Refer to Appendix L, Construction Criteria Air Pollution Emissions Analysis, for the construction-related GHG analysis technical memorandum prepared for the Build Alternative. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-2-2:

Caltrans acknowledges the comment and concerns regarding the CEQA significance determination for GHG emissions. Caltrans makes no assumptions about the quantities of materials that manufacturers mine, produce, or transport. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-2-3:

Caltrans acknowledges the comment and concern regarding the air quality model used in calculating GHG emissions generated by the SR 37 Flood Reduction Project. The Road Construction Emission Model was developed by the Sacramento Metropolitan Air Quality Management District as a part of their CEQA Guidance & Tools to analyze

construction emissions for roadway projects within the Sacramento region. The model is a spreadsheet-based model that is able to estimate exhaust emissions from heavy-duty construction equipment, haul trucks, and worker commute trips as well as fugitive dust from the construction of a new roadway, road widening, roadway overpass, and levee or pipeline projects.

CEQA requires an analysis of the physical environmental changes from a proposed Project (direct and indirect impacts). Completing a GHG lifecycle analysis is not the professional standard. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-2-4:

Caltrans acknowledges the comment and concern regarding the CEQA significance finding for the SR 37 Flood Reduction Project. The CEQA Appendix G Checklist Greenhouse Gas Emissions question (b) asks whether the project will, "Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?" (referring to applicable plans such as local general plans, city municipal codes or ordinances, or Senate bills). Caltrans' approval to use specific construction material is not an official plan, policy, or regulation; therefore, it is not included in the list of plans, policies, or regulations listed in Section 3.3, Climate Change, of the Final EIR/EA/FONSI. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-2-5:

Caltrans concurs with the commenter's understanding of the recommended Build Alternative regarding operational GHG emissions. There would be no increase in operational GHG emissions with implementation of the Project because there would be no additional travel lanes. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-2-6:

Caltrans acknowledges the comment regarding the No-Build Alternative. The Final EIR/EA/FONSI does imply that without the Project, SLR would impact traffic circulation in the region and disrupt traffic patterns. This disruption can potentially cause an increase in GHG emissions as travelers would use other routes to reach their destinations. However, since construction would not occur under the No-Build alternative, no short-term impacts from GHG emissions would be generated. Section 3.3, Climate Change, is revised in the Final EIR/EA/FONSI. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment IND-2-7:

Caltrans acknowledges the comment regarding "VMT demand-destruction." Table 2.1.7-1 (Current and Projected Traffic Volumes) shows the results of the traffic model for current and projected traffic volumes as annual average daily traffic for the

Build Alternative. Vehicle miles traveled (VMT) was not calculated for the Build Alternative since the Project would not add any travel lanes to SR 37. To calculate the reduced VMT for the No-Build Alternative would involve a regional model that would review drivers diverting to alternate routes, choosing to not complete their travel, and other factors. At this time, Caltrans does not conduct regional models to analyze VMT demand-destruction for the No-Build Alternative as a managed retreat and abandonment of SR 37. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-2-8:

Caltrans acknowledges the comment and concern regarding the GHG analysis conducted for the No-Build Alternative of the SR 37 Flood Reduction Project. As stated in Response to Comment IND-2-6, under the No-Build Alternative, disruptive traffic patterns can potentially cause an increase in GHG emissions as travelers would use other routes to reach their destinations. Section 3.3, Climate Change, is revised in the Final EIR/EA/FONSI. No further edits to the Final EIR/EA/FONSI are required.

Comment IND-3: DeBiasio, R.

-----Original Message-----
From: Robert DeBiasio [redacted]
Sent: Friday, September 22, 2023 11:37 AM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Cc: Claire De Biasio [redacted]
Subject: Problem for side streets

EXTERNAL EMAIL. Links/attachments may not be safe.

To Whom this may concern
From: People who live on Crest Road and it's side streets.

IND-3-1 When Hwy. 37 closed in 2017, 2019, and 2023 drivers of cars and even large trucks used Crest Road to jump ahead of the traffic on Atherton. These drivers traveled well over 40 miles an hour and in addition were extremely rude, aggressive, and a hazard to the residents that were pulling into their driveway. Since it is an unincorporated road and a speed survey can not be conducted, it is near impossible to patrol and enforce the speed limits.
This problem is greatly aggravated by driving phone apps and maps (such as Waze, Google Maps, and Apple Maps) that indicate to drivers that they can save a couple of minutes on their driving time and roodly get ahead of the que on Atherton by using Crest Road.

Crest Road is not designed to handle the extra traffic, weight and wear and tear.

In conclusion:
IND-3-2 #1) will you post a California Highway Patrol officer or a Marin County Deputy on Crest Road when Atherton is suffering from slow moving traffic to enforce the speed limits and safe driving?

IND-3-3 #2) Can you work with Waze, Google Maps, and Apple Maps in advance so they don't recommend Crest Road as an alternative route?

IND-3-4 #3) after the construction project is completed on Hwy 37 will you repair Atherton and Crest Road due to the extra traffic and weight?

IND-3-5 4) Can you work with the county to post signs on Crest and School Road that large trucks are prohibited on these roads?

IND-3-6 Upgrading highway 37 is needed and appreciated but it should not cause collateral damage and harm to the adjacent communities.

Thank you in advance for your attention to these matters please take necessary precautions so that people are not physically hurt.

With regards

Rob De.

Response to IND-3: DeBiasio, R.

Response to Comment IND-3-1:

Caltrans acknowledges the commenter's experience regarding vehicle use of Crest Road as an unofficial detour during previous SR 37 closures. Signed detour routes would direct westbound SR 37 vehicles to Harbor Drive, then right on Atherton Avenue to access U.S. 101 (Figure 1-9, Detour Route). For eastbound SR 37 traffic from U.S. 101, vehicles would be directed to use the Atherton Avenue interchange to connect to Harbor Drive. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-3-2:

Caltrans acknowledges the suggestion to post a California Highway Patrol officer or a Marin County Deputy on Crest Road when Atherton Avenue is experiencing slow-moving traffic to enforce the speed limit and safe driving. A Transportation Management Plan (PF-TRANS-1) would be prepared in accordance with Caltrans guidelines, and it would address public and motorist information and alternate routes (detours). The Transportation Management Plan would include requirements to coordinate with local agencies and California Highway Patrol to notify businesses and local residents. Residents would receive information on how to contact Caltrans or the California Highway Patrol regarding traffic concerns that they have during Project construction. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-3-3:

Caltrans acknowledges the suggestion to work with Waze, Google Maps, and Apple maps. Caltrans would inform the private companies of construction in the area and suggested detour routes; however, the private companies are the ultimate decision makers of what it shown on the apps. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-3-4:

Caltrans acknowledges the inquiry about repairs to local roads damaged during traffic detours. Caltrans would coordinate with the City of Novato and Marin County regarding any damage to local public roads that may occur as a result of detoured vehicles during construction. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-3-5:

Caltrans acknowledges the inquiry about posting signs on Crest and School Road. Caltrans would coordinate with the City of Novato and Marin County regarding use of local roads and signage identifying detour routes and restrictions during Project construction. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-3-6:

Caltrans acknowledges the comment about updates to SR 37 and collateral damage to adjacent communities. Section 2.1.4, Community Character and Cohesion, discusses the Project's potential impacts on the community. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-4: Eisen, M.

-----Original Message-----
From: Chuck Eisen [redacted]
Sent: Friday, October 6, 2023 11:28 AM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: No carpool lane on 2 lane highways

EXTERNAL EMAIL. Links/attachments may not be safe.

To the planners of all highway 37 improvements,

IND-4-1 Please always leave 2 lanes for general traffic, each way. Only consider adding a carpool lane if there's a 3rd lane. Please…. Do not repeat the mistake made in the proposal from Sears Point to Vallejo, which will not work if there's only 1 general lane & 1 carpool lane. The carpool lane will rarely be used, meanwhile the folks that have to pay the toll will be backed up just like today yet worse with increased traffic in future years. If we do that in Novato, we'd be backed up all the way to Lakeville highway, not just at Sears point. Seems like a rotten deal to have to pay for being backed up.

IND-4-2 If you get squeezed into having a carpool lane then at least make it available for a fee for non carpoolers, for the entire length of highway 37. It seems those getting a fast lane should be paying for these projects, not the ones still stuck in traffic.

What a nightmare for individual commuters traveling to a low paying job.

Thank you.

Margaret Eisen
[redacted]

Response to IND-4: Eisen, M.

Response to Comment IND-4-1:

Caltrans acknowledges the comment about carpool lanes. The addition of a carpool lane is not part of the scope of work for this Project. Operation of the Project would result in two general lanes of traffic in each direction of travel. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-4-2:

Refer to Response to Comment IND-4-1.

Comment IND-5: Gallagher, A.

-----Original Message-----
From: Alicia Gallagher [redacted]
Sent: Sunday, September 10, 2023 5:28 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: 37 project

EXTERNAL EMAIL. Links/attachments may not be safe.

IND-5-1

I have lived in the Vallejo/Benicia area since 1986 and have experienced the increasing traffic and environmental issues using this roadway. I understand the proposed project
is complex and time consuming. But I'm left scratching my head about the timeline to commence Phase 1 in 2027 over 3 years down the road. Given the years of planning it seems a long way off. Then Phase 2 will commence in 2041 !!! That's a whopping 14 years after Phase 1. I dunno. But that timeline seems a tad off the rails given the horrendous traffic and potential flooding issues in the breakneck "progress" of climate change. What's the holdup besides funding?

Thank you.
Alicia Gallagher

Sent from my iPad

Response to IND-5: Gallagher, A.

Response to Comment IND-5-1:

Caltrans acknowledges the comment regarding the delay to construct the elevated causeway. Caltrans is collaborating with partners and seeking funding opportunities to deliver this Project in full as soon as possible. Caltrans received $155 million for Phase 1 in 2023 and is actively exploring opportunities for additional funding for Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-6: Inga, G.

EXTERNAL EMAIL. Links/attachments may not be safe.

Dear Ms. El-Tawansy,

IND-6-1 I am writing as the President of the Renaissance at Stonetree Homeowners Association Board of Directors. This homeowners' community would like to express the following concerns and requests regarding the current 37 Highway conditions and the future planned projects. The noise levels from the highway are too high, from the point of decibels from the homes' backyards and patios. We respectfully request that every federal and state code be used to protect our residents. We understand that each residential single-family dwelling unit must be counted as one receptor and that, for modeling purposes, the receptor should be placed at the primary outdoor use area of the dwelling unit. To our knowledge, you have not yet measured the highway noise at night or daytime from these checkpoints.

IND-6-2 Please be advised that the highway traffic has increased over the years, and the increased noise is hazardous to the health and well-being of our residents as well as the wildlife. The lots in this community are specifically restricted to protect the local wildlife. Noise pollution is not just an irritant; noise causes wildlife habitat loss. For this reason, we are requesting that you consider this area as lands in which serenity and quiet are of extraordinary significance and that you take proper measures to ensure that noise abatement measures are properly done.

IND-6-3 We request that all studies be properly documented so that we can have our legal counsel review Title 23, NEPA, AND CEQA compliance. To this date, your field workers have not completed the noise levels at the residences that face the highway. In addition, we propose that the existing Highway 37 overpass at Atherton should have aesthetic sound barrier technology instead of the current fenestrated low walls.

Thank you for your attention,

Gladys Inga, M.D.
President, Board of Directors
Renaissance at Stonetree Homeowners Association

Response to IND-6: Inga, G.

Response to Comment IND-6-1:

Caltrans acknowledges the comment and concerns regarding traffic noise from SR 37. As stated in Section 2.2.7, Noise, of the Final EIR/EA/FONSI, a noise analysis was conducted for this Project to evaluate the potential noise impacts generated by the construction and operation of this Project. The noise analysis was conducted in accordance with Caltrans guidance provided in the Traffic Noise Analysis Protocol (Protocol) and Technical Noise Supplement to the Protocol. According to the Technical Noise Supplement to the Protocol guidance, receptors located more than 500 feet from the Project limits do not need to be considered for analysis. The residences within the Renaissance at Stonetree community are approximately 1,000 feet from the Project limits. However, the Stonetree Golf Course is directly adjacent to SR 37, so receivers ST-3 and ST-6 were placed in the traffic noise model to estimate future Build noise levels. Under Phase 1 (2049), receivers ST-3 and ST-6 experience noise levels of 56 A-weighted decibels (dBA) hourly equivalent sound level ($L_{eq[h]}$) and 60 dBA $L_{eq[h]}$ under the Build conditions, respectively. Under Phase 2 (2065), receivers ST-3 and ST-6 experience noise levels of 57 dBA $L_{eq[h]}$ and 64 dBA $L_{eq[h]}$ under the Build conditions, respectively. Taking into consideration the doubling of distance (traffic noise attenuates by 3 dBA) noise levels experienced at the residences of Renaissance at Stonetree, located more than 1,000 feet from the Project limits, will experience noise levels lower than 64 dBA $L_{eq[h]}$, which is below the Federal Highway Administration's (FHWA's) noise abatement criterion of 67 dBA $L_{eq[h]}$. Noise levels below the FHWA's noise criterion are not considered to be an impact, and noise abatement does not need to be considered. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-6-2:

Caltrans acknowledges the comment and concern about the impacts of noise on the natural habitat within the Project. As discussed in Section 2.3.1.2, Environmental Consequences, during construction, noise and activity of construction personnel and equipment would reduce wildlife movement across SR 37 within the Project area, and beneath SR 37 at the Novato Creek Bridge and through the Simonds Slough Bridge. Additionally, A Natural Environment Study was prepared to evaluate the effects of the Project on biological resources, including sensitive plants and wildlife species. A summary of the findings of the Natural Environment Study are provided in Section 2.3, Biological Resources, and Section 3.1.4, Biological Resources. Additionally, noise regulations and standards that are applicable to the proposed Project require noise abatement be evaluated for human life. Noise regulations and standards are not provided for wildlife. However, the noise study performed determined that noise levels experienced in the Renaissance at Stonetree community would experience a 1-decibel increase in noise levels under the Phase 2 conditions in comparison to the existing

conditions. A noise increase of 1 decibel would not be detectable by the human ear and would not affect wildlife. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-6-3:

Caltrans acknowledges the comment and concerns regarding traffic noise within your residential community. As previously stated in Response to Comment IND-6-1, a noise analysis was conducted to determine the potential noise impacts generated from the construction and operation of the Project. The noise study report is summarized in Section 2.2.7, Noise, of the Final EIR/EA/FONSI, and available in Appendix O, Noise Study Report. Detailed noise summary tables in Appendix B of the noise study report provide estimated existing and future noise levels experienced within the Project corridor. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-7: Hurst, J.

From: Jackson Hurst [redacted]
Sent: Monday, October 2, 2023 3:56 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: State Route 37 Flood Reduction Project DED Document Public Comment

EXTERNAL EMAIL. Links/attachments may not be safe.

Name - Jackson Hurst

Address [redacted]

IND-7-1 Comment - I approve and support Caltrans State Route 37 Flood Reduction Project and I have reviewed the Draft Environmental Document (DED) for the State Route 37 Flood Reduction Project and support the findings in the document. I support the build alternative for Caltrans State Route 37 Flood Reduction Project because the build alternative will elevate CA-37 above the Novato Creek which will reduce the flooding impacts.

sent from [redacted]

Response to IND-7: Hurst, J.

Response to Comment IND-7-1:

Caltrans thanks the commenter for their support of the Project, the findings in the Draft EIR/EA, and the Build Alternative described. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-8: Ivancevich, A.

From: Adrian Ivancevich [redacted]
Sent: Saturday, September 16, 2023 10:47 AM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Raised causeway on HWY 37 from 101 to Atherton exit

EXTERNAL EMAIL. Links/attachments may not be safe.

IND-8-1

I am strongly OPPOSED to spending 10s of millions of dollars to raise HWY 37. 12 days of road blockage in 6 years simply does not warrant it. The flooding has been caused by the failure of the levies north of the Highway and NOT by any rise on sea/bay level.

Adrian Ivancevich

[redacted]

Response to IND-8: Ivancevich, A.

Response to Comment IND-8-1:

Caltrans acknowledges the commenter opposes the Project and states flooding is caused by levee failure. As stated in Section 1.2.2, Need, highway flooding from stormwater overtopping occurs during winter rain and high tide events. The roadway within the Project limits is relatively low-lying, except in the immediate vicinity of U.S. 101 and Atherton Avenue Undercrossing (near the Project begin and end points), where the roadway climbs to higher elevations. The low-lying roadway relies on levees and berms that were not originally designed to protect the road, but to reclaim the area for agricultural use.

According to the projections in the *SR 37 Transportation and Sea Level Rise Corridor Improvement Plan* (Kimley-Horn and AECOM 2018), the Project area is the most vulnerable to SLR primarily due to its low elevation and reliance on levees and berms to provide flood protection for the highway. Projections from the *SR 37 Segment A PIR Sea Level Rise and Flooding Risk Assessment and Shoreline Evaluation* (AECOM 2021) show that the levee segments in the vicinity of Novato Creek are within an area containing low mudflats and emergent marsh that would be submerged during a storm surge event, potentially exposing the levees to open water and waves from the Bay (AECOM 2021). In addition, the Novato Creek Bridge is exposed to both riverine and coastal flood hazards under current and future conditions with SLR (AECOM 2021). Many of the levees are privately owned and were not constructed to protect SR 37 from flooding. Instead, protection of SR 37 is an indirect benefit of the levees. Caltrans does not have a role in managing or maintaining the levees responsible for protecting SR 37. The Project area will flood during a 10-year storm surge event and may be permanently inundated around the year 2050 with projected roadway flooding depths ranging up to 5 feet (Caltrans 2021e). Therefore, without this Project, SR 37 would continue to experience flood events and, in the near future, experience the projected effects of SLR. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-9: Kriletich, S.

-----Original Message-----
From: Sarah Kriletich[redacted]
Sent: Friday, October 6, 2023 11:02 AM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Hwy 37 Flood

EXTERNAL EMAIL. Links/attachments may not be safe.

IND-9-1 In regard to the Hwy 37 flood reduction project. Has the state considered Maintenance of the Novato creek in their easement? The city of Novato will dredge the creek further upstream every couple of years. In doing this it creates a large bottle neck at Hwy 37 therefor flooding the road. Wouldn't spending a few million to dredge be more cost effective and produce faster results than going through a whole design process and doing nothing for years but costing tax payers more money.

Response to IND-9: Kriletich, S.

Response to Comment IND-9-1:

Caltrans acknowledges the comment regarding maintenance of the Novato Creek within the Caltrans ROW. As stated in Chapter 1, Proposed Project, of this Final EIR/EA/FONSI, the Project area experiences recurring stormwater overtopping during storm events that causes closure of SR 37 because the low-lying roadway relies on levees and berms that were not originally designed to protect the road, but to reclaim the area for agricultural use. The Project area will flood during a 10-year storm surge event and may be permanently inundated around the year 2050, with projected roadway flooding depths ranging up to 5 feet (Caltrans 2021e).

The purpose of the Project is to build resiliency to the effects of projected 2130 SLR and stormwater overtopping onto SR 37 from PM R11.2 to PM 13.8.

Section 1.4, Alternatives Considered but Eliminated from Further Discussion, describes the Build Alternatives that were considered during the Project development process. As summarized in this section, Caltrans considered seven build alternatives, which were eliminated for reasons such as failing to meet purpose and need and public opposition.

Maintenance of Novato Creek would not meet the Project purpose and need, and the preferred Build Alternative meets the Project purpose and need. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-10: Kubik, N.

From: [redacted]
Sent: Tuesday, September 12, 2023 1:42 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Comment on the proposed plan

EXTERNAL EMAIL. Links/attachments may not be safe.

To whom it may concern:

I am happy that Highway 37, a vital route, will be rebuilt. I am pleased that it will be a raised causeway which will allow the area beneath to remain wild and the waters and animals to flow naturally.

I live in Bel Marin Keys and have an interest in several of the issues:

IND-10-1 1. Road noise must be ameliorated. I understand there is roadbed material which is noise reducing. I urge you to use this material for the roadway. 6 Decibels is actually a huge difference in noise production and tolerance.

IND-10-2 2. The other concern I have is to make the side wall high enough to block both noise and light from the roadway. 2 feet, as currently proposed, is not sufficicient to block either noise or lights.

IND-10-3 3. I also hope the median barrier will be high enough to block the lights from oncoming cars. I know the existing median barrier is not. The new median barrier in Fairfield is, and it makes driving that portion so much more comfortable and safe feeling.

Thank you for listening
Nancy Kubik

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Response to IND-10: Kubik, N.

Response to Comment IND-10-1:

Caltrans acknowledges the comment and concern for the noise levels experienced within the Bel Marin Keys area. During the final design phase, Caltrans would take into consideration an array of materials for Project construction. However, as discussed in Response to Comment TRS-1-7, the doubling of distance (traffic noise attenuates by 3 dBA), noise levels experienced at the residences of Bel Marin Keys community, located more than 1,000 feet from the Project limits, would experience noise levels lower than 64 dBA $L_{eq[h]}$, which is below the FHWA's noise abatement criterion of 67 dBA $L_{eq[h]}$. Noise levels below the FHWA's noise criterion are not considered an impact, and noise abatement would not be required. Refer to Tables 2.2.7-10 (Predicted Future Noise Levels for Phase 1 (2049)) and 2.2.7-11 (Predicted Future Noise Levels for Phase 2 (2065)) in the Final EIR/EA/FONSI for the predicted noise levels for Phase 1 and 2. Receptors ST 7 and ST 8 are in Bel Marin Keys. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-10-2:

Caltrans acknowledges the comment and concern regarding the height of the outside barriers (sidewalls). At this time, Caltrans is proposing 2-foot-wide outside barriers; the height of these barriers has yet to be determined. During the final design phase, Caltrans would take into consideration different wall heights for the outside barriers. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-10-3:

Caltrans acknowledges the comment and concern regarding the height of the median walls and the potential danger caused by light glare from oncoming traffic. At this time, Caltrans has yet to determine the height of the median. During the final design phase, Caltrans would take into consideration the height for the median. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-11: Mahoney, S.

-----Original Message-----
From: BPIC [redacted]
Sent: Sunday, September 24, 2023 10:34 AM
To: Nguyen, Skylar@DOT <Skylar.Nguyen@dot.ca.gov>
Subject: Link request

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello Skylar,

IND-11-1 I am president of the homeowners association for Black Point/Green Point and attended the Hwy 37 webex on Sept 21st. I am interested in receiving a link to the recording as well as transcripts of the Q&A section for our members who could not attend.

Thank you,
Susanna Mahoney
BPIC

Response to IND-11: Mahoney, S.

Response to Comment IND-11-1:

Caltrans appreciates the commenter's participation in the public meeting. The recording of the public meeting held on September 21, 2023, at the Margaret Todd Senior Center in the city of Novato is available here: https://www.youtube.com/watch?v=XLd-FlZRe2k. A copy of the transcript is found in Appendix N, Public Meeting Memorandum. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-12: Nash, R.

From: Ruth K Nash [redacted]
Sent: Sunday, October 1, 2023 5:34 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Long-term planning for SR37 between Hwy.101 & I-80 in Vallejo.

EXTERNAL EMAIL. Links/attachments may not be safe.

To whom it may concern:

I have been watching some of the past virtual hearings regarding the future of travel on SR 37 (held by State Senator Mike McGuire), and today (Oct. 1, 2023) I just read an article in the Marin Independent Journal.

As I see proposed plans for SR37, I agree with the immediate plan to replace the Novato Creek bridge section with a causeway. However, I believe that it is incomplete. Yes, it has two lanes each direction and safe parts for bicycles and pedestrians. But it includes no dedicated path for "public transportation", i.e., lanes only for EV buses or tracks for EV trains.

My concern with the general plans for two lanes each direction is inadequate for relieving current and future congestion across the 21 miles. People will not forsake their cars until everything jams up again, just as it does now most of the time almost every day. And future jams would be four lanes of cars instead of two!

IND-12-1

My belief is that passage through this 21-mile corridor will only be effective in the long run if it allows people to get "from here to there" without their cars. This could be either regularly scheduled EV buses on an elevated causeway or EV trains on elevated tracks connecting SMART trains with Amtrak in Vallejo.

Take a look at the success of the Sonoma Airport Shuttle and the Marin Airporter companies . They work because people can count on regular pickups and drop-offs day and most of the night, no matter their work hours or their travel schedules along these routes.

Trustworthy public transportation is the great equalizer for working people. Look at New York City or many EU countries or Japan, especially for people who don't/can't work 9-5. Look at the long-term benefits to climate/environmental concerns with public transportation. Look at time spent effectively by people who can count on dependable transportation, no matter their station in life.

Thank you for considering my thoughts. I hope they are helpful.

Sincerely,
(Mrs.) Ruth K. Nash
[redacted]

Response to IND-12: Nash, R.

Response to Comment IND-12-1:

Caltrans acknowledges the comment regarding transit on SR 37. Please refer to Master Response 2: Tolling and Transit.

Comment IND-13: Navarra, M.

From: Marcus Navarra <johnromeo5099@gmail.com>
Sent: Friday, October 6, 2023 11:15 AM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Public comment on SR 37 Flood Reduction Project

EXTERNAL EMAIL. Links/attachments may not be safe.

To whom it may concern,

IND-13-1 I am extremely disheartened to hear that Caltrans is proceeding with this project to widen SR 37, without including a rail connection. To me, these actions speak more than the 500+ pages of environmental impact statement that Caltrans has released. They tell me that Caltrans is deeply unserious in their commitment to fighting climate change.

IND-13-2 Adding lanes may ease congestion in the short term, but it will encourage more people to drive along the route, leading to an increase in emissions of both GHGs and other harmful substances. To be frank, I do not believe your estimates that claim that adding lanes will somehow reduce VMT. There is not a single example of added highway capacity leading to less driving, even with tolling. Caltrans has committed to factoring induced demand into their VMT estimates, so I would like to see estimates that are more honest about the VMT increase that this project would create.

IND-13-3 I understand that SR 37 needs to be raised in order to be safe from projected sea level rise, but there is no reason that it needs to be widened too. I get the sense that Caltrans wants to widen the highway simply because it will be a very long time before the opportunity to do so arises again, and there is merit to that way of thinking, but I think that you are looking at the wrong opportunity. In my opinion, this is a grand opportunity to invest in a mode of transit that is more equitable, more efficient, and better for the environment than driving: the train. The raising of SR 37 is a golden opportunity to build a fast and direct rail line past Sears Point to Vallejo, giving commuters and leisure travelers alike a choice other than driving.

IND-13-4 There are a myriad of reasons that building a rail line is a much better choice than expanding SR 37 to four lanes, but Caltrans is full of experts that probably know them already. That's what makes your decision to widen the highway so frustrating. There is just no way that you don't know all the benefits of building a rail connection, and yet you have chosen to only widen the highway, which leads me to believe that you don't care. Please prove me wrong.

Sincerely,
Marcus Navarra

Response to IND-13: Navarra, M.

Response to Comment IND-13-1:

Caltrans acknowledges the comment regarding the inclusion of a rail connection as part of the Project. Please refer to Master Response 1: SMART for more information about Caltrans' coordination with SMART. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-13-2:

Caltrans acknowledges the comments regarding the addition of new lanes. As described in Chapter 1, Proposed Project, of the Final EIR/EA/FONSI, the Project does not propose to add new lanes. The capacity of SR 37 would remain the same, with two lanes in each direction. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-13-3:

Caltrans acknowledges the comment regarding the widening of SR 37. As stated in Section 1.1, Introduction, of the Final EIR/EA/FONSI, the Project proposes a causeway that would be 35 feet in elevation and consist of four 12-foot-wide lanes, a 22-foot-wide median with a 2-foot-wide median barrier, two 10-foot-wide inside shoulders, two 12-foot-wide outside shoulders, two 2-foot-wide outside barriers, and a 14-foot-wide bicycle or pedestrian path with a 2-foot-wide barrier, for a total roadway width of 114 feet. There would be no change to the long-term vehicular capacity on SR 37. The highway would be widened to meet Caltrans ASHTO standards and to provide for a dedicated (and separated) bicycle and pedestrian path. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-13-4:

Caltrans acknowledges the comment regarding the construction of a rail line. Refer to Response to Comment IND-13-1. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-14: Neil, H.

From: Harry Neil [redacted]
Sent: Tuesday, October 3, 2023 4:37 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Comment on SR37 Project

EXTERNAL EMAIL. Links/attachments may not be safe.

Hi,

My name is Harry, I'm a civil engineering student and transit advocate.

IND-14-1

The SR37 Project appears to be in large part a climate resiliency measure, but by adding an additional lane of traffic to the route, this project would be defeating its own purpose. It's been shown time and time again that widening roadways only leads to more traffic, meaning more VMT, more emissions, and higher costs over time.

IND-14-2

A way to both mitigate the climate impact of this project and reduce VMT over time, as we must if we wish to achieve our climate goals, would be to work with Sonoma and Marin counties to add a branch line to SMART that would connect to Vallejo along the new causeway structure. Rail transportation is both the most effective way to reduce traffic and the most effective way to reduce transportation emissions, even when fossil powered.

Given the nature of SMART as a diesel powered line, this could likely also reduce costs from the projected (up to) $11B for this project, while improving the project's climate impact and resiliency. Please consider this comment to its fullest extent, as both commuting traffic and the climate will not wait for us to find new ways to improve our impact on either. We know what works, and we need to do it.

Feel free to respond with any comments, feedback, etc.

Thanks,
Harry

Response to IND-14: Neil, H.

Response to Comment IND-14-1:

Caltrans acknowledges the comment regarding the potential impact of adding travel lanes. However, this Project is not proposing to add any travel lanes within the Project limit, except a separated bicycle and pedestrian path for active transportation. As stated in Section 1.1, Introduction, of the Final EIR/EA/FONSI, the Project proposes a causeway that would be 35 feet in elevation and consist of four 12-foot-wide lanes, a 22-foot-wide median with a 2-foot-wide median barrier, two 10-foot-wide inside shoulders, two 12-foot-wide outside shoulders, two 2-foot-wide outside barriers, and a 14-foot-wide bicycle or pedestrian path with a 2-foot-wide barrier, for a total roadway width of 114 feet. There would be no change to the long-term vehicular capacity on SR 37. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-14-2:

Caltrans acknowledges the comment regarding rail transit from Marin to Vallejo along the new causeway. Please refer to Master Response 2: Tolling and Transit.

Comment IND-15: Pogorzelski, S.

From: stacey pogorzelski [redacted]
Sent: Wednesday, October 4, 2023 1:23 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Comments on the Project

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello,
Thank you for taking on this project. I live in Novato. Some additions to the project should be:

IND-15-1 --remove remnants of the existing SR 37 after the causeway is constructed, which would connect diked baylands north and south of the roadway.

IND-15-2 --improve the wetlands mitigation. You can mitigate the .57 acre wetland loss onsite by removing the roadway, and restoring that area.

IND-15-3 --Extend the causeway over Simmons Slough, to increase restoration potential to the north.

thank you,
Stacey Pogorzelski
[redacted]

Response to IND-15: Pogorzelski, S.

Response to Comment IND-15-1:

Caltrans acknowledges the comment recommending the removal of the existing road. Where the causeway would be constructed, the existing road prism/fill would be removed after construction of Phase 2. However, the elevation of the finished grade following road removal would be determined during detailed design of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-15-2:

Caltrans acknowledges the comment recommending an improvement to the proposed wetland mitigation. To satisfy mitigation proposed in this Final EIR/EA/FONSI, Caltrans is exploring restoration opportunities for on-site mitigation for impacts to wetlands and waters, and mitigation near the Project corridor. Caltrans would facilitate any and all restoration opportunities within its ROW, explore opportunities to integrate wetland enhancements into the Project, and consider the possibility of contributing to the Baylands Group's Novato Creek Baylands Strategy. Through Caltrans' regional vision for advance mitigation, Caltrans would evaluate the causeway for habitat and species credits through the North Bay Baylands Resource Conservation Investment Strategy. Furthermore, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-15-3:

Caltrans acknowledges the commenter's suggestion for the causeway to extend over Simonds Slough to increase restoration potential to the north. The Project extends from U.S. 101 to Atherton Avenue, which includes Simonds Slough. Phase 2 of the Project would construct a causeway over Simonds Slough. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-16: Pollack, L.

From: linda pollack [redacted]
Sent: Saturday, October 7, 2023 3:10 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Comments on proposed plan

EXTERNAL EMAIL. Links/attachments may not be safe.

IND-16-1 I am concerned about noise level for nearby communities of Black Point and Bel Marin Keys. The noise of the highway, now being elevated, will travel and will be a nuisance. What mitigation measures will be taken to alleviate this?

Linda Pollack
[redacted]

Response to IND-16: Pollack, L.

Response to Comment IND-16-1:

Caltrans acknowledges the comment and concern regarding the noise levels experienced in the nearby communities of Black Point and Bel Marin Keys, specifically with the proposed elevation increase of SR 37. As discussed in Section 2.2.7, Noise, of the Final EIR/EA/FONSI, this Project is considered a Type I project because of the change in height of SR 37. Type I projects require a noise analysis to identify potential noise impacts generated by the construction and operation of the Project. As part of the noise analysis, noise levels were estimated for existing conditions, Phase 1 (2049) No-Build and Build conditions, and Phase 2 (2065) No-Build and Build conditions. Receivers ST-7 and ST-8 were placed in the traffic noise model to represent noise-sensitive land uses in the community of Bel Marin Keys. Under Phase 1 (2049), receivers ST-7 and ST-8 experience noise levels of 40 dBA $L_{eq[h]}$ and 43 dBA $L_{eq[h]}$ under the Build conditions, respectively. Under Phase 2 (2065) Build conditions, noise levels remain the same at receivers ST-7 and ST-8, 40 dBA $L_{eq[h]}$ and 43 dBA $L_{eq[h]}$, respectively. These noise levels are below the FHWA's noise abatement criterion of 67 dBA $L_{eq[h]}$; which means no noise impacts are expected to occur within the Bel Marin Keys community, and noise abatement was not considered.

Similarly, for the Black Point community, receivers ST-1, ST-5, and R1 through R3 were selected to represent residential land uses in this community. Estimated noise levels for these residential receivers under Phase 1 (2049) and Phase 2 (2065) Build conditions range from 40 dBA $L_{eq[h]}$ to 60 dBA $L_{eq[h]}$. These noise levels are below the FHWA's noise abatement criterion of 67 dBA $L_{eq[h]}$, that determined no noise impacts are expected to occur within the Black Point community; and noise abatement was not considered. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-17: Ryan, L.

From: LR [redacted]
Sent: Friday, October 6, 2023 3:16 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Subject: Public comment

EXTERNAL EMAIL. Links/attachments may not be safe.

I am writing to support the elevated causeway for SR-37 in Novato. This design improves resilience to floods and sea level rise and contributes to restoring wetlands cut off from tidal flow. Healthier wetlands provide water filtration, carbon sequestration, and habitat for numerous special-status, threatened and endangered species of plants and wildlife.

IND-17-1

Please push forward with the elevated causeway design for the entire stretch of Highway 37 (Novato to Mare Island) and do not pursue the interim solution of expanding the current roadway by dumping hundreds of thousands of tons of fill into protected tidal marsh habitat. These damages could never be undone, and would reduce the incentive and motivation for completing the elevated causeway.

IND-17-2

If you must include a carpool lane, please make it limited to commute hours and not a full-day restricted lane as San Francisco has recently implemented on Park Presidio. It has doubled traffic times through the area even at off-hours.

Thank you for your visionary project to protect the roadway and restore sensitive tidal marsh ecology.

Liza Ryan
San Rafael CA

Response to IND-17: Ryan, L.

Response to Comment IND-17-1:

Caltrans acknowledges the support for the elevated causeway and opposition to the interim solution that proposed elevating the roadway on an embankment. The Project limits are entirely in Marin County, from U.S. 101 to Atherton Avenue. As discussed in Section 1.4.1, Raise Embankment, this alternative was dismissed from further consideration because the alternative no longer meets the purpose and need, the alternative would result in negative environmental impacts, and public comments opposed this alternative. Therefore, edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-17-2:

Caltrans acknowledges the comment regarding a carpool lane. The Project does not propose a carpool lane. Therefore, edits to the Final EIR/EA/FONSI are not required.

Comment IND-18: Shea, S.

From: Susan C Shea [redacted]
Sent: Sunday, October 1, 2023 5:37 PM
To: SR37 Flood Project@DOT <SR37FloodProject@dot.ca.gov>
Cc: [redacted]
Subject: Effects of the first phase Hwy 37 project

EXTERNAL EMAIL. Links/attachments may not be safe.

It isn't clear to me what the effect of the increased tidal activity and water flow in the adjacent wetlands as a result of this first phase of the Hwy 37 elevated roadway will be for the Bahia development. Many homes are built over the current wetland marsh that drains into Rush Creek and then the Petaluma River. So far, our wetland area is able to hold and dissipate the amount of water even in the annual "king tides," but has there been an analysis of our wetlands (bordered by Topaz Ave and Santana Rd within Bahia) and if this highway improvement will overtop our ability to absorb it?

IND-18-2

I don't think the project should move forward until such a report is prepared and shared with the Bahia HOA and its members.

Thank you.

Susan Shea

[redacted]

Response to IND-18: Shea, S.

Response to Comment IND-18-1:

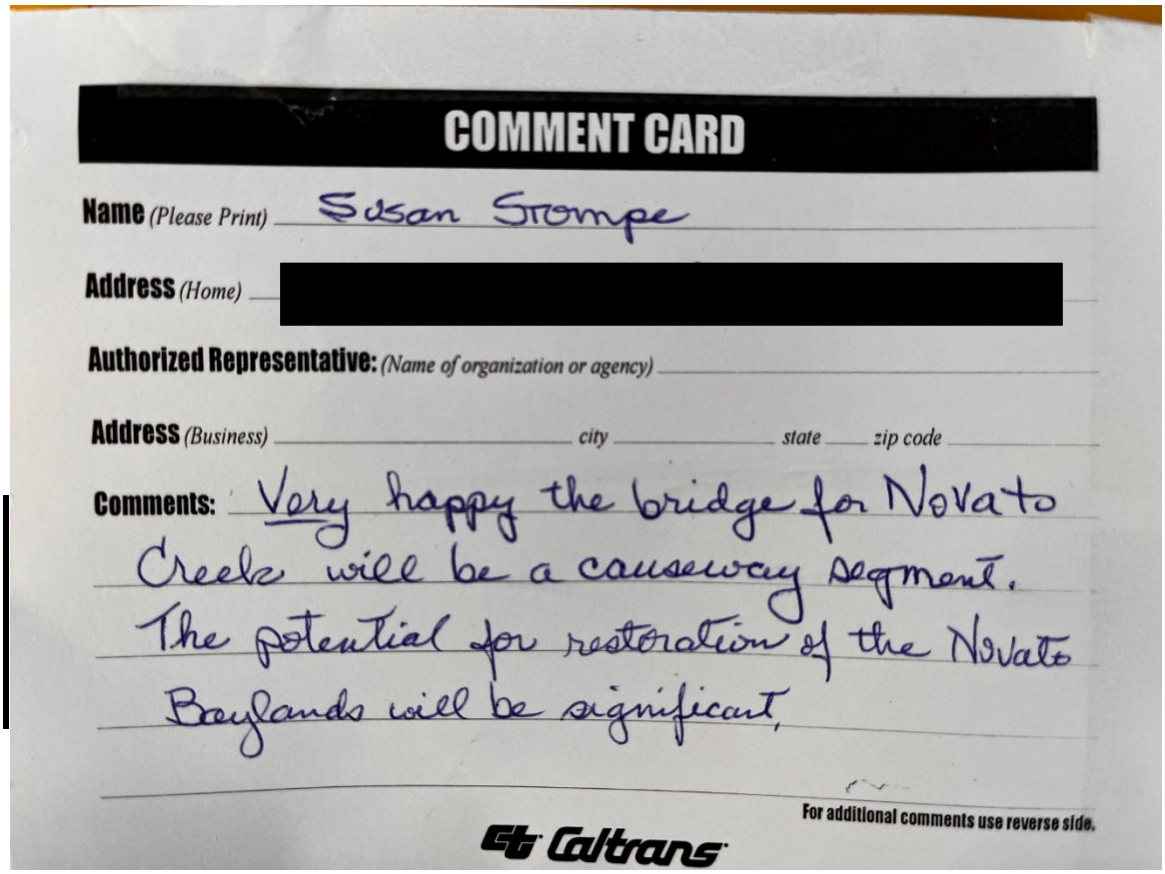
Caltrans acknowledges the comment regarding the increased tidal activity and water flow in the adjacent wetlands as a result of Phase 1 of the Project on the Bahia development. The commenter inquires whether there has been an analysis of the wetlands (bordered by Topaz Avenue and Santa Road within Bahia) and if the Project will overtop the ability of the wetlands to absorb annual “king tides” under current conditions.

The proposed Project has no hydrologic connectivity to the Bahia development; and therefore, the Project would not directly or indirectly affect the development with respect to tides, stormwater flow, or wetlands. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment IND-18-2:

Caltrans acknowledges the commenter’s suggestion that the Project not move forward until a report is prepared and shared with the Bahia Homeowner’s Association and its members. The *Location Hydrologic Study* prepared for this Project is provided in Appendix M. Edits to the Final EIR/EA/FONSI are not required.

Comment IND-19: Stompe, S.



COMMENT CARD

Name (Please Print) Susan Stompe

Address (Home) [redacted]

Authorized Representative: (Name of organization or agency)

Address (Business) city state zip code

Comments: Very happy the bridge for Novato Creek will be a causeway segment. The potential for restoration of the Novato Baylands will be significant.

For additional comments use reverse side.

Caltrans

IND-19-1

Response to IND-19: Stompe, S.

Response to Comment IND-19-1:

Caltrans acknowledges the commenter's support for the Project. Edits to the Final EIR/EA/FONSI are not required.

Responses to Comments: Transcript

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Transcript of Proceedings

September 21, 2023

State Route 37 Flood Reduction Project EIR/EA



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PUBLIC HEARING RE:

DRAFT ENVIRONMENTAL IMPACT REPORT (EIR), and

ENVIRONMENTAL ASSESSMENT (EA)

FOR THE STATE ROUTE (SR-37) FLOOD REDUCTION PROJECT

REPORTER'S TRANSCRIPT OF PUBLIC HEARING PROCEEDINGS

Thursday, September 21, 2023

6:15 p.m. - 7:31 p.m.

Margaret Todd Senior Center

1560 Hill Road

Novato, CA 94947

STENOGRAPHICALLY REPORTED BY: Alesia L. Collins, CLR

Certified Shorthand Reporter No. 7751

JOB NO. 10127647

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CALTRANS PUBLIC INFORMATION OFFICERS:

BART NEY, Office Chief of Public Affairs
PEDRO QUINTANA, Public Information Officer
MATT O'DONNELL, Public Information Officer

CALTRANS HEARING PANELISTS:

DINA EL-TAWANSY,
District 4 Director

JAVIER MENDIVIL,
Regional Project Manager and State Route 37
Corridor Manager

MAXWELL LAMMERT,
Acting Office Chief for Environmental Analysis

AHMED RAHID,
Senior Transportation Engineer

DIANA PINK,
Landscape Associate

Lindsay Vivian,
Biological Sciences and Permits Office Chief

Shilpa Mareddy,
Senior Transportation Engineer

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REPORTER'S TRANSCRIPT OF PUBLIC HEARING PROCEEDINGS

Thursday, September 21, 2023

6:15 p.m. - 7:31 p.m.

MR. NEY: Okay. If we can have our panelists head up to the panel seats, we're going to be starting in about a minute. And, if people here in the audience can have a seat, we will be getting started very shortly.

Folks online, it's about one more minute.

All right. We'll let everyone get seated comfortably.

All right. We're underway.

Good evening, everyone. My name is Bart Ney. I'm the office chief of public affairs for CalTrans here in the Bay Area, and I'm the CalTrans lead for communications on State Route 37.

Tonight we're going to be focusing on the flood reduction project that's here in -- in Marin, but first a few safety things:

The -- the exits for this room, you've probably already seen 'em. One's in the back at that location. The other ones are the ones you came in. Bathrooms are out that door and to the left. So, important stuff first.

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Okay. With that, I would like to introduce our CalTrans district director, District 4 director, Dina El-Tawansy, to give a few opening comments as we get started.

Dina?

MS. EL-TAWANSY: Thank you, Bart.

Good evening, everyone, and thank you very much for joining us this fine evening. I'm really thrilled to see people here in the room, and I also want to welcome everybody that's online.

My name is Dina El-Tawansy. I'm district director for CalTrans in the Bay Area, and we serve the nine Bay Area counties. We're really excited to be here with you tonight to engage more on State Route 37.

This is a very important night on so many fronts because we're taking our very first step towards a resilient 37. You know, we've been -- we know all the challenges of State Route 37. It's very susceptible to sea-level rise. We know that there's also a lot of opportunities for environmental and ecological restorations to be done on the San Pablo Bay.

So, we had a scoping meeting back in November 2021, and we have another one in December 2022, and we're here tonight to continue to engage with you.

You spoke about some of your concerns back

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then. You didn't want to see embankments. We heard you. And, we are working on how we can develop this fine route to make sure that it's meeting the challenge of the sea-level rise for the ultimate design year of 2130.

Your input is extremely important to us, so please do engage, ask us questions. We can do our very best to capture every comment and question that we get here. If we're unable to answer all the questions that we receive here tonight or online, we will make sure that we actually do that afterwards, so continue to provide that input for us.

So, with that said, I welcome you again. Thank you for being with us, and I will turn it over to Bart to get us started.

Thank you.

MR. NEY: All right. Thank you, Dina.

We're working with the PA system.

Okay. So, as I mentioned, tonight we're focusing on the flood reduction project for State Route 37 here in Marin. However, State Route 37 -- however, State Route 37 is a 21-mile corridor, and there are several other projects that are also on this corridor.

So, there are no -- there are no dumb questions. We want to hear from everybody what your --

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what your concerns are, what your thoughts are. However, if one of your questions is about one of the other projects, then we will talk with you after the presentation and lead you to the information for those other projects, if that makes sense.

Okay. With that, we'd like to acknowledge the city of Novato and the County of Marin for hosting us tonight, and in particular, Leslie Weber, from Supervisor Eric Lucan's office, who helped us out. Thanks, Leslie.

We would also like to thank the California Highway Patrol for their attendance at tonight's meeting. Safety is always a priority with us at every meeting that we have and every effort that we take.

And, finally, we will be conducting a Q&A at the end of our presentation. If we run out of time and do not get to your question, please feel free to submit them by email or online. And, there will be more information on that in our presentation.

So, with that -- we can go ahead and advance the slide, Tam. Oh, we are going to be recording this -- this meeting.

Okay. Go ahead and can you advance. All right. There are a few slides that I have to read for Title VI. I'm just going to go ahead and do that as

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soon as Tam has them.

Okay. So, our non-discrimination policy statement:

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 ensures no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, denied -- be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal finance assistance -- federal financial assistance.

CalTrans will make every effort to ensure non-discrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, national -- national origin -- or national origin.

In addition, CalTrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner. Related to federal statutes, remedies and state law further those protections to include sex, disability, religion, sexual orientation and age.

For additional information or guidance on how to file a complaint or obtain more information regarding

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Title VI, please contact the Title VI branch manager at (916) 324-8379 or visit the following web page, dot.ca.gov/programs/civil-rights/title-vi.

Now I have a Spanish translation.

Jasmine?

MS. MEJIA: Thank you. I will read the Spanish translation for those that are participating and speak Spanish.

(Reading in Spanish language.)

MR. NEY: Thank you, Jasmine.

All right. Now for our meeting protocol for online attendees. For written questions or comments, please type them in the "chat" box by pressing this icon at the bottom of your screen -- the little word balloon.

For verbal comments, please hold them until the Q&A session after the presentation, and then please use the raise your hand icon to be unmuted.

Verbal comments have a two-minute limit tonight. We will try -- we will try to get as many comments as possible within our meeting. For closed captioning -- for closed caption, press the closed caption icon and choose your language.

A court reporter is present to record all public comments. Please be respectful of other community members' concerns and input. And, that's for

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the online protocol.

All right. For the -- okay. For the in-person attendees, very similar. Please hold comments and questions until the end of the presentation. Please approach the microphone at the front of the room. We will put this back there for you when you speak.

Each speaker will have a two-minute limit to share their comment -- same as online. Please state and spell your name and identify the organization you're with -- you're affiliated with, if you're affiliated with an organization.

A court -- again, the court reporter is here to record all public comments, whether you're in the room or virtually. And just like the other one, please be respectful of all community members' concerns and comments. So, those are the protocol for the -- for the meeting today.

Now I'd like to introduce our CalTrans panelists. They can raise their hand as we -- as we call their name.

First is Javier Mendivil. He's our regional project manager and State Route 37 corridor manager. He's our quarterback tonight, the guy that's responsible for kind of the whole thing.

Then we have Maxwell Lammert, acting office

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chief for environmental analysis. And, I am going to be handing off to him in just a -- a couple of minutes.

We have Ahmed Rahid, our senior transportation engineer for design. Diana Pink, our landscape associate. Lindsay Vivian, our office chief for biological sciences and permits. We have me, Bart Ney. Pedro Quintana, online, and Matt O'Donnell out in the audience in the back there, Matt, are your public information officers for tonight.

With that, Max, I'll turn it over to you for meeting purpose.

MR. LAMMERT: Thanks, Bart.

Hi, everyone. Good evening. So, let's talk about now while we're here -- why we are here today.

So, CalTrans has released a draft Environmental Impact Report and Environment Assessment -- or Draft EIR/EA -- to comply with the California Environmental Quality Act and the National Environmental Policy Act -- or CEQA and NEPA -- as you may hear them referred to throughout the rest of the presentation.

CEQA and NEPA are the two -- are the state and federal umbrella laws that cover the environmental compliance and guide agencies like CalTrans through the environmental compliance process.

So, these laws require us to provide an

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overview of the proposed project and any impacts associated with the project, as well as any mitigation measures to offset those impacts. It also requires us to accept public comments on these projects to help inform the project.

So, the comment period for this Draft EIR/EA began on August 25th, 2023, and will end on October 8th, 2023. We'll be accepting comments until October 8th at 5:00 p.m., or by physical mail postmarked by that date.

We also -- we have a physical copy of the Draft EIR/EA, I think it's in the back over there -- okay. It's the back over there if someone would like to review it here in person.

We also have green handouts on the table that have a link to where you can find that, and then for those of you online, we will put a link to where you can find it in the "chat."

Next slide, please.

So, let's briefly go over the agenda for today's meeting. So, in a moment I'll hand it off to Javier, who will get us started with a project history that will kind of tell a tale about how we got to where we are today.

Then we'll go into the location, purpose and need of the project, the proposed project alternatives,

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the environmental analysis and significance determinations that have been made for CEQA and NEPA.

And, during that time we'll also have a 360 tour of the project, and we will give a brief overview of that and kind of guide people through that before concluding, by reviewing the comment submission instructions, and then continuing on to our question-and-answer session.

Now I'm going to hand it off to Javier Mendivil, our regional project manager for the State Route 37 corridor.

MR. MENDIVIL: Thank you, Max. Good evening, everybody. Thanks for being here tonight. I'd like to start off with a little bit of a project history.

So, as Dina alluded to earlier, this project originally included an interim embankment option that would have sustained sea-level -- sea-level rise to 2050 projected elevations.

At the November 2021 scoping meeting, CalTrans received feedback indicating concern regarding the permanent impacts associated with the embankment alternative, so CalTrans went back to the drawing board to come up with additional alternatives, and these included passive flood barrier, embankments at different elevations and limits, strengthening the levies, and

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interim causeways.

In March 2022, at the SR-37 policy committee meeting, CalTrans announced that it would be refining the limits to the project between U.S. 1 and Atherton in order to address the -- the most vulnerable section of the corridor that's most susceptible to sea-level rise and flooding.

A couple of months later, in summer 2022, the SR-37 planning and environmental linkages study identified the existing corridor as a preferred alignment for long-term development and a causeway as solution to flooding to year 2130.

In December 2022, CalTrans hosted a second scoping meeting to provide the update of the ultimate causeway for year 2130 sea-level rise. And, then the team began drafting the draft environmental document, which has been released for public input just last month, which brings us to where we are today.

Next slide, please.

So, this graphic shows the project vicinity. As I mentioned, it spans between U.S. 101 and Atherton, and the purpose of the project is to incorporate resiliency on the corridor to the effect of sea-level rise to year 2130 and flooding from stormwater. The need is due to recurring flooding from high tide events

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and heavy winter storms, which have caused delays and closures in this area.

Next slide, please.

This map shows -- depicts the elevations of -- of SR-37 in this area and the levies through color-coded linework. SR-37 is represented by that diagonal line in mostly red and orange, and as you can see from the legend, that represents the lowest elevation in that area. In this segment the elevation of the roadway can be as low as two feet.

And then that green and yellow line that snakes across the corridor there represents the levy system. And, this levy system is what protects the surrounding area from flooding.

Right there where it crosses the highway, where that number 1 is in the bottom left-hand corner is where the Novato creek is. And, during heavy windstorms, during high tide events and winter storms, water ends up overtopping the levy in this area and eventually making its way to -- to the roadway and cause flooding.

Next slide, please.

And, that's what this looks like. So, these are photos from past winter storms that -- where we have experienced flooding along the corridor. In 2017 we experienced 28 days of flooding that caused closures on

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the highway. In 2019 it was eight days. And, just this year in January we experienced three days of closures due to flooding on the corridor.

So, these -- these photos really highlight the need for a long-term solution on this segment of the corridor, which is what this -- this project will provide.

At this point I'd like to hand it off to my colleague in design, Ahmed Rahid -- next slide, please -- for the build alternative.

MR. RAHID: Thank you, Javier.

Good evening, everyone. Thanks for attending our meeting tonight. In the next few slides I'm going to go over our project alternative. Two alternatives have been analyzed in the environmental document. The build alternative would elevate two-and-a-half miles of State Route 37 to an elevation of 35 feet on the causeway.

The build alternative would elevate two-and-a-half miles of State Route 37 to an elevation of 35 feet on the causeway in two phases. These complete the purpose and need of our -- of the project. The no-build alternative would not make any changes to the existing condition; therefore, not addressing the current flooding problems and projected sea-level rise.

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Next slide, please.

On the screen you can -- you will see the cross section of the project after its completion. Our project will have four 12-foot lanes, two lanes in each direction. On each direction there will be ten feet of inside shoulder, which would be separated by a two feet wide median barrier. We'll also have 12 feet of outside shoulder.

And, on the south side of the bridge we will have 14 feet bidirectional, mixed-use pedestrian and bike path, and that path would be separated from the mainline with a two feet barrier. And, on the outside edge of the bridge we will have two outside barrier. Consisting all of it, the total width of bridge would be 114 feet.

The project will be completed in two phases, and phase one of the project will be our first construction package.

Next slide, please.

Phase one of the project would start at the most flood prone area within our project limit, that is the Novato Creek Bridge. Phase one would replace the existing Novato Creek Bridge with a longer structure at an elevation of 35 feet. And, there will be two transitional bridges on either side of the bridge that

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will connect the new bridge with the rest of the freeway.

So, under phase one we will have two 12-feet lanes in each direction. The inside shoulder width will be five feet. The outside shoulder width will be ten feet on each direction, and the bike path on the south side of the bridge of that one will be ten feet. So, the total width of the bridge under -- after phase one will be 96 feet.

This is a simulated view looking westward. You can see the new Novato Creek Bridge and also the western transitional bridge.

So, the western -- the length of the western transitional bridge is roughly hundred -- 1,153 feet. It will start at an elevation of three-and-a-half feet, and it will connect to the western part of the new Novato Creek Bridge at an elevation of 35 feet.

Next slide, please.

And, here's a similar type view of phase one completion looking eastward. You can see part of the new Novato Creek Bridge and also the eastern transition bridge.

The length of the eastern transitional bridge roughly is 963 feet. It will connect to the eastern part of the new Novato Creek Bridge at an elevation of

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35 feet, and it will conform to the existing 37 at an elevation of three-and-a-half feet.

Next slide, please.

So, here's another similar-type view looking westward after -- what it would look like after the phase two completion. The transitional bridge that we built under phase one on both direction, eastern and western, will be removed, and it will be replaced by the causeway.

So, under phase two -- the length of phase two will be two-and-a-half miles long, and it will connect from U.S. 101 to Atherton Avenue.

So, here is a similar-type view looking westbound. You can see the U.S. 101/37 connection, and there's no -- you cannot see western transition bridge at this picture, this simulation, because that will be removed, and it will be one connection from the US 101 to Novato Creek Bridge that we build under phase one.

Next slide, please.

And, here is another similar-type view looking eastward. You can see the -- the Novato Creek Bridge that we built under phase one, but you -- there's no transitional -- eastern transitional bridge because that part will be removed, and it will be one connection from U.S. 101 to Atherton Avenue.

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The completed causeway will be two-and-a-half miles long, at an elevation of 35 feet, and it will have two, 12-feet lanes in each direction. Ten feet of inside shoulder, 12 feet of outside shoulder, and 14 feet mixed direction bike and pedestrian path -- bidirectional, I'm sorry -- bike and pedestrian path on the south side of the bridge.

And, later on we'll show you a 360 tour of the project with more views of how the project would look like after completion.

Next slide, please.

So, we started our environmental phase roughly two years ago, and throughout this time we looked into different alternatives. So, we looked into raised embankment entering causeway, Novato Creek Bridge replacement and passive flood barriers, Novato Creek Bridge replacement with combination of causeway and embankments, strengthen levies, strengthen 37 viaduct causeway, and transportation system management/transportation demand management.

So, I'm not going to go into details about the description of the alternatives and our reason for rejection. I'm going to refer you to the draft environmental document. The details for all this alternatives and our reason for rejection mention right

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there.

So, at this point I'm going to hand it over to Max.

MR. LAMMERT: Thank you, Ahmed. Now we're going to get into the environmental review that's been conducted for the project and the impacts that we've determined to different resource areas during that review.

We will begin by covering the areas where we determined the project would have no impact. These resource areas are agriculture and forestry resources, coastal zone, growth, environmental justice, mineral resources, parks and recreation facilities, population and housing, recreation, and relocation and property acquisition.

So, we determined that we wouldn't have an impact on these resources for a variety of reasons, but generally it's because they were not included in the scope of the project or were not located within the project vicinity.

Like the rejected alternatives, we do have more information about why we made the no-impact determination for these resource areas in the draft environmental document.

Next slide, please.

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Now let's cover the resource areas where we determined that the project would have some impact, but that it would not rise to the level of significance under CEQA.

Those resource areas are: Air quality, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, public services, tribal cultural resources, utilities and service systems and wildfire.

So, for these resource areas we are proposing project features which are measures that are applied indiscriminately on all CalTrans projects to reduce the impacts. Kind of regardless of what those impacts are we apply those project features, as well as more specific avoidance and minimization measures to reduce those impacts. Those -- the list of those is fairly lengthy but, again, you can find that in the draft environmental document if you're interested in that.

On the next couple of slides we're going to go into depth on two more of these resource areas that we think the public will be concerned about, so we want to give them special attention.

Next slide, please.

So, the first one impact area that we wanted to

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talk about is to hydrology. We wanted to talk about this a little bit more because the purpose and need of the project is closely tied to the hydrology and the flooding in the area.

We prepared a location hydraulic study to evaluate impacts to the floodplain for the project, and we found that as a result of the proposed project flooding in the surrounding areas would not be changed, so the effect that is happening currently would happen to the surrounding area.

So, we are planning to raise State Route 37 to -- to kind of escape that flooding, and we have elevated it to that 100 year flood elevation at projected 2130 sea-level rise, which is the data we got from the Ocean Protection Council.

So, right now the project area benefits from protection from the surrounding levies. We are not proposing changes to the surrounding levies as part of this project.

During construction there would be some impacts to the natural and beneficial values that the floodplain provides, and -- but in the long term the State Route 37 corridor would be more resilient to flooding and sea-level rise, and so we expect there to be that benefit for our facility.

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And, you may have noticed that there are SMART rail lines that run directly adjacent to the -- the State Route 37 corridor here. You can kind of faintly see them on the backdrop of this map to the right of the highway.

CalTrans is currently not proposing any changes to the SMART rail lines to also address flooding, but we are coordinating with SMART to develop a project study report to further evaluate how this project or future CalTrans projects could accommodate benefits to that rail line to escape flooding.

Next slide, please.

The other resource area we wanted to discuss was noise. We know that noise can be a sensitive topic for folks that live adjacent to the facility or businesses that operate nearby.

Good news first: We are anticipating that as a result of this project the noise increase would be minimal. We are raising the facility, which kind of changes where the noise source is coming from. That elevated roadway profile causes the sound to travel differently to the surrounding area.

We are anticipating temporary noise from construction activities, for example, pile driving is a large source of noise, but we are produce -- proposing

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noise reducing measures during construction. These include both noise monitoring to make sure that the noise level is staying at an appropriate level, as well as scheduling the -- the highest intensity things, like pile driving, during regular business hour to avoid disruptions when you're most likely to be at home.

Next slide, please.

So, yeah. Now we're going to get into the resource areas that we determined that there would be a significant impact under CEQA, but with mitigation we can reduce that impact to a less than significant level. These are biological resources and traffic, and we are going to get into them in the next slide.

So, we're going to first go into biological resources, and we're going to begin with wetlands and other waters.

So, the construction package one activities will have the following impact to wetlands and other waters:

It will have permanent impact to .7 acres of wetlands and open water, which consists of 0.24 acre of freshwater marsh, .43 acre tidal salt marsh, and .03 acre of open water.

Temporary impacts from that same construction package would be to 5.36 acres of wetlands and other

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waters of the U.S. and state, which is a combination of the same habitats, but also including diked brackish marsh.

Construction package two would have permanent impacts to .08 acres of tidal salt marsh and open water, temporary impacts to 5.48 acres of wetlands and other waters of the U.S. and state, which include diked brackish marsh, freshwater marsh, tidal salt marsh, and open water habitats.

So, we are proposing the mitigation measure BIO-1 on the screen, as well as a combination of onsite restoration, which is obviously the preferred measure -- the preferred way to reduce impacts to wetlands and other waters.

So there are mitigation measures, specifically compensatory mitigation, and a package of that developed in conjunction with the resource agencies.

Next slide, please.

So, now we're going to talk about the endangered species that we determined could be present or would be present within the project area. And, we have a few examples of these on the screen. We have the white-tailed kite, the clapper rail, the long fin smelts, California red-legged frog, green sturgeon and salt -- salt marsh harvest mouse.

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So, there's going to be a wide -- a varying range of impacts to these species, and it would probably take quite a bit of time to go into that right now. That information is in the draft environmental document for your review if you were interested in that.

One area in impact to endanger species we did want to specifically mention is impacts to California red-legged frog. We determined that that impact in particular would be significant, and that we would need mitigation to reduce that to a less than significant level.

Onsite restoration, again, would be preferred to offset those impacts to California red-legged frog, but we would also be developing a compensatory mitigation packet with input from the regulatory agencies to further offset that.

Next slide.

Oh, actually, there were a couple of thing -- couple of more things I wanted to mention about biological resources. So, the project would have no impact on protected natural communities and special status plant species.

The project proposes no tree removal, and we anticipate that raising the SR-37 corridor would have a net benefit on wildlife movement through the corridor,

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because you're raising the hazard to wildlife, that is the highway above where the natural environment would travel through it.

Now you can move on to the next slide. Thank you, Tam.

The other area that we determined we would have a less than significant with mitigation impact on was traffic. So, during construction we anticipate that the project would result in temporary construction delays of up to 15 minutes.

We did have a proposed detour route for the project that's shown in purple on the screen here. We start on the east side up at the Harbor Drive exit before continuing onto Atherton Avenue, connecting to U.S. 101 in the north, and then traveling down south on U.S. 101 back to 37.

So, this detour would be proposed in conjunction with a regional strategy to alert the traveling public to any -- any use of this detour or any proposed -- any proposed lane closures.

We would be using our changeable message signs to alert the traveling public of that -- of that detour, so hopefully those measures would encourage people to use alternate routes instead of the detour. We're hoping that would keep that to a minimum.

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Our mitigation measure that we proposed is a traffic analysis that will be proposed closer to phase two construction. Right now the -- the traffic analysis that we have can't accurately project out to the construction -- the anticipated construction year of phase two, so we will have that mitigation measure in place to make sure that any additional recommendations from that traffic analysis are incorporated into our traffic management plan for phase two.

We would also have delays and interruptions to service for pedestrians and cyclists throughout the 37 corridor in this -- in the project vicinity during -- during construction.

Next slide.

All right. So, we have visual and aesthetic resources here. This is the one area that we determined would have significant impact under CEQA and we would not be able to mitigate that to a less than significant level.

Next slide.

So, on this slide we have a simulated view of the existing conditions, as well as the phase one project completion. So, the viewpoint that we're using here is from the Bel Marin Keys, from Montego Park facing north. And, as you can see, the new elevated

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roadway facility over the Novato Creek would be a fairly substantial view change for this vicinity.

Next slide.

Here's the same -- same viewpoint. This is after phase two construction. So, you can see the remainder of the causeway and highway has been elevated to that 35-foot height. This is, again, another substantial change to the view shed.

We are proposing several avoidance and minimization measures for visual resources to reduce impacts. These measures include restoring in the areas disturbed by construction to pre-construction conditions as feasible. Any new slopes associated with the project would be graded to mimic natural contours.

We would limit construction lighting during construction to be focused on the areas needed for construction and not allow the spillover into adjacent properties or habitat.

We would screen the construction area as feasible from the traveling public's view. And, when we would design the structures we would have the project components designed in a way to minimize visual contract -- contrast. Unfortunately, these avoidance and minimization measures would not reduce the impacts to a less than significant level.

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Next slide, please.

Now I'm going to hand it off to Diana Pink, from our landscape architect service office, and she is going to give us a 360 -- 360 tour of the project.

MS. PINK: Thank you, Max. And, good evening everyone. As you may have seen, hopefully utilizing the QR code in the mailer or the QR code that's posted on some of the display boards here tonight, we have developed a 3D simulation of the project, known as the 360 Tour.

After opening the link you will arrive at the project location here on State Route 37. Once there, you can click and drag with the mouse or pan with your finger on a smartphone or tablet. You're also able to zoom in -- not so fast, sorry -- zoom in and out in particular areas.

You will see three orange targets along the roadway which can be selected and will take you to that particular location. Once you arrive at that location you will see the conditions as they exist today, and you will also see two orange circles that can be selected that will show you the proposed project after the completion of that particular phase.

The arrow icon will take you back to the main page, where you can find a link to the State Route 37

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corridor website and find the draft environmental document and additional information about the corridor.

So, we encourage you to please check out the 360 tour and explore and get more information. And, now back to Max to discuss the project schedule.

MR. LAMMERT: Thank you, Diana.

And so, for those of you here in person there's a QR code in the back that you can scan to take you to that website that Diana was running us through.

Now we're going to briefly go over the schedule for the project. We have the date the draft environmental document was circulated, which was August 25th, 2023. We are here today, on the 21st night of September, at the public meeting. We will complete the environmental phase for the project in December of 2023 and we'll be certifying our final EIR/EA by that date.

We will complete design for phase one. We're anticipating to do that for the Novato Creek Bridge replacement by spring of 2026, and then begin construction on that same phase spring of 2027.

So, then design and construction of phase two right now is subject to funding availability. We are working very closely with our stakeholders and partners in the region to identify funding. We're aggressively pursuing grants to obtain additional funding to fund

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that phase.

Next slide, please.

All right. So, here are a few ways that you can submit comments on the project. And, we just want to say that your comments are very important to us. They help inform our projects and mold them, and it's how we better serve you.

So, our public comment period ends October 8th, 2023, at 5:00 p.m., or if you submit by postal mail postmarked by that date. You can submit comments if you're here in person on a physical comment card. Those are located over with Jasmine at the front desk. You can also submit comments by email at sr37floodproject@dot.ca.gov, or you can submit via postal mail to CalTrans District 4, Attention Skylar Nguyen, PO Box 23660, Mail Station 8B, Oakland, California, 94623. And, we'll be addressing comments in the final EIR/EA.

And so now, thank you. That concludes our presentation, and we're going to move on to a question-and-answer session. I'm going to hand the microphone to Bart, and he's going to moderate us through that question-and-answer session.

MR. NEY: All right. Excellent.

Max, thank you. And, thanks to all our

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presenters who conveyed that information. We'll give our IT team a moment to set up the -- the microphone.

I'd also like to acknowledge our partners at TAM that are in the room today, Molly Graham, Nick Nguyen, and their executive director, Anne Richman. Great partners working on this with us.

Okay. With that, we are actually into the Q&A session. We are going to start with anyone in the room here that actually has questions for our project team. And, then -- and then we've got Pedro Quintana, our public information officer online that's going to be taking -- taking questions from the folks that are watching online.

And, can we bring Pedro in? Can he --

MR. QUINTANA: I'm here.

MR. NEY: There he is. Pedro is actually there. So, if anyone in the room has --

MR. QUINTANA: I've teleported here. I'm here, right here ready to go.

MR. NEY: Fantastic, Pedro.

Okay. Anyone in the room that has a question, you can come down to the mic and -- and you'll have two minutes.

Question: Thank you. Susan Wernick, from the Novato City Council. I do have one question in terms of

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TRS-1-1

the routing of the traffic during the project.

So, it looks like it will be routed via Atherton Avenue. So, I'm just trying to picture this. Does this mean that all day, every day, during the course of the building that's the route the traffic will be taking? So, if you could just kind of speak to that a little bit, that would be appreciated. Thank you.

MR. NEY: All right. Thanks, Susan. I'll give it to Javier.

MR. MENDIVIL: Thank you for your question, Susan. So, most of the construction -- at least for the phase one. I'll talk about the phase one first. Most of that will be done through nightly closures and traffic will be maintained, so that detour won't be used most of the time. But, we do have a little -- a few construction operations that are more involved where we'll require full closure of the corridor. So, we're expecting to need to use that detour for three weekends, maximum, during the construction of -- of the first phase, which is the Novato Creek Bridge replacement.

We're still working on refining the -- or, we're working on the logistics for the second phase still, so we're not certain yet what the traffic management will look like for -- for that phase of the project.

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Oh, and then, I'd like add -- Bart could talk about this a little bit more, but there will be an aggressive public information's office campaign to try to reduce use of the corridor and the detours so Atherton doesn't get hit as hard as it would if normal traffic was using it.

MR. NEY: All right. Thanks, Javier. Just very quickly on that. When -- when construction time comes our PIO team will work with TAM, and we have an integrated communications team that regularly meets every week to look at how to get the information out there, and then we will evaluate our best ways to reduce traffic trips by informing the public about what their options are. So, we will do that when construction time comes.

And, Pedro, I should give you a minute to say how you would like folks to ask their questions. They need to raise their hand, right?

MR. QUINTANA: Yes, that is correct. If you are joining us online, please raise your hand with the icon on your right-hand side below your screen. Or, if you would like to give a question on our "chat" room, I'm currently logging those questions down, and I will read them out loud as well.

MR. NEY: All right. Thanks, Pedro.

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So, back to the room. Are there any other questions for our project team? Come on up.

Question: I'm Barbara Salzman, and I'm representing the Marin Audubon Society, and I have a couple of comments.

First, I -- I would like to say thank you for getting rid of the -- the embankment and going to a causeway. That was a good change. Many of us had asked in the scoping comments for you to address what was going on under the causeway. I didn't see -- there was no mention of anything about what's going on under the -- what you're proposing to go on under the causeway, so that needs to be addressed in the EIR.

TRS-1-2

And, I'm glad to hear you say that the -- there is -- the onsite mitigation is preferred because that's not said in the EIR. So, you need to address that further.

TRS-1-3

The -- I would prefer onsite mitigation. And, the -- it seems highly unlikely that you'll ever get to phase two. If you do, it will be so far in the future that we'll all be gone -- I mean, I certainly will be, but even the young people here. There's too many other demands in this corridor.

So, in order to participate with all of the other planning that's going on in this area you really

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TRS-1-3 cont'd

need to at least extend the -- this causeway to cover Simmons Slough, because that would -- if you don't do Simmons Slough so that that opens up too it would prevent expansion of tidal, you know, influence of marshes to the north. So, we want you to add that as another alternative. Thanks.

MR. NEY: Thanks for those comments, Barbara, and our court recorder has taken them down.

Project team, did you want to respond to any of that? Javier?

MR. MENDIVIL: So, thank you for your comments, Barbara. They're very helpful. So, what happens under the causeway for phase two. I think we are planning on removing the existing roadway to enhance wildlife activity.

And then for phase two, I hear your concern -- you know, the price tag is very high, so it is a big ask, but I assure you that the partners -- partner agencies, the other transportation authorities and CalTrans are working really hard to identify funding opportunities for it.

And then, Ms. Lindsay, did you want to add something about the mitigation?

MS. VIVIAN: Yeah. Thank you for your comment again. And, I definitely noted about the lack of detail

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related to mitigation and restoration in the environmental document. And so, thank you. We will work to address that in the final EIR.

But, also we have begun coordination with the Baylands Group and the resource agencies to identify restoration opportunities with elevation of the roadway with phase one and phase two, so we look forward to working with the Baylands Group and the Audubon Society to help identify the restoration potential with elevation of the causeway.

Unfortunately, with the timing of the project and the need to get this environmental document out so that we can complete this phase of the project, those were -- are a lot of details that aren't available to us right today, but we do need to begin that process now so that we can get this project permitted and get it in the ground, but also have the best bang for the buck ecologically when we do elevate the roadway and working with groups such as the Audubon.

QUESTION: We're part of the Baylands Group.

MS. VIVIAN: Perfect. We look forward to further conversations.

MR. MENDIVIL: And, Barbara, one more thing: You talked about Simmons Slough. So, Simmons Slough will be covered as -- as part of phase two.

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TRS-1-4

QUESTION: You're never going to get to that. That's not an option.

MR. NEY: We're striving to get there, Barbara. This is exactly why we have these meetings, so we can get your comments and work toward the best possible solution. So, thanks for that, Barbara.

Any other questions or comments for the record from the -- from the room? Pedro, we're going to go to you in just a -- just a minute.

MR. QUINTANA: Thank you.

MR. NEY: Come on up.

Question: I'm Susan Stompe, a long time resident of Novato. And, the west end of the -- of the project where it connects to 101, there is a need for an exit and an access at the west end other than just 101 because of all of the development that has occurred in the city on the east side of 101.

TRS-1-5

As you know, there is a shopping center there, and there is now an industrial park there. And, I think there needs to be care taken and coordination with the city on providing access to those areas.

Way back when the EIR was done for the shopping center, the -- there was a requirement for an alternative access to that area and everyone was saying, well, nothing is ever going to happen there. Well, now

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TRS-1-5 cont'd

something is happening, and I'm hoping that there is some coordination there too. Thank you.

MR. NEY: All right. Thanks for that question, Susan. That -- that may be outside the project limits, Javier. Is there anything that you wanted to add to that?

MR. MENDIVIL: Yeah, we could definitely note that. We'll take that into consideration, but the purpose and need of the project is limited to addressing the flooding on the corridor, but it's definitely something valuable that we can take into account.

MR. NEY: All right. As I mentioned at the beginning, State Route 37 is 21 miles long, and we are trying to -- to update the entire corridor, so we'll -- we'll take that into consideration even though it doesn't fit the boundaries of this particular project.

Okay. Why don't, Pedro, we go over to you and take any questions that we have online.

MR. QUINTANA: Yes. We have several questions in the "chat" room, and also we have two raised hands, so I am going to unmute Tony Taddeo. Tony, go ahead.

MR. NEY: You have two minutes.

MR QUINTANA: Unmute yourself. There you go.

Question: Thank you, Pedro. And, thanks everybody. And, I just want to say that this is a

TRS-1-6

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TRS-1-6 cont'd

project that needs to happen because of what happened last season, the flooding.

But, one thing of concern -- and, I live up on the Renaissance -- up on the hill up off Atherton. And, one of the concerns of the community is really the sound that's -- that's going to be generated by both the construction and also by the normal traffic operations at the construction.

TRS-1-7

So, I'm assuming CalTrans has developed a sound study and how the sound study affects the -- the houses on the hill. I -- I understand that what was said that, you know, the sound that's going to travel is -- it's going to be better, right, and I don't buy that. I'm an engineer myself.

TRS-1-8

But, anyway, during construction, I mean, we're really concerned about the pile driving, and is that going to be done at night? Is it going to be done weekends? Is it -- is it something that can be mitigated during -- and happen during business hours?

TRS-1-9

I know I'm running out of time here, but also it seems like the cast-in-place structure here is going to take a long, long time, especially, you know, depending on the staging, and would a better solution be like precast girders to that extent, or whatever?

And then, during traffic operations after

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TRS-1-9 cont'd

construction there is going to be an increase ridership, I assume, because it's going to be -- it's going to be wider. That comes with an increased noise level, and usually in these situations usually the agency has built sound walls on the side if the -- if the sound is really affects the community.

MR. NEY: Okay, Tony. I think you're at your two minutes. You got a lot of good questions in there. We'll start with Javier.

MR. MENDIVIL: Hi, Tony. Thank you for your questions, and I appreciate your support for the project. Let me start backwards.

In terms of traffic, although we're widening the structure or the cross section of the highway we're not adding additional lanes, so we won't be adding additional capacity.

And then for noise, we do have our noise specialist, Shilpa, online. Are we able to unmute her?

MR. PHAM: Pedro can unmute her if she's online.

MR. MENDIVIL: Pedro, can you check if Shilpa can address the noise comment? If not, I can hand it off to Max here.

MS. MAREDDY: Yeah, we actually did a noise study for this project, and then it doesn't make it

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better, like he was saying, Tony. The increase is very minimal. It's about -- for phase one it's about just plus one decibels, and for phase two it's approximately zero to three decibels, so -- which is not a significant increase in regards to CEQA.

And then for NEPA, it's not exceeding or approaching the noise abatement criteria, so we don't really have to look into sound walls for this project because that's NEPA requirement and CEQA requirement. So, that's for operational noise.

And for construction, like Max was telling during the presentation, the pile driving work will be done during the normal business hours, and any of the noise involved which will exceed the CalTrans standards will be done during the normal business hours and not on the weekends and not on the night. I hope that answers the question.

MR. MENDIVIL: And, I'd like to add, Tony, to your -- in response to your comment about the precast girders, we are planning on using precast girders for construction of this structure.

Max, did you want to add something?

MR. LAMMERT: No. I think Shilpa got it.

MR. MENDIVIL: So, pass it back to Bart.

MR. NEY: Okay. Thanks, Project Team. Pedro,

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go ahead with the next question.

MR. QUINTANA: Yes. We have Steven Birdlebough. I'll unmute you. Go ahead, Steven. Unmute yourself.

Question: Yes, Steve Birdlebough, with the Transportation Land Use Coalition. I want to commend you -- commend CalTrans on shifting to the ultimate project instead of doing an interim project and then raising the causeway. And, the causeway is the right way to go.

TRS-1-10

We do have a concern that we're receiving from people in Vallejo about the issue of tolling to pay for the project. At the moment it looks like the project in the segment between Sears Island and -- between Sears Point and Mare Island is going to be paid for, in part, by tolls. This part of the section appears so far to be paid for by the federal government largely. And, that means that people living in Sonoma Valley may not pay tolls, but people in Vallejo that have to, to use the causeway.

TRS-1-11

What do you see in the future to have equitable tolling so that the folks that are gardeners and so forth, housekeepers, have to pay a toll when people who are commuting from wealthier parts of the counties don't have to pay tolls? Thank you.

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MR. QUINTANA: Thank you, Steve.

MR. NEY: All right. Thanks -- thanks, Steve. I'm going to give it over to our project manager in a second. But -- but, first on the tolling question.

There -- there -- as Steve said, tolling is not part of the funding for this particular project. And, I'll let Javier talk about what the -- what the funding picture is for the flood reduction project.

As Steve also pointed out, that the tolling is associated with a congestion project that is on the Vallejo side, and that is being overseen by the Bay Area Toll Authority.

So, Steve, you can get more information on that on our website, or you can contact me and I can put you in touch with someone that can talk a little bit more about the pilot project that the Bay Area Toll Authority is looking at for that. But, there are no toll funds on this particular project.

And, Javier, if you don't mind, could you talk a little bit about how the project is funded.

MR. MENDIVIL: Sure. So for the environmental phase, which we're undergoing right now, we got 10 million from the state SHOP Program. For the design phase, which is coming up next, early next year, we have 20 million set aside from the state General Fund. And,

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for construction and right-of-way activities we have 155 million from IIJA Protect grant funding.

And, yeah, as Bart mentioned, Steve, you could find more information on -- on the other project and tolling on our -- on our website. The Sears Point to Mare Island project is still under development, so I'll refer you to that.

MR. NEY: All right. Did you say $155 million?

MR. MENDIVIL: I did.

MR. NEY: We're so excited about that.

All right. So, that's the funding picture. Pedro, did we have any other questions online?

MR. QUINTANA: Yeah. We have some questions in our "chat" room. We have one from Natalia Shorten. She's asking, it would be helpful in the 360 tour if you would include the Novato Creek all the way past Bel Marin Keys so residents -- sorry -- Bel Marin Keys, so residents can see the impact from their homes. We live on Montego Key creek side, and would like to understand more how it would impact us directly.

TRS-1-12

And then she's also asking if you guys, you can have the presentation from this meeting made public --

TRS-1-13

MR. NEY: I'm sorry, Pedro. I couldn't hear that second part.

MR. QUINTANA: Yeah. She's asking if the

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presentation from tonight, that could be made public.

MR. NEY: Oh, yes. It will be on -- it will be online after we complete the meeting, and we'll upload it there. And, thank you for the suggestion for putting that -- for modeling out further. Anything the project team wants to add to the 360 tour?

MS. PINK: Something we'll look at. We'll take a look at it.

MR. NEY: Okay. So, we'll take a look at it. Thanks, Diana.

Okay. Next question.

TRS-1-14

MR. QUINTANA: Next question. We have it from Dave Ball. He's asking will we have to pay a toll to go from Blackpoint to Vintage Oaks. These are communities in Marin County.

MR. NEY: Okay. So -- so, for all toll questions tonight, there is no toll funding on the flood reduction project that's going forward. The tolling question is one for the other project on the eastern side of the -- of the route.

So, Pedro --

MR. QUINTANA: Next question.

MR. NEY: -- how many questions do you have?

MR. QUINTANA: I have a total of I think like five more questions in the "chat."

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MR. NEY: Okay. Let me ask the room. Is there anyone in the room that has a question? We'll let Pedro continue.

Okay. Keep going, Pedro.

MR. QUINTANA: Yes, sir. So, this one is from Matthew Hartzell. He is asking about the multi-use path that is included in phase one. Based on the plain views -- I'm sorry -- based on the plan views in the draft EIR it looks like the multi-use path in phase one will be "orphaned" in the middle of a new structure with no way for pedestrians or bicyclists to actually access it, and that actual use of the facility will not be possible until phase two; is that correct?

TRS-1-15

MR. NEY: Okay. Javier?

MR. MENDIVIL: Thank you for that question. The pedestrian bike path will only serve as one-way in the eastbound direction, and then once it goes into the existing highway, there will be ten feet of shoulder throughout the rest, but it will not be protected as the -- as the one in the structure that we're proposing.

Ahmed, did you want to add to that?

MR. RAHID: Thank you, Javier. No. I think you covered it perfectly.

So as he say, that after phase -- after phase one completion the ten feet, mixed-directional bike and

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ped pad that we have on the south side, it will be utilized for eastbound direction only. But, beyond the bridges -- before and after the bridges we will have ten feet of shoulder. You can utilize that.

And, I'd also like to point out that the current Novato Creek Bridge has shoulder -- two feet of shoulder. We are improving that so the new Novato Creek Bridge will have ten feet of outside shoulder that can also be utilized.

MR. NEY: Thanks, Ahmed.

Okay, Pedro. Onto the next question.

MR. QUINTANA: Thank you, Bart. The next question is from Dave Ball. He's asking, how about integrating light rail, SMART, into the project and tearing up those tracks?

TRS-1-16

MR. NEY: Okay. SMART?

MR. MENDIVIL: Thank you for that question. So, CalTrans -- as Max mentioned during the presentation, CalTrans is currently working with SMART on developing a project study report that will analyze different alternatives on -- on how to incorporate resilience onto SMART as we're doing on the -- on the highway.

It's -- it wasn't possible to incorporate SMART into the first phase of this project, the Novato Creek

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Bridge replacement, due to the steep grades on the transition structures. The rail has a much more strict grade -- or, grade limitations than -- than cars would on -- on highways. So, we're -- we are going to -- to keep working on this project study report and investigate ways to incorporate SMART resiliency onto the second phase of our project. Thank you.

MR. NEY: All right. Thanks, Javier.

Next question, Pedro.

MR. QUINTANA: Yes. The next question is from Claire De Biasio. She's asking what will be -- what will be done to deter traffic from using Crest Road during construction to bypass Atherton?

TRS-1-17

MR. NEY: Okay. So, I -- I can take the first part of that question. So -- so, part of what we do when we go into construction is we put together a robust communications plan. So, we'll be working with our partners at TAM to get the information out when we're going to be closing roads or having any impacts. So, that hopefully reduces some trips.

But from that, Javier, is there anything else you guys want to add how we're detouring traffic during construction? Max?

MR. LAMMERT: I think you covered it.

MR. NEY: It's about communication. Letting

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people know where we're going to be and when.

MR. QUINTANA: Thank you, Bart. Next question from Scott Stender. He's asking again about the railroad tracks.

The rail tracks are not currently SMART rail, but freighted to the dump. The tracks will still block the water flow. How is this being mitigated?

TRS-1-18

Also, Atherton Avenue traffic will increase dramatically. It will pose a danger to bikes and pedestrians using that corridor with all of the new traffic. How will you protect pedestrians and bicyclists on Atherton? And, question marks on "cones."

TRS-1-19

MR. NEY: Okay. More focus on Atherton.

MR. MENDIVIL: So, I can answer the second question there. So, we will be conducting a very wide-reaching outreach campaign when we're planning on -- on performing these full closures and detouring traffic onto Atherton, so we will make sure to incorporate safety measures as well to -- to protect the -- the users of -- of that road.

And, for the SMART -- for the freight rail, I don't -- I'm not sure what mitigation measures are being asked for. I don't know if -- if the person asking the question could submit a clarifying statement in the "chat" on that one.

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MR. NEY: Pedro, do you have anything more from him?

MR. QUINTANA: Yes, I'm here. For Kate Powers, she has another question.

Is the hydrology study mentioned earlier tonight during the review of the impacts included in the DEIR report? TRS-1-20

MR. NEY: Okay. Pedro, hold on -- hold that question for a second. The -- the previous person that used their two minutes, can they clarify what Javier just asked? Can you unmute them?

MR. QUINTANA: Give me a minute.

MR. NEY: Okay. Clarification, Javier.

MR. QUINTANA: So, Scott Stender, I'm going to unmute you if you want to ask your question.

MR. NEY: Scott, are you there?

MR. QUINTANA: You can go ahead and unmute yourself, Scott.

MR. NEY: Okay. We might have lost him.

Okay. Go ahead to the next question, Pedro.

Question: Can you hear me now?

MR. NEY: Yes.

MR. QUINTANA: I can. Go ahead.

Question: This is Scott. I -- I'm saying that the water flow will still be blocked by the existing TRS-1-21

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railroad tracks. How are you going to deal with the water flow with the existing railroad tracks still blocking everything? I mean, you're going to be removing -- removing the dike that the road is currently on when you raise the road up higher, and the water is going to just slam up against the railroad tracks. What's gonna -- that doesn't seem like a full solution yet.

MR. MENDIVIL: Okay. Thank you for clarifying that, Scott. So, as I mentioned earlier, we are working with SMART to develop a project study report to identify solutions for them which would probably take care of the issue that you're mentioning. But, as part of this project we're not -- we're not touching their features, especially for the first Novato Creek Bridge replacement phase of the project. So...

MR. NEY: All right. Thanks, Javier. And, that is one of the challenges to State Route 37 is that we are continuously working with our agency partners to determine the best way to make these solutions when we don't have them complete.

Okay, Pedro. Do you have any other questions?

MR. QUINTANA: Yes, I do have more questions. Thank you, Bart.

So, this is for -- from Kate Powers. She's

TRS-1-21 cont'd

TRS-1-22

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TRS-1-22 cont'd

TRS-1-23

asking is the hydrology study mentioned earlier tonight during review of the impacts included in the DEIR report.

And she goes on to ask, once the final EIR is adopted will there be an opportunity to review changes that have occurred in the water shed during restoration activities after construction in phase one to re-look at any new previously undetermined impacts that may occur during phase two?

MR. NEY: Okay. Max?

MR. LAMMERT: Thanks, Bart. So, that's a -- that's a great question. Thank you for submitting that comment.

So, the -- the actual location hydrology study is not contained in the draft environmental document, but the findings of that study are summarized in the draft environmental document. And that study, if you're especially interested in, that's a public document. It's available upon request.

To answer your question about what will be contained in the final environmental impact report. As a standard, we do denote any changes from what was submitted during the draft in that final environmental impact report. Those will be denoted with a line in the margin, and any changes in impact levels will also be

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denoted with a line in the margin.

MR. NEY: All right. Thanks, Max. I know we're coming close to 7:30, right, Tam?

MR. PHAM: One more minute.

MR. NEY: So, maybe -- maybe we have time to take one more question, Pedro. Do you have another one?

MR. QUINTANA: I do, yes. Let's see here. There's lots of questions here.

MR. PHAM: There's a hand raised.

MR. NEY: Yeah. Why don't we go with the raised hand.

MR. QUINTANA: Natalia, I'll unmute you. Go ahead.

Question: Okay. Thank you so much. We're residents of Bel Marin Keys, and so obviously we're just in the direct line of how this is impacting us. And, understandably we need to work on restoring the marsh lands, restoring the walkways, restoring all of that, but it seems a little short-sighted that the neighborhood that is right next to this project to combat sea-level rise is not being considered to be incorporated with the project, because we also need protection. So, I'm just wondering what has been evaluated or what's being considered to protect Bel Marin Keys.

TRS-1-24

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TRS-1-24 cont'd

The Novato creek needs to be dredged and widened. We have already seen increased flooding over the years because it has not been taken care of. And so, this just seems like a natural like combination together in order to make sure that the Bel Marin Keys residents are, again, you know, protected in line with Highway 37.

MR. NEY: That's an excellent question that might fall just outside of our project limits.

But, impacts to Bel Marin Keys, Javier?

MR. MENDIVIL: Thank you, Natalia, for your question. That's a good -- hello? That is a good question.

So, we -- we are maintaining the -- the existing levies that run across our corridor, so we -- we're certainly doing our best not to make the situation any worse for -- for the community. But, the project isn't scoped to -- to provide protection outside of the project limits. But, if you would like, you can submit a formal comment and we can address it in -- in more detail in the final environmental document.

Question: Okay. Yeah. We would love to do that.

MR. NEY: Okay. Fantastic. And -- and, for anyone who didn't get a chance to submit a question

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today -- can we bring that slide back up, Tam, that's got the -- the website and the email address so we can end on that?

All right. We'll say goodbye to Pedro.

So, we can -- all right. There you have it. Sr37floodproject@dot.ca.gov is the email where you can submit your question. Or, from -- if you want to mail it, you can go to CalTrans District 4, care of Skylar Nguyen, PO Box 23660, MS-8B, Oakland, California, 94623.

And with that, we're at the end of our public meeting for the Flood Reduction Project for State Route 37. Thank you very much for your attendance and your excellent questions today, and we'll continue to do our best for State Route 37.

Thanks, everyone.

(Hearing adjourned at 7:31 p.m.)

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State of California) ss:
County of Solano)

I, Alesia L. Collins, CSR No. 7751, CLR, do hereby certify:

That the foregoing proceedings were taken before me, at the time and place therein set forth, that the PROCEEDINGS were recorded stenographically by me, and were thereafter transcribed under my direction and supervision, and that the foregoing pages contain a full, true and accurate record of all proceedings and testimony to the best of my skill and ability.

IN WITNESS WHEREOF, I have subscribed my name this 1st day of October, 2023.



ALESIA L. COLLINS, CSR No. 7751, CLR

Response to TRS-1: Transcript of Proceedings

Response to Comment TRS-1-1:

Caltrans acknowledges the comment regarding traffic detours during construction for the Project. During Phase 1, two weekend closures would be required to construct the Novato Creek Bridge. For U.S. 101 traffic traveling eastbound on SR 37, traffic would use Atherton Avenue from U.S. 101 and proceed until the SR 37 and Atherton Avenue interchange. This detour is 6.1 miles and would take about 8 minutes. For vehicles traveling westbound on SR 37, the detour would begin at Harbor Drive and SR 37 interchange and then head north on Atherton Avenue to access U.S. 101. This detour is 6.5 miles and would take about 9 minutes.

During Phase 2, detours would be necessary during the Atherton Avenue on- and off-ramp closures. During the design phase of Phase 2, Caltrans will implement MM-TRANS-1, Prepare Traffic Analysis, which will include preparing a traffic analysis; results of the analysis would be used to minimize potential traffic impacts. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-2:

Caltrans acknowledges the comment recommending the removal of the existing road. Where the causeway would be constructed, the existing road prism/fill would be removed after construction of Phase 2. However, the elevation of the finished grade following road removal would be determined during detailed design of Phase 2. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS 1-3:

Caltrans is exploring opportunities for mitigation of impacts in or near the Project corridor, including the possibility of contributing to the Baylands Group's Novato Creek Restoration Strategy. Through Caltrans' regional vision for advance mitigation, Caltrans would evaluate the causeway for habitat and species credits through the SB 790 and Mitigation Credit Agreement programs, which would cover any species and habitats listed in the North Bay Baylands Resource Conservation Investment Strategy. The feasibility of specific mitigation opportunities would be fully explored by Caltrans in coordination with resource agencies during the permitting process. Whether or not Caltrans becomes directly involved in restoration of the Novato Creek Restoration Strategy Baylands Group, the Project would not preclude or inhibit future restoration. For further information, please see Master Response 3: Biological Mitigation. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-4:

Caltrans acknowledges the comment regarding the implementation of Phase 2 of the Build Alternative. Caltrans anticipates construction of Phase 2, which includes the causeway over Simonds Slough, to be completed by 2050. Chapter 1, Proposed Project, of the Final EIR/EA/FONSI is revised with the new anticipated construction completion date of Phase 2. No further edits to the Final EIR/EA/FONSI are required.

Response to Comment TRS-1-5:

Caltrans acknowledges the comment regarding potential access to and egress from the developments to the western end of the Project limits near U.S. 101. As part of the design for the Project, Caltrans would coordinate with the City of Novato and Transportation Authority of Marin to address any access issues to the shopping center and the industrial park. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-6:

Caltrans acknowledges the comment supporting the Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-7:

Caltrans acknowledges the comment and concerns regarding traffic noise from SR 37. As stated in Section 2.2.7, Noise, of the Final EIR/EA/FONSI, a noise analysis was conducted for this Project to evaluate the potential noise impacts generated by the construction and operation of this Project. The noise analysis was conducted in accordance with Caltrans guidance provided in the Protocol (Caltrans 2013a) and Technical Noise Supplement to the Protocol (Caltrans 2020b). According to the Technical Noise Supplement to the Protocol guidance, receptors located more than 500 feet from the Project limits do not need to be considered for analysis. The residences within the Renaissance at Stonetree community are approximately 1,000 feet from the Project limits. However, the Stonetree Golf Course is directly adjacent to SR 37, so receivers ST-3 (short-term) and ST-6 were placed in the traffic noise model to estimate future Build noise levels. Under Phase 1 (2049), receivers ST-3 and ST-6 experience noise levels of 56 dBA $L_{eq[h]}$ and 60 dBA $L_{eq[h]}$ under the Build conditions, respectively. Under Phase 2 (2065), receivers ST-3 and ST-6 experience noise levels of 57 dBA $L_{eq[h]}$ and 64 dBA $L_{eq[h]}$ under the Build conditions, respectively. Taking into consideration the doubling of distance (traffic noise attenuates by 3 dBA), noise levels experienced at the residences of Renaissance at Stonetree community, located more than 1,000 feet from the Project limits, would experience noise levels lower than 64 dBA $L_{eq[h]}$, which is below the FHWA's noise abatement criterion of 67 dBA $L_{eq[h]}$. Noise levels below the FHWA's noise criterion are not considered an impact, and noise abatement does not need to be considered. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-8:

Caltrans acknowledges the comment and concern regarding pile driving during construction of the SR 37 Flood Reduction Project. An evaluation of construction noise was conducted, and the results of that analysis are provided in Section 2.2.7, Noise, of the Final EIR/EA/FONSI. The analysis found that construction noise levels with pile-driving noise would be 89 dBA L_{max} at the nearest sensitive land use, the Stone Tree Golf Club approximately 200 feet from the pile-driving activity. This noise level is above the 86-dBA L_{max} required by the Caltrans Specification. However, with the implementation of AMM-NOI-1, Pile Driving, PF-NOI-1, Caltrans Standard Specifications for Noise, and PF-NOI-2, Construction Equipment Operations, the pile driving would be constrained to daytime hours and would occur as far as practicable from the golf course, reducing all construction noise levels to less than 86 dBA. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-9:

Caltrans acknowledges the comment and concerns regarding traffic noise within the residential community. As previously stated in Response to Comment TRS-1-7, a noise analysis was conducted to determine the potential noise impacts generated from the operation of the Project. The noise study report is summarized in Section 2.2.7, Noise, of the Final EIR/EA/FONSI. The future estimated noise levels are below the FHWA's noise abatement criterion of 67 dBA $L_{eq[h],}$ which means no noise impacts are expected to occur, and noise abatement was not considered. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-10:

Caltrans acknowledges the comment from the Transportation Land Use Coalition supporting the Project. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-11:

Caltrans acknowledges the comment about tolls. Please refer to Master Response 2: Tolling and Transit.

Response to Comment TRS-1-12:

Caltrans acknowledges the comment regarding the 360 tour including the Novato Creek all the way past Bel Marin Keys. The Bel Marin Keys is well outside the Project area; and therefore, it was not included. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-13:

Caltrans acknowledges the question regarding whether the presentation will be made public. The recording of the public meeting held on September 21, 2023, at the Margaret Todd Senior Center in the city of Novato is available here:

https://www.youtube.com/watch?v=XLd-FlZRe2k. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-14:

Caltrans acknowledges the comment inquiry about tolling on SR 37 within the Project Area. The Project does not propose tolling. Please refer to Master Response 2: Tolling and Transit. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-15:

Caltrans acknowledges the inquiry about the use of the bicycle and pedestrian facility before Phase 2. Access to the pedestrian and bicycle pathway, shown on Figure 1-6 (Build Alternative – Phase 1 Novato Creek Bridge), at completion of Phase 1 would be similar to current access to the eastbound SR 37 shoulders. Access to the bicycle and pedestrian pathway would be via the shoulders on the Marsh Drive on-ramp onto eastbound SR 37. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-16:

Caltrans acknowledges the comment inquiry about integrating light rail, SMART, into the Project and tearing up the tracks. Please refer to Master Response 1: SMART. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-17:

Caltrans acknowledges the comment regarding potential traffic on Crest Road. Crest Road could be used for traffic to access SR 37 from Atherton Avenue via the Harbor Drive SR 37 interchange. The TMP, developed by Caltrans, would include information on construction detours for local residents and tourists. Signage during construction would direct traffic to use Atherton Avenue as the TMP detour route to access U.S. 101. Caltrans would also be notifying adjacent property owners, businesses, and the Marin County Flood Control District regarding construction activities. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-18:

Caltrans acknowledges the comment regarding the railroad blocking water. The rail line is outside of Caltrans' ROW and not owned, operated, or maintained by Caltrans. Addressing any blocking of flow by the rail line is, therefore, beyond the scope of the Caltrans SR 37 Project. SMART is planning to improve this area of the rail line and ultimately provide public rail service. The SMART project will need to address any blocking of water flow as their plans for improvements are developed.

Because SR 37 within the Project area is currently low-lying (0 to 4 feet NAVD 88), it does not provide protection from flood flows to the rail line in either the current or

proposed conditions. The Build Alternative would not exacerbate flooding in the Project area. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-19:

Caltrans acknowledges the comment regarding bicycle and pedestrian safety on Atherton Avenue during construction. Atherton Avenue currently has bicycle lanes for most of Atherton Avenue between SR 37 and U.S. 101, and limited sidewalks or trails for pedestrians. During construction and detours, the existing bicycle lanes and sidewalks or trails would remain in place and be available for use. Caltrans, as assigned by FHWA, directs that full consideration be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (23 Code of Federal Regulations 652). When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS 1-20:

Caltrans acknowledges the comment regarding where to find the hydrology study. The *Location Hydraulic Study* was not included in the Draft EIR/EA. However, it is provided in this Final EIR/EA/FONSI in Appendix M. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-21:

Caltrans acknowledges the comment, which states that water flow will be blocked by existing railroad tracks and that removing the dike that the road is currently on when the road is raised up higher will cause the water to slam up against the railroad tracks.

SR 37 within the Project area is currently low-lying (0 to 4 feet NAVD 88), and it does not provide protection from flood flows to the rail line in either the current or proposed conditions. The Build Alternative would not exacerbate flooding in the Project area. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-22:

Caltrans acknowledges the comment, which inquires whether the hydrology study referred to during the public meeting is included in the Draft EIR/EA. The hydrology study was not an appendix to the Draft EIR/EA. However, it is provided in this Final EIR/EA/FONSI as Appendix M, *Location Hydraulic Study.* Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-23:

Caltrans acknowledges the comment, which inquires where there will be an opportunity to review changes that have occurred in the watershed during restoration activities after construction in Phase 1 to re-look at any previously undetermined impacts that may occur during Phase 2. As stated in Section 2.3, Biological Resources, of the Final EIR/EA/FONSI, conditions may change before Phase 2 construction is initiated; and Caltrans would need to re-evaluate the Project's impacts to obtain the regulatory permits for Phase 2. However, according to CEQA Guidelines Section 15162, if the lead agency, Caltrans, determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- Substantial changes are proposed in the Project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

- Substantial changes occur with respect to the circumstances under which the Project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects of a substantial increase in the severity of previously identified effects; or

- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

  - **(A)** The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

  - **(B)** Significant effects previously examined will be substantially more severe than shown in the previous EIR;

  - **(C)** Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

  - **(D)** Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

If after the Project is approved, any of the conditions described above occurs, a subsequent EIR is required and will be given the same notice [as a Draft EIR] and public review as required by CEQA Guidelines. Edits to the Final EIR/EA/FONSI are not required.

Response to Comment TRS-1-24:

The Project is to build resiliency to the effects of projected 2130 SLR and stormwater overtopping onto SR 37 within the Project limits. Bel Marin Keys is outside of the Project limits. Many of the levees in the vicinity of the Project are privately owned, and Caltrans does not have a role in managing or maintaining the levees. The Project includes replacement of the Novato Creek Bridge; however, dredging or widening of Novato Creek for the purpose of flood control is not included in the scope of the Project. Edits to the Final EIR/EA/FONSI are not required.

Appendix L Construction Criteria Air Pollution Emissions Analysis

Memorandum

Making Conservation a California Way of Life

To: SKYLAR NGUYEN
Branch Chief
Office of Environmental Analysis

Attention: Jasmin Mejia

Date: January 17, 2024

File: EA 04-4Q320
EFIS ID-0419000376
04-MRN/ SR 37
Flood Reduction Project

From: SHILPA MAREDDY
Branch Chief
Air Quality and Noise
Office of Environmental Engineering

Specialist: Va Lee

Subject: CONSTRUCTION CRITERIA AIR POLLUTION EMISSIONS ANALYSIS

This memo presents the results of construction criteria air pollution emissions analysis for the Flood Reduction Project on SR 37 from PM R11.2 to PM 13.8 in Marin County.

The Project proposes a causeway that would be 35 feet in elevation and consist of four 12-foot-wide lanes, a 22-foot-wide median with a 2-foot median barrier and two 10-foot-wide inside shoulders, and two 12-foot-wide outside shoulders, two 2-foot-wide outside barriers, with a 14-foot-wide bicycle or pedestrian path with a 2-foot barrier, for a total roadway width of 114 feet.

The causeway along SR 37 within the Project limits will be constructed in two phases:
Phase 1 – Replace the Novato Creek Bridge
Phase 2 – Build remaining portions of the causeway from U.S. 101 to Novato Creek Bridge and from Novato Creek Bridge to Atherton Avenue

Project construction activities would generate emissions of criteria air pollutants and precursors that could potentially affect regional air quality. Replacement of the Novato Creek Bridge is anticipated to begin in May 2027 and end in June 2029, for a maximum duration of 26 months. Construction of Phase 2 would start in 2041 and end in 2045, for a maximum duration of 48 months. Because construction of the project phases is expected to last less than five years,

temporary emissions of CO, PM10, and PM2.5 are not expected to cause, contribute to, or worsen any federal air quality violations and an evaluation of these emissions is not required for a project-level conformity determination.

The primary pollutant emissions of concern during project construction would be ROG, NOx, PM10, and PM2.5 from the exhaust of off-road construction equipment and on-road construction vehicles (worker vehicles and haul trucks). In addition, fugitive dust emissions of PM10 and PM2.5 would be generated by soil disturbance activities during construction. The construction activities are typically considered short-term or temporary in duration, however, pollutant emissions from project construction were estimated for informational purposes.

Based on project information available for environmental studies, the construction criteria air pollutant emissions were calculated using the Road Construction Emissions Model (RCEM), version 9.0.0, provided by the Sacramento Metropolitan Air Quality Management District. The table below summarizes the results:

Table 1: Construction Criteria Air Pollutant Emissions

	ROG	NO_x	Exhaust PM_{10}	Fugitive PM_{10}	Exhaust $PM_{2.5}$	Fugitive $PM_{2.5}$
Phase 1						
Total Emissions (tons)	1.45	15.01	0.60	9.36	0.51	1.95
Average Daily Emissions (lbs./day)	5.06	52.47	2.08	32.73	1.80	6.81
Phase 2						
Total Emissions (tons)	3.63	18.71	0.65	17.22	0.54	3.58
Average Daily Emissions (lbs./day)	6.15	31.74	1.10	29.23	0.92	6.08
BAAQMD Thresholds	54	54	82	BMP	54	BMP

Note: ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = particulate matter with aerodynamic diameter less than 10 microns; $PM_{2.5}$ = particulate matter with aerodynamic diameter less than 2.5 microns; lbs./day = pounds per day; BMP =Best Management Practices.

As shown in Table 1, the project's average daily emissions would be below the BAAQMD's recommended thresholds for ROG, NOx, and Exhaust PM_{10} and $PM_{2.5}$. Because the average daily emissions of criteria pollutants and precursors from equipment and vehicle exhaust would be below the recommended thresholds, construction of the proposed project would not be expected to cause or contribute to, or worsen, any state air quality violations. Furthermore, the implementation of the following measures will reduce air quality impacts resulting from construction activities.

- The construction contractor must comply with the Caltrans' Standard Specifications in Section 10-5-Dust Control, Section 13-Water Pollution Control and 14-9 - Air Quality.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.
- Equipment and materials storage sites will be located as far away from residential, and park uses as practicable. Construction areas will be kept clean and orderly.
- To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

Appendix M Location Hydraulic Study

State Route 37 Flood Reduction Project
Marin County, California

Location Hydraulic Study

Prepared for:

Caltrans

Prepared by:

WRECO

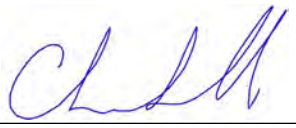
June 2023

State Route 37 Flood Reduction Project
Marin County, California

Location Hydraulic Study

Submitted to:
California Department of Transportation

This report has been prepared by or under the supervision of the following Registered Engineer. The Registered Civil Engineer attests to the technical information contained herein and has judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions, and decisions are based.



Chris Sewell, P.E.
Registered Civil Engineer



6/28/2023

Date

June 2023

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Executive Summary

The California Department of Transportation (Caltrans) is the lead agency for the State Route (SR) 37 Flood Reduction Project (Project) under the California Environmental Quality Act and the National Environmental Policy Act. This Project proposes a causeway to reduce flooding and accommodate projected sea level rise (SLR) in the year 2130 on SR 37 from U.S. Highway 101 (U.S. 101) to Atherton Avenue (post mile [PM] R11.2 to PM 13.8) in Marin County.

The Project proposes a causeway that would be 35 feet (ft) in elevation and consist of four 12 ft wide lanes, a 22 ft wide median with a 2 ft median barrier, 10 ft wide inside shoulders and 12 ft wide outside shoulders, a 14 ft wide bicycle or pedestrian path, and total roadway width of 114 ft. There would be no change to the long-term vehicular capacity on SR 37. The Project would be constructed in two phases:

- Phase 1 – Replace the Novato Creek Bridge
- Phase 2 – Build remaining portions of the causeway from U.S. 101 to Novato Creek Bridge and from Novato Creek Bridge to Atherton Avenue

The purpose of this study is to examine and analyze the existing base (100-year) floodplain within the Project limits, to document any potential impacts to or encroachments upon the floodplain, and to recommend any avoidance, minimization, or mitigation measures that may be required. The hydraulic analyses were performed for the existing condition and the two proposed phases for the proposed condition.

The Project site is located within Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panel numbers 06041C0282E, 06041C0283E, and 06041C0284E, effective March 16, 2016. The list of FEMA special flood hazard areas (SFHAs) crossed by SR 37 in Marin County are summarized in the following table.

FEMA Special Flood Hazard Areas crossed by SR 37

FEMA FIRM Number	Floodplain Type	Floodplain Length Measured Along SR 37 Centerline [(1)] (ft)	Existing Bridge Structures in Caltrans Log of Bridges
06041C0283E	Zone AE (10 ft)	830	U.S. 101 Junction (PM 11.20)
	Zone X (unshaded)	750	-
	Zone AE (10 ft)	3,000	Novato Creek Bridge (PM 11.96)[(2)]
	Zone AE (11 ft)	1,080	Novato Creek Bridge (PM 11.96)[(2)]
06041C0284E	Zone AE (11 ft)	1,950	-
06041C0282E	Zone AE (11 ft)	820	-
	Zone AE (10 ft)	4,560	Simonds Slough Bridge (PM 13.04)

Notes:
(1) Floodplain length is rounded to the nearest 10 ft.
(2) The transition from FEMA SHFA Zone AE (10 ft) to Zone AE (11 ft) occurs at the Novato Creek Bridge.

The existing and proposed condition hydraulic analyses were performed using the United States Army Corps of Engineers' (USACE) Hydraulic Engineering Center's River Analysis System (HEC-RAS) software, version 6.3.1. The combined one- and two-dimensional hydraulic model of Novato Creek provided by Marin County in March 2022 was selected as the base hydraulic model for the hydraulic analysis.

Based on the outputs from the existing and proposed condition hydraulic analysis with no SLR, proposed Project Phases 1 and 2 would result in changes (both increases and decreases) less than 0.1 ft to the 100-year water surface elevation (WSE) of the Novato Creek floodplain at the open spaces adjacent to SR 37.

Under the 2130 SLR scenario with projected 10.0 ft SLR, the backwater dominance of sea level extends well upstream of the Project Area. As such, the interim year 2050 SLR scenario was investigated to identify potential Project impacts in consideration of future SLR. For Phase 1, the interim year 2030 SLR scenario was also investigated. The outputs from the existing and proposed condition hydraulic analysis with 2030 and 2050 SLR for Phase 1 showed trends similar to those seen with the simulations with no SLR. The changes (both increases and decreases) to the 100-year WSE at the open space adjacent to SR 37 was approximately 0.5 ft or less for Phase 1 for both 2030 and 2050 SLR scenario. The changes (both increases and decreases) to the 100-year WSE at the open space adjacent to SR 37 were approximately 0.1 ft for Phase 2.

The proposed Project Phases 1 and 2 would add impervious surface to the Novato Creek watershed, but they would not modify the peak flood flow or the overall land uses at the Project location. Because both Project Phases 1 and 2 do not include construction of new intersections/interchanges and roadway horizontal alignment would have minimal changes, the Project would not support incompatible floodplain development.

Phases 1 and 2 for this Project would include fill inside the existing FEMA 100-year floodplain. However, the hydraulic analysis of Phases 1 and 2 with no SLR and Phase 2 with 2050 SLR showed minimal changes to the 100-year floodplain in the Project vicinity. Phase 1 with 2030 and 2050 SLR would require additional proposed design features as part of this Project (i.e., equalizer culverts and detailed grading) to minimize the changes in the 100-year floodplain elevations in the Project vicinity.

Overall, the Project would have minimal impact on the existing 100-year floodplain in the Project vicinity, both for the existing tide level and with the predicted SLR for the year 2050.

Acronyms

AASHTO	American Association of State Highway and Transportation Officials
ADT	average daily traffic
BCDC	San Francisco Bay Conservation & Development Commission
BFE	Base Flood Elevation
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
DSM	Deep Soil Mixing
DWR	Department of Water Resources
ESA	Environmentally Sensitive Area
ESRI	Environmental Systems Research Institute
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
ft	feet
HDM	Hydraulic Design Manual
HEC-RAS	Hydrologic Engineering Center – River Analysis System
HMA	Hot Mix Asphalt
LCB	Lean Concrete Base
LCP	Local Coastal Program
LRFD	Load and Resistance Factor Design
MBGR	Metal Beam Guard Rail
NAVD 88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
OPC	Ocean Protection Council
PA/ED	Project Approval/Environmental Document
PDT	Project Development Team
PM	post mile
PS&E	Plans, Specifications, and Estimates
RC	Reinforced Concrete
RCD	Resource Conservation District
RHMA	Rubberized Hot Mix Asphalt
ROW	right-of-way
SFHA	Special Flood Hazard Area
SHOPP	State Highway Operation and Protection Program
SLR	Sea Level Rise
SMS	Surface-Water Modeling System
SR	State Route
UC	Undercrossing
U.S. 101	United States Highway 101

USBR	Unites States Bureau of Reclamation
USGS	United States Geological Survey
WSE	Water Surface Elevation

1 GENERAL DESCRIPTION

The California Department of Transportation (Caltrans) is the lead agency for the State Route (SR) 37 Flood Reduction Project (Project) under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). This Project proposes a causeway to reduce flooding and accommodate projected sea level rise (SLR) in the year 2130 on SR 37 from U.S. Highway 101 (U.S. 101) to Atherton Avenue (post mile [PM] R11.2 to PM 13.8) in Marin County. Within the Project limits, SR 37 is a four-lane expressway with metal beam guardrails (MBGR) and include bridges over Novato Creek and Atherton Avenue and a water conveyance structure beneath the highway, the Simonds Slough double box culvert. There are no dedicated bicycle or pedestrian facilities along SR 37 within the Project limits. The shoulders of SR 37 within the Project limits range from 2 to 10 ft wide and are used by bicyclists.

See Figure 1 for the Project location map, Figure 2 for the Project vicinity map, and Figure 3 for the Project aerial map.

The Project proposes a causeway that would be 35 ft in elevation and consist of four 12 ft wide lanes, a 22 ft wide median with a 2 ft median barrier, 10 ft wide inside shoulders and 12 ft wide outside shoulders, a 14 ft wide bicycle or pedestrian path, and total roadway width of 114 ft. There would be no change to the long-term vehicular capacity on SR 37.

The Project area is mostly surrounded by open space and agricultural lands, although at the eastern end of the Project area there is a Park-and-Ride facility, a residential area, and commercial uses near the Atherton Avenue undercrossing, and the Sonoma-Marin Area Rail Transit (SMART) tracks are on the eastbound side of SR 37. There are four on- and off-ramps, one access road crossing, and connection to three at-grade access roads that serve adjacent properties within the Project area.

The Project area is at the western terminus of the SR 37 corridor, a 21-mile-long facility that follows the northern shore of San Pablo Bay, from U.S. 101 in Novato, Marin County, to Interstate 80 (I-80) in Vallejo, Solano County. This corridor links employment centers and housing within Marin, Sonoma, Napa, and Solano counties. It also provides access to popular destinations such as the Golden Gate National Recreation Area in Marin County, Sonoma Raceway, the Napa and Sonoma wine regions, and the North Coast. Its commuting, freight movement, and recreational functions require efficient traffic management on both weekdays and weekends.

Plan Bay Area 2050's (Association of Bay Area Governments and Metropolitan Transportation Commission [MTC] 2021) Regional Transportation Plan (RTP) includes a Freeway Performance Program (RTP ID 21-T06-035) for SR 37 that was used for developing a corridor plan and funding preliminary studies to identify projects that address transportation congestion, SLR adaptation, and flooding. This proposed Project was identified as the Interim Project to address flooding and SLR that occurs on SR 37 in and near Novato, by reconstructing the roadway.

Additionally, the Project is funded by the State Highway Operation and Protection Program (SHOPP) as part of the Safety Improvements – SHOPP Mobility Program (program code 20.201.310) and by the MTC Transportation Improvement Program (TIP) under TIP ID VAR190004.

1.1 Study Purpose

The purpose of this Floodplain Evaluation Report is to examine and analyze the existing floodplain within the Project limits, to determine any potential impacts, and to recommend any avoidance, minimization, or measures that may be required to address the impacts. The Location Hydraulic Study Form and Summary Floodplain Encroachment Form for this Project are included in Appendix A and Appendix B, respectively.

1.2 Project Purpose and Need

The purpose of the Project is to reduce flooding on the SR 37 roadway and address projected SLR in 2130 from PM R11.2 to PM 13.8.

The SR 37 corridor occurs along the northern shore of the San Pablo Bay. Highway flooding occurs during winter rain and high tide events causing delays and highway closures. The roadway within the Project limits is relatively low-lying, except in the immediate vicinity of U.S. 101 and Atherton Avenue undercrossing (near the Project begin and endpoints), where the roadway climbs to higher elevations. The low-lying roadway relies on levees and berms which were not originally designed to protect the road, but to reclaim the area for agricultural use.

In January and February 2017 both eastbound and westbound directions of the roadway were closed for 27 days due to flooding at the Novato Creek Bridge, and again in February 2019 when a levee was breached in two places resulting in roadway closures for 8 days.

Caltrans conducted field surveys that identified several low spots in the existing levee system making portions of the roadway more vulnerable to immediate short-term flooding and future SLR. Current roadway elevations are as low as 2 to 3 ft (North American Vertical Datum of 1988 [NAVD 88]) within the Project limits. The Novato Creek Bridge deck is at approximately 9 ft (NAVD 88), and the portion of SR 37 between the Novato Creek Bridge and west of Atherton Avenue is at approximately 4 to 6 ft (NAVD 88).

According to the projections in the SR 37 Transportation and Sea Level Rise Corridor Improvement Plan, the Project area is the most vulnerable to SLR primarily due to its low elevation and reliance on levees and berms to provide flood protection for the highway. Projections from the SR 37 Segment A PIR Sea Level Rise and Flooding Risk Assessment and Shoreline Evaluation (AECOM, 2021) show that the levee segments in the vicinity of Novato Creek are within an area containing low mudflats and emergent

marsh that would be submerged during a storm surge event, potentially exposing the levees to open water and waves from the bay (AECOM, 2021). In addition, the Novato Creek Bridge is exposed to both riverine and coastal flood hazards under current and future conditions with sea level rise (AECOM, 2021). Many of the levees are privately owned and were not constructed to protect SR 37 from flooding. Instead, protection of SR 37 is an indirect benefit of the levees. Caltrans does not have a role in managing or maintaining the levees responsible for protecting SR 37. The Project area will flood during a 10-year storm surge event and may be permanently inundated around the year 2050 with projected roadway flooding depths ranging up to 5 ft. The SR 37 Segment A PIR Seal Level Rise and Flooding Risk Assessment and Shoreline Evaluation recommended minimum design water surface elevations for sheltered highway or levee segments, and for highway or levee segments subject to wave overtopping, to be 12 ft (NAVD 88) and 14 ft (NAVD 88), respectively.

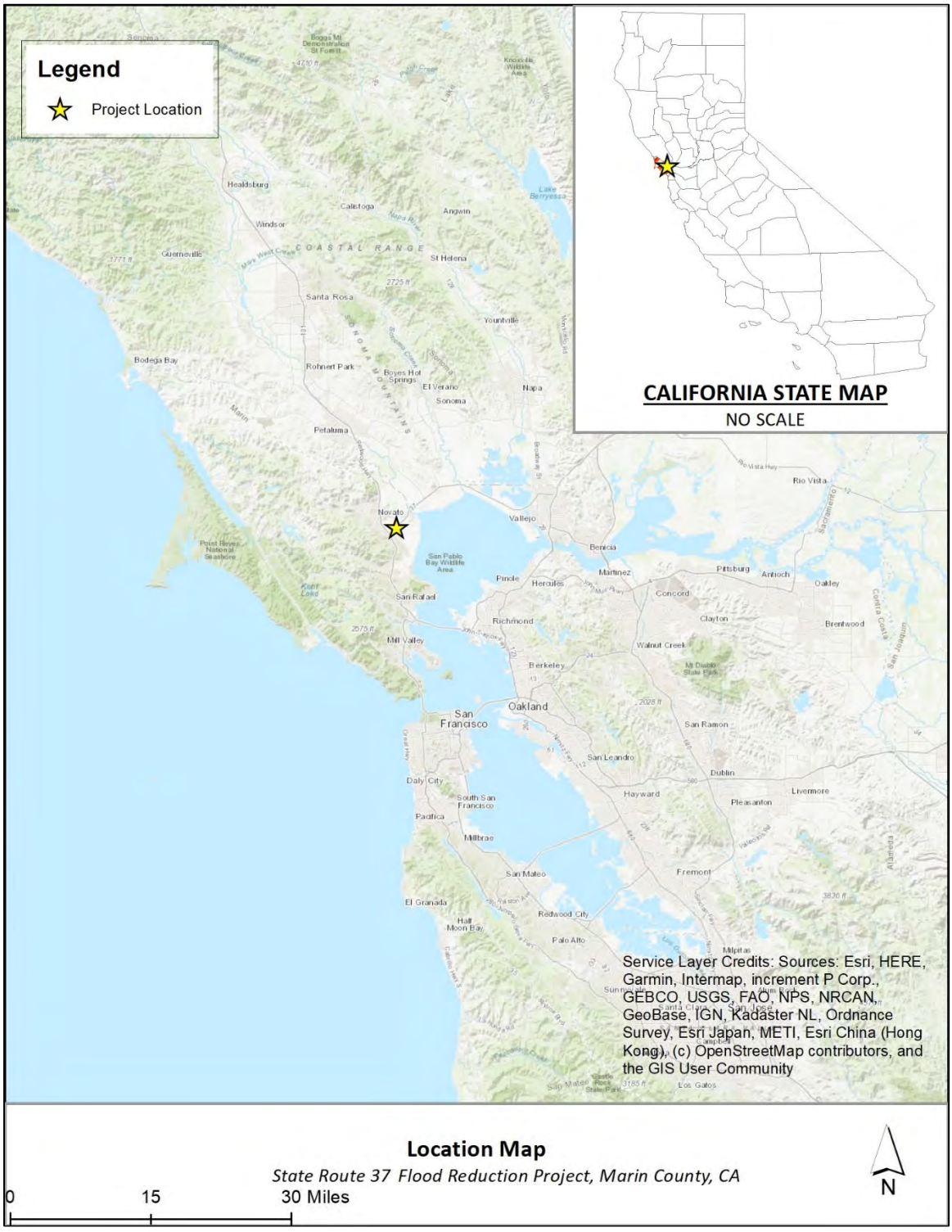

Figure 1. Project Location Map

Source: Environmental Systems Research Institute (ESRI)

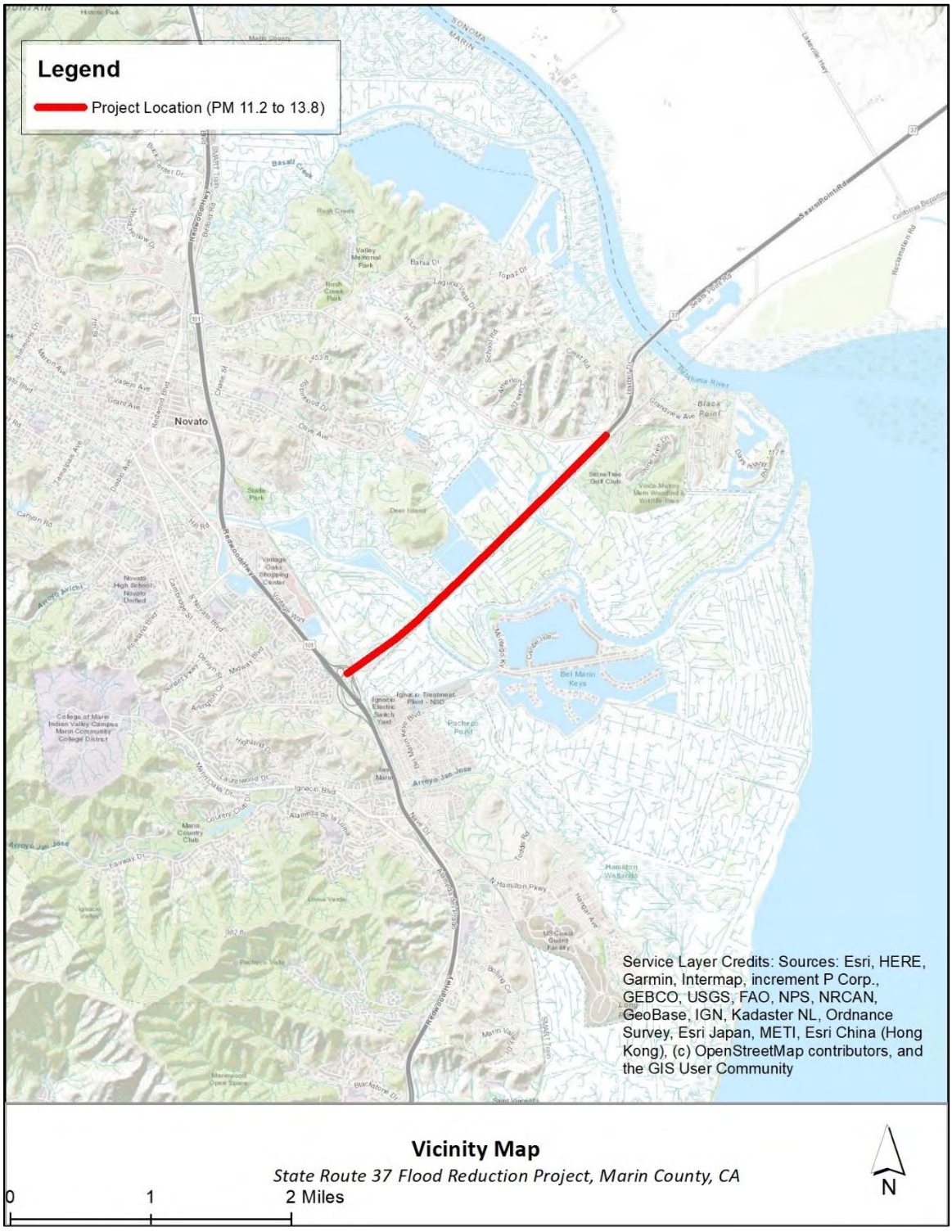

Figure 2. Project Vicinity Map

Source: ESRI

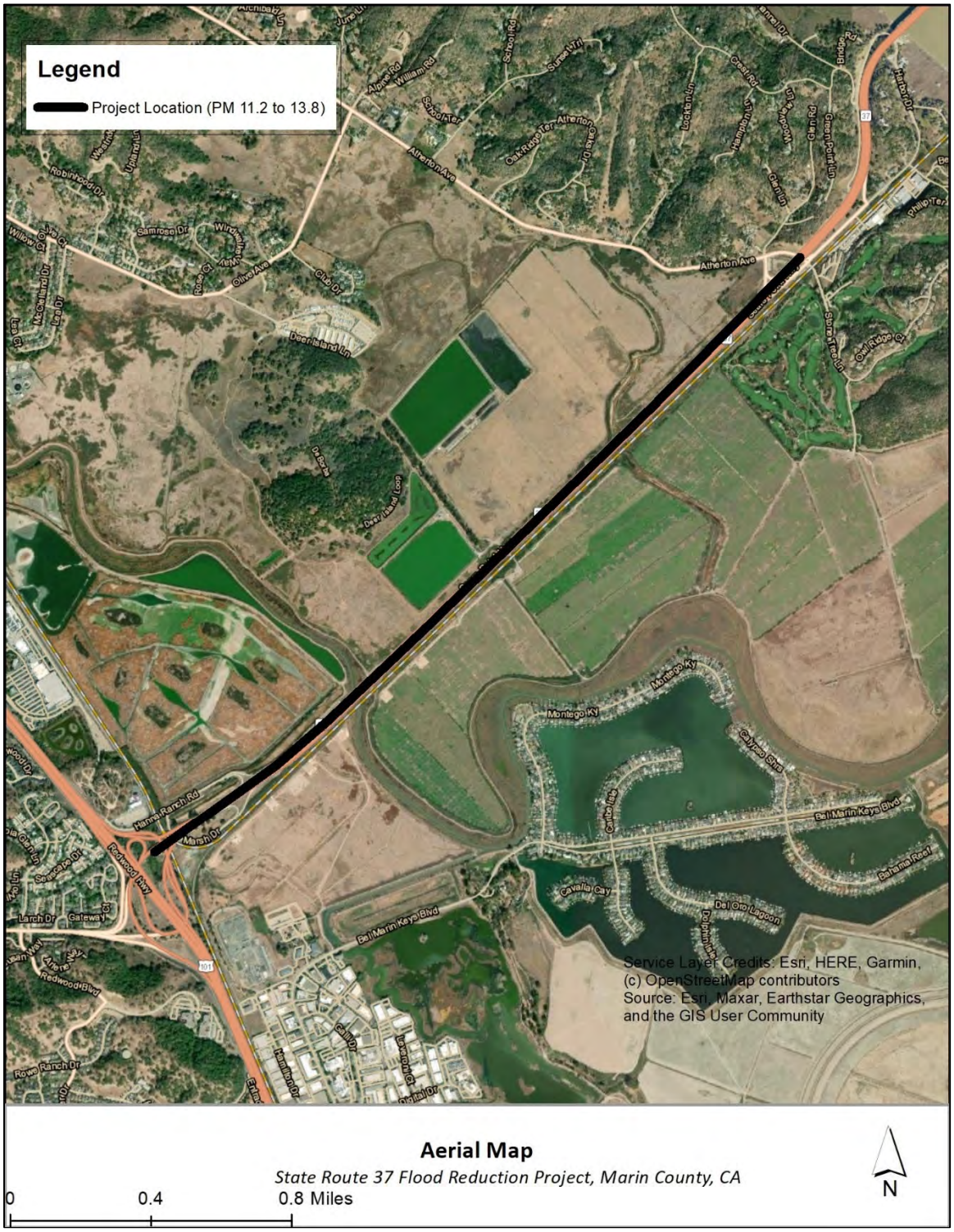

Figure 3. Project Aerial Map

Source: ESRI

1.3 Existing Condition

SR 37 is approximately 21 miles long and follows the northern shore of San Pablo Bay linking U.S. Highway 101 (U.S. 101) in Novato, Marin County with Interstate 80 (I-80) in Vallejo, Solano County. By connecting U.S. 101 to I-80, SR 37 links employment centers and housing within Marin, Sonoma, Napa, and Solano counties. It also provides access to popular destinations such as the Golden Gate National Recreation Area in Marin County, Sonoma Raceway, Napa and Sonoma wine regions and the North Coast. Its commute, freight movement, and recreational functions require efficient traffic management on both weekdays and weekends.

1.3.1 Existing Roadway Condition

Within the Project limits, SR 37 is a four-lane expressway from the SR 37/U.S. 101 interchange to the SR 37/121 intersection. The Project area contains 4 on/off ramps and 1 access road crossing. There are also access roads on each side of the Novato Creek Bridge on the WB side. There are no signalized intersections on SR 37 between U.S. 101 and Atherton Ave undercrossing (UC). The Project area contains MBGR.

1.3.2 Existing Utilities and Signage

This stretch of SR 37 is illuminated by lighting poles near the U.S. 101 interchange and the Atherton Ave. UC. The Project area contains several types of signs: wayfinding signs, standard bridge identification signage, and overhead signs.

1.3.3 Existing Railroad and Bridges

The SMART railroad track is a north-south rail line which runs parallel to SR 37 at the southern edge of the Project limits adjacent to Caltrans right-of-way. The three bridges within the Project limits include the Novato Creek Bridge, Simonds Slough, and Atherton Avenue Undercrossing.

1.3.4 Existing Land Uses and Surrounding Services

Land uses in the vicinity of the Project are primarily agricultural, recreational, and conservation focused. A majority of the trips along SR 37 are through trips traveling between southern Marin, Sonoma, Napa, and Solano counties. Although there is no dedicated bicycle or pedestrian infrastructure along SR 37, the Bay Trail is nearby, which contains a gap in the trail across Tolay Creek in Sonoma County.

1.4 Proposed Condition

Caltrans proposes to build a causeway from U.S. 101 to Atherton Avenue undercrossing (PM R11.2 to PM 13.8) to reduce flooding and accommodate 2130 SLR on SR 37 in Marin County.

1.4.1 Project Alternatives

This section describes the proposed Project alternatives to meet purpose and need, the Build Alternative and the No-Build Alternative. These alternatives consist of the following:

- Build Alternative – Build the causeway along SR 37 within the Project limits, constructed in two phases:
  - Phase 1 – Replace the Novato Creek Bridge
  - Phase 2 – Build remaining portions of the causeway from U.S. 101 to Novato Creek Bridge and from Novato Creek Bridge to Atherton Avenue
- No-Build Alternative – No action is proposed; the current conditions would remain.

The Build Alternative and the No-Build Alternative are further described below.

1.4.2 Build Alternative

The Build Alternative proposes to protect SR 37 from flooding and SLR by elevating 2.5 miles of roadway on a causeway. The Build Alternative would raise the existing pavement elevation, which ranges between 3 ft to 9 ft (NAVD 88), to 35 ft (NAVD 88).

The completed causeway would consist of four 12 ft wide lanes, a 22 ft wide median with a 2 ft median barrier, 10 ft wide inside shoulders and 12 ft wide outside shoulders, a 14 ft wide bicycle or pedestrian path, and a total roadway width of 114 ft.

During phase 1, two access roads would be relocated to the north of the Novato Creek bridge and transitional structures. The relocated access roads would maintain access to the properties adjacent to the Caltrans right-of-way (ROW). One of the relocated access roads would start east of the easternmost transitional bridge structure and continue west towards the private road that parallels the eastern bank of Novato Creek. Similar to the eastern relocated access road, the second relocated access road would provide access to the existing access road that parallels the western bank of the Novato Creek. The new access point to the relocated access road would fork off the westbound Hanna Ranch Road off-ramp and continue east along the northside of SR 37 towards Novato Creek. Both relocated access roads would continue to be within the Caltrans ROW. The relocated access roads would be paved and be 16 ft wide.

The Build Alternative would be constructed in two phases as discussed in the following subsections.

1.4.2.1 Phase 1: Replace Novato Creek Bridge

Phase 1 would replace the existing Novato Creek Bridge with a new, longer bridge. The existing Novato Creek Bridge (Bridge No. 27-0011 L&R) consists of two separate bridge structures (eastbound and westbound) spanning 720 ft in length and 34 ft in width, with a 40 ft space between the two bridges.

Under Phase 1, a 3,000 ft long bridge spanning across Novato Creek would be constructed to replace the existing Novato Creek Bridge. Of this, a 1,000 ft section of the new single bridge would be at elevation 35 ft (NAVD 88), and each of the approaches transitioning from the existing roadway elevation of approximately 5 ft (NAVD 88) to the proposed 35 ft elevation would be approximately 1,000 ft long. The approaches to the new Novato Creek bridge would be at an 5 percent grade. The bridge rails will be a concrete, see-through type railing. The maximum depth of excavation would be approximately 10 ft to accommodate 6 ft deep insulation casing and abutments for the Novato Creek Bridge.

Under Phase 1, the 17 existing culverts located within the Phase 1 footprint would be replaced in-kind.

1.4.2.2 Phase 2: Build Causeway

Under Phase 2, the Build Alternative would construct the remaining causeway within the Project limits along SR 37, from U.S. 101 to the new Novato Creek Bridge and from the eastern end of the new Novato Creek Bridge to the Atherton Avenue Undercrossing. The following subsections describe the activities under Phase 2.

1.4.2.2.1 Causeway

Phase 2 would construct approximately 2 miles of the causeway. The 1,000 ft section of the new Novato Creek bridge constructed under Phase 1 would remain at elevation 35 ft (NAVD 88). The 1,000 ft transitions on either end of the new Novato Creek Bridge would be replaced with new segments to complete the causeway. The new segments on either end of the Novato Creek Bridge would be approximately 2,677 ft long on the western side and 8,906 ft long on the eastern side and would be built to the elevation of 35 ft (NAVD 88). The new causeway would consist of four 12 ft wide lanes, a 22 ft wide median with a 2 ft median barrier, 10 ft wide inside shoulders and 12 ft wide outside shoulders, with a 14 ft wide bicycle or pedestrian path, for a total roadway width of 114 ft, conforming to the dimensions of the new Novato Creek Bridge.

1.4.2.2.2 Simonds Slough

The Build Alternative would replace the existing Simonds Slough bridge with the new causeway. The existing Simonds Slough bridge (Bridge No. 27-0012 L&R) consists of a double 10 ft by 6 ft reinforced-concrete box culvert. Removal of the existing Simonds Slough bridge would occur in Phase 2.

1.4.2.2.3 Atherton Avenue Undercrossing

At the Atherton Avenue undercrossing (Bridge No. 27-0079 L&R), the Project proposes to replace both bridges with the new causeway. Currently, the Atherton Avenue undercrossing consists of two bridges (left and right) that are 178 ft long and 41 ft wide with two spans. The Build Alternative proposes to upgrade existing bridge rails to Type 85 see-through bridge rails.

1.4.2.3 Driveways and Access Roads

The proposed access roadways would consist of paved 16 ft roadways.

1.4.2.4 Utilities

Utilities within the Project area include gas, electric, telephone, and fiber optic cables. Detailed utility plans would be provided in the Design Phase which may identify additional utility relocations needed. Utilities would be relocated within the Caltrans right-of-way before construction.

1.4.2.5 Culverts

Existing culverts will be extended or replaced, to be determined as the Project is further developed.

1.4.2.6 Construction Methodology

Construction of the Build Alternative would start with replacement of the Novato Creek Bridge, and then raising the SR 37 roadway, starting with the westbound direction.

During phase 1, a 36-ft-wide and 1,000-ft-long median would be constructed between the existing westbound and eastbound structures along with 36-ft-wide transition structures on either ends of the bridge. Westbound traffic would then be placed on the new median and the westbound bridge would be removed. The new median and transition structures would then be widened on the north side by 30 ft, 6 inches along the existing westbound structure. Both eastbound and westbound traffic lanes would then be placed on the widened structure and the existing eastbound structure would be demolished. The new structure would then be widened along the existing eastbound lanes by 29 ft, 6 inches. The total width of the new Novato Creek bridge and transition structures would be 96 ft.

The new Novato Creek bridge would span across Novato Creek channel avoiding the installation of permanent fill in the channel. The new bridge would 1000 ft in length with a total of 8 bents with 6 piles per bent. The new bridge piles would be vibrated in as deep as possible before using an impact pile hammer. The new bridge piles would be installed to the maximum depth of 150 ft below the ground. An abutment would be constructed at either end of the bridge structure. The maximum depth of excavation for construction of the abutments is 10 ft below the ground.

Demolition of the existing westbound and eastbound bridges would occur over Novato Creek. A protective cover would be installed to minimize debris entering the waterway. Removal of the existing piles would involve full sawcut to remove the piles in chunks. Installation of the piles would involve a combination of vibratory and impact pile hammer methods. To minimize the use of impact pile driving, the piles would be vibrated in as deep possible before an impact pile hammer is utilized.

Construction of Phase 2 would be similar to Phase 1. This construction phase would start with the removal of the 36-ft-wide transition structures from the median area and widening of the new Novato Creek bridge by 7 ft on the north side and by 11 ft on south

side, for a total bridge width of 114 ft. Widening of the Novato Creek bridge would occur from the roadway, avoiding temporary entry into Novato Creek. The widening of the bridge would require the installation of new substructure in the marsh area of Novato Creek. A 36-ft-wide median would then be constructed at 35 feet elevation on either ends of Novato Creek bridge, which connects to the U.S. 101 interchange at PM R11.4 on the west end and to the east end of the Project limits at PM 13.8 (just east of Atherton Avenue bridge). All eastbound traffic would then be shifted on that new median structure. These new median structures would then be widened by 40.5 ft on the south side over the existing eastbound lanes, connecting each end of the new Novato Creek bridge. Both eastbound and westbound traffic would then be placed on this widened structure while widening it by 37.5 ft on north side over the existing westbound lanes, connecting both ends of the new Novato Creek bridge. Traffic lanes would then be moved to the final configuration with a bike and pedestrian path.

1.4.2.7 Traffic Management

1.4.2.7.1 Phase 1

Traffic detours are not anticipated during this phase of construction. Oversized vehicles could continue to use SR 37 during construction. Nighttime and weekend construction work would be required; however, any weekend work would occur in the evening, outside of the high peak traffic times. Nighttime work would include up to 30 nights and would include rerouting traffic from one structure to another. Construction lighting would be required for nighttime work. All construction lighting would direct down, away from traffic to minimize glare.

Construction of Phase 1 would cause traffic delays of up to 15 minutes. There would be no temporary road closure of SR 37 during construction. Temporary rerouting of traffic lanes within the Project area may be necessary to accommodate construction activities.

1.4.2.7.2 Phase 2

Traffic detours would be necessary during the Atherton Avenue on- and off-ramp closures. During closure of the Atherton Avenue ramps, the westbound traffic on SR 37 would be diverted to northbound U.S. 101 and then to the Atherton Avenue exit. At the highway exit, traffic would be directed west to access Atherton Avenue. Vehicles wanting to access eastbound SR 37 from Atherton Avenue would be diverted east to southbound U.S. 101. From southbound U.S. 101, traffic would be able to access eastbound SR 37.

Oversized vehicles would continue to use SR 37 during construction. Nighttime and weekend construction work would be required; however, any weekend work would occur in the evening, outside of the high peak traffic times. Nighttime work would include up to 120 nights and would include rerouting traffic from one structure to another. Construction lighting would be required for nighttime work. All construction lighting would direct down, away from traffic to minimize glare.

Construction of Phase 2 would cause traffic delays of up to 15 minutes on SR 37, not counting the additional travel time necessitated by the detour routes during the period when the Atherton Avenue ramps are closed. There would be no temporary road closure of SR 37 during construction. Temporary rerouting of traffic lanes within the Project area may be necessary to accommodate construction activities.

1.4.2.8 Construction Staging Areas and Temporary Bridge Access Area

Four staging areas within Caltrans' ROW would be used during construction.

The westernmost staging area is located between Marsh Road and the eastbound SR 37 off-ramp to Marsh Road. This staging area would be used during construction of Phase 1 and Phase 2.

There would be two staging areas north of SR 37 on either side of Novato Creek. These staging areas would be used for construction of the new Novato Creek bridge under Phase 1 and to widen the bridge during Phase 2.

The easternmost staging area is located along westbound SR 37 in the area between the westbound off-ramp to Atherton Avenue. The easternmost staging area serves as the Black Point Park & Ride and a maintenance yard. The staging areas would be utilized for equipment storage and stockpiling of construction materials during Phase 1 and Phase 2. During construction of Phase 1, a temporary bridge access area would be required within the Novato Creek floodplain.

1.4.2.9 Project Features

This Project contains a number of standard Project Features (such as best management practices [BMPs]) that are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed Project.

1.4.2.10 Schedule

Replacement of the Novato Creek Bridge is anticipated to begin in May 2027 and end in June 2029 for a maximum period of 26 months. Replacement of the Novato Creek Bridge would occur during the dry season between June 15 and October 15. Construction of Phase 2 would start in 2041 and end in 2045.

1.4.3 No-Build Alternative

Under the No-Build Alternative, there would be no improvements to SR 37 to reduce flooding and the projected 2130 SLR. With the No-Build Alternative, the Project area would flood during a 10-year storm surge event and would be permanently inundated around the year 2050 with roadway flooding depths ranging up to 5 ft. SLR increases the annual probability that the highway or levee would experience inundation over time. Under the medium-high risk aversion SLR scenario presented in the SR 37 Segment A PIR Sea Level Rise and Flooding Risk Assessment and Shoreline Evaluation, a levee or highway elevation of 9 ft (NAVD 88) is projected to have a 22% chance of flooding due

to inundation by 2030, a 38% chance by 2035, a 64% chance by 2040, and a 100% chance by 2045. For reference, the Novato Creek Bridge is at approximately 9 ft NAVD 88, and the remainder of the Project area, excluding the begin and end points, is at an elevation between 4 to 6 ft (NAVD 88) (AECOM, 2021). As shown in Photos 1 and 2, the Project area experiences flooding and is projected to continue to experience a higher frequency of flooding as the year 2050 approaches.

Under the No-Build Alternative, SR 37 would be unable to continue linking employment centers and housing within Marin, Sonoma, Napa, and Solano Counties. It would also cease to provide access to destinations such as the Golden Gate National Recreation Area in Marin County, the Sonoma Raceway, the cities of Sonoma and Napa, and their wine producing regions. The Napa Valley wine industry provides an annual economic impact of more than $9.4 billion locally, nearly $34 billion in the U.S., and creates 44,000 jobs in Napa County and nearly 190,000 jobs nationwide (Napa Valley Vintners, 2021). The six access roads, the Black Point Park and Ride, and the Stone Tree Gold Club that connect to SR 37 within the Project limits would no longer be accessible under the No-Build Alternative. Additionally, it would no longer serve freight movement or recreational functions.

The No-Build Alternative would allow for reoccurring floods to disrupt accessibility and mobility between Marin and Sonoma counties. Under the No-Build Alternative, the purpose and need of the Project would not be met because it would not reduce recurring flooding and accommodate projected 2130 SLR on SR 37. The severity of highway flooding would increase during winter rain and high tide events, continuing to disrupt connectivity and accessibility with highway closures.

1.5 Alternatives Considered but Eliminated from Further Discussion

This section describes the build alternatives that were considered but eliminated from further discussion during the Project development process.

1.5.1 Raise Embankment

This alternative proposed to construct a raised roadway, primarily in the embankment above the projected SLR elevation. This alternative proposed approximately 5 miles of raised roadway on about a 12 ft high (NAVD 88) embankment for sheltered highway or levee segments and a 14 ft high (NAVD 88) embankment for highway or levee segments subject to wave overtopping. The Project limits included U.S. 101 (SR 37 PM R11.2 in Marin County) to Atherton Avenue undercrossing (SR 37 PM 13.8 in Marin County) and Petaluma River Bridge (SR 37 PM 0.3 in Sonoma County) to 1 mile west of SR 121 (SR 37 PM 2.8 in Sonoma County). This alternative proposed to modify the Novato Creek Bridge, Simonds Slough Bridge, Atherton Avenue undercrossing, and the Petaluma River Bridge. During the scoping period in November 2021, Caltrans received many comments in opposition to this alternative. This alternative was eliminated from further consideration due to anticipated environmental impacts, and public opposition. This alternative no longer meets the Project purpose and need.

1.5.2 Novato Creek Bridge Replacement and Passive Flood Barriers

This alternative proposed to replace the Novato Creek Bridge with an elevated structure above the projected 2050 SLR, install passive flood barriers for 2 miles outside the eastbound and westbound shoulders of SR 37 from U.S. 101 to west of the Novato Creek Bridge (PM 11.5 to PM 12), and east of the Novato Creek Bridge to Atherton Avenue undercrossing (PM 12.1 to PM 13.8), and upgrade the Atherton Avenue Bridge (Bridge No. 27-0079 L&R) railing to current standards.

Caltrans eliminated this alternative from further discussion due to constructability constraints, and operation and maintenance concerns. Construction of the passive barriers would have required the installation of wide foundations, requiring more space than there is available within the Caltrans ROW. Along SR 37 there are several private access roads to which access would have been blocked during the operation of the passive flood barriers. During a storm event, the passive flood barriers would automatically rise to block stormwater from entering the highway and block access to the private access roads along the highway. In addition, during operation the passive flood barriers, once erected, would create a pond by acting as a dam, requiring design features outside the Caltrans ROW and triggering compliance with the Department of Water Resources dam requirements. Lastly, the operation of the passive flood barriers would have failed to efficiently protect SR 37 from stormwater because the wall heights would not be sufficient for projected 2130 SLR. Due to these technical deficiencies, this alternative would not meet the purpose and need. Therefore, Caltrans eliminated this alternative from further consideration.

1.5.3 Novato Creek Bridge Replacement with Combination of Causeway and Embankments

This alternative proposed to protect 2.5 miles of SR 37 from flooding and projected 2050 SLR by constructing 20.5 ft high (NAVD 88) causeways and 12 ft high embankments from U.S. 101 to Atherton Avenue. The causeways would replace the Novato Creek and Simonds Slough bridges. The Atherton Avenue undercrossing bridge rails would be upgraded to Type 85 see-through barriers. The Atherton Avenue westbound on- and off-ramps and eastbound off-ramp would be reconstructed to conform to the raised roadway.

This alternative proposed two causeways within the Project footprint. From west to east, one 2,350 ft long causeway would extend from U.S. 101 and SR 37 to east of Novato Creek (PM 11.5 to PM 12.4) and would replace the existing Novato Creek Bridge. The second causeway would extend from PM 12.8 to PM 13.3, measuring 2,975 ft long and replacing the existing Simonds Slough Bridge.

The proposed elevation under this alternative would not meet the projected 2130 SLR. This alternative was eliminated from further consideration because it would not meet purpose and need.

1.5.4 Interim Causeway

This alternative proposed to construct a 2.5-mile interim causeway from U.S. 101 to Atherton Avenue undercrossing (PM R11.2 to PM 13.8). The interim causeway would be 12 ft high (NAVD 88) to be above the projected 2050 SLR elevation. The causeway would support a roadway consisting of four 12 ft wide lanes, a 12 ft wide median with a 2 ft wide median barrier, 5 ft wide inside shoulders, and 10 ft wide outside shoulders with a 2 ft wide outside barrier, resulting in a total roadway width of 84 ft. The causeway would replace the Novato Creek Bridge and the Simonds Slough Bridge. The elevation proposed under this alternative would not accommodate projected 2130 SLR. This alternative was eliminated from further consideration because it does not meet the purpose of the Project.

1.5.5 Strengthen Levees

This alternative proposed strengthening the privately and publicly owned levees in the surrounding area to reduce flooding and projected SLR on SR 37. The Project area is surrounded by levees that were constructed for agricultural purposes. This alternative was eliminated from further consideration because the levees are outside of the Caltrans ROW and outside of Caltrans jurisdiction.

1.6 Permits and Approvals Needed

The permits, agreements, and certifications that would be required for Project construction are summarized are listed below:

- California Department of Fish and Wildlife (1602 Lake and Streambed Alteration Agreement; California Endangered Species Act Incidental Take Permit)
- National Marine Fisheries Service (Biological Opinion)
- Regional Water Quality Control Board – Region 2, San Francisco (Clean Water Act Section 401 Water Quality Certification; Discharges of Dredged or Fill Materials to Waters of the State)
- San Francisco Bay Conservation and Development Commission (Consistency with San Francisco Bay Plan)
- U.S. Fish and Wildlife Service (Biological Opinion)
- U.S. Army Corps of Engineers (Clean Water Act Section 404, Section 408 Permission)

All Project permits will be obtained during the design phase and after certification of the Final Environmental Impact Report/Environmental Assessment (EIR/EA) and Finding of No Significant Impact (FONSI). Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) will be completed after certification of the Final EIR/EA/FONSI.

1.7 Sea Level Rise and Pavement Elevation

According to SLR maps from the San Francisco Bay Conservation & Development Commission (BCDC), the area east of the Project limits is located within a low-lying area

that would be vulnerable to an SLR of approximately 3 to 10 ft by 2100. Raising the roadway elevation is beyond the scope and design life of the identified near-term operational improvements; however, future studies are aimed at addressing flooding and sea level rise comprehensively along the SR 37 corridor.

1.8 Regulatory Setting

1.8.1 Executive Order 11988 (Floodplain Management, 1977)

Executive Order 11988 (Floodplain Management) directs all federal agencies to avoid, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative (1977). Requirements for compliance are outlined in Title 23, Code of Federal Regulations, Part 650, Subpart A (23 CFR 650A) titled "Location and Hydraulic Design of Encroachment on Floodplains" (United States, Federal Highway Administration [FHWA], Department of Transportation 2022).

If the preferred alternative involves significant encroachment onto the floodplain, the final environmental document (final Environmental Impact Statement or finding of no significant impact) must include:

- The reasons why the proposed action must be located in the floodplain,
- The alternatives considered and why they were not practicable, and
- A statement indicating whether the action conforms to applicable State or local floodplain protection standards.

1.8.2 California's National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) is the nationwide administrator of the National Flood Insurance Program (NFIP), which is a program that was established by the National Flood Insurance Act of 1968 to protect lives and property, and to reduce the financial burden of providing disaster assistance. Under the NFIP, FEMA has the lead responsibility for flood hazard assessment and mitigation, and it offers federally backed flood insurance to homeowners, renters, and business owners in communities that choose to participate in the program. FEMA has adopted the 100-year floodplain as the base flood standard for the NFIP. FEMA is also concerned with construction that would be within a 500-year floodplain for proposed projects that are considered "critical actions," which are defined as any activities where even a slight chance of flooding is too great. FEMA issues the Flood Insurance Rate Maps (FIRM) for communities that participate in the NFIP. These FIRMs present delineations of flood hazard zones.

In California, nearly all of the State's flood-prone communities participate in the NFIP, which is locally administered by the California Department of Water Resources' (DWR) Division of Flood Management. Under California's NFIP, communities have a mutual agreement with the State and federal governments to regulate floodplain development according to certain criteria and standards, which are further detailed in the NFIP.

1.8.3 Marin County Floodplain Data

As part of the NFIP, typically, each county (or community) has a Flood Insurance Study (FIS), which is used to locally develop FIRMs and Base Flood Elevations (BFEs). The FIS for Marin County, California, and Incorporated Areas was used to examine the floodplains in the Project Area (FEMA, 2017).

1.8.4 Sea Level Rise

Per Executive Order S-13-08 (November 14, 2008) all state agencies planning to construct Projects in areas vulnerable to future SLR must consider a range of sea level projections for years 2050 and 2100, assess Project vulnerability, and to the extent feasible, reduce expected risks and increase resiliency to SLR.

Caltrans adheres to Order S-13-08 with guidance summarized in *Guidance on Incorporating Sea Level Rise* – For use in the planning and development of Project Initiation Documents, published by Caltrans on May 16, 2011 (Caltrans Guidance). This guidance includes statewide SLR Projections published by the Ocean Protection Council (OPC) in March 2011. The latest SLR study, State of California SLR Guidance, 2018 Update, published by the California Natural Resources Agency and California Ocean Protection Council, provides scenario-based SLR Projections at local active tidal gauge locations. In addition, according to the 2019 Climate Change Annotated Outline Non-Capacity Increasing Projects (AO) found in the Forms and Templates section of the Caltrans Standard Environmental Reference (SER), a Project is recommended to consider a list of factors to determine the need for SLR adaptation measures.

1.8.5 Coastal Commission Regulations

This Project has the potential to affect resources protected by the Coastal Zone Management Act (CZMA) of 1972. The CZMA is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA: They include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The California Coastal Commission (CCC) is responsible for implementation and oversight under the California Coastal Act. The San Pablo Bay is outside of the CCC jurisdictional area; therefore, no Coastal Development Permit is required for this Project.

The San Francisco Bay Conservation and Development Commission (BCDC), created prior to the California Coastal Act of 1976, retains oversight and planning responsibilities for development and conservation of coastal resources in the San Francisco Bay Area.

The regulatory authority for BCDC is the McAteer-Petris Act and the Suisun Marsh Protection Act. BCDC uses its federally approved Management Program for the San Francisco Bay Segment of the California Coastal Zone (Management Program) to exercise its federal consistency authority under the CZMA.

1.9 Design Standards

1.9.1 FEMA Standards

FEMA standards are employed for design, construction, and regulation to reduce flood loss and to protect resources. Two types of standards are often employed: design criteria and performance standards.

A design criterion or specified standard dictates that a provision, practice, requirement, or limit be met; e.g., using the 1% flood and establishing floodway boundaries so as not to cause more than a 1 ft increase in flood stages.

A performance standard dictates that a goal is to be achieved, leaving it to the individual application as to how to achieve the goal; e.g., providing protection to the regulatory flood, keeping post-development stormwater runoff the same as pre-development, or maintaining the present quantity and quality of water in a wetland.

The 1% annual chance flood and floodplain have been adopted as a common design and regulatory standard in the United States. The NFIP adopted it in the early 1970s, and it was adopted as a standard for use by all federal agencies with the issuance of Executive Order 11988. States or local agencies are free to impose a more stringent standard within their jurisdiction.

1.9.2 Hydraulic Design Criteria

1.9.2.1 FHWA Standards

The FHWA criterion refers to the *California Amendments to American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Bridge Design Specifications* (2014), which indicates that the proposed bridge profile should provide adequate freeboard to pass anticipated drift for the 50-year design flood, to pass the 100-year base flood without freeboard, or the flood of record without freeboard, whichever is greater.

1.9.2.2 Caltrans Standards

From Chapter 820 of the Caltrans' *Highway Design Manual* (HDM), the criteria for the hydraulic design of bridges are that they are designed to pass the 2% probability of annual exceedance flow (50-year design discharge) or the flood of record, whichever is greater, with adequate freeboard to pass anticipated drift (2020). Two (2) ft of freeboard is commonly used in bridge designs. The bridge should also be designed to pass the 1% probability of annual exceedance flow (100-year design discharge, or base flood). No freeboard is added to the base flood.

1.9.2.3 Marin County Standards

According to the *Marin County Code Title 24*, Chapter 24.04.520 – Hydrologic and hydraulic design, the minimum freeboard required for the bridges spanning open channel waterway is 2 ft above the 100-year flow elevation.

1.10 Traffic

The current and future average annual daily traffic (AADT) of SR 37 was provided by Caltrans and is summarized in Table 1 and Table 2.

Table 1. Phase 1 Traffic Study Summary

Location		Current (2021) AADT	Construction Year (2029) AADT	Design Year (2049) AADT
Route	PM			
MRN 37	R11.2/13.8	42,000	45,000	52,300

Source: Caltrans

Table 2. Phase 2 Traffic Study Summary

Location		Current (2021) AADT	Construction Year (2045) AADT	Design Year (2065) AADT
Route	PM			
MRN 37	R11.2/13.8	42,000	50,800	58,200

Source: Caltrans

1.11 Vertical Datum

The Project references the NAVD 88.

2 AFFECTED ENVIRONMENT

2.1 Geographic Location

SR 37 in Marin County is located in the northeastern Marin County adjacent to San Pablo Bay. The length of SR 37 in Marin County is approximately 3.42 miles (PM R11.2 to PM 14.62).

2.2 Watershed Description

Novato Creek watershed is located in the eastern Marin County (see Figure 4). The basin size is approximately 45 square miles, and the channel length is approximately 17 miles. Novato Creek, consisting of mostly natural channel, drains most of the City of Novato and flows through the center of the City, past medium- and low-density residential areas. Tributary to Novato Creek are Bowman Canyon Creek, Stafford Lake Creek, Vineyard Creek, Sandy Creek, Wilson Creek, Warner Creek, and Arroyo Avichi Creek. At Arroyo Avichi Creek just upstream of U.S. 101, Novato Creek drains approximately 26 square miles of urban and rural watershed. Novato Creek flows past a series of marshes, meeting the Novato ditch system and Lynwood Slough, then crosses under State Route (SR) 37, through more marshes, past Bel Marin Keys, and into the San Pablo Bay. The mouth of the Petaluma River is located approximately 0.7 miles north of the Novato Creek's mouth in San Pablo Bay.

The land use within Novato Creek watershed is mostly Agriculture/Rural or Open Space in the upper watershed (see Figure 5). Within the limits of the City of Novato, land use is mostly residential. The land uses adjacent to SR 37 is mix of Agriculture/Rural at the freeway segment near U.S. 101 interchange and commercial near the Atherton Avenue UC. The adjacent land uses along SR 37 between the two interchanges are Open Space.

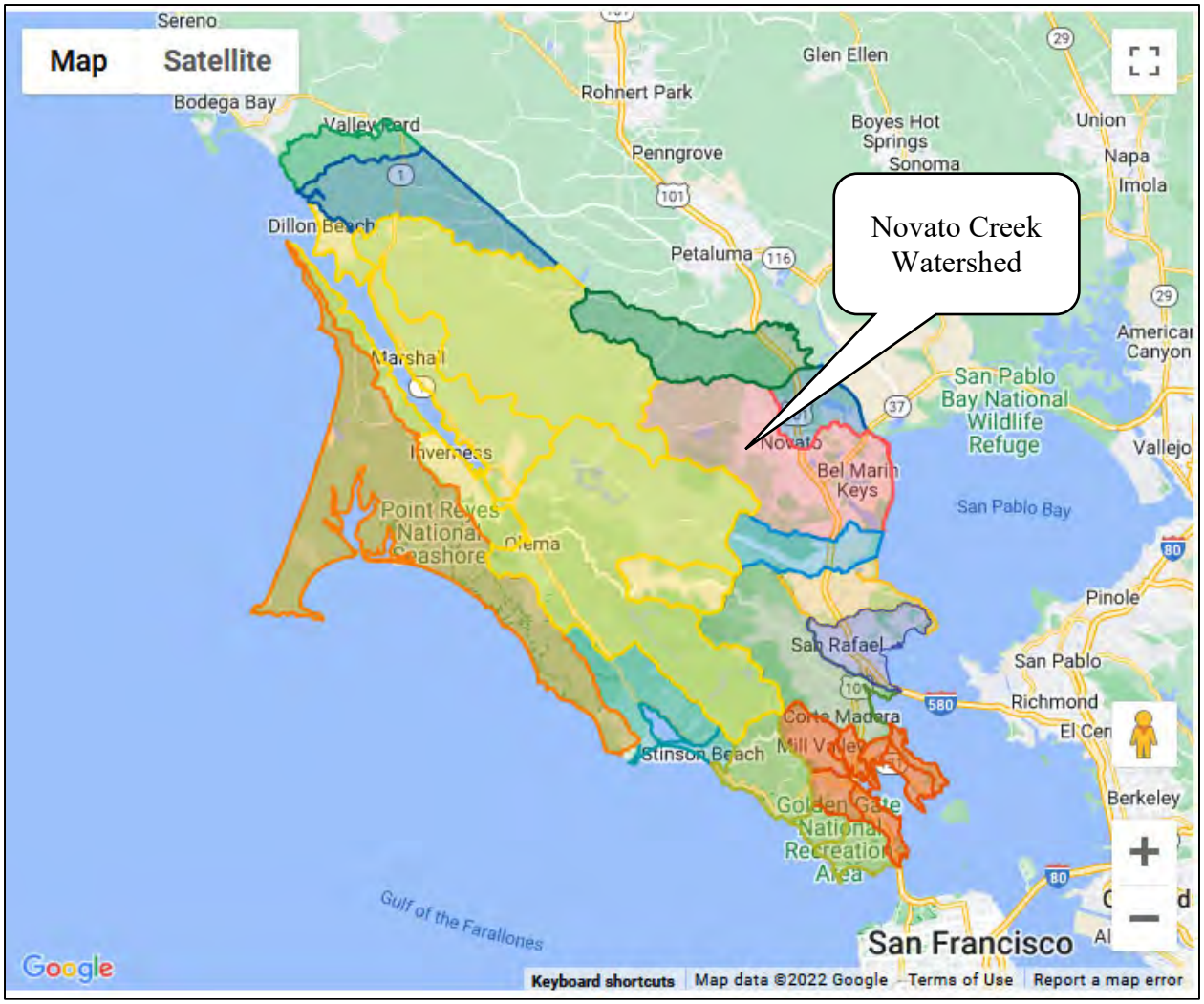

Figure 4. Major Watersheds in Marin County

Source: Marin County Department of Public Works, 2022

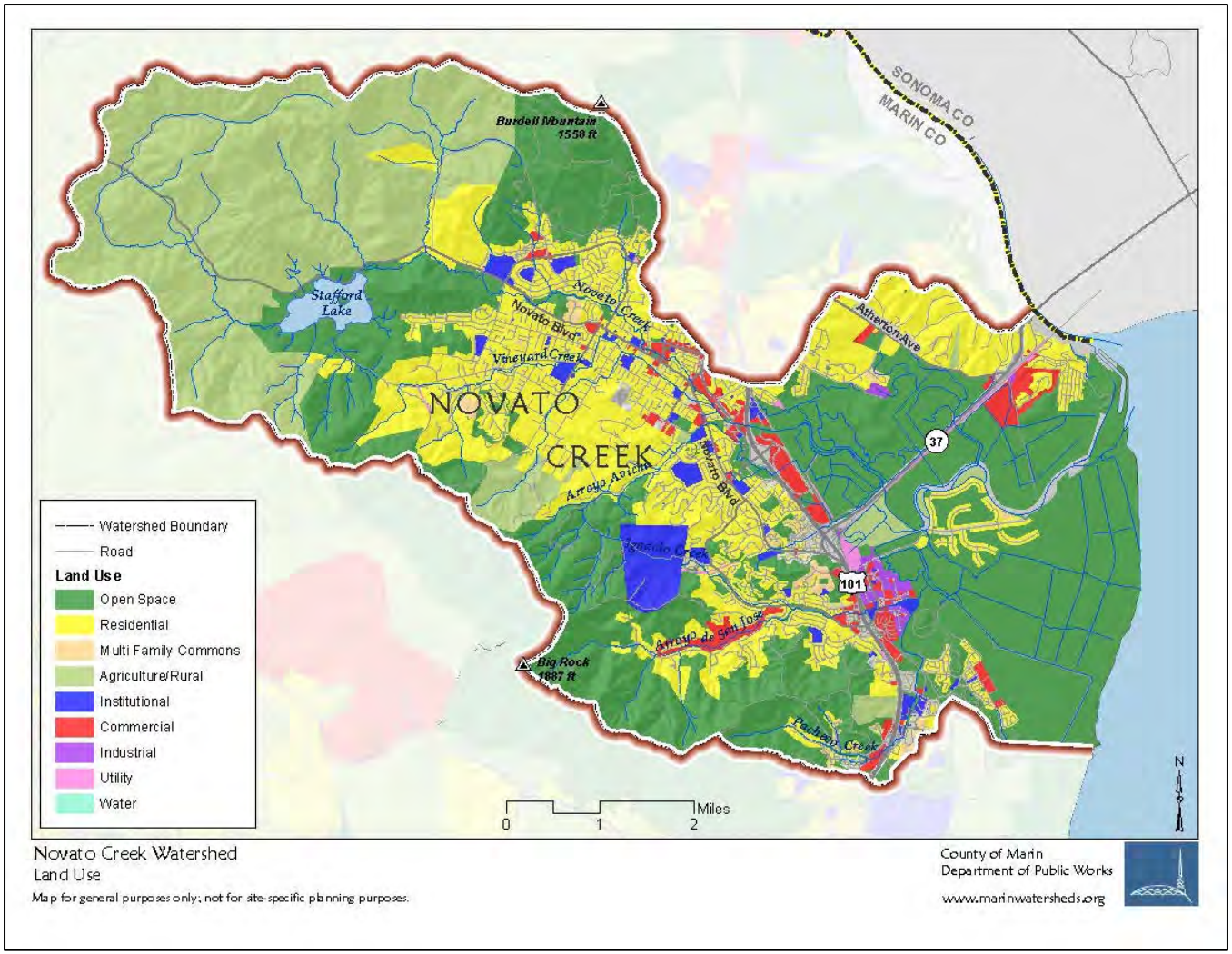

Figure 5. Novato Creek Watershed – Land Use

Source: Marin County Department of Public Works, 2022

2.3 FEMA Floodplains

The Project site is located within FEMA FIRM panel numbers 06041C0282E, 06041C0283E, and 06041C0284E, effective March 16, 2016 (see Figure 6 and Appendix D). The list of FEMA special flood hazard areas (SFHA) crossed by SR 37 in Marin County are summarized in Table 3.

Table 3. FEMA SFHAs crossed by SR 37

FEMA FIRM Number	Floodplain Type	Floodplain Length Measured Along SR 37 Centerline [(1)] (ft)	Existing Bridge Structures in Caltrans Log of Bridges
06041C0283E	Zone AE (10 ft)	830	U.S. 101 Junction (PM 11.20)
	Zone X (unshaded)	750	-
	Zone AE (10 ft)	3,000	Novato Creek Bridge (PM 11.96)[(2)]
	Zone AE (11 ft)	1,080	Novato Creek Bridge (PM 11.96)[(2)]
06041C0284E	Zone AE (11 ft)	1,950	-
06041C0282E	Zone AE (11 ft)	820	-
	Zone AE (10 ft)	4,560	Simonds Slough Bridge (PM 13.04)

Notes:
(1) Floodplain length is rounded to the nearest 10 ft.
(2) The transition from FEMA SHFA Zone AE (10 ft) to Zone AE (11 ft) occurs at the Novato Creek Bridge.

Source: FEMA 2016a, 2016b, and 2016c

Zone AE represents areas subject to flooding by the 100-year flood event determined by detailed methods where BFEs are shown. SR 37 is subject to tidal backwater from San Pablo Bay, and the 10 ft and 11 ft elevations represent the tidal backwater elevation during the 100-year storm event. Zone X (unshaded) represents areas outside of the 500-year floodplain limits.

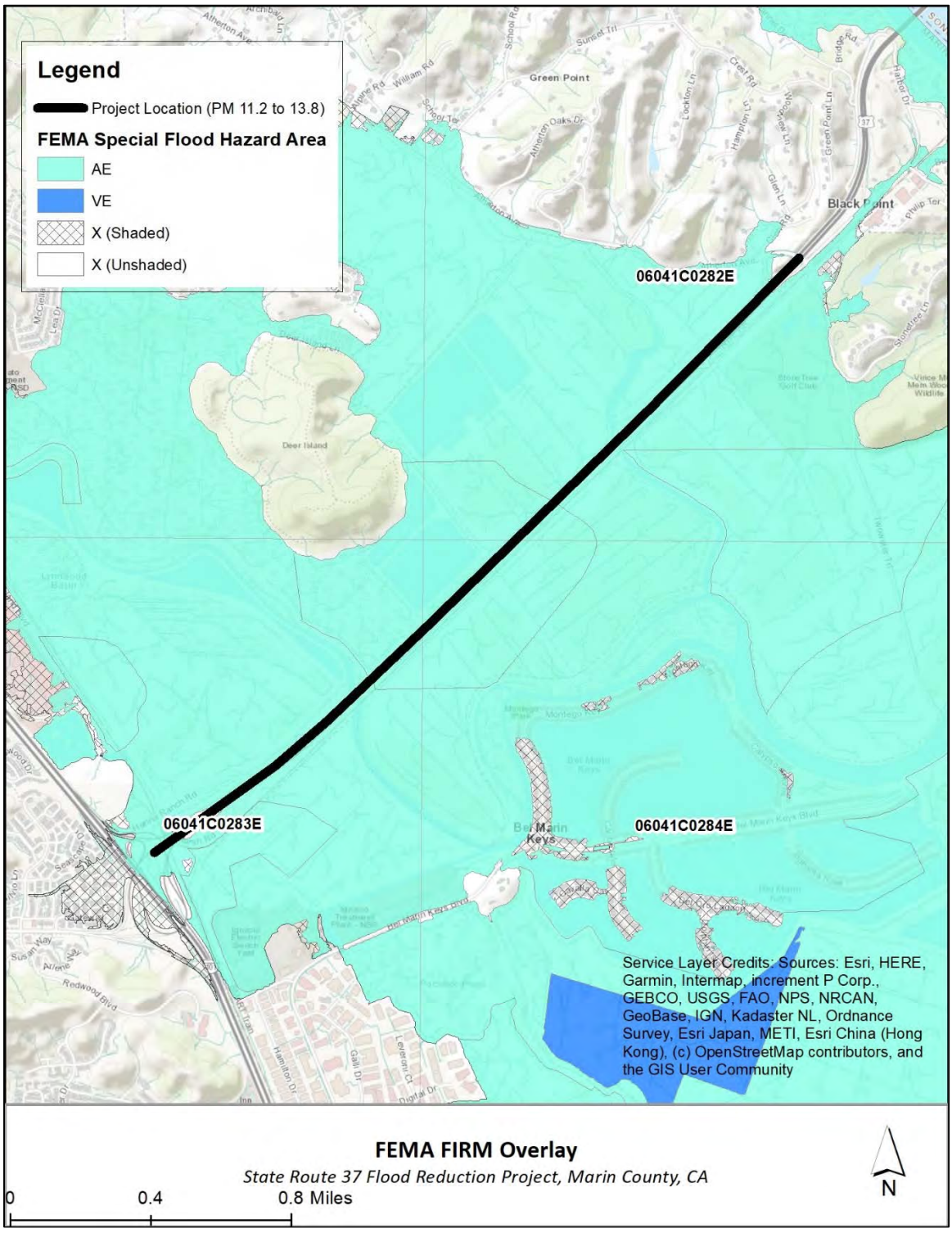

Figure 6. FEMA FIRM at Project Location

2.4 Sea Level Rise Projections

The Project location is within a tidal zone of San Pablo Bay and was analyzed for SLR impacts in the following section.

2.4.1 State of California Guidance

The *State of California Sea-Level Rise Guidance, 2018 Update* (2018 SLR Guidance) was used to determine the scenario-based SLR Projections of the Project sites. The SLR Projections for San Francisco included in the 2018 SLR Guidance are provided in Figure 7. The 2018 SLR Guidance uses the year 2000 as the baseline for the probabilistic Projections and includes a low to high emission scenario leading up to 2150.

		Probabilistic Projections (in feet) (based on Kopp et al. 2014)					H++ scenario (Sweet et al. 2017) *Single scenario
		MEDIAN	LIKELY RANGE		1-IN-20 CHANCE	1-IN-200 CHANCE	
		50% probability sea-level rise meets or exceeds...	66% probability sea-level rise is between...		5% probability sea-level rise meets or exceeds...	0.5% probability sea-level rise meets or exceeds...	
				Low Risk Aversion		Medium - High Risk Aversion	Extreme Risk Aversion
High emissions	2030	0.4	0.3 -	0.5	0.6	0.8	1.0
	2040	0.6	0.5 -	0.8	1.0	1.3	1.8
	2050	0.9	0.6 -	1.1	1.4	1.9	2.7
Low emissions	2060	1.0	0.6 -	1.3	1.6	2.4	
High emissions	2060	1.1	0.8 -	1.5	1.8	2.6	3.9
Low emissions	2070	1.1	0.8 -	1.5	1.9	3.1	
High emissions	2070	1.4	1.0 -	1.9	2.4	3.5	5.2
Low emissions	2080	1.3	0.9 -	1.8	2.3	3.9	
High emissions	2080	1.7	1.2 -	2.4	3.0	4.5	6.6
Low emissions	2090	1.4	1.0 -	2.1	2.8	4.7	
High emissions	2090	2.1	1.4 -	2.9	3.6	5.6	8.3
Low emissions	2100	1.6	1.0 -	2.4	3.2	5.7	
High emissions	2100	2.5	1.6 -	3.4	4.4	6.9	10.2
Low emissions	2110*	1.7	1.2 -	2.5	3.4	6.3	
High emissions	2110*	2.6	1.9 -	3.5	4.5	7.3	11.9
Low emissions	2120	1.9	1.2 -	2.8	3.9	7.4	
High emissions	2120	3	2.2 -	4.1	5.2	8.6	14.2
Low emissions	2130	2.1	1.3 -	3.1	4.4	8.5	
High emissions	2130	3.3	2.4 -	4.6	6.0	10.0	16.6
Low emissions	2140	2.2	1.3 -	3.4	4.9	9.7	
High emissions	2140	3.7	2.6 -	5.2	6.8	11.4	19.1
Low emissions	2150	2.4	1.3 -	3.8	5.5	11.0	
High emissions	2150	4.1	2.8 -	5.8	5.7	13.0	21.9

Figure 7. Projected SLR in San Francisco Tide Gage

Note: Most of the available climate model experiments do not extend beyond 2100. The resulting reduction in model availability causes a small dip in projections between 2100 and 2110, as well as a shift in uncertainty estimates (see Kopp et al. 2014). Use of 2110 projections should be done with caution and with acknowledgement of increased uncertainty around these projections.

Source: State of California, OPC, 2018

2.4.2 Potential Sea Level Rise at End of Project Service Life

One of the Coastal Commission's recommendations for addressing SLR by the Local Coastal Programs (LCPs) is for all communities to evaluate the impacts from the medium-high risk aversion SLR scenario presented in the 2018 OPC SLR Guidance. The OPC SLR Guidance provides emissions-based SLR Projections at local active tidal gauge locations.

Because this Project proposes a causeway to reduce flooding and accommodate projected SLR in the year 2130, projected SLR in 2130 was also reviewed. The SLR Projection at the Project location in the years 2030, 2050, 2100, and 2130 are summarized in Table 4.

Table 4. SLR Projection at Project Location

Scenario Year	2018 SLR Guidance Projections
	Medium-to-High Risk Aversion (ft)
2030	0.8
2050	1.9
2100	6.9
2130	10.0

Source: State of California, OPC, 2018

3 HYDROLOGY AND HYDRAULICS

3.1 Hydrologic Assessment

The following subsections describe the hydrologic data sources that were used to estimate the flows for the Project site. The peak flows of Novato Creek were obtained from FEMA FIS and from the hydraulic model of Novato Creek provided by Marin County.

3.1.1 Federal Emergency Management Agency's Flood Insurance Study

The FEMA FIS for Marin County, California, and Incorporated Areas (2017) provided the peak flows of Novato Creek in the Project vicinity, upstream of the Project location (see Table 5 and Figure 8). The ratio between peak 50- and 100-year flows of Novato Creek in the Project vicinity is approximately 1.21.

Table 5. FEMA FIS Hydrologic Data Summary

Flooding Location	Peak Discharge (cfs)	
	50-year	100-year
(1) Downstream of confluence with Arroyo Avichi	5,140	6,230
(2) Downstream of confluence with Warner Creek	4,690	5,690
(3) Upstream of Warner Creek	3,310	4,080

Note: (1), (2) and (3) in flooding locations correspond to the labels in Figure 8.
Source: FEMA, 2017

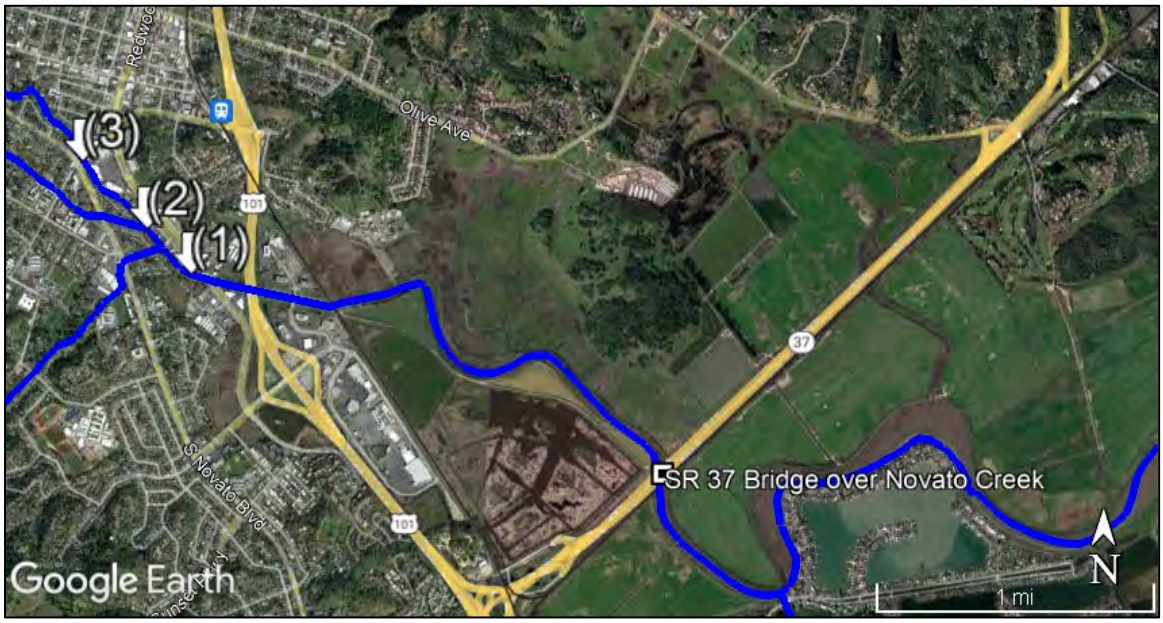

Figure 8. FEMA FIS Peak Flow Rate Map

Note: (1), (2) and (3) in this figure locations correspond to the flooding locations in Table 6.

Source: Google; FEMA, 2017

3.1.2 Hydrograph included in Marin County Floodplain Model

Marin County provided their latest hydraulic model of Novato Creek to Project Team in March 2022. This hydraulic model, developed using United States Army Corps of Engineers (USACE) Hydrologic Engineering Center's River Analysis System (HEC-RAS) hydraulic analysis software, included the 50-year hydrograph of Novato Creek and tributaries in the Project vicinity. The inflow hydrograph of Novato Creek and tributaries for the 100-year storm event was provided by Marin County in May 2023.

The Marin County's hydraulic model included inflow hydrograph of Novato Creek and tributaries at 27 locations. To obtain the hydrograph of Novato Creek mainline in the Project vicinity, preliminary 50- and 100-year hydraulic analysis using the copy the Marin County model was first performed.

The outputs from the hydraulic analysis showed Novato Creek upstream of the Project location does not have the capacity to convey the 50- and 100-year storm events. The extents of the 50- and 100-year floodplain from the preliminary hydraulic analysis are shown in Figure 9 and Figure 10, respectively. The peak 50- and 100-year flow of Novato Creek in the Project vicinity that are conveyed inside the main channel are summarized in Table 6. Figure 11 shows the peak flood flow locations listed in Table 6.

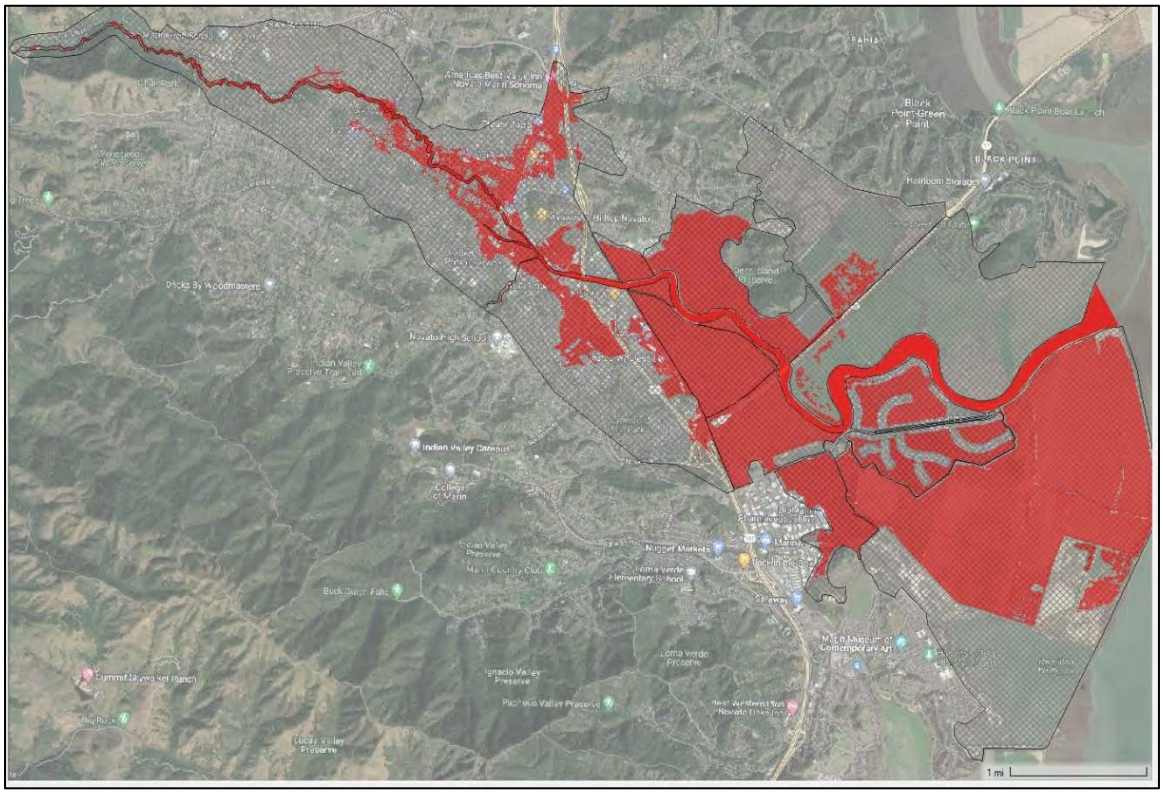

Figure 9. Flooding Extents of Novato Creek under the 50-year Flow

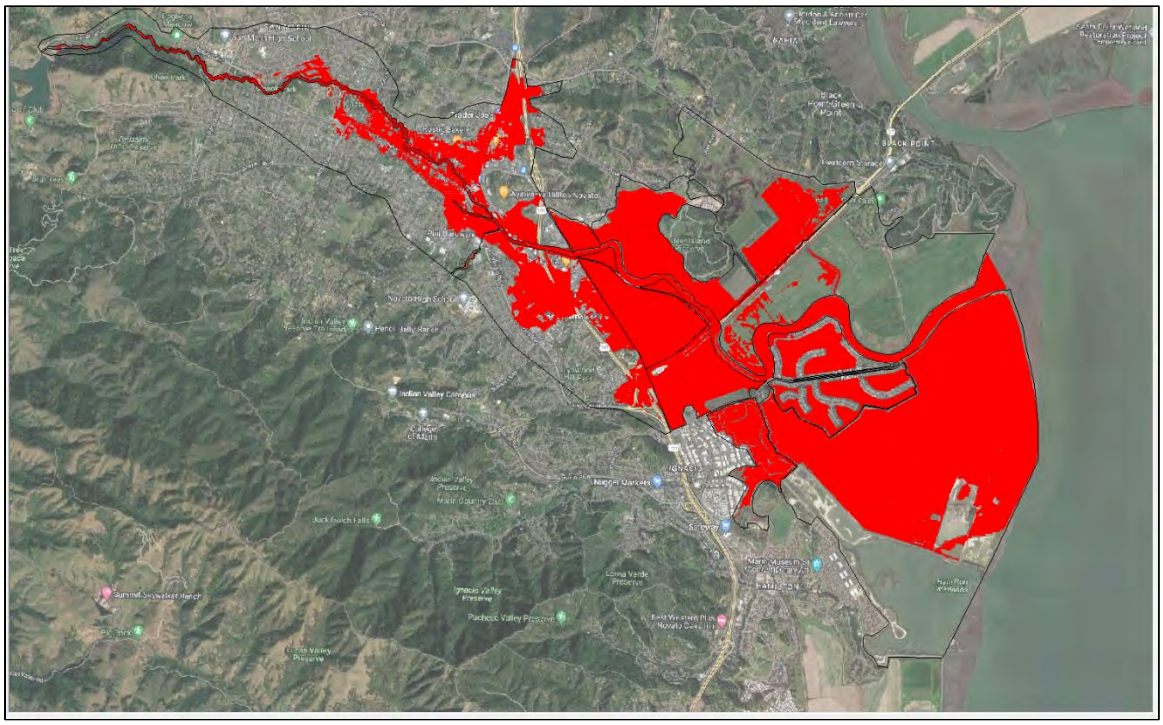

Figure 10. Flooding Extents of Novato Creek under the 100-year Flow

Table 6. Peak 50- and 100-year Flows inside Novato Creek Main Channel

Location		Peak 50-year Flow in the Novato Creek Main Channel (cfs)	Peak 100-year Flow in the Novato Creek Main Channel (cfs)
Description	Location in Figure 11		
Spafford Dam Outlet	(1)	1,083	1,537
At De Long Avenue (Approx. 2,000 ft Upstream of confluence with Warner Creek)	(2)	2,988	3,075
Downstream of confluence with Warner Creek	(3)	3,946	4,297
Downstream of confluence with Arroyo Avichi	(4)	4,594	5,107
At SMART Bridge	(5)	4,791	5,131
At SR 37 Bridge	(6)	3,103	3,170

Source: Marin County, 2022

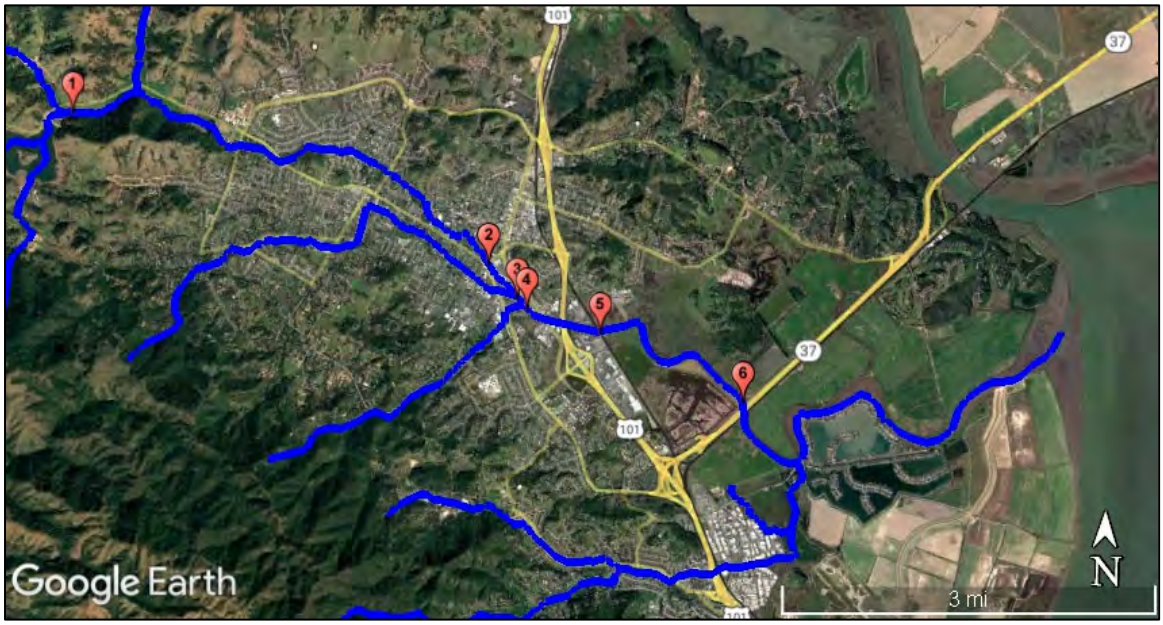

Figure 11. Peak Flood Flow Locations
Note: Numbers correspond to numbered locations in Table 5.

Source: Google

3.1.3 Selected Peak Discharge

The FEMA FIS provided the peak 50- and 100-year flow of Novato Creek higher than the peak 50- and 100-year flow of Novato Creek main channel from the Marin County HEC-RAS model. However, the FEMA FIS did not provide the peak flow of Novato Creek and tributaries at SR 37, and it did not specify if overbank spill flow would occur between "Downstream of Confluence with Arroyo Avichi" and SR 37. Because FEMA

FIS did not provide sufficient hydraulic information to replace the hydrographs assigned in the Marin County HEC-RAS model, these model inputs were carried over for the hydraulic analysis for this Project. The inflow hydrographs for the 100-year storm event of Novato Creek and tributaries were selected to perform the hydraulic analysis of the existing and proposed conditions.

3.2 Hydraulic Assessment

The following sections discuss the development of the hydraulic models and summarize the results for the existing condition and the proposed condition (Phases 1 and 2). The hydraulic analyses were performed for the existing condition (see Section 1.3), proposed condition Phase 1 (see Section 1.4.2.1), and proposed condition Phase 2 (see Section 1.4.2.2).

The water surface profile plots, hydraulic summary tables, and channel cross sections are included in Appendix E for the existing condition and Appendix F for the proposed condition (Phases 1 and 2).

3.2.1 Design Tools

The hydraulic analyses were performed for the existing and proposed conditions using the USACE's HEC-RAS modeling software, version 6.3.1.

3.2.2 Hydraulic Model Development

3.2.2.1 Base Hydraulic Model

As discussed in Section 3.1.2, Marin County provided their HEC-RAS hydraulic model of Novato Creek in March 2022. The plan view of this combined one- and two-dimensional hydraulic model is shown in Figure 12.

The upstream and downstream limits of the hydraulic model were immediately downstream of the Stafford Lake (approximately 42,200 ft upstream of SR 37 Bridge over Novato Creek) and at the outfall to San Pablo Bay (approximately 19,500 ft downstream of SR 37 Bridge over Novato Creek). The channel flow line elevation of Novato Creek varied from below 0 ft in the tidally influenced area to approximately 136 ft at the model upstream limit.

The Marin County HEC-RAS model was a combined one- and two-dimensional hydraulic model. The two-dimensional mesh included in the hydraulic model were used to represent the overbank flood flows of Novato Creek and tributaries, as shown in the FEMA FIRM of Marin County (FEMA, 2017). The area of the two-dimensional mesh included in the hydraulic model is approximately 8,000 acres.

3.2.2.2 Adjustments to the Base Hydraulic Model

As shown in Figure 9, in the default setup of the Marin County HEC-RAS model, the open space adjacent to SR 37 northeast of the SR 37 Bridge over Novato Creek is outside of the extents of 50-year floodplain. This trend was also true for the 100-year storm

event, as shown in Figure 10 in Section 3.1.2. When areas adjacent to SR 37 are not within the limits of the 100-year floodplain, the evaluation of the proposed condition would not be feasible. Therefore, the Project team inserted a levee failure zone in the hydraulic model at the two-dimensional mesh limit facing San Pablo Bay to introduce tidal backwater to the open space adjacent to the SR 37 northeast of the SR 37 Bridge over Novato Creek.

The Marin County HEC-RAS model included reaches of Novato Creek and its tributary that are outside of the tidal backwater influence, as shown in the limits of the tidal Zone AE floodplain in the current effective FEMA FIRM. Because this study would focus on the existing tidally influenced areas along the SR 37 corridor, the existing and proposed condition hydraulic model of Novato Creek for this Project trimmed the upstream reach of Novato Creek, which is outside of the area of influence from the tidal backwater shown in the FEMA FIRM.

In addition, it was assumed that the predicted climate change would not change the pattern of the incoming flood flows of Novato Creek and its tributaries from upstream. Therefore, there were no additional adjustments to the inflow hydrograph between the current condition simulations and the future condition simulations with the predicted SLR in the years 2030 and 2050.

3.2.2.3 Modeled Hydraulic Structures

The Marin County HEC-RAS model included the existing SR 37 Bridge over Novato Creek and other existing bridge structures over Novato Creek and tributaries. The existing and proposed condition hydraulic analysis for this Project did not make any changes to the bridge or other hydraulic structures included in the Marin County HEC-RAS model except for the SR 37 bridges over Novato Creek and Simonds Slough.

The existing condition hydraulic model did not make any adjustments to the SR 37 bridges over Novato Creek and Simonds Slough. For Phase 1 of the proposed condition, the fill from the proposed bridge approach area was represented by directly adjusting the terrain file. Because details of the causeway structure and bridge structure are not currently available, a maximum span of 100 ft supported by 3 ft wide pier walls was assumed outside of the Novato Creek main channel. Inside the Novato Creek main channel, the pier wall width was assumed to be 6 ft. Similarly, the proposed causeway for Phase 2 was assumed to have a maximum span of 100 ft supported by 3 ft wide pier walls outside of the Novato Creek mainline and 6 ft wide pier walls inside the Novato Creek mainline.

3.2.2.4 Overbank Flood Flows

The Marin County HEC-RAS model of Novato Creek and tributaries was a combined one- and two-dimensional hydraulic model. When the flood flow exceeds the channel capacity, the flood flow would escape the main channel and would either flow back to the main channel or sheet flow on the overbank areas. The two-dimensional surface assigned in the Marin County HEC-RAS model was used to compute the flooding from the

overbank flood flows. The hydraulic analysis for the existing and proposed conditions did not modify the input parameters for the two-dimensional hydraulic modeling included in the base HECRAS model, except for removing the two-dimensional mesh located further upstream from the Project location.

3.2.2.5 Manning's Roughness Coefficient

Manning's roughness coefficients were used in the hydraulic model to estimate energy losses in the flow due to friction. The Manning's roughness coefficients were not adjusted from the original inputs assigned in the Marin County HEC-RAS model.

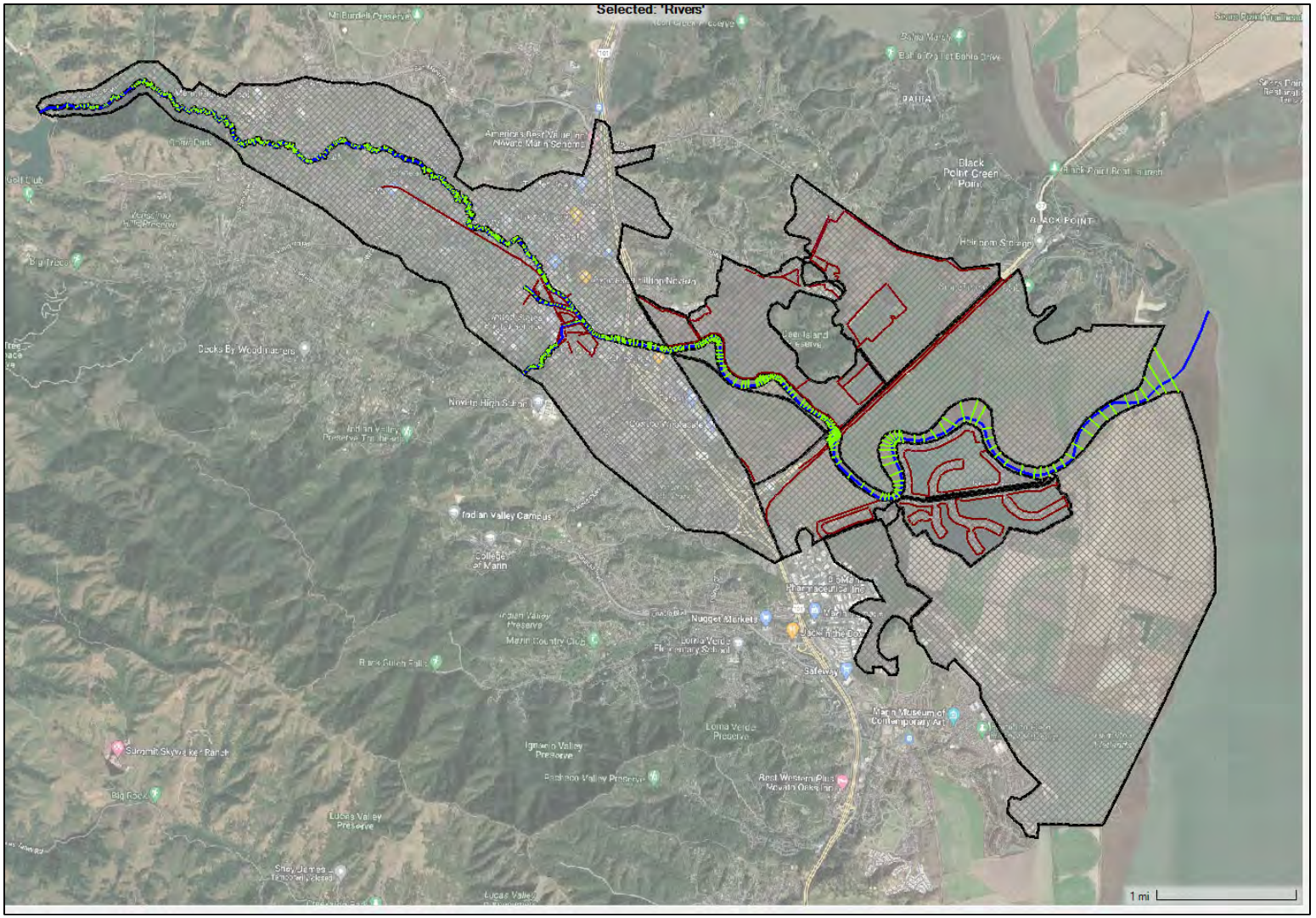

Figure 12. Plan View of the Marin County HEC-RAS Model of Novato Creek

3.2.2.6 Model Boundary Conditions

The Marin County HEC-RAS model of Novato Creek assigned tidal stages of San Pablo Bay as the downstream control water surface elevation during the 69.25-hour simulation. The tide level of San Pablo Bay varied from approximately 2.5 ft to 7.6 ft NAVD 88, which was equivalent to the 1-year tide. This tide level was lowered by approximately 1.4 ft to match the peak tide level with the MHHW elevation. This downstream control from the Marin County HEC-RAS model, with adjustment to the peak tide level, was adopted into the hydraulic analysis of the existing and proposed conditions.

Under the 2130 SLR scenario with projected 10.0 ft SLR, the backwater dominance of sea level extends well upstream of the Project Area. As such, the interim year 2050 SLR scenario was investigated to identify potential Project impacts in consideration of future SLR. For existing and proposed condition hydraulic analysis under the 2050 SLR scenario, the tidal stages included in the hydraulic models were raised by 1.9 ft to represent the 2050 SLR scenario. For the existing condition and Phase 1, hydraulic analysis was also performed under the 2030 SLR scenario, where tide level was raised by 0.8 ft. The 1-year tide included in the base model, MHHW, MHHW with 2030 SLR, and MHHW with 2050 SLR are shown in Figure 13.

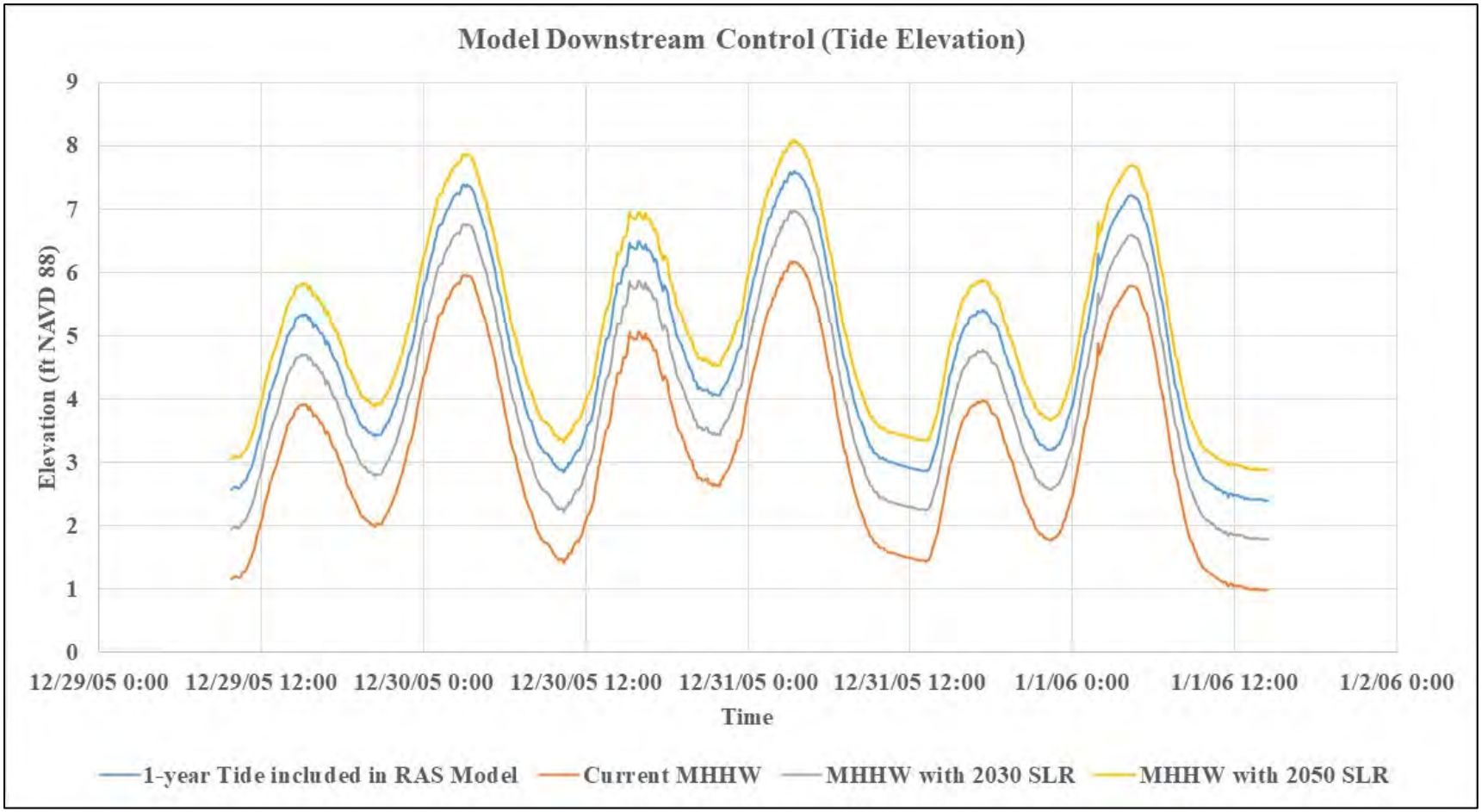

Figure 13. Tide Elevations for the Model Downstream Control

3.2.3 Hydraulic Model Results

The hydraulic analyses were performed for the following scenarios:

- 100-year storm event with the current tide condition for the existing, Phase 1, and Phase 2 conditions
- 2030 SLR for the existing and Phase 1 conditions (Phase 2 would not be complete in 2030, so it was not modeled.)
- 2050 SLR for the existing, Phase 1, and Phase 2 conditions

A summary of the model runs and associated file names are include in Table 7 below.

Table 7. Summary Table of HEC-RAS Model Run Files

Existing Condition Model File:	NovatoCreek.prj
Plan file:	p64 2023_0527 Exist_Q100_MHHW_LF
Purpose:	Model of existing conditions with no sea level rise
Geometry File:	g21 NC_Exist_Revised_v002
Unsteady Flow File:	u17 Q100_T1_MHHW-trim+LF_v02
Plan file:	p67 20230528 Ex_Q100_2050MHHW_LF
Purpose:	Model of existing conditions with year 2050 Projected sea level rise
Geometry File:	g21 NC_Exist_Revised_v002
Unsteady Flow File:	u18 Q100_T1_2050MHHW-trim+LF_v02
Plan file:	P70 20230528 Ex_Q100_2030MHHW_LF
Purpose:	Model of existing conditions with year 2030 Projected sea level rise
Geometry File:	g21 NC_Exist_Revised_v002
Unsteady Flow File:	u19 Q100_T1_2030MHHW-trim+LF_v02
Proposed Condition - Phase 1 Model File:	NovatoCreek.prj
Plan file:	p65 20230527_Pr P1 Q100 MHHW_LF
Purpose:	Model of Proposed Phase 1 conditions with no sea level rise
Geometry File:	g25 20230514_Prop Phase 1
Unsteady Flow File:	u17 Q100_T1_MHHW-trim+LF_v02
Plan file:	p68 20230528_PR P1 Q100 2050MHHW_LF
Purpose:	Model of Proposed Phase 1 conditions with year 2050 Projected sea level rise
Geometry File:	g25 20230514_Prop Phase 1
Unsteady Flow File:	u18 Q100_T1_2050MHHW-trim+LF_v02
Plan file:	p71 20230528_PR P1 Q100 2050MHHW_LF
Purpose:	Model of Proposed Phase 1 conditions with year 2030 Projected sea level rise
Geometry File:	g25 20230514_Prop Phase 1
Unsteady Flow File:	u19 Q100_T1_2030MHHW-trim+LF_v02
Proposed Condition - Phase 2 Model File:	NovatoCreek.prj
Plan file:	p66 20230527_Pr P2 Q100 MHHW_LF
Purpose:	Model of Proposed Phase 2 conditions with no sea level rise
Geometry File:	g24 20230514_Prop Phase 2
Unsteady Flow File:	u17 Q100_T1_MHHW-trim+LF_v02
Plan file:	p69 20230528_Pr P2 Q100 2050MHHW_LF
Purpose:	Model of Proposed Phase 2 conditions with year 2050 Projected sea level rise
Geometry File:	g24 20230514_Prop Phase 2
Unsteady Flow File:	u18 Q100_T1_2050MHHW-trim+LF_v02

The outputs were compared at the following locations and are shown in Figure 14 and Figure 15.

1. Novato Creek Main Channel, upstream of SR 37 Bridge
2. Novato Creek Main Channel, downstream of SR 37 Bridge
3. Open Space north of SR 37, near U.S. 101 Interchange
4. Open Space south of SR 37, near U.S. 101 Interchange
5. Open Space north of SR 37, east of SR 37 Bridge
6. Open Space south of SR 37, east of SR 37 Bridge
7. Simonds Slough, immediately north of SR 37 Bridge
8. Simonds Slough, immediately south of SR 37 Bridge
9. At SMART track parallel to SR 37 (shown only in Figure 15)

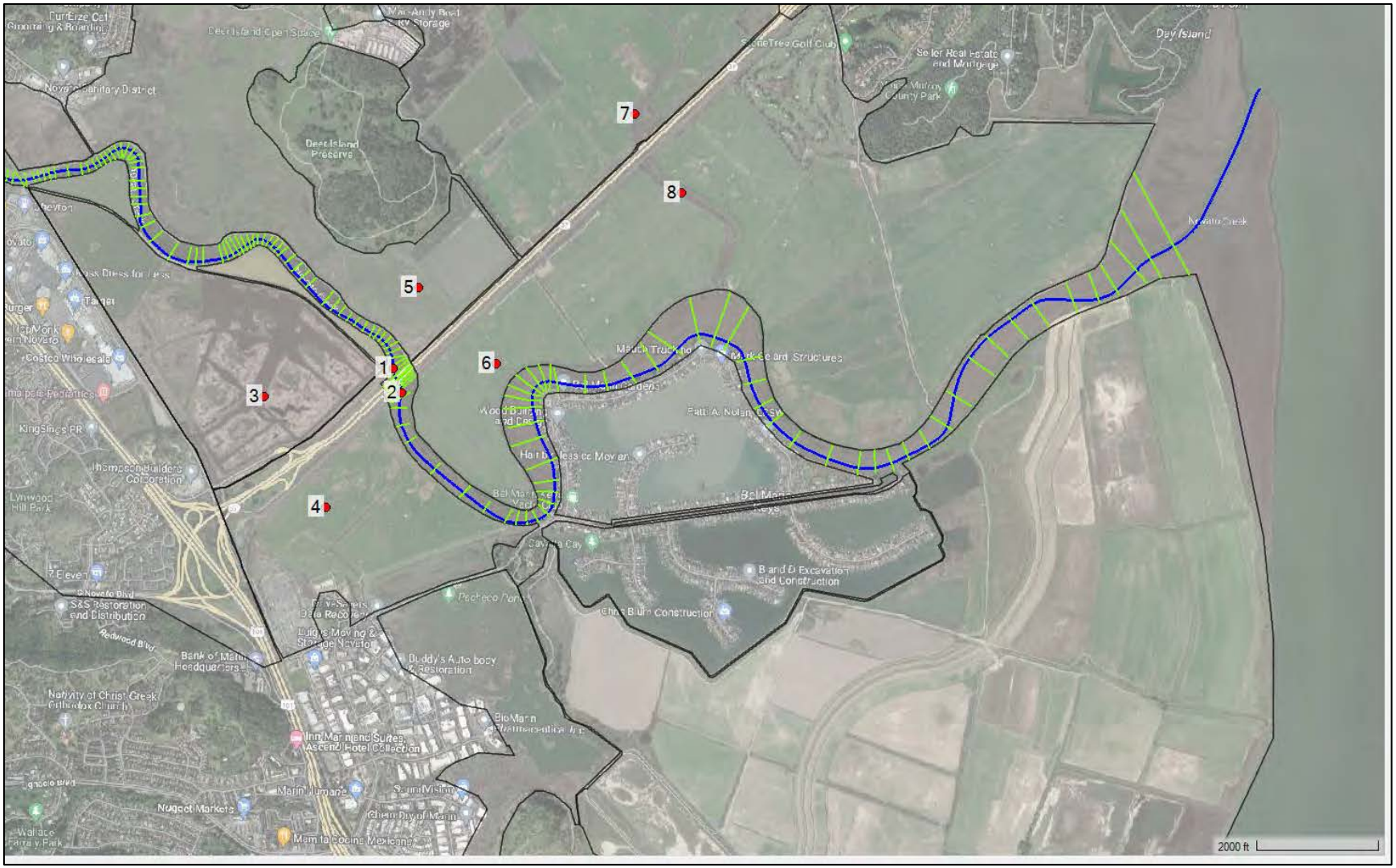

Figure 14. Observation Location 1: Basins along SR 37

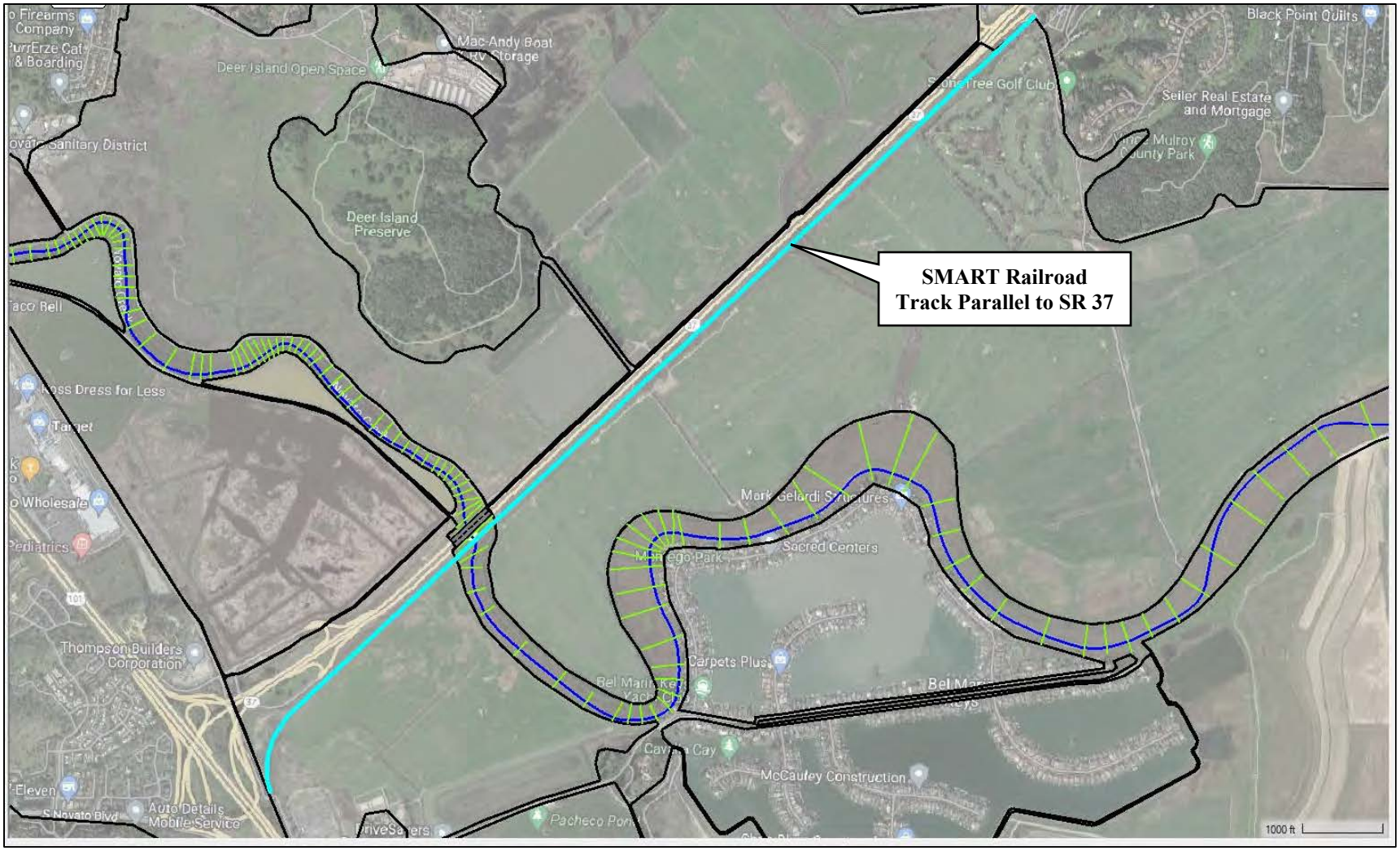

Figure 15. Observation Location 2: SMART Railroad Track Parallel to SR 37

3.2.3.1 Water Surface Elevations – Current Tide Condition

The 100-year WSEs for the existing and proposed conditions in the Project vicinity are summarized in Table 8. The maximum 100-year WSEs during the existing and proposed condition hydraulic analyses are shown in Figure 16 through Figure 18. The cross-sectional view of the 100-year WSEs at the SMART railroad track is shown in Figure 19. The changes in 100-year WSE between Phase 1 and the existing condition are shown in Figure 20, and the changes in 100-year WSE between Phase 2 and the existing condition are shown in Figure 21.

Table 8. Hydraulic Summary, Existing and Proposed Conditions with No SLR

Location	Maximum 100-year WSE (ft NAVD 88)		
	Existing	Phase 1	Phase 2
1	11.11	11.09	11.09
2	10.98	10.99	10.99
3	10.67	10.67	10.67
4	10.65	10.66	10.66
5	4.69	4.73	4.58
6	3.87	3.87	3.87
7	3.02	3.03	3.00
8	3.87	3.87	3.87
9	10.65 to 11.05	10.66 to 11.06	10.66 to 11.06

Both Phase 1 and Phase 2, would have minimal impact to the 100-year WSE inside of the Novato Creek main channel in the vicinity of the SR 37 Novato Creek bridge. The changes in the 100-year WSE from the existing condition within the Project vicinity was approximately 0.1 ft or less for both Phase 1 and Phase 2 (see Figure 20, and Figure 21).

In addition, Phase 1 and Phase 2 would have minimal impact to the SMART railroad track parallel to SR 37. The change in the 100-year WSE was approximately 0.01 ft or less; therefore, the Project would not change the extent of the 100-year floodplain overtopping the SMART railroad track.

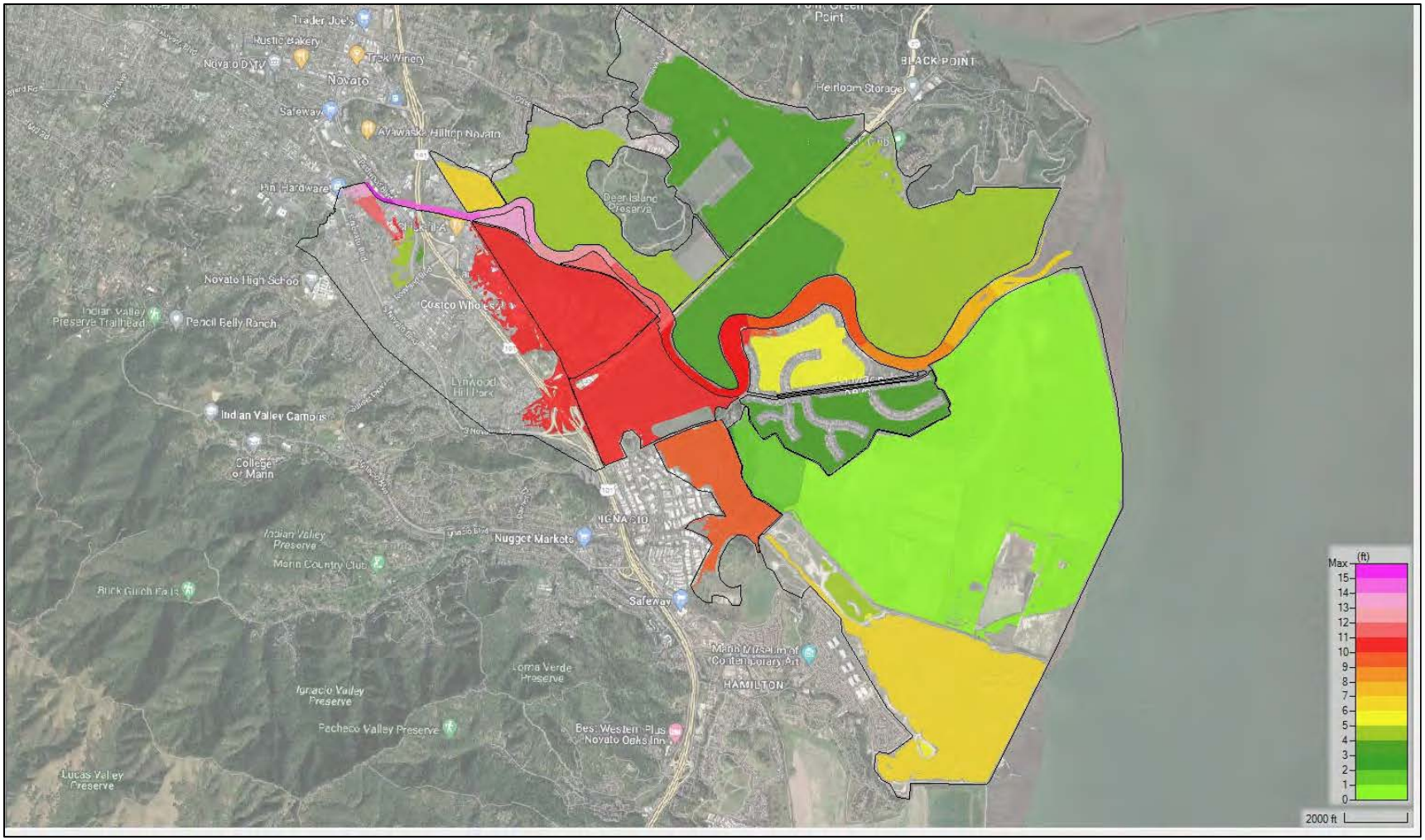

Figure 16. Existing Condition, Current Tide Level, 100-year WSE

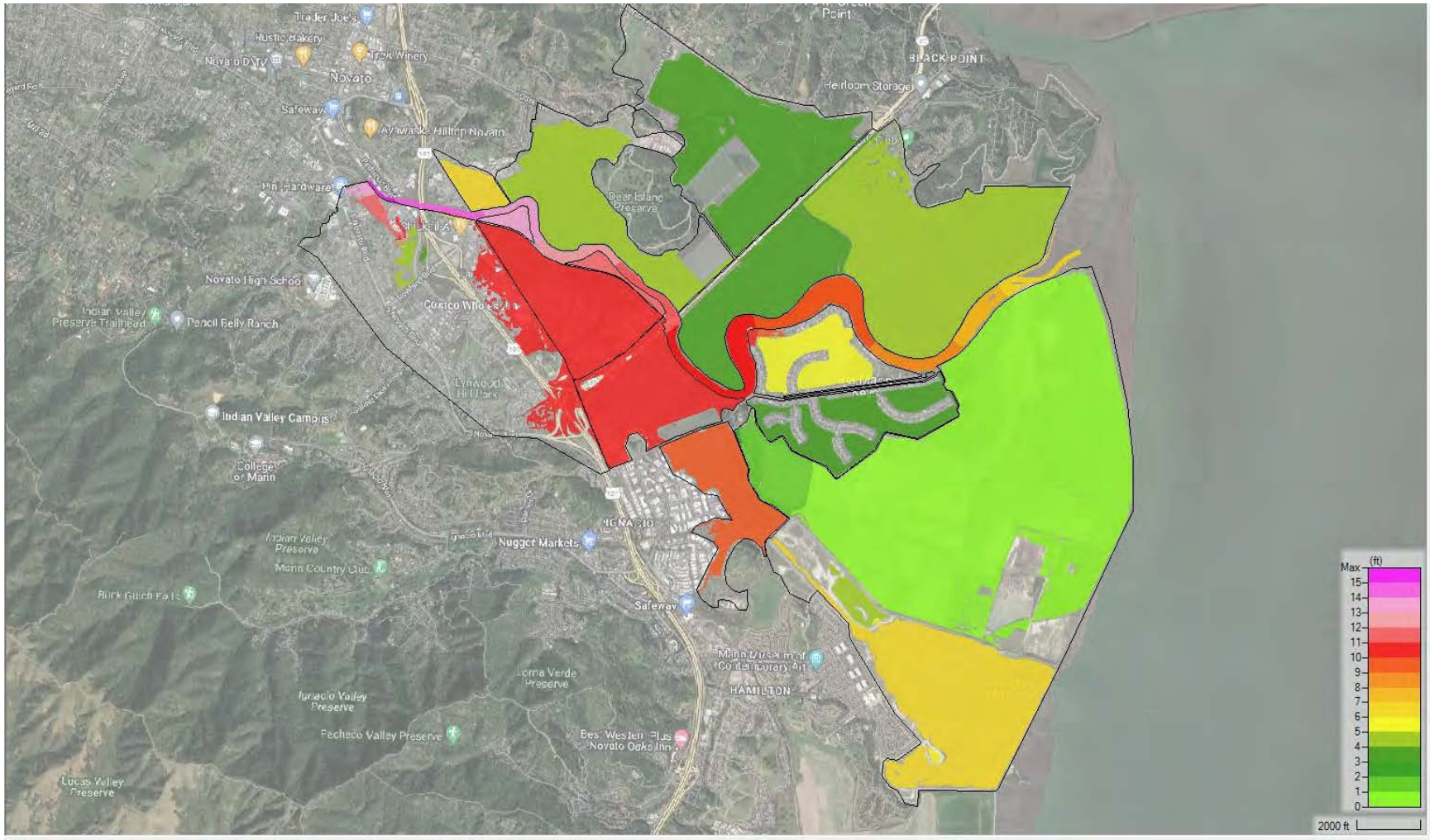

Figure 17. Phase 1, Current Tide Level, 100-year WSE

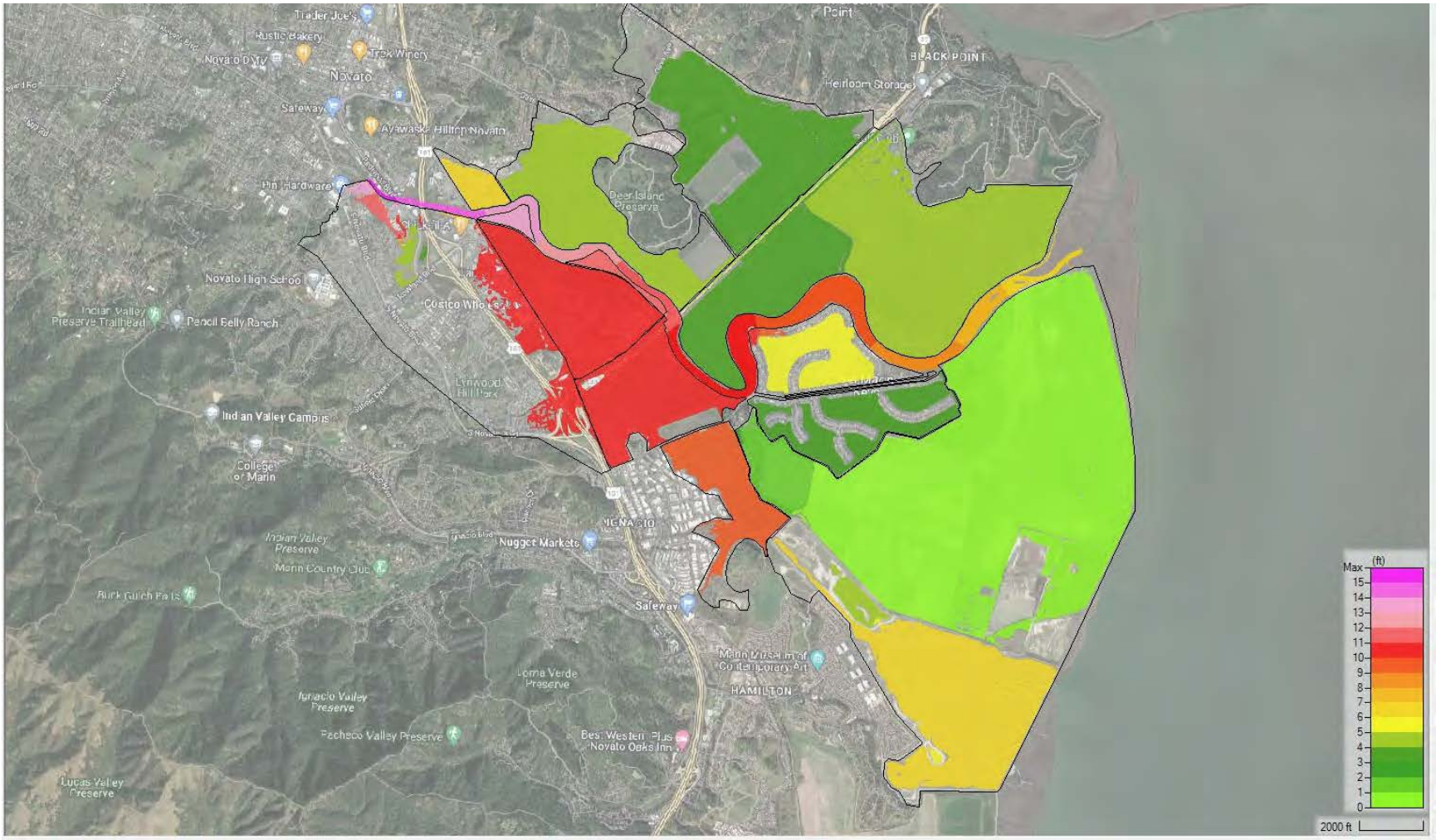

Figure 18. Phase 2, Current Tide Level, 100-year WSE

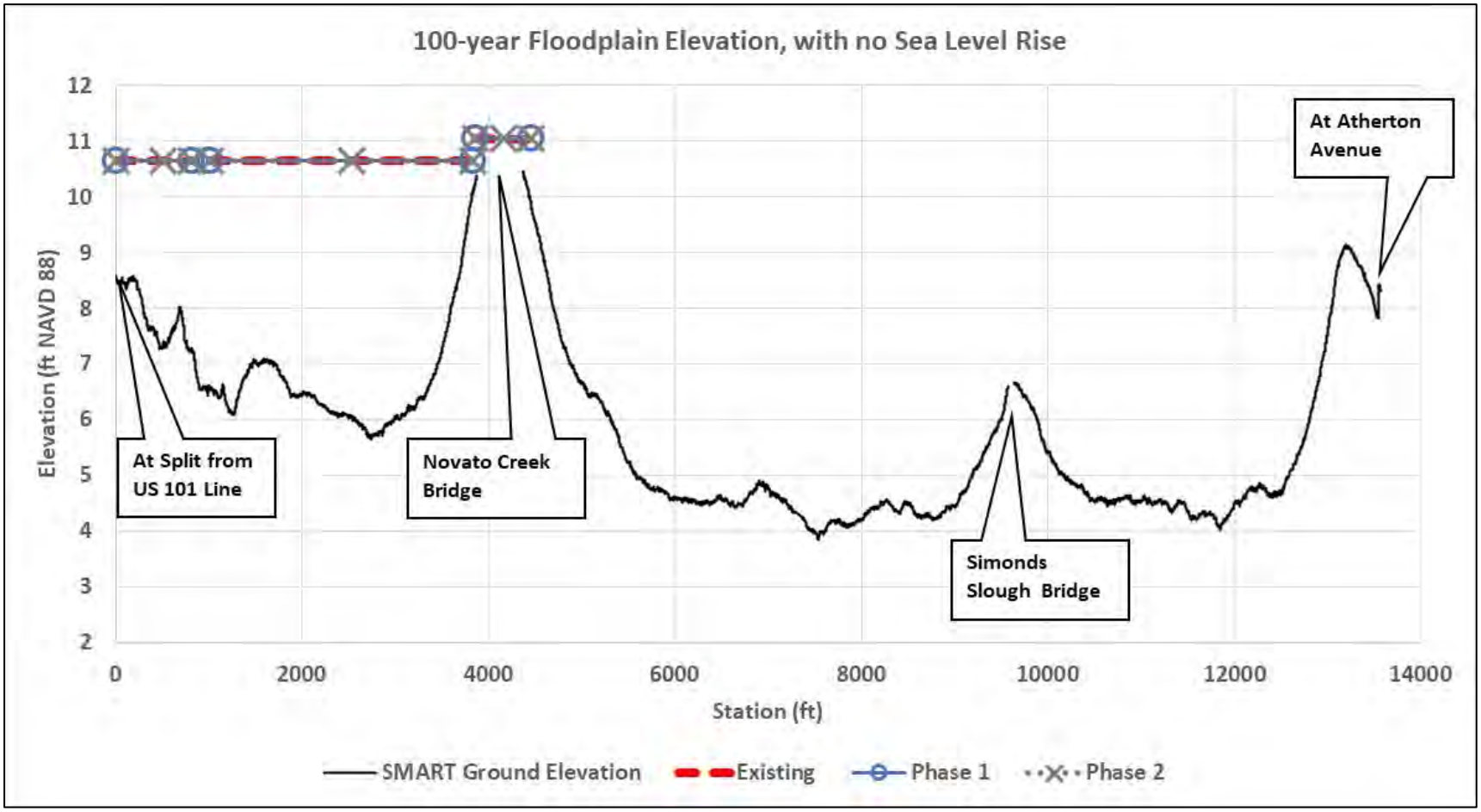

Figure 19. 100-year Flood Elevation along SMART Railroad Track, with No SLR

Note: 100-year floodplain elevations between Novato Creek bridge and Atherton Avenue are lower than the SMART ground elevation. Therefore, existing and proposed WSEs are not shown.



Figure 20. Phase 1, Current Tide Level, 100-year WSE Change from Existing Condition
Note: Due to the proximity of observation locations 1 and 2, this figure does not show the label for location 2.



Figure 21. Phase 2, Current Tide Level, 100-year WSE Change from Existing Condition
Note: Due to the proximity of observation locations 1 and 2, this figure does not show the label for location 2.

3.2.3.2 Water Surface Elevations with 2050 SLR Condition

The hydraulic analysis was performed for the existing condition and Phase 1 and Phase 2 of the proposed condition under the 2050 SLR scenario. The 100-year WSEs for the existing and proposed condition in the Project vicinity with 2050 SLR are summarized in Table 9. The maximum 100-year WSEs during the existing and proposed condition hydraulic analyses are shown in Figure 22 through Figure 24. The cross-sectional view of the 100-year WSEs at the SMART railroad track is shown in Figure 25. The changes in 100-year WSE between Phase 1 and the existing condition are shown in Figure 26, and the changes in 100-year WSE between Phase 2 and the existing condition are shown in Figure 27.

Table 9. Hydraulic Summary, Existing and Proposed Conditions with 2050 SLR

Location	Maximum 100-year WSE (ft NAVD 88)		
	Existing	Phase 1	Phase 2
1	11.12	11.10	11.10
2	11.00	11.01	11.01
3	10.72	10.73	10.73
4	10.70	10.71	10.71
5	7.34	6.89	7.33
6	7.42	7.53	7.42
7	7.17	6.86	7.17
8	7.45	7.55	7.45
9	7.46 to 11.06	7.52 to 11.08	7.42 to 11.08

Note: WSEs are rounded to the nearest 0.1 ft.

The proposed embankment for the proposed bridge approach for Phase 1 would result in more 100-year floodplain fill than Phase 2. In the hydraulic analysis with the 2050 SLR scenario, this proposed embankment would act as a flood barrier for the tidal backwater; this would result in an increase in 100-year WSE by approximately 0.1 ft or less at the basins along SR 37 eastbound lanes (south and east of the SR 37 alignment), and a decrease in the 100-year WSE by approximately 0.5 ft or less at the basins along SR 37 westbound lanes (north and west of the SR 37 alignment, see Table 9 and Figure 26).

For Phase 2 with the 2050 SLR scenario, the 100-year WSE change within the footprint of the hydraulic model was approximately 0.1 ft or less (see Table 9 and Figure 27).

For the existing and two proposed conditions, the SMART railroad track is fully submerged in the modeled 100-year storm event with 2050 SLR. The changes to the 100-year WSE would be minimal between the split from the US 101 line and Novato Creek Bridge (see Figure 25). However, at the segment between Novato Creek Bridge and Atherton Avenue, the 100-year WSE for Phase 1 would increase by approximately 0.1 ft.

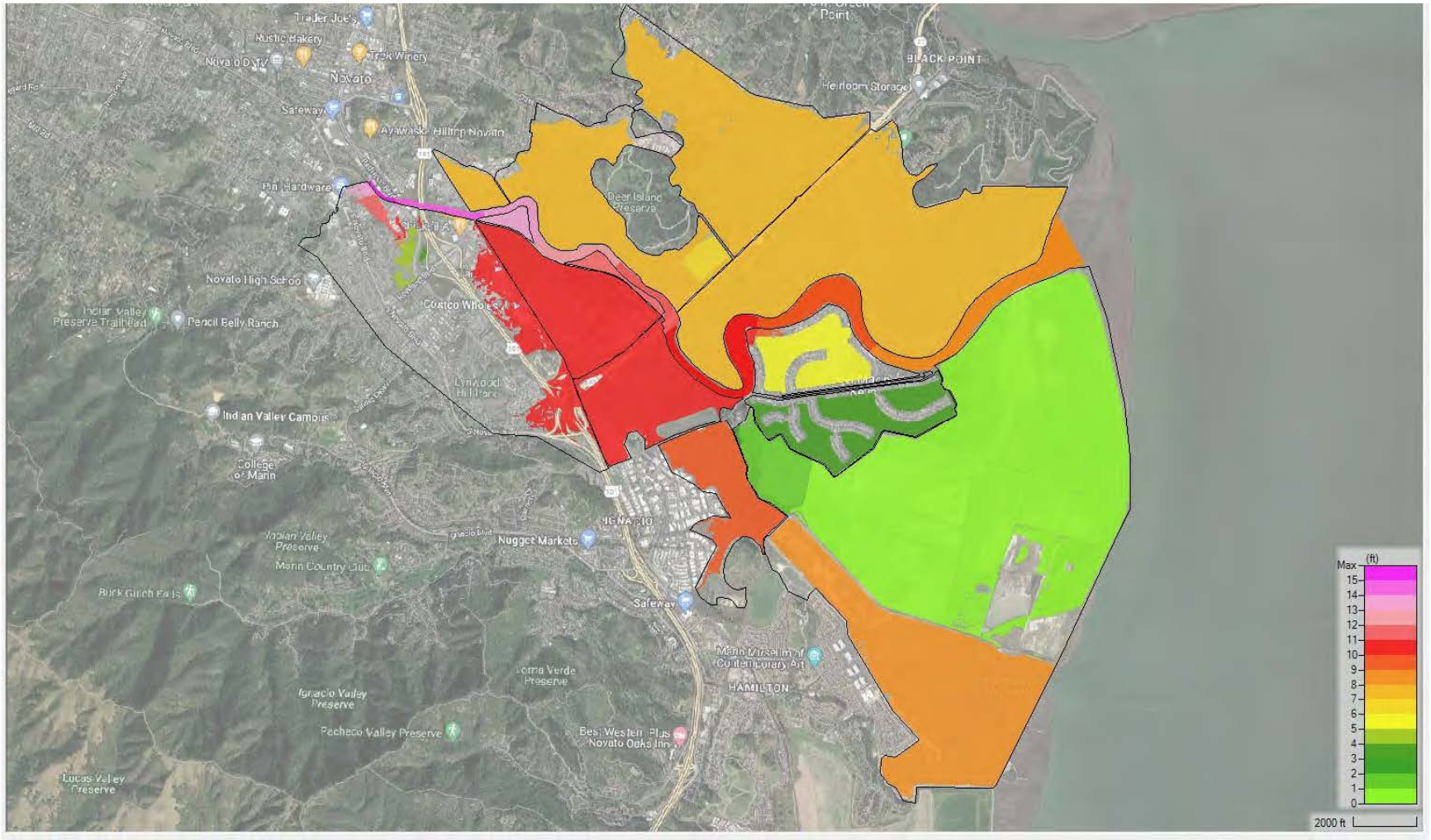

Figure 22. Existing Condition, 2050 SLR Tide Level, 100-year WSE

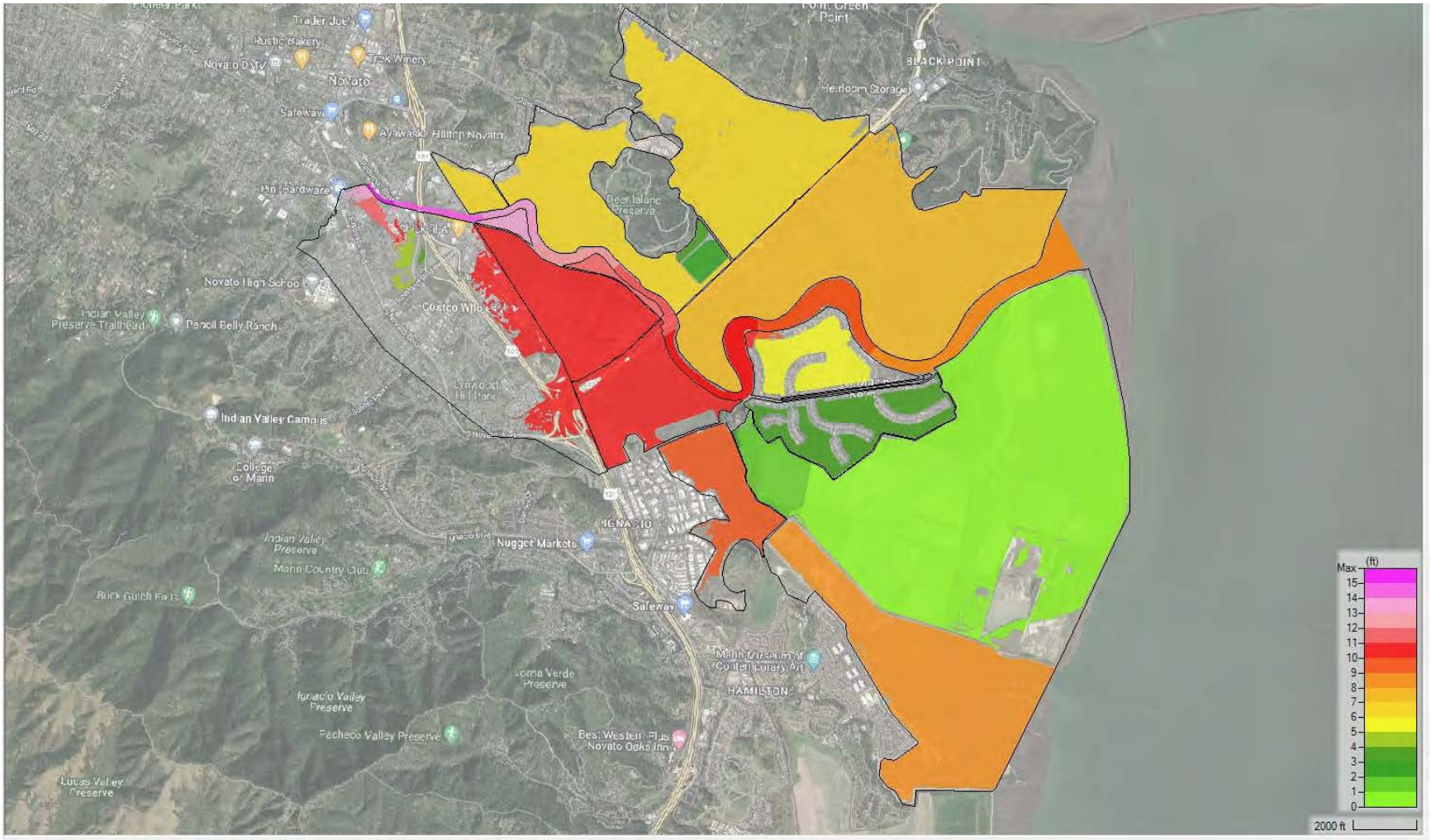

Figure 23. Phase 1, 2050 SLR Tide Level, 100-year WSE

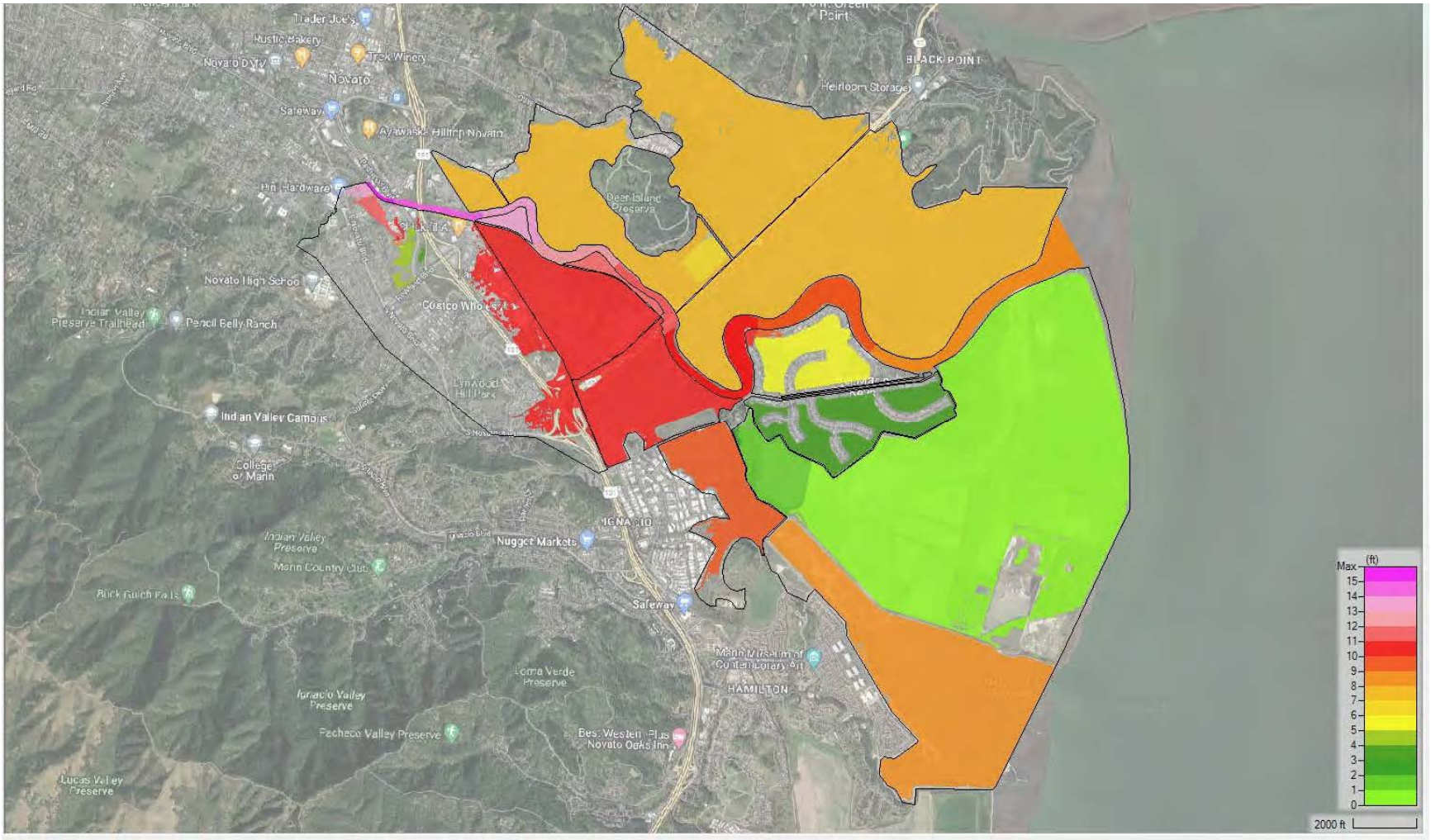

Figure 24. Phase 2, 2050 SLR Tide Level, 100-year WSE

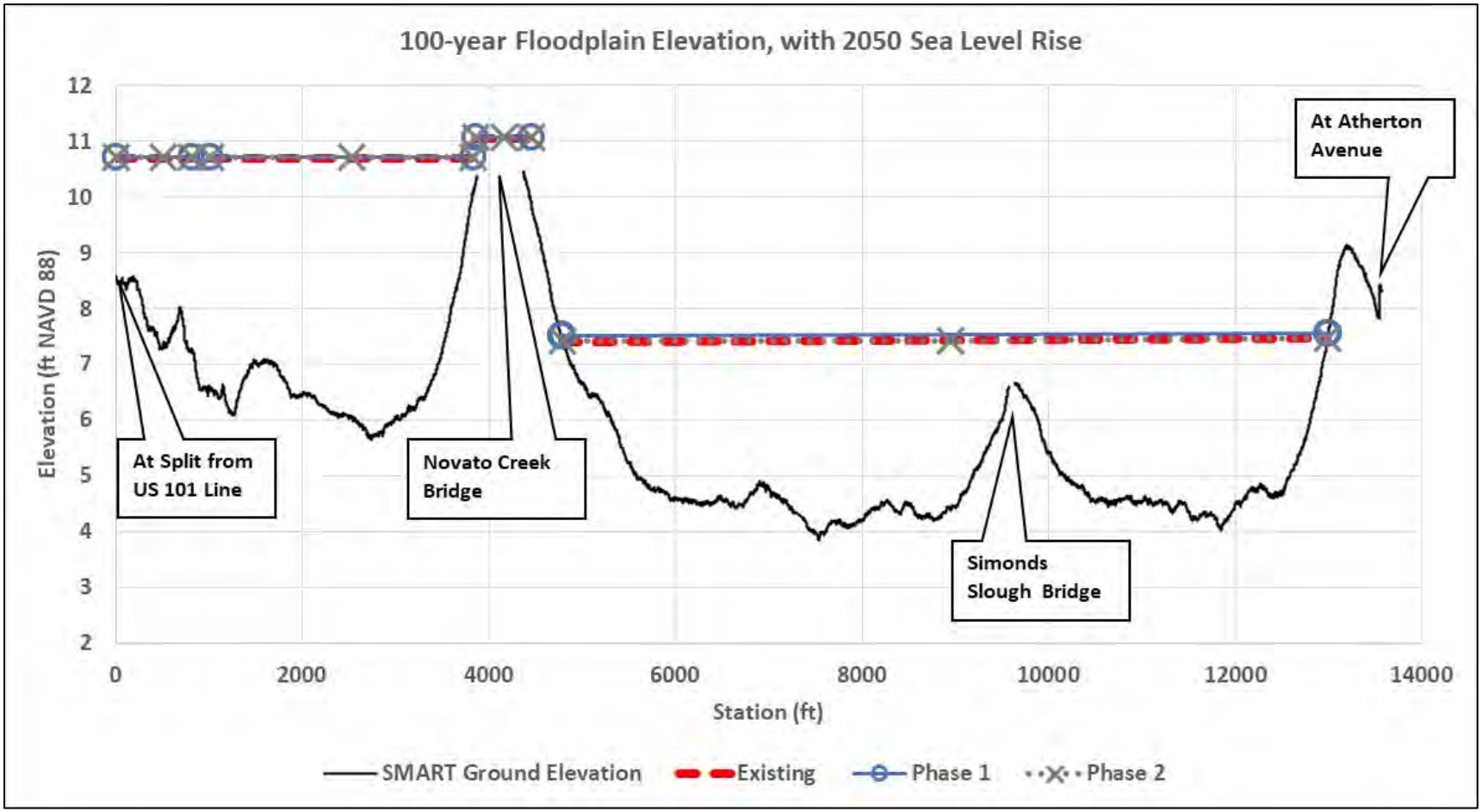

Figure 25. 100-year Flood Elevation along SMART Railroad Track, with 2050 SLR

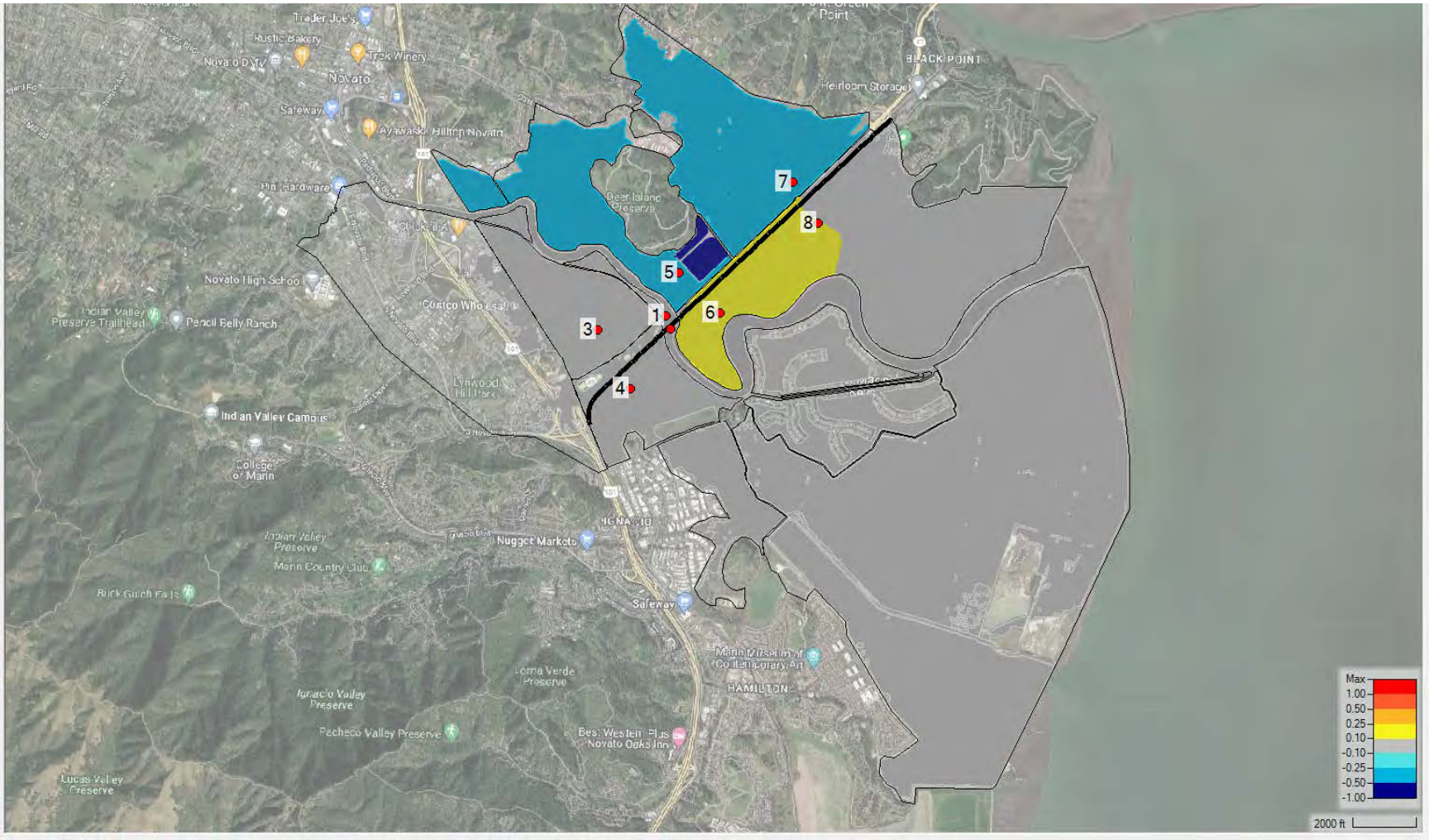

Figure 26. Phase 1, 2050 SLR Tide Level, 100-year WSE Change from Existing Condition
Note: Due to the proximity of observation locations 1 and 2, this figure does not show the label for location 2.

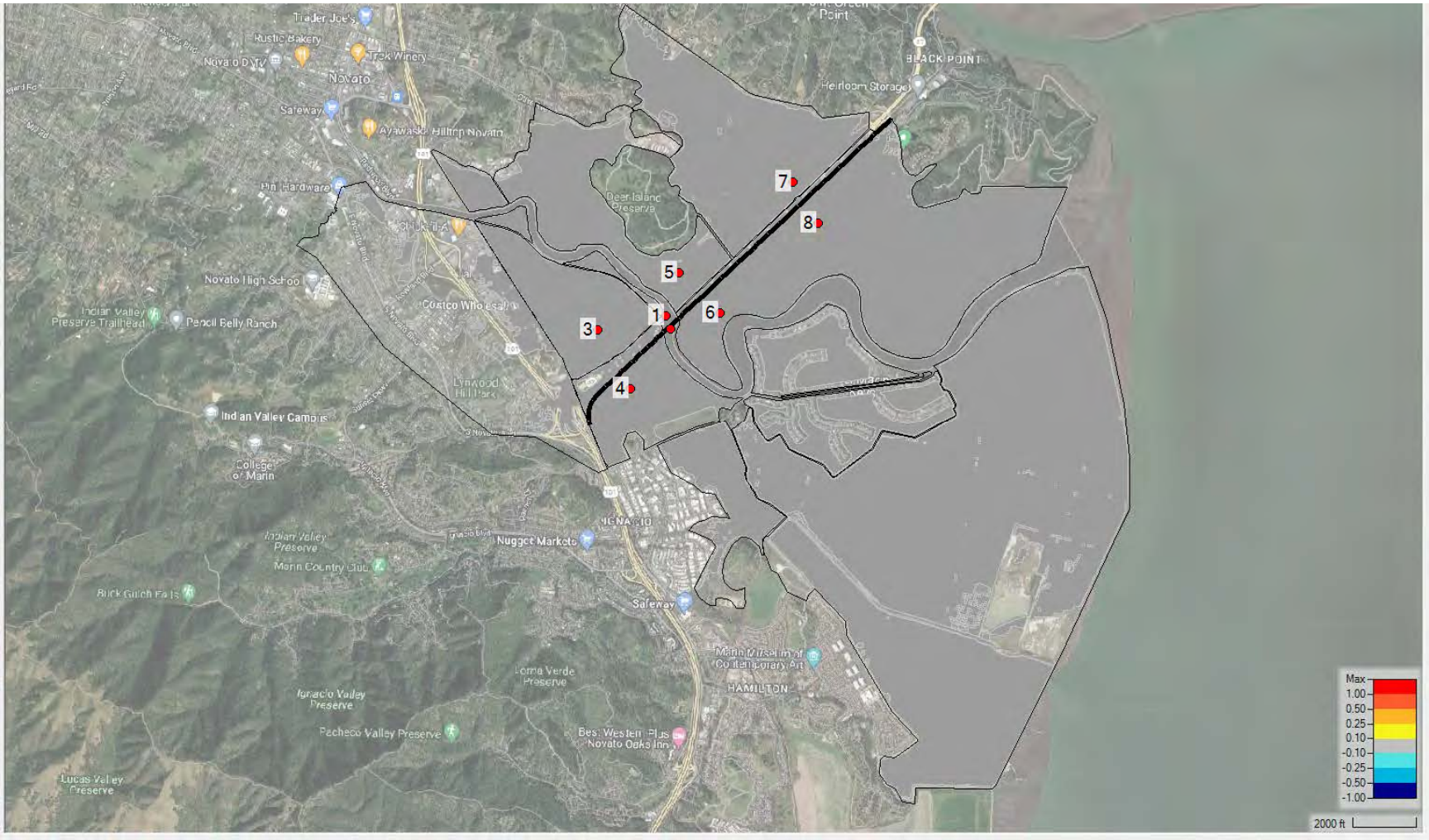

Figure 27. Phase 2, 2050 SLR Tide Level, 100-year WSE Change from Existing Condition
Note: Due to the proximity of observation locations 1 and 2, this figure does not show the label for location 2.

3.2.3.3 Water Surface Elevations with 2030 SLR Condition

The hydraulic analysis was also performed for the existing condition and Phase 1 of the proposed condition under the 2030 SLR scenario. Because completion of Phase 2 is expected to be after the year 2030, hydraulic analysis under the 2030 SLR scenario was not performed for Phase 2. The 100-year WSEs for the existing and proposed conditions in the Project vicinity with 2030 SLR are summarized in Table 10. The maximum 100-year WSEs during the existing and proposed condition hydraulic analyses are shown in Figure 28 and Figure 29. The cross-sectional view of the 100-year WSEs at the SMART railroad track is shown in Figure 30. The changes in 100-year WSE between Phase 1 and the existing condition are shown in Figure 31.

Table 10. Hydraulic Summary, Existing and Proposed Conditions with 2030 SLR

Location	Maximum 100-year WSE (ft NAVD 88)	
	Existing	Phase 1
1	11.09	11.09
2	10.97	11.00
3	10.68	10.69
4	10.66	10.67
5	5.61	5.18
6	5.93	6.06
7	5.37	5.14
8	5.94	6.06
9	5.95 to 11.03	6.06 to 11.07

Similar to the hydraulic analysis under the 2050 SLR scenario, the proposed embankment for the proposed bridge approach for Phase 1 would act as flood barrier for the tidal backwater, increasing the 100-year WSE by approximately 0.1 ft or less at the basins basins along SR 37 eastbound lanes (south and east of the SR 37 alignment), and decreasing the 100-year WSE by approximately 0.4 ft or less at the basins along SR 37 westbound lanes (north and west of the SR 37 alignment, see Table 10 and Figure 26).

For the existing and Phase 1 conditions, the SMART railroad track is fully submerged during the modeled 100-year storm event with the 2030 SLR scenario. The changes to the 100-year WSE would be minimal between the split from the U.S. 101 line and Novato Creek bridge (see Figure 30). However, at the segment between the Novato Creek bridge and Atherton Avenue, the 100-year WSE for Phase 1 would increase by approximately 0.1 ft.

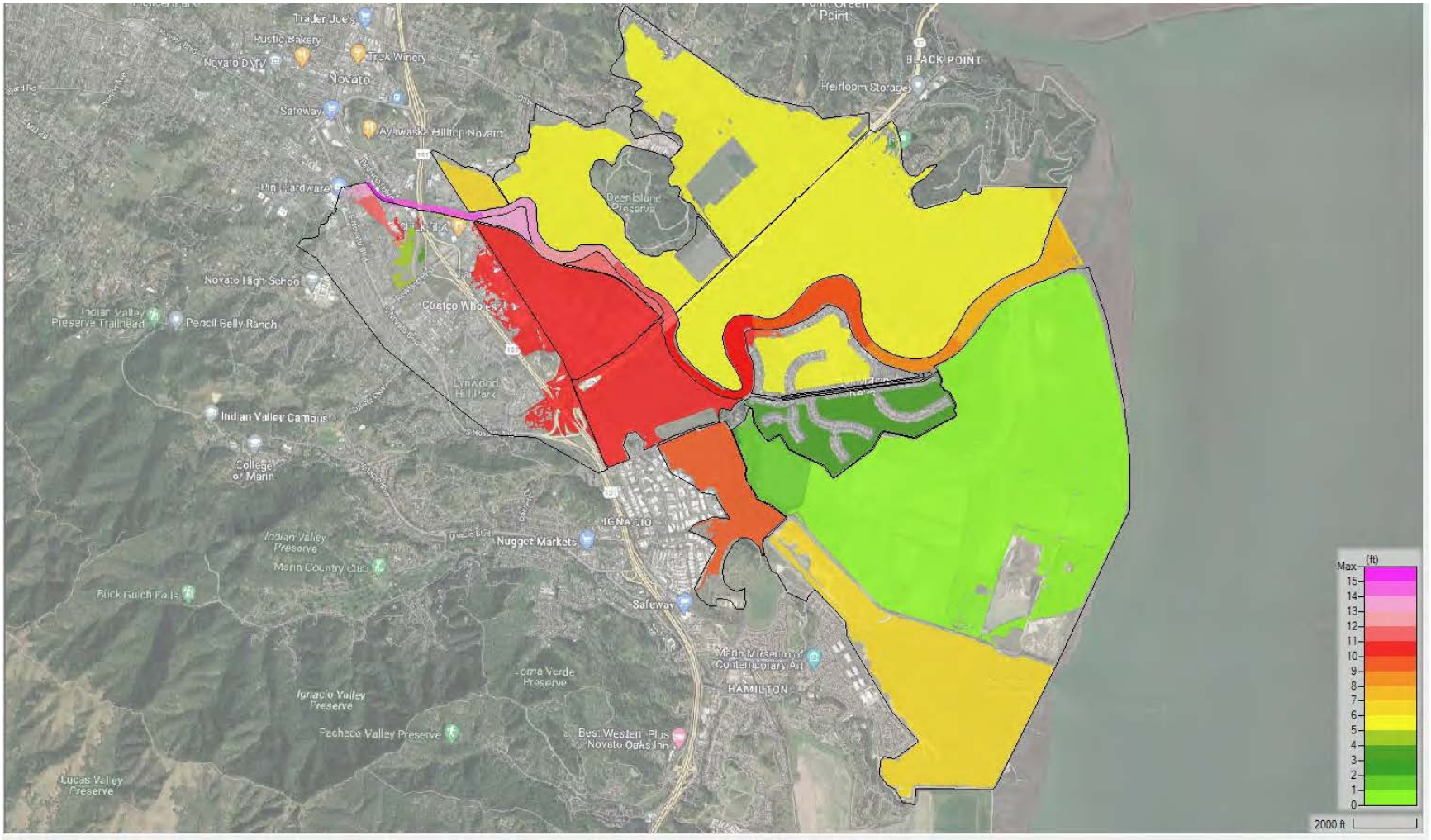

Figure 28. Existing Condition, 2030 SLR Tide Level, 100-year WSE

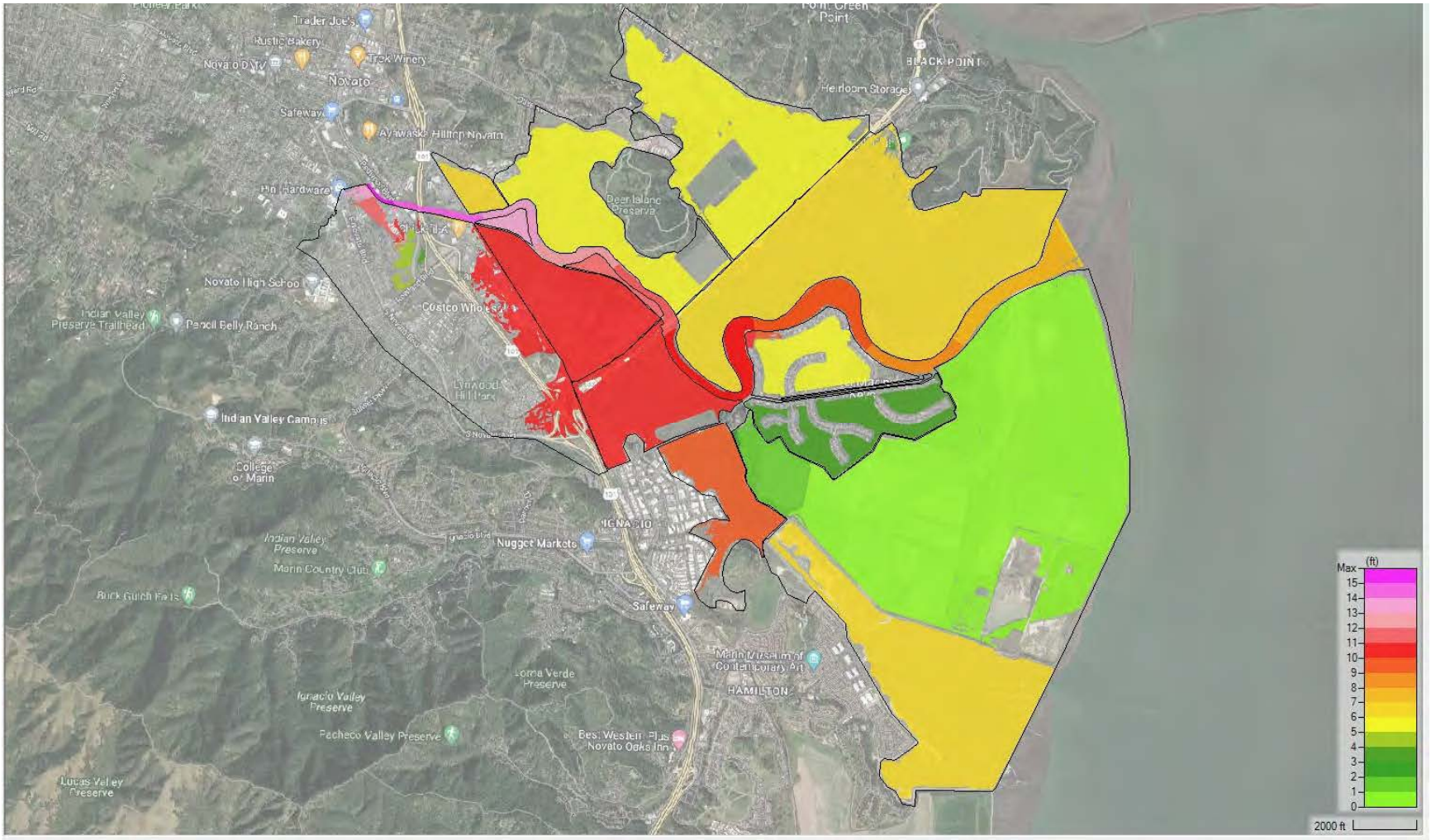

Figure 29. Phase 1, 2030 SLR Tide Level, 100-year WSE

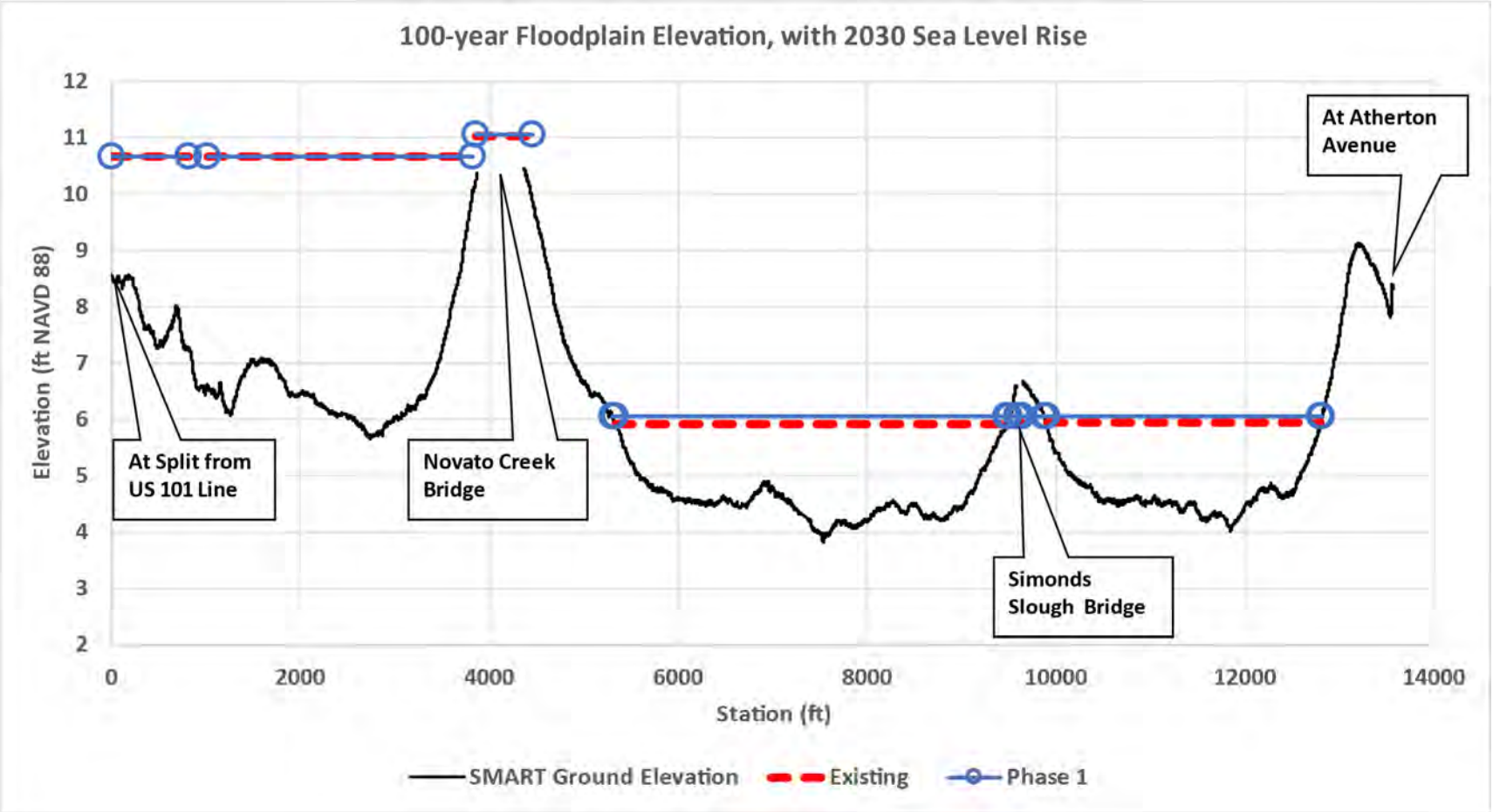

Figure 30. 100-year Flood Elevation along SMART Railroad Track with 2030 SLR

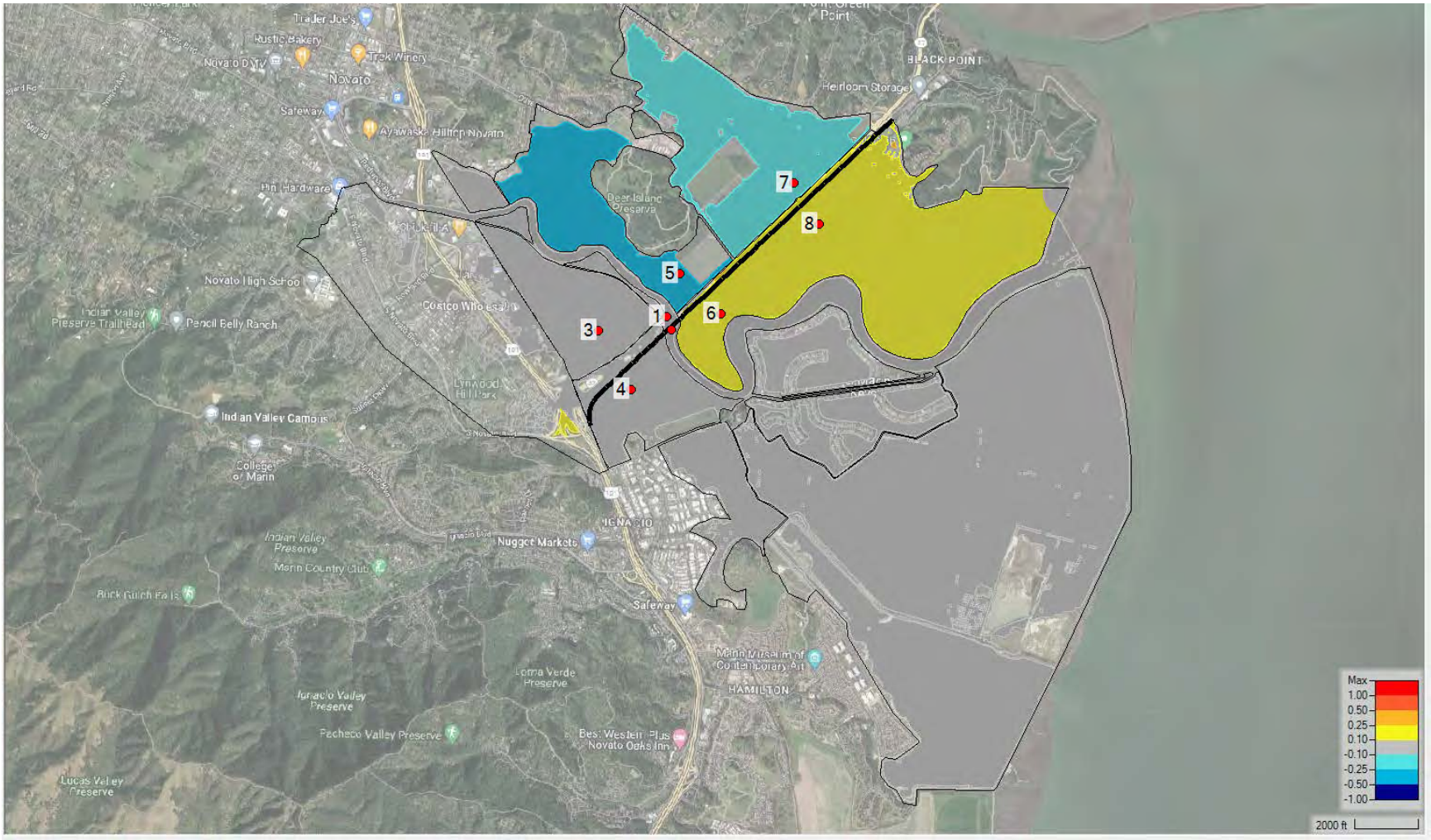

Figure 31. Phase 1, 2030 SLR Tide Level, 100-year WSE Change from Existing Condition

4 PROJECT EVALUATION

Executive Order 11988 requires federal agencies to avoid to the maximum extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. This section analyzes the impacts associated with this Project.

4.1 Risk Associated with the Proposed Action

As defined by the FHWA, risk shall mean the consequences associated with the probability of flooding attributable to an encroachment. It shall include the potential for property loss and hazard to life during the service life of the bridge and roadway.

The potential risk associated with the implementation of the proposed action includes but is not limited to 1) change in land use, 2) change in impervious surface area, 3) fill inside the floodplain, or 4) change in the 100-year WSE. The measures to minimize the potential floodplain impacts associated with the action are summarized in Section 5.

4.1.1 Change in Land Use

The proposed alternative (Phases 1 and 2) would not change the overall land use within the Project location or within the Novato Creek watershed basin.

4.1.2 Change in Impervious Surface Area

Phases 1 and 2 of the proposed Project would add additional impervious surface to the Novato Creek watershed. However, the added impervious area resulting from the proposed alternative (Phases 1 and 2) would be insignificant compared with the watershed of Novato Creek at the Project location, given that the total watershed area of Novato Creek at the Project site is approximately 45 square miles. Therefore, the peak 100-year flow at the Project site would not increase significantly from this Project.

4.1.3 Fill Inside the Floodplain

The embankment fill for the proposed bridge approach area (Phase 1) and new piers supporting the proposed bridge and causeway (Phases 1 and 2) would be classified as a fill inside the current effective FEMA 100-year floodplain.

4.1.4 Change in the 100-Year Water Surface Elevation

The results of the hydraulic modeling indicated that both Phases 1 and 2 would change the maximum 100-year WSEs at the open space along SR 37 by 0.1 ft or less when not accounting for the projected SLR. When accounting for the 2030 and 2050 projected SLR, the 100-year WSEs along SR 37 would increase by approximately 0.1 ft or less and decrease by approximately 0.5 ft for Phase 1. For Phase 2, the changes in the 100-year WSEs along SR 37 would be approximately 0.1 ft or less with 2050 SLR.

4.2 Summary of Potential Encroachments

The FHWA defines a significant encroachment as a highway encroachment, and any direct support of likely base floodplain development, that would involve one or more of the following construction or flood-related impacts: 1) significant potential for interruption or termination of a transportation facility that is needed for emergency vehicles or provides a community's only evacuation route, 2) a significant risk, or 3) a significant adverse impact on the natural and beneficial floodplain values (FHWA, 1994). The following sections discuss the potential impacts to the floodplain that may result from the proposed action. The risk associated with implementation of the action is discussed in Section 4.1.

4.2.1 Potential Traffic Interruptions for the Base Flood

The existing FEMA FIRM and the existing condition hydraulic analysis outputs show SR 37 would be closed to traffic during the 100-year storm event. Phase 1 would raise the SR 37 bridge over Novato Creek, but the vertical profile of SR 37 outside of the construction footprint would remain unchanged. Therefore, freeway closure during the 100-year storm event would be expected to occur after completion of Phase 1. Phase 2 would raise the entire profile of SR 37 within the Project limits to 35 ft NAVD 88. The roadway overtopping is not anticipated to occur within the construction within the footprint of Phase 2.

4.2.2 Potential Adverse Effect on Natural and Beneficial Floodplain Values

Natural and beneficial floodplain values include but are not limited to fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge.

Potential short-term adverse effects during the construction of the new SR 37 Bridge and additional Project features to the natural and beneficial floodplain values include 1) loss of vegetation during construction activity and 2) temporary disturbance of wildlife and aquatic habitat. Construction should be planned to avoid adverse effects to the natural and beneficial floodplain areas to the maximum extent practicable. Measures to restore and preserve the natural and beneficial floodplain values are discussed in Section 5.2.

4.2.3 Support of Probable Incompatible Floodplain Development

As defined by the FHWA, the support of incompatible base floodplain development will encourage, allow, serve, or otherwise facilitate incompatible base floodplain development, such as commercial development or urban growth.

The Project would be raising the vertical profile of SR 37, and there would be minimal changes to the horizontal alignment of SR 37. In addition, the proposed alternative (Phases 1 and 2) does not include new interchange/intersection. Therefore, the Project

would not create new access to developed or undeveloped land and, hence, would not support incompatible floodplain development.

4.2.4 Longitudinal Encroachments

As defined by the FHWA, a longitudinal encroachment is an action within the limits of the base floodplain that is longitudinal to the normal direction of the floodplain.

A longitudinal encroachment is "[a]n encroachment that is parallel to the direction of flow. Example: A highway that runs along the edge of a river is usually considered a longitudinal encroachment." The requirement for consideration of avoidance alternatives must be included in a Location Hydraulic Study by including an evaluation and a discussion of the practicability of alternatives to any significant encroachment or any support of incompatible floodplain development.

The alignment of SR 37 is not parallel to the 100-year flow direction of Novato Creek. There is no defined flow direction for the overland floodplains adjacent to SR37, except for the Simonds Slough, which is also not parallel to the alignment of SR 37. Therefore, the Project would not be considered a longitudinal encroachment on the existing FEMA 100-year floodplain.

5 AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

5.1 Minimize Floodplain Impacts

The hydraulic analysis for Phases 1 and 2 for this study was based on limited information. Because maximum changes to the 100-year WSE were 0.1 ft (Phases 1 and 2 with no SLR), detailed Project design and detailed hydraulic modeling would minimize the changes to the 100-year floodplain in the Project vicinity. For Phase 1 with the 2030 and 2050 SLR scenarios, the hydraulic analysis showed a 100-year WSE increase of approximately 0.1 ft and a decrease of approximately 0.5 ft from the existing condition. Installation of equalizer culverts and/or removal of existing SR 37 structures would minimize the changes in the 100-year WSE in the Project vicinity.

5.2 Restore and Preserve Natural and Beneficial Floodplain Values

Temporary environmental impacts could be minimized with measures such as best management practices, seasonal work restrictions, revegetation, establishing a boundary for work around sensitive habitat, implementing erosion control measures, and other activities that are part of the Project's anticipated permit conditions.

5.3 Alternatives to Significant Encroachments

The FHWA defines a "significant encroachment" as a highway encroachment, and any direct support of likely base floodplain development, that will involve one or more of the following construction of flood-related impacts: 1) significant potential for interruption or termination of a transportation facility that is needed for emergency vehicles or provides a community's only evacuation route; 2) a significant risk; or 3) a significant adverse impact on the natural and beneficial floodplain values (FHWA, 1994).

The 100-year WSE changes for Phases 1 and 2 with no SLR (0.2 ft or less) and with projected 2050 SLR (0.5 ft or less) are not objectionable; therefore, consideration of alternatives is not warranted.

5.4 Alternatives to Longitudinal Encroachments

The Build Alternative would not have longitudinal encroachments on the existing floodplain; therefore, consideration of alternatives is not warranted.

5.5 Coordination with Local, State, and Federal Water Resources and Floodplain Management Agencies

Caltrans would coordinate with local, State, and Federal water resources and floodplain management agencies as necessary.

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Appendix A Location Hydraulic Study Form

Appendix A.1 State Route 37 Bridge over Novato Creek

LOCATION HYDRAULIC STUDY FORM[1]

DIST-CO-RTE: 4-MRN-37 **PM/PM:** 11.96
EA/Project No.: 04-4Q320 **Bridge No.:** 270011L/R
Floodplain Description:

SR 37 Novato Creek Bridge (270011L/R) is within the FEMA FIRM 06041C283E.

The entire SR 37 Novato Creek Bridge is located within the FEMA-designated tidally influenced area. The FEMA special flood hazard area (SFHA) designated at the existing SR 37 Novato Creek Bridge is Zone AE (10 ft) on the southwestern bridge approach and Zone AE (11 ft) on the northeastern bridge approach. These two FEMA SFHAs represent areas that would be inundated by the tidal backwater with an elevation of 10 and 11 ft NAVD 88 during the 100-year storm event. The footprint of the 100-year tidal floodplain in the Project vicinity measured from the SR 37 Novato Creek Bridge, including Zone AE (10 ft and 11ft) along SR 37, is approximately 8,700 ft to the northeast and approximately 2,700 ft to the southwest.

1. Description of Proposal: The purpose of the Project is to reduce flooding on the SR 37 roadway and address projected sea level rise to 2130 from Post Mile (PM) 11.2 to PM 13.8. Following Project phases were analyzed:

   Phase 1: Phase 1 would replace the existing Novato Creek Bridge with a new 3,000 ft long bridge spanning across Novato Creek.

   Phase 2: Under Phase 2, the Build Alternative would construct the remaining causeway within the project limits along SR 37, from U.S. 101 to the new Novato Creek Bridge and from the eastern end of the new Novato Creek Bridge to the Atherton Avenue Undercrossing.

2. Current ADT: 42,000 (2021) Projected ADT: 52,500 (2050)

3. Hydraulic Data: Base Flood

   Q_{100}= 3,070 CFS

   WSE_{100}= 11.1 ft NAVD 88 (Existing and Phases 1&2, with no SLR)
   11.1 ft NAVD 88 (Existing and Phases 1&2, with 2050 SLR)
   11.1 ft NAVD 88 (Existing and Phase 1 with 2030 SLR)

   The flood of record, if greater than Q_{100}:
   Q= n/a CFS WSE= n/a
   Overtopping flood Q= n/a CFS WSE= n/a
   Are NFIP maps available? ☒ YES ☐ NO
   Are NFIP studies available? ☒ YES ☐ NO

[1] Form adapted from Figure 804.7A Technical Information for Location Hydraulic Study located in Chapter 804 of the Highway Design Manual.

4. Is the highway location alternative within a regulatory floodway? ☐ YES ☒ NO

5. Attach map with flood limits outlined showing all buildings or other improvements within the base floodplain.

   Potential Q_{100} backwater damages:

A. Residences?	☐ YES	☒ NO
B. Other Bldgs?	☐ YES	☒ NO
C. Crops?	☐ YES	☒ NO
D. Natural and beneficial floodplain values?	☐ YES	☒ NO

6. Type of Traffic:

A. Emergency supply or evacuation route?	☒ YES	☐ NO
B. Emergency vehicle access?	☒ YESO	❐ NO
C. Practicable detour available?	☒ YES	☐ NO
D. School bus or mail route?	☒ YES	☐ NO

7. Estimated duration of traffic interruption for 100-year event 24 hours.

Several weeks, based on experience of past flooding events.

8. Estimated value of Q_{100} flood damages (if any) – moderate risk level.

A. Roadway	$ NA
B. Property	$ NA
Total	$ NA

9. Assessment of Level of Risk ☒ Low ☐ Moderate ☐ High

   For High Risk projects, during design phase, additional Design Study Risk Analysis may be necessary to determine design alternative.

PREPARED BY:

06/28/2023

Signature- Dist. Hydraulic Engineer
(Item numbers 3,4,5,7,9)

Date

Is there any longitudinal encroachment, significant encroachment, or any support of incompatible Floodplain development? ☐ YES ☒ NO

If yes, provide evaluation and discussion of practicability of alternatives in accordance with 23 CFR 650.113.

Information developed to comply with the Federal requirement for the Location Hydraulic Study shall be retained in the project files.

07/14/2023

Signature- Dist. Project Engineer
(Item numbers 1,2,6,8)

Date

Appendix A.2 State Route 37 Bridge over Simonds Slough

LOCATION HYDRAULIC STUDY FORM[1]

DIST-CO-RTE: 4-MRN-37 **PM/PM:** 13.04
EA/Project No.: 04-4Q320 **Bridge No.:** 270012
Floodplain Description:

SR 37 Simonds Slough Bridge (270012) is within the FEMA FIRM 06041C282E.

The entire SR 37 Simonds Slough Bridge is located within the FEMA-designated tidally influenced area. The FEMA special flood hazard area designated at the existing SR 37 Simonds Slough Bridge is Zone AE (10 ft), which represents areas that would be inundated by the tidal backwater with an elevation of 10 ft NAVD 88 during the 100-year storm event. The footprint of the 100-year tidal floodplain in the Project vicinity measured from the SR 37 Simonds Slough Bridge, including Zone AE (10 ft) along SR 37, is approximately 3,300 ft to the northeast and approximately 8,100 ft to the southwest.

1. Description of Proposal: The purpose of the Project is to reduce flooding on the SR 37 roadway and address projected sea level rise to 2130 from Post Mile (PM) 11.2 to PM 13.8. Following Project phases were analyzed:

   Phase 1: Phase 1 would replace the existing Novato Creek Bridge with a new 3,000 ft long bridge spanning across Novato Creek.

Phase 2: Under Phase 2, the Build Alternative would construct the remaining causeway within the project limits along SR 37, from U.S. 101 to the new Novato Creek Bridge and from the eastern end of the new Novato Creek

2. Current ADT: 42,000 (2021) Projected ADT: 52,500 (2050)

3. Hydraulic Data: Base Flood

   Q_{100}= n/a CFS

   WSE_{100}= With no SLR: 3.0 ft NAVD 88 (Existing and Phases 1&2)

   With 2050 SLR: 7.2 ft NAVD 88 (Existing and Phase2), 6.9 ft NAVD 88 (Phase 1)

   With 2030 SLR: 5.4 ft NAVD 88 (Existing), 5.1 ft NAVD 88 (Phase 1)

   The flood of record, if greater than Q_{100}:
   Q= n/a CFS WSE= n/a
   Overtopping flood Q= n/a CFS WSE= n/a
   Are NFIP maps available? ☒ YES ☐ NO
   Are NFIP studies available? ☒ YES ☐ NO

4. Is the highway location alternative within a regulatory floodway? ☐ YES ☒ NO

[1] Form adapted from Figure 804.7A Technical Information for Location Hydraulic Study located in Chapter 804 of the Highway Design Manual.

5. Attach map with flood limits outlined showing all buildings or other improvements within the base floodplain.

   Potential Q_{100} backwater damages:

A. Residences?	☐ YES	☒ NO
B. Other Bldgs?	☐ YES	☒ NO
C. Crops?	☐ YES	☒ NO
D. Natural and beneficial floodplain values?	☐ YES	☒ NO

6. Type of Traffic:

A. Emergency supply or evacuation route?	☒ YES	☐ NO
B. Emergency vehicle access?	☒ YES	☐ NO
C. Practicable detour available?	☒ YES	☐ NO
D. School bus or mail route?	☒ YES	☐ NO

7. Estimated duration of traffic interruption for 100-year event 24 hours.

Several weeks, based on experience with past flood events

8. Estimated value of Q_{100} flood damages (if any) – moderate risk level.

A. Roadway	$ NA
B. Property	$ NA
Total	$ NA

9. Assessment of Level of Risk ☒ Low ☐ Moderate ☐ High

   For High Risk projects, during design phase, additional Design Study Risk Analysis may be necessary to determine design alternative.

PREPARED BY:

06/28/2023

Signature- Dist. Hydraulic Engineer
(Item numbers 3,4,5,7,9)

Date

Is there any longitudinal encroachment, significant encroachment, or any support of incompatible Floodplain development? ☐ YES ☒ NO

If yes, provide evaluation and discussion of practicability of alternatives in accordance with 23 CFR 650.113.

Information developed to comply with the Federal requirement for the Location Hydraulic Study shall be retained in the project files.

07/14/2023

Signature- Dist. Project Engineer
(Item numbers 1,2,6,8)

Date

Appendix B Summary Floodplain Encroachment Report

Appendix B.1 State Route 37 Bridge over Novato Creek

SUMMARY FLOODPLAIN ENCROACHMENT REPORT[1]

DIST-CO-RTE: 4-MRN-37 **PM/PM:** 11.96
EA/Project No.: 04-4Q320 **Bridge No.:** 270011L/R
Limits:

The limits of the State Route 37 Interim Flood Reduction Project (04-4Q320) is from Post Mile 11.2 to 13.8 in Marin County, CA.

Floodplain Description:

SR 37 Novato Creek Bridge (270011L/R) is within FEMA FIRM 06041C283E.

The entire SR 37 Novato Creek Bridge is located within the FEMA-designated tidally influenced area. The FEMA special flood hazard area (SFHA) designated at the existing SR 37 Novato Creek Bridge is Zone AE (10 ft) on the southwestern bridge approach and Zone AE (11 ft) on the northeastern bridge approach. These two FEMA SFHAs represent areas that would be inundated by the tidal backwater with an elevation of 10 and 11 ft NAVD 88 during the 100-year storm event. The footprint of the 100-year tidal floodplain in the Project vicinity measured from the SR 37 Novato Creek Bridge, including Zone AE (10 ft and 11ft) along SR 37, is approximately 8,700 ft to the northeast and approximately 2,700 ft to the southwest.

Question	Yes	No
1. Is the proposed action a longitudinal encroachment of the base floodplain?	☐	☒
2. Are the risks associated with the implementation of the proposed action significant?	☐	☒
3. Will the proposed action support probable incompatible floodplain development?	☐	☒
4. Are there any significant impacts on natural and beneficial floodplain values?	☐	☒
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	☐	☒
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q)?	☐	☒
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	☒	☐

[1] Form adapted from Figure 804.7B Floodplain Evaluation Report Summary located in Chapter 804 of the Highway Design Manual.

PREPARED BY:

	06/28/2023
Signature- Dist. Hydraulic Engineer	Date
	07/28/2023
Signature- Dist. Environmental Branch Chief	Date
	07/14/2023
Signature- Dist. Project Engineer	Date

Appendix B.2 State Route 37 Bridge over Simonds Slough

SUMMARY FLOODPLAIN ENCROACHMENT REPORT[1]

DIST-CO-RTE: 4-MRN-37 **PM/PM:** 13.04
EA/Project No.: 04-4Q320 **Bridge No.:** 270012
Limits:

The limits of the State Route 37 Interim Flood Reduction Project (04-4Q320) is from Post Mile 11.2 to 13.8 in Marin County, CA.

Floodplain Description:

SR 37 Simonds Slough Bridge (270012) is within FEMA FIRM 06041C282E.

The entire SR 37 Simonds Slough Bridge is located within the FEMA-designated tidally influenced area. The FEMA special flood hazard area designated at the existing SR 37 Simonds Slough Bridge is Zone AE (10 ft), which represents areas that would be inundated by the tidal backwater with an elevation of 10 ft NAVD 88 during the 100-year storm event. The footprint of the 100-year tidal floodplain in the Project vicinity measured from the SR 37 Simonds Slough Bridge, including Zone AE (10 ft) along SR 37, is approximately 3,300 ft to the northeast and approximately 8,100 ft to the southwest.

Question	Yes	No
1. Is the proposed action a longitudinal encroachment of the base floodplain?	☐	☒
2. Are the risks associated with the implementation of the proposed action significant?	☐	☒
3. Will the proposed action support probable incompatible floodplain development?	☐	☒
4. Are there any significant impacts on natural and beneficial floodplain values?	☐	☒
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	☐	☒
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q)?	☐	☒
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	☒	☐

[1] Form adapted from Figure 804.7B Floodplain Evaluation Report Summary located in Chapter 804 of the Highway Design Manual.

PREPARED BY:

	06/28/2023
Signature- Dist. Hydraulic Engineer	Date
	07/28/2023
Signature- Dist. Environmental Branch Chief	Date
	07/14/2023
Signature- Dist. Project Engineer	Date

Appendix C Project Phase Drawings

Appendix C.1 Phase 1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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LAYOUT

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L-1

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BORDER LAST REVISED 8/5/2020

USERNAME => s146014

DGN FILE => 4q320_L1_AI+1Ph1.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

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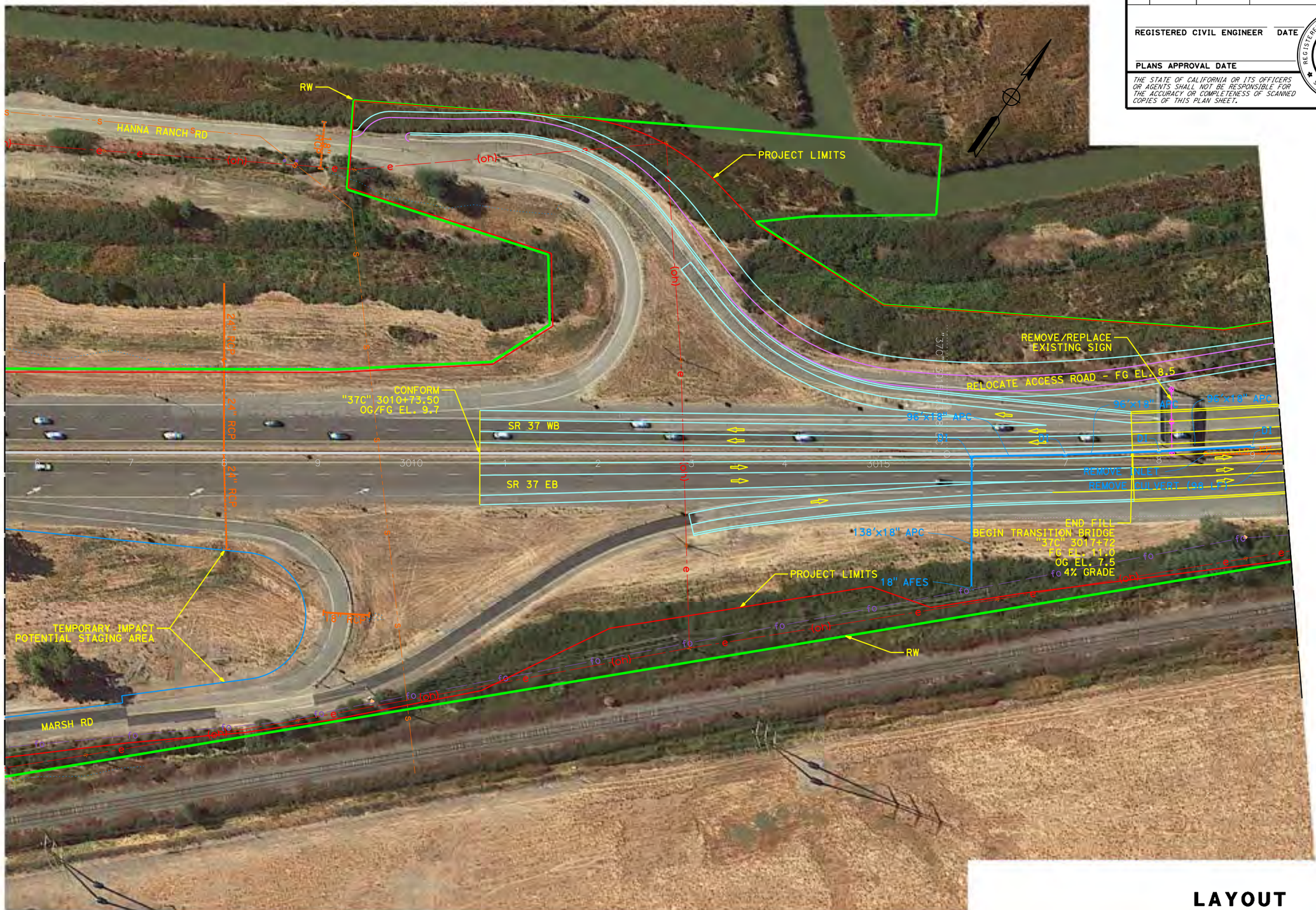

LAYOUT

SCALE: 1" = 50'

L-2

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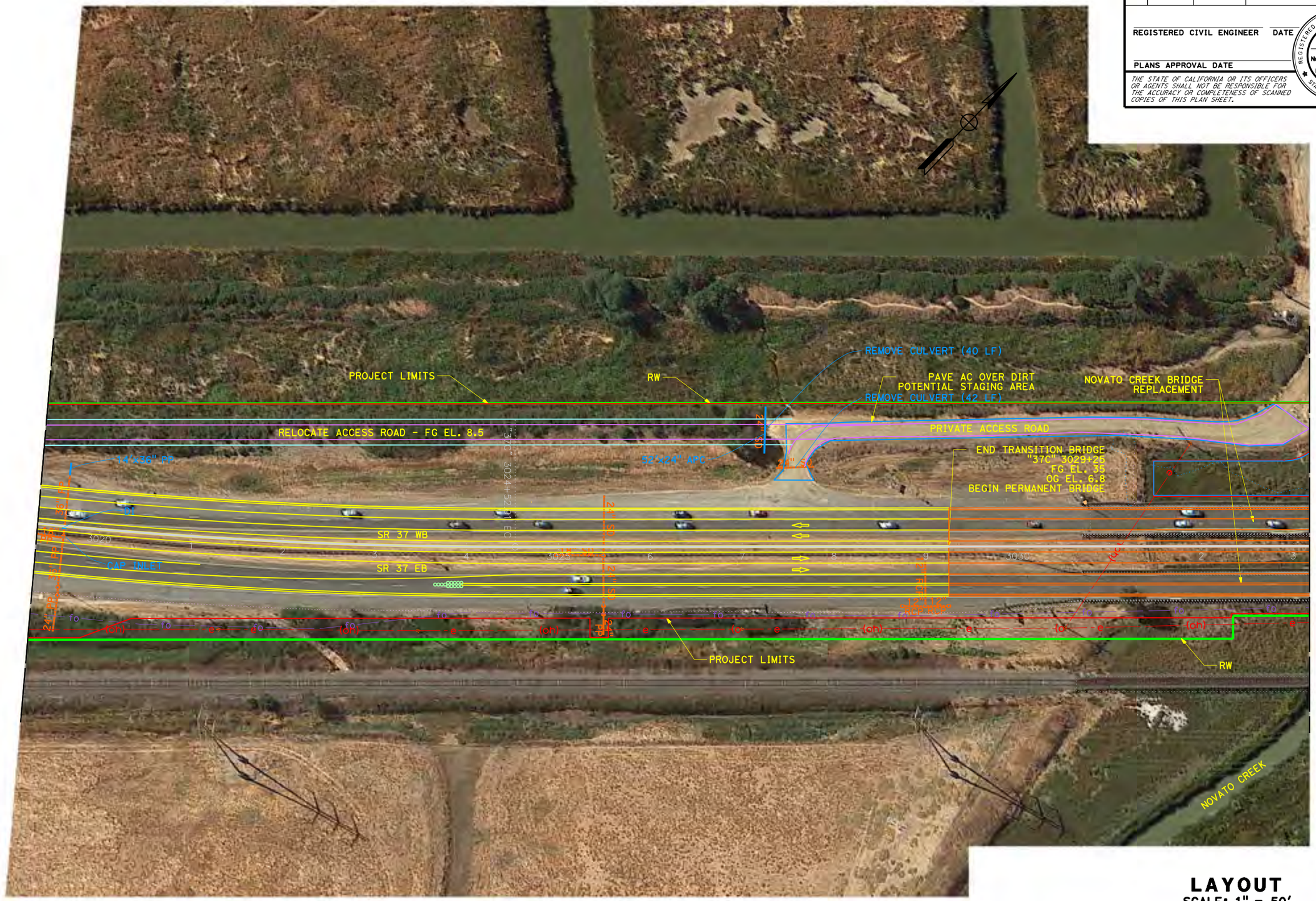

LAYOUT

SCALE: 1" = 50'

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USERNAME => s146014
DGN FILE => 4q320_L3_Alt1Ph1.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

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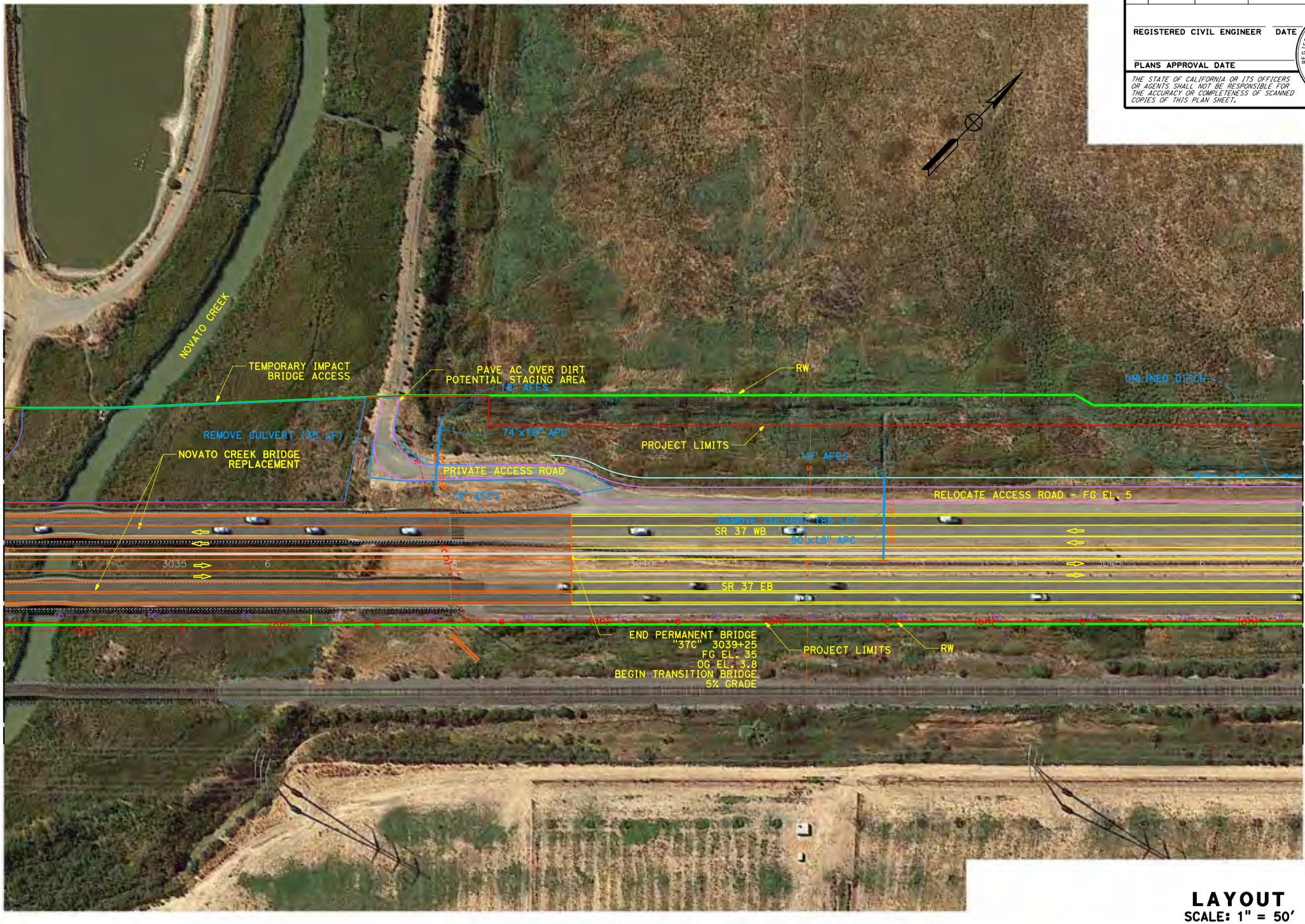

LAYOUT

SCALE: 1" = 50'

L-4

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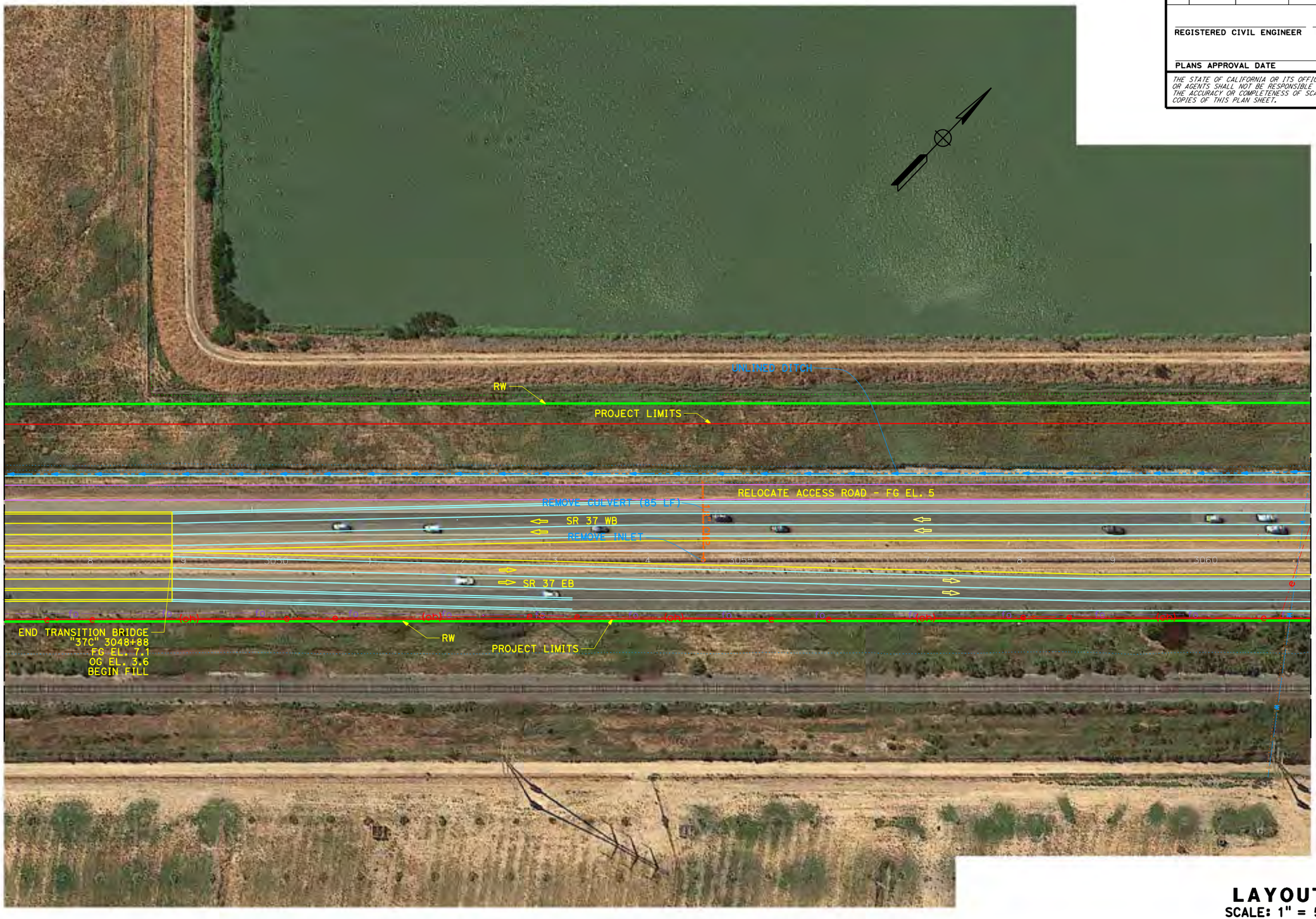

LAYOUT

SCALE: 1" = 50'

L-5

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USERNAME => s146014

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PROJECT NUMBER & PHASE

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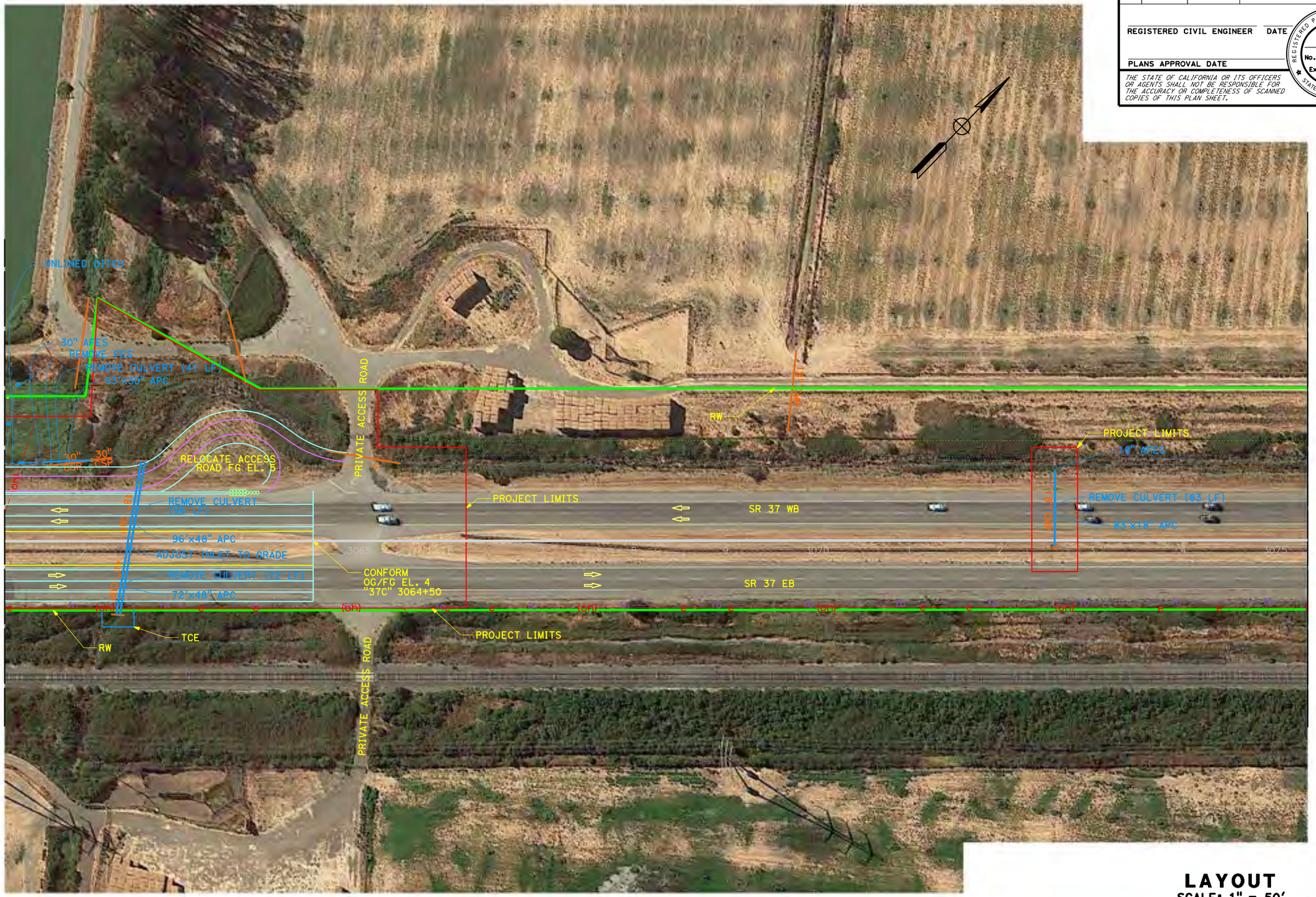

LAYOUT

SCALE: 1" = 50'

L-6

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TIME PLOTTED => 10:15

BORDER LAST REVISED 8/5/2020

USERNAME => s146014

DGN FILE => 4q320_L6_AI+1Ph1.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

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LAYOUT

SCALE: 1" = 50'

L-7

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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LAYOUT

SCALE: 1" = 50'

L-8

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REGISTERED CIVIL ENGINEER DATE

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LAYOUT

SCALE: 1" = 50'

L-9

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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REMOVE CULVERT (28 LF)
28"x12" CSP

REMOVE CULVERT (12 LF)
12"x12" CSP

REMOVE CULVERT (121 LF)

PROJECT LIMITS

RW

PROJECT LIMITS

18" RCP

ATHERTON AVE

12" RCP

12" CMP

12" CMP

TEMPORARY IMPACT
POTENTIAL CONTRACTOR YARD

18" CMP

121"x19" APC

16" RCP

ABANDONED 18" RCP

SR 37 WB

SR 37 EB

ATHERTON UNDERCROSSING

18" RCP

18" RCP

PROJECT LIMITS

REMOVE CULVERT (40 LF)
40"x12" CSP DO

HARBOR DR

RW

RENAISSANCE RD

"37C" 3130+78.87 END

LAYOUT
SCALE: 1" = 50' L-10

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Appendix C.2 Phase 2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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LAYOUT

SCALE: 1" = 50'

L-1

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TIME PLOTTED => 15:46

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UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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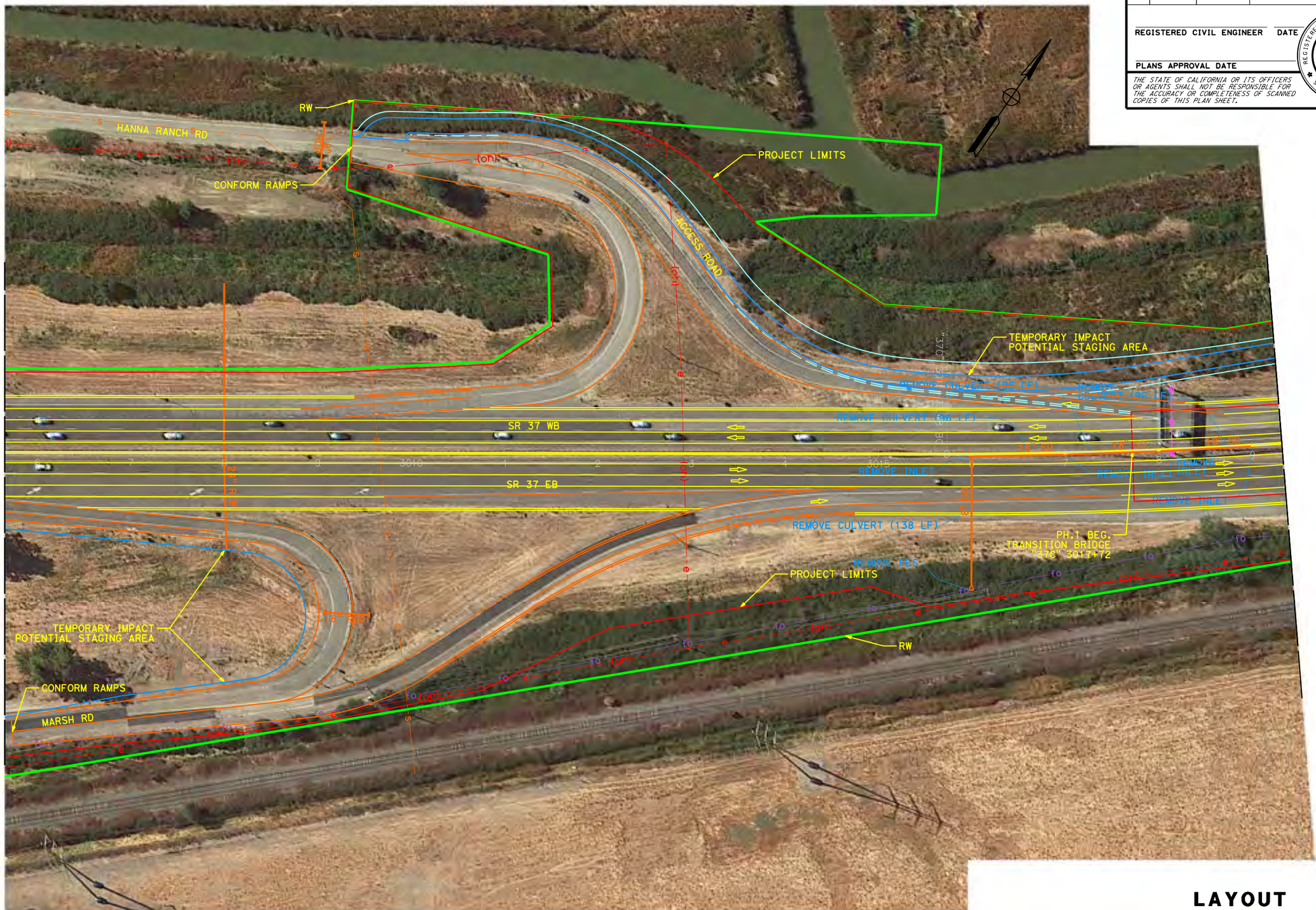

LAYOUT
SCALE: 1" = 50'

L-2

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DGN FILE => 4q320_L2_AI+1Ph2.dgn

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UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

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PROJECT LIMITS
RW
TEMPORARY IMPACT
POTENTIAL STAGING AREA
ACCESS ROAD
ACCESS ROAD
PH.1 BEG.
PERMANENT BRIDGE
"37C" 3029+25
SR 37 WB
SR 37 EB
PROJECT LIMITS
RW
NOVATO CREEK

LAYOUT
SCALE: 1" = 50'

L-3

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DGN FILE => 4q320_L3_Alt1Ph2.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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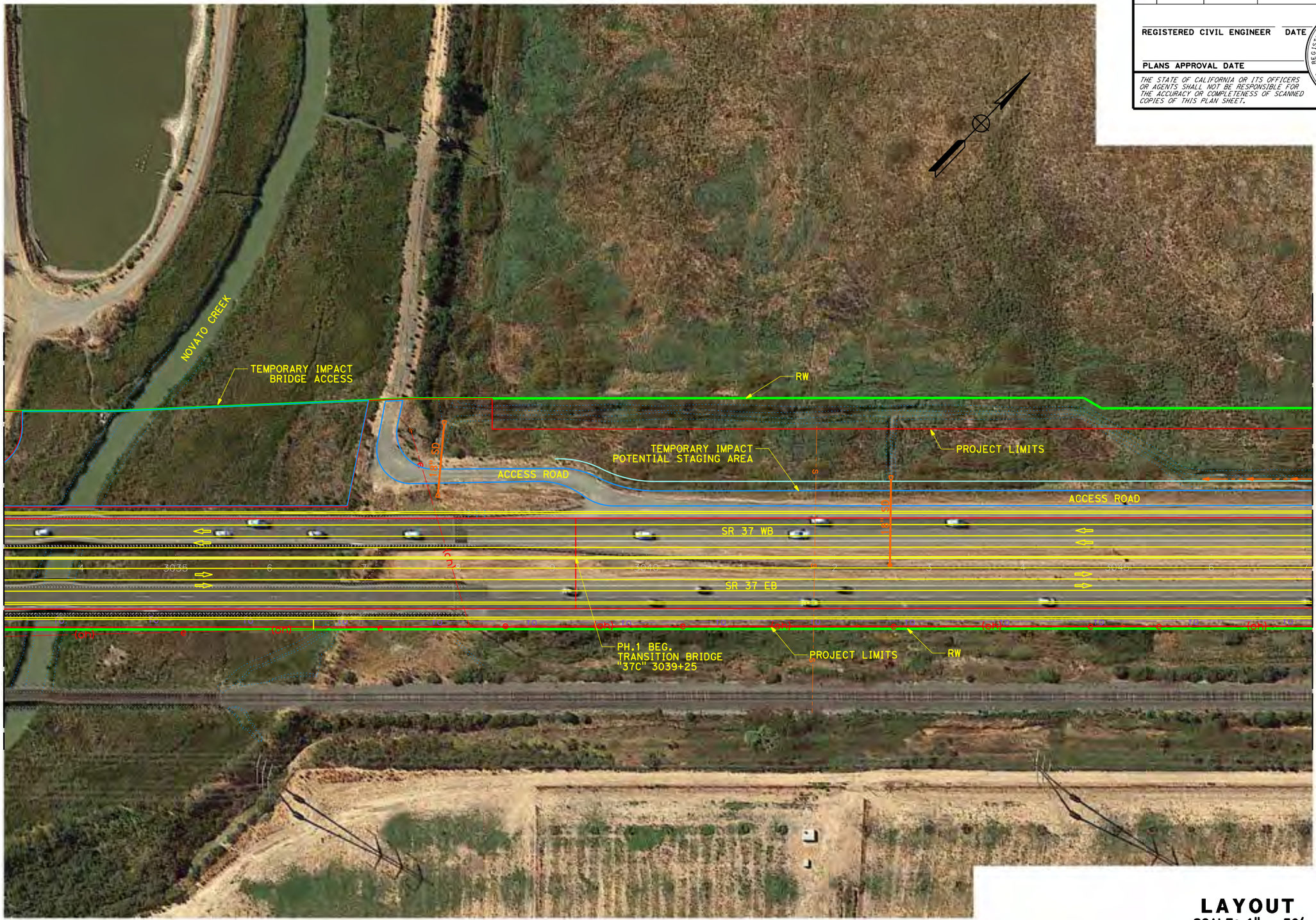

LAYOUT
SCALE: 1" = 50'

L-4

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UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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LAYOUT

SCALE: 1" = 50'

L-5

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LAYOUT
SCALE: 1" = 50'

L-6

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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LAYOUT

SCALE: 1" = 50'

L-7

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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SIMONDS SLOUGH

TOWER TO BE RAISED BY PG&E

36' SD

RW

PROJECT LIMITS

SR 37 WB

SR 37 EB

RW

PROJECT LIMITS

LAYOUT

SCALE: 1" = 50'

L-8

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REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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LAYOUT
SCALE: 1" = 50'

L-9

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REGISTERED CIVIL ENGINEER DATE

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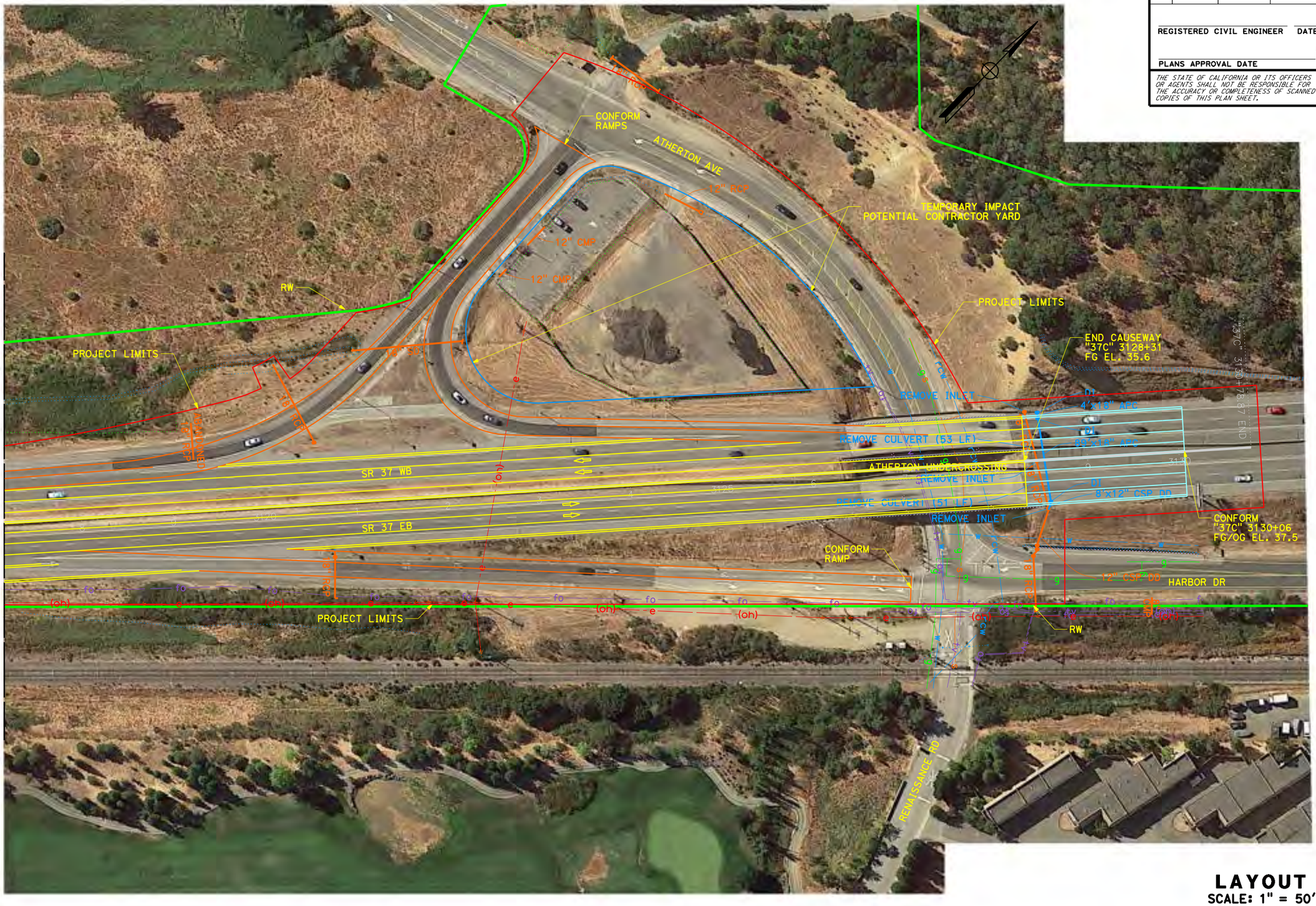


LAYOUT

SCALE: 1" = 50'

L-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY

CHECKED BY

REVISED BY

DATE REVISED

LAST REVISION

DATE PLOTTED => 18-MAY-2023
TIME PLOTTED => 15:50

BORDER LAST REVISED 8/5/2020

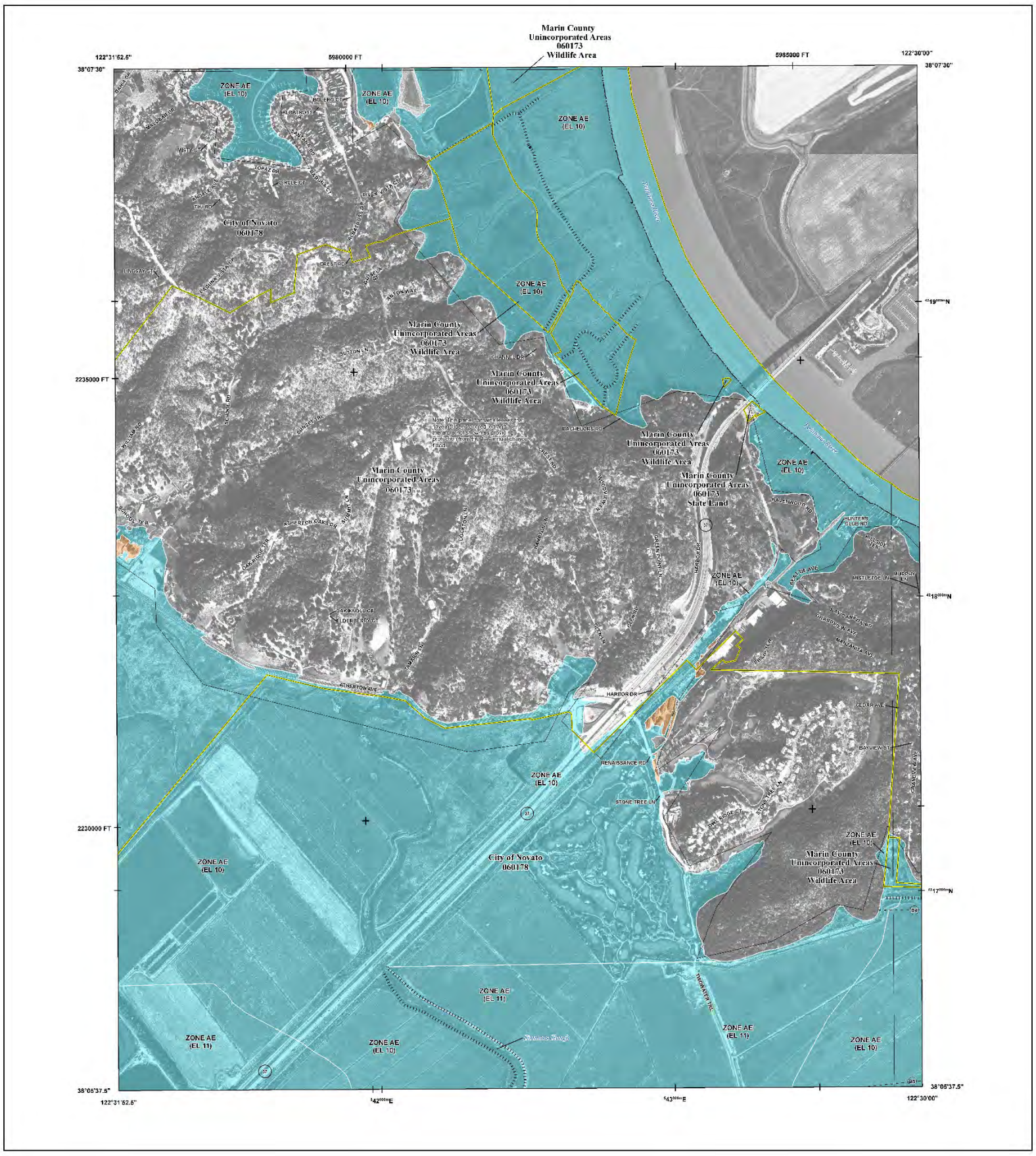
USERNAME => s146014
DGN FILE => 4q320_L10_Alt1Ph2.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Appendix D Federal Emergency Management Agency Flood Insurance Study & Flood Insurance Rate Maps



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A, V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes *Zone X*
OTHER AREAS	NO SCREEN Areas of Minimal Flood Hazard *Zone X*
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert or Storm Sewer
	Accredited or Provisionally Accredited Levee, Dike or Floodwall
	Non-accredited Levee, Dike or Floodwall
	(E) 15.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
	(S) Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
OTHER FEATURES	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was derived from Coastal California LiDAR and Digital Imagery dated 2011. USDA NAIP 2012 imagery is used in areas not covered by the Coastal California imagery.

SCALE

N

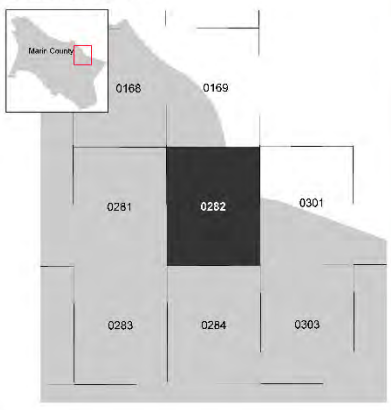
Map Projection:
Universal Transverse Mercator Zone 10N. North American Datum 1983;
Western Hemisphere. Vertical Datum: North American Vertical Datum of 1988

1 inch = 500ft 1:6,000

0 250 500 750 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR



FEMA National Flood Insurance Program

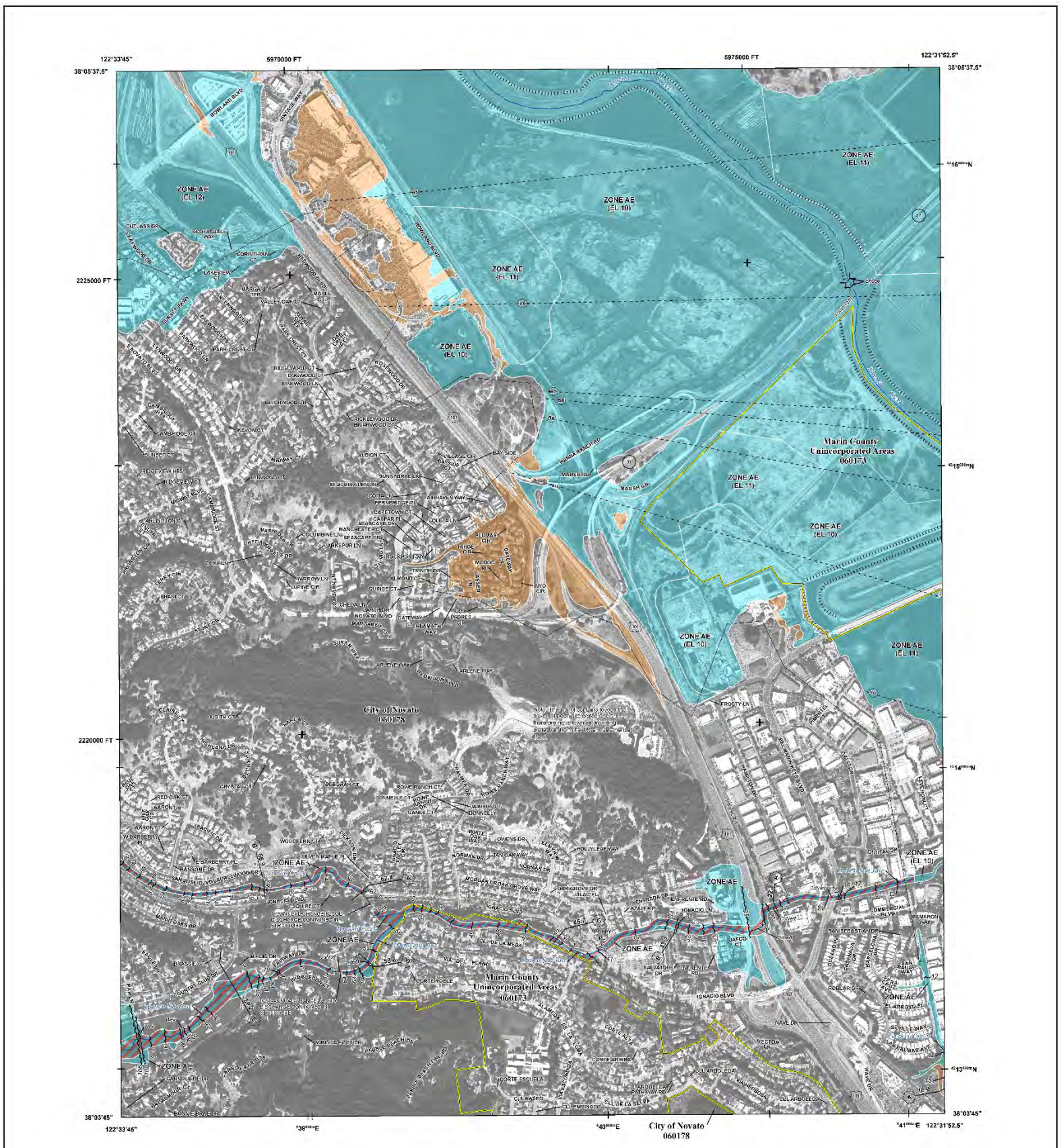
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

MARIN COUNTY, CALIFORNIA
and Incorporated Areas
PANEL 282 OF 531

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARIN COUNTY	060173	0282	F
NOVATO, CITY OF	060178	0282	E

VERSION NUMBER
2.3.2.0
MAP NUMBER
06041C0282E
MAP REVISED
MARCH 16, 2016



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*

OTHER AREAS
- NO SCREEN Areas of Minimal Flood Hazard *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike or Floodwall
- Non-accredited Levee, Dike or Floodwall
- (E) 18.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation (BFE)
- (8) Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 Base Flood Elevation Line (BFE)

OTHER FEATURES
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

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Base map information shown on this FIRM was derived from Coastal California LiDAR and Digital Imagery dated 2011. USDA NAIP 2012 imagery is used in areas not covered by the Coastal California imagery.

SCALE

Map Projection: Universal Transverse Mercator Zone 10N; North American Datum 1983; Western Hemisphere Vertical Datum: North American Vertical Datum of 1988

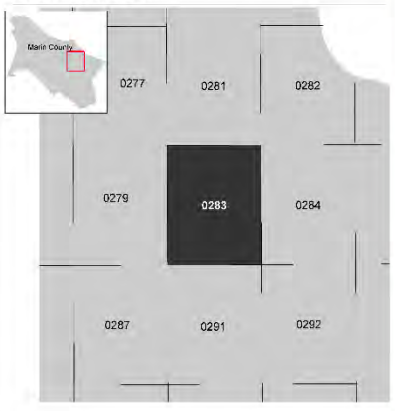
N

1 inch = 500ft 1:6,000

0 250 500 750 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR



National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

MARIN COUNTY, CALIFORNIA and Incorporated Areas

PANEL 283 OF 531

FEMA

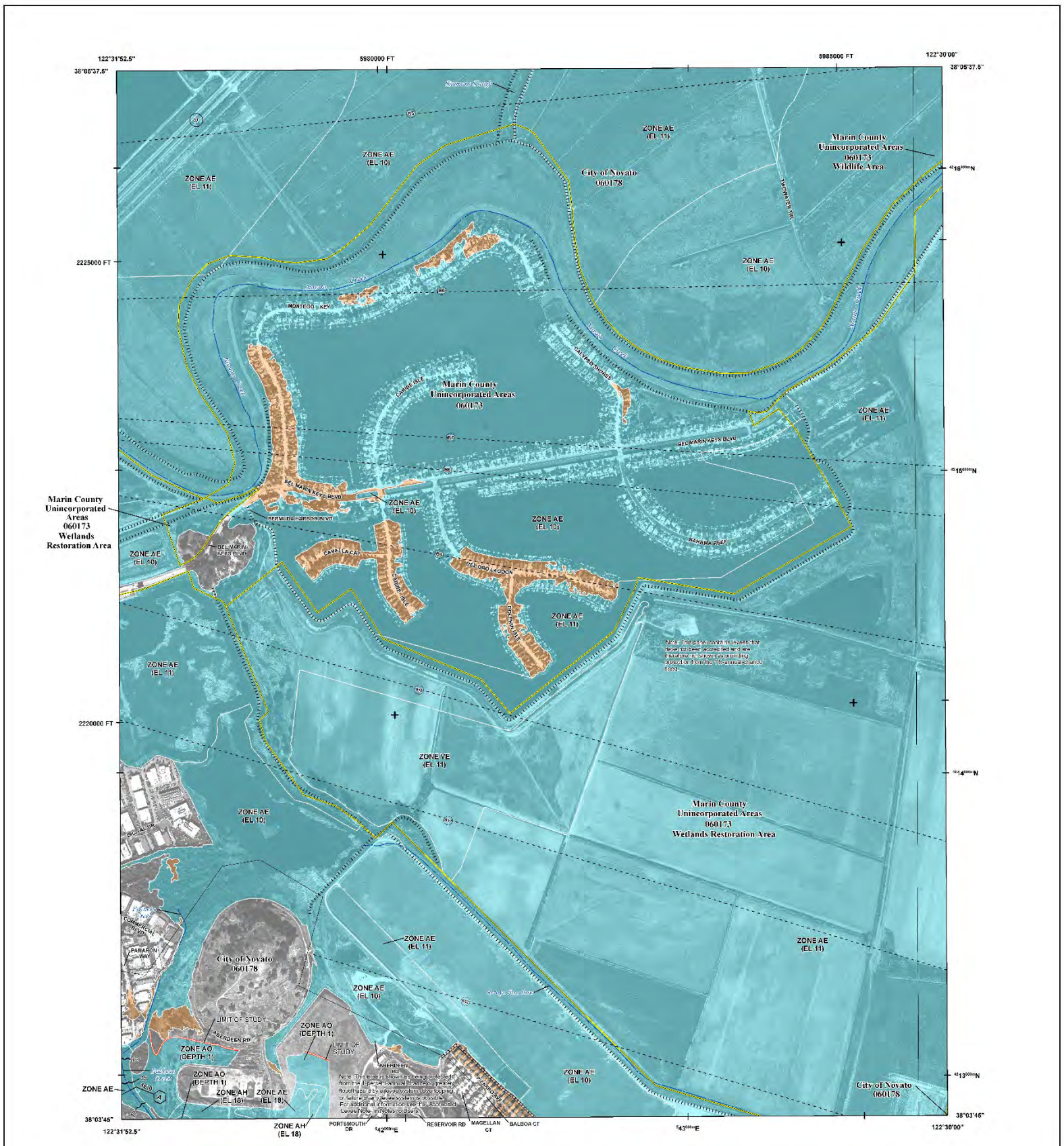
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARIN COUNTY	060173	0283	E
NOVATO, CITY OF	060178	0283	E

VERSION NUMBER 2.3.2.0

MAP NUMBER 06041C0283E

MAP REVISED MARCH 16, 2016



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A, V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes *Zone X*
OTHER AREAS	NO SCREEN Areas of Minimal Flood Hazard *Zone X*
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert or Storm Sewer
	Accredited or Provisionally Accredited Levee, Dike or Floodwall
	Non-accredited Levee, Dike or Floodwall
	15.2 Cross Sections with 1% Annual Chance
	17.5 Water Surface Elevation (BFE)
	Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
OTHER FEATURES	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

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For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was derived from Coastal California LiDAR and Digital Imagery dated 2011. USDA NAIP 2012 imagery is used in areas not covered by the Coastal California imagery.

ACCREDITED LEVEE NOTES TO USERS: Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at http://www.fema.gov/business/nfip/index.shtm.

SCALE

N

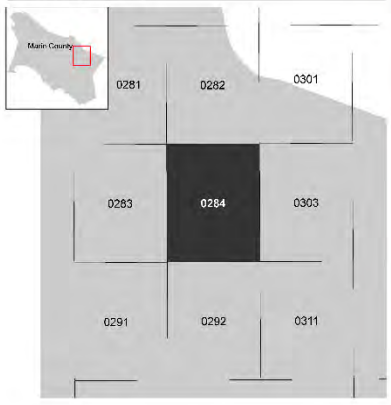
1 inch = 500ft 1:6,000

0 250 500 750 1,000 2,000 Feet

0 125 250 500 Meters

Map Projection:
Universal Transverse Mercator Zone 10N North American Datum 1983;
Western Hemisphere Vertical Datum North American Vertical Datum of 1988

PANEL LOCATOR



FEMA National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
MARIN COUNTY, CALIFORNIA
and Incorporated Areas
PANEL 284 OF 531

Panel Contains:

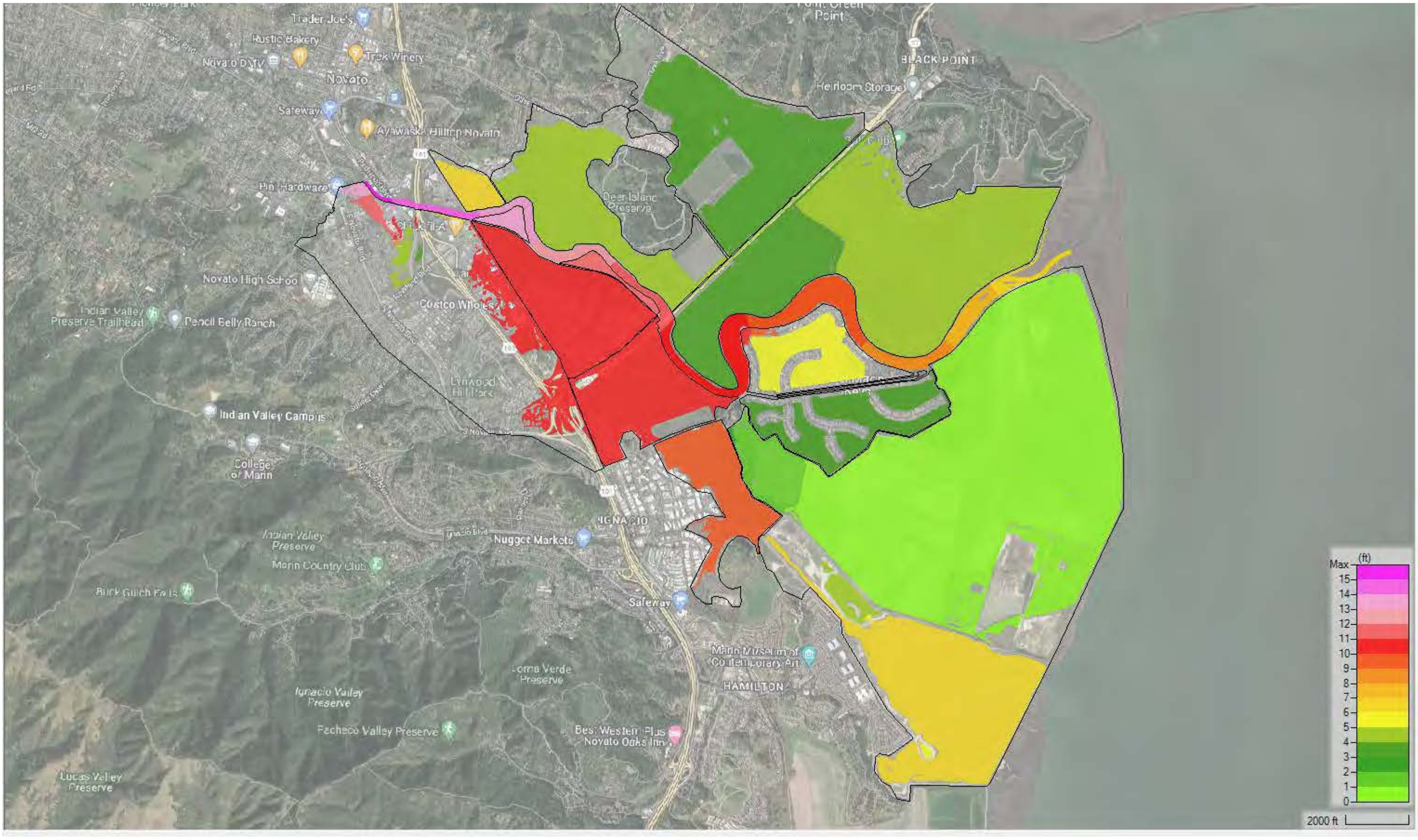
COMMUNITY	NUMBER	PANEL	SUFFIX
MARIN COUNTY	060178	0284	E
NOVATO, CITY OF	060178	0284	E

VERSION NUMBER 2.3.2.0
MAP NUMBER 06041C0284E
MAP REVISED MARCH 16, 2016

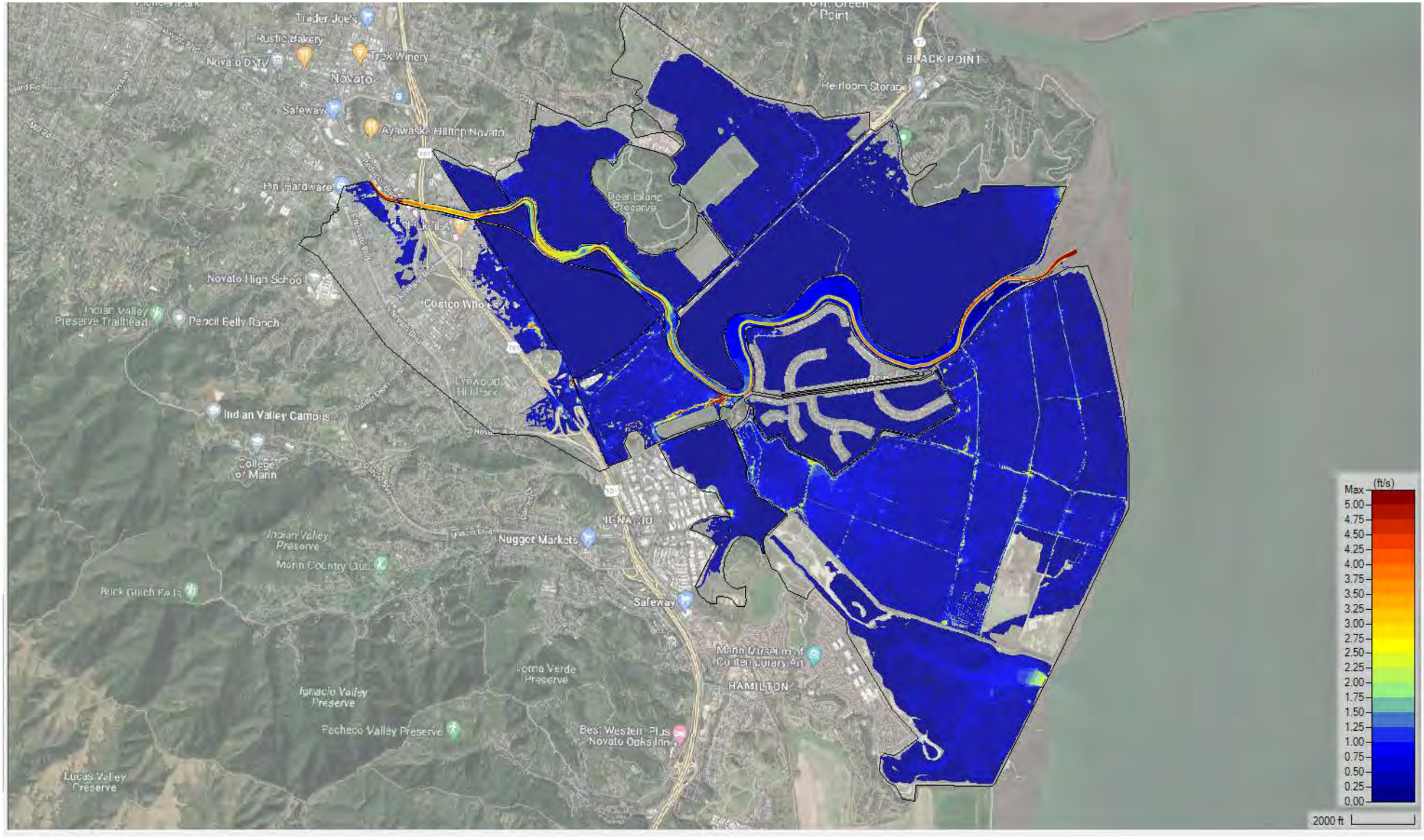
Appendix E Hydraulic Analysis, Existing Condition

Appendix E.1 Existing Condition with No SLR

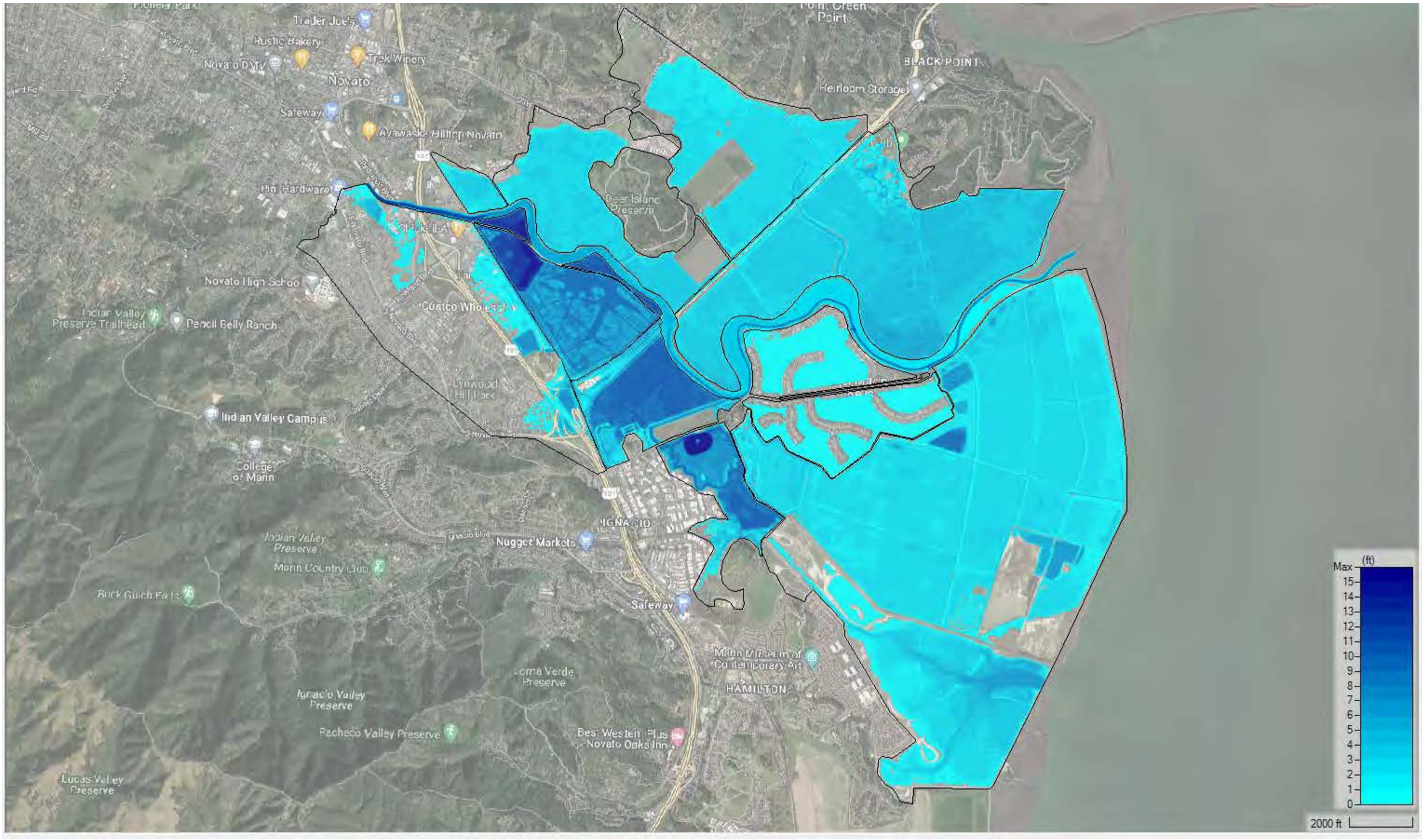
Existing Condition, No Sea Level Rise, 100-year WSE



Existing Condition, No Sea Level Rise, 100-year Flow Velocity

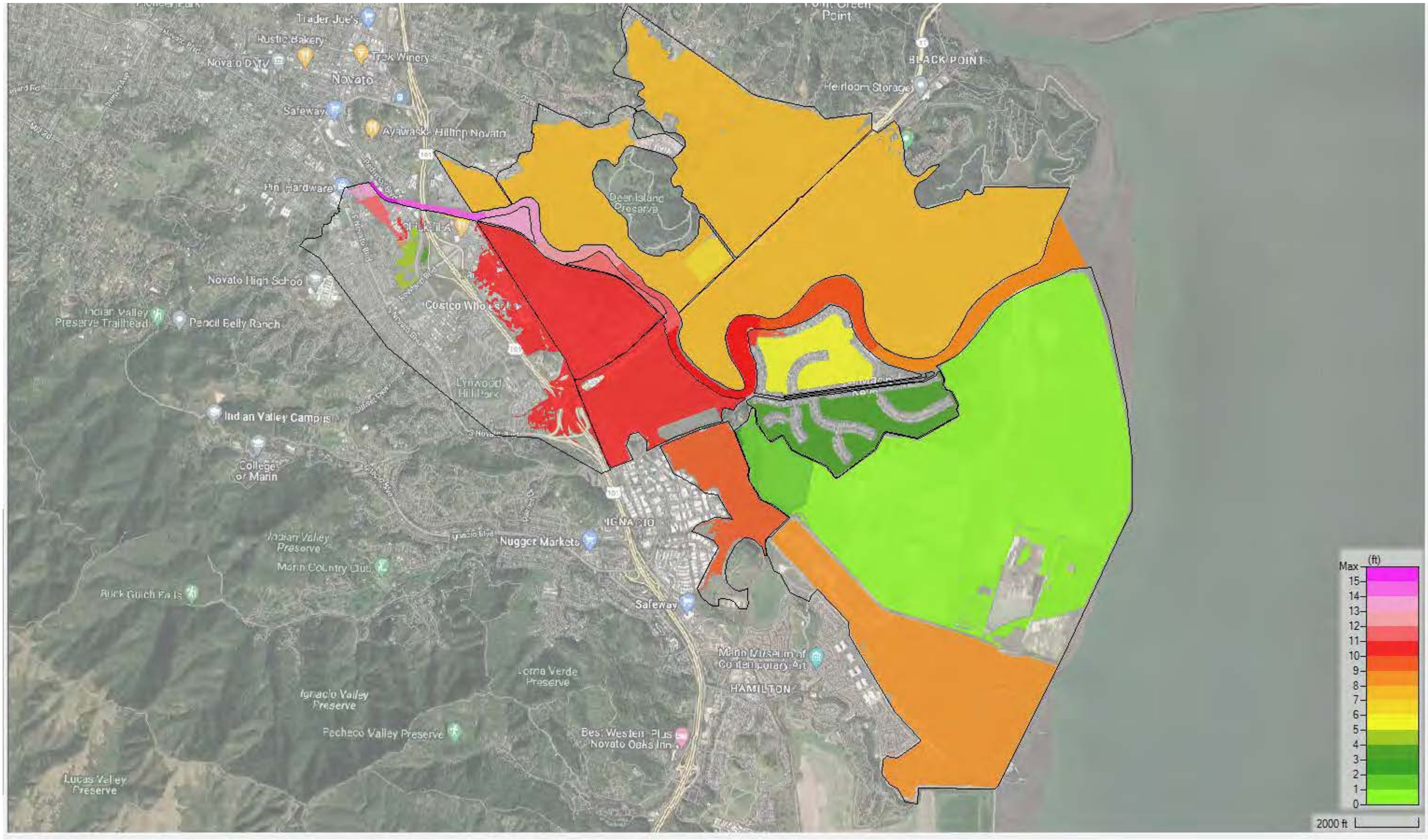


Existing Condition, No Sea Level Rise, 100-year Flow Depth

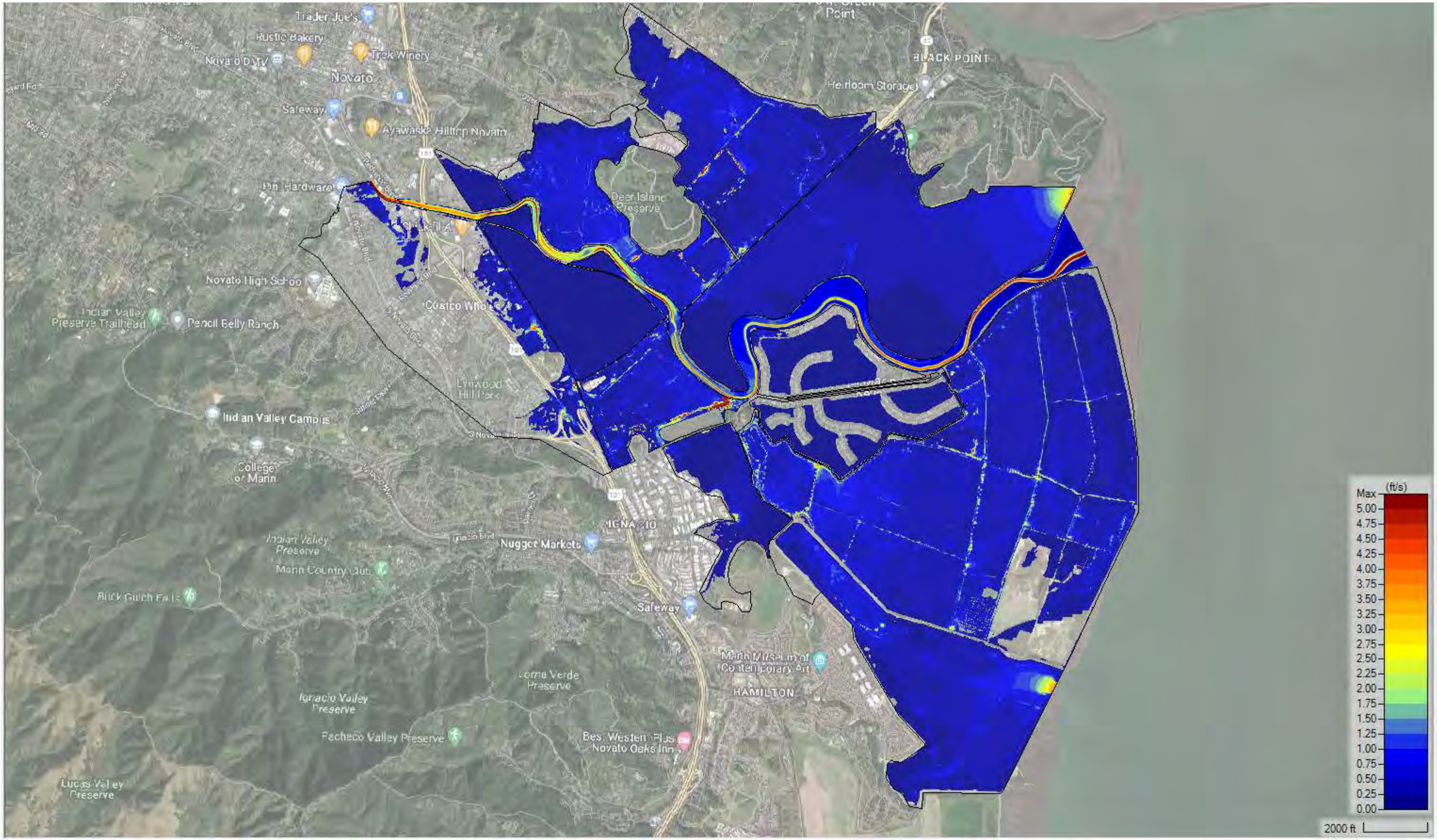


Appendix E.2 Existing Condition, with 2050 SLR

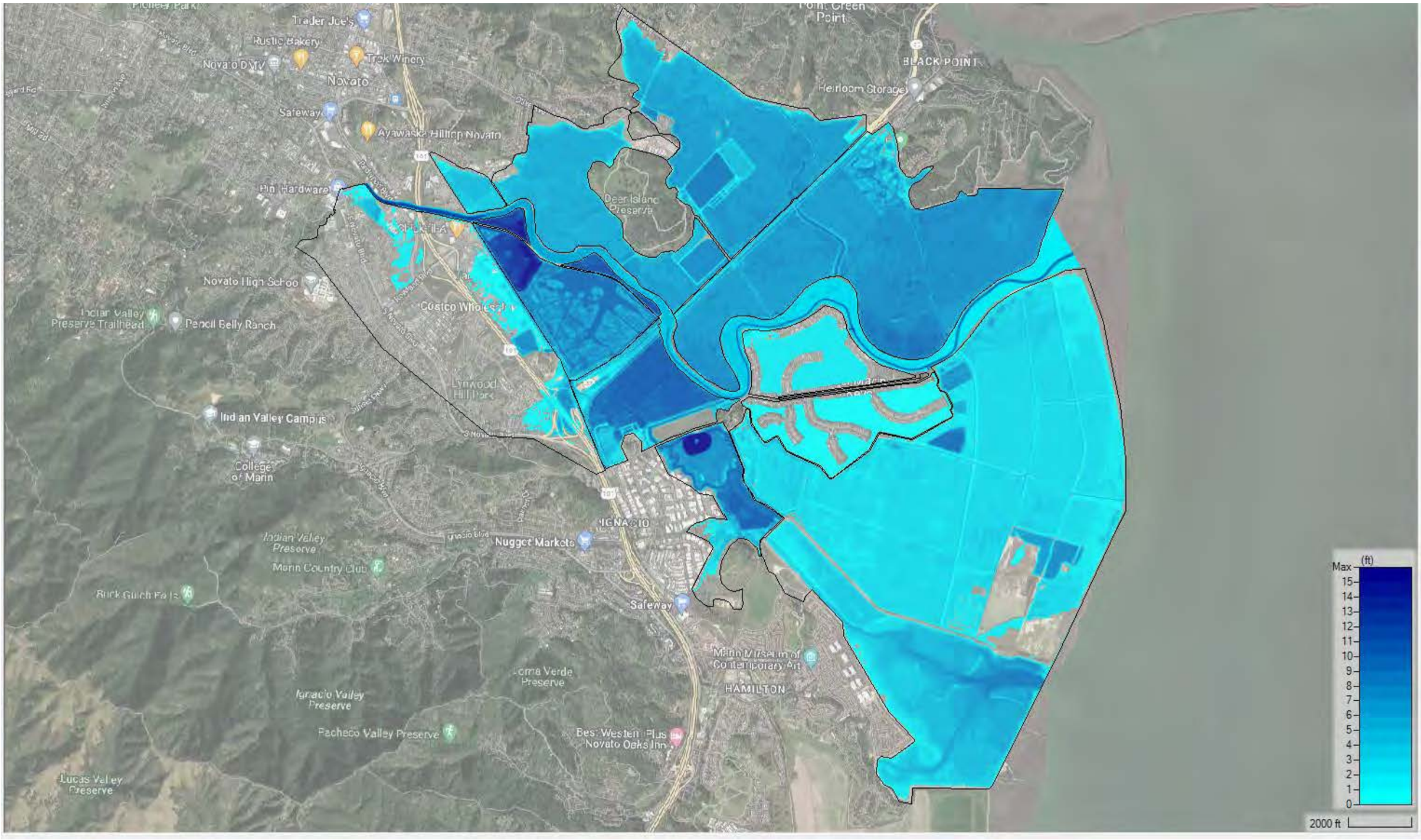
Existing Condition, 2050 Sea Level Rise, 100-year WSE



Existing Condition, 2050 Sea Level Rise, 100-year Flow Velocity

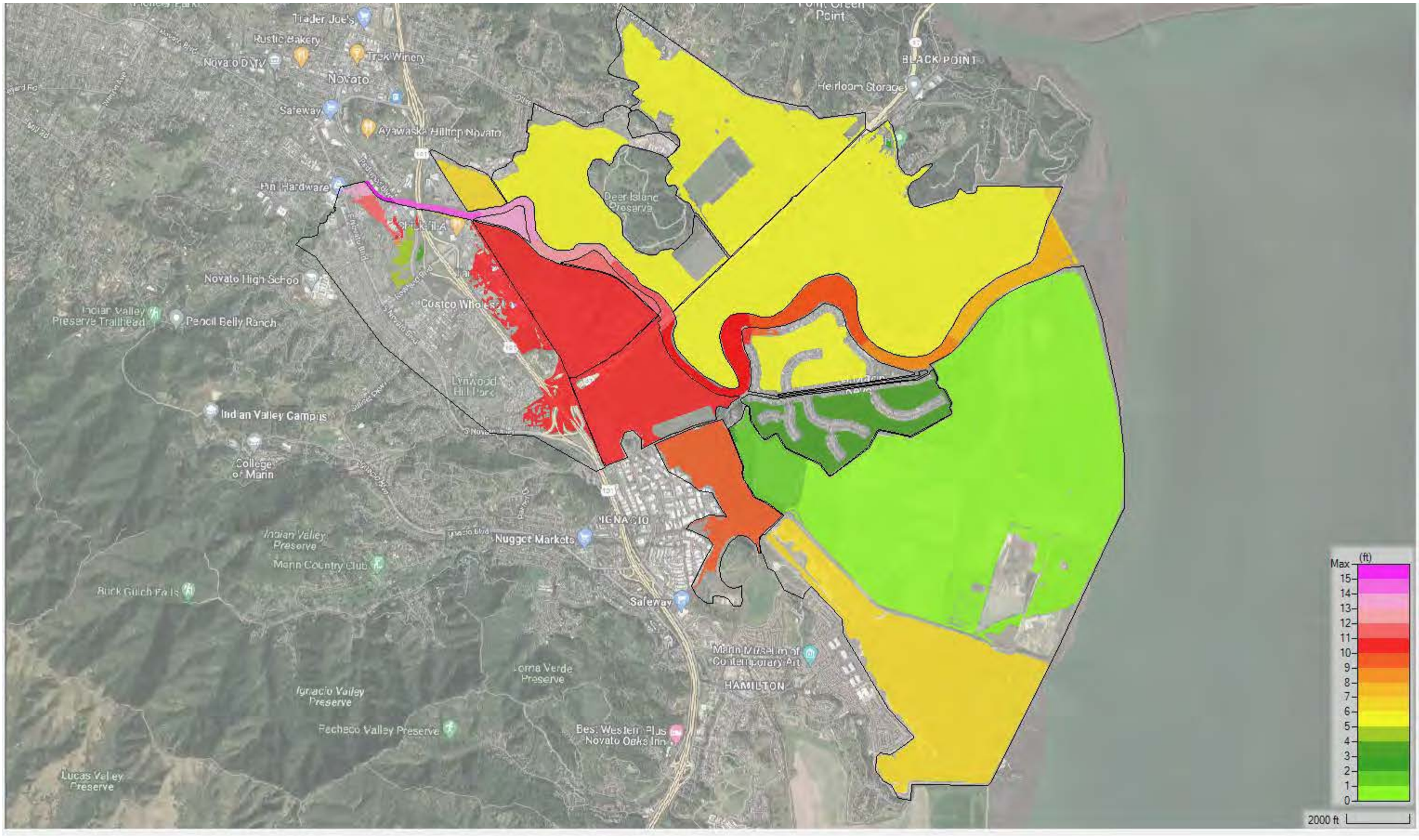


Existing Condition, 2050 Sea Level Rise, 100-year Flow Depth

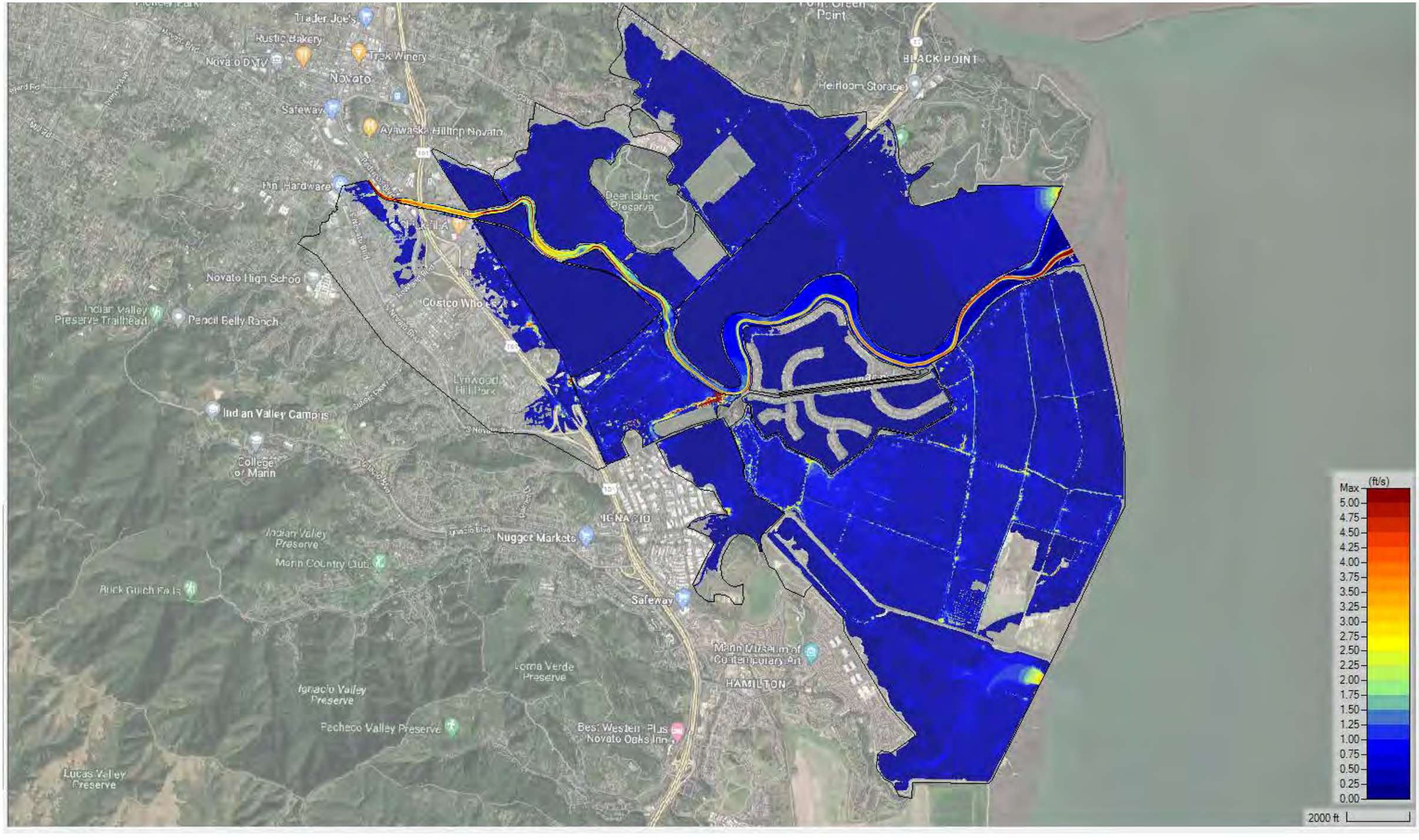


Appendix E.3 Existing Condition, with 2030 SLR

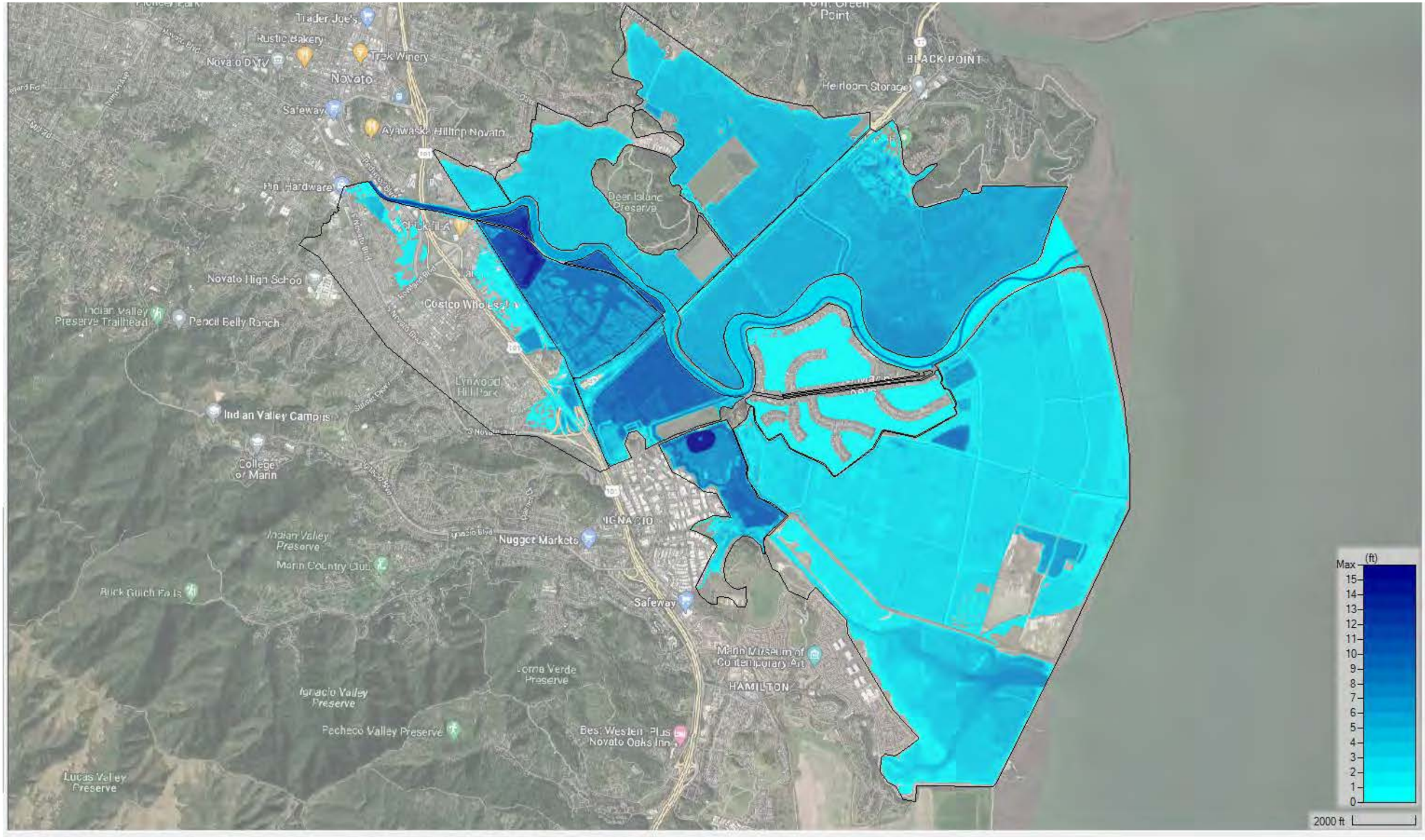
Existing Condition, 2030 Sea Level Rise, 100-year WSE



Existing Condition, 2030 Sea Level Rise, 100-year Flow Velocity



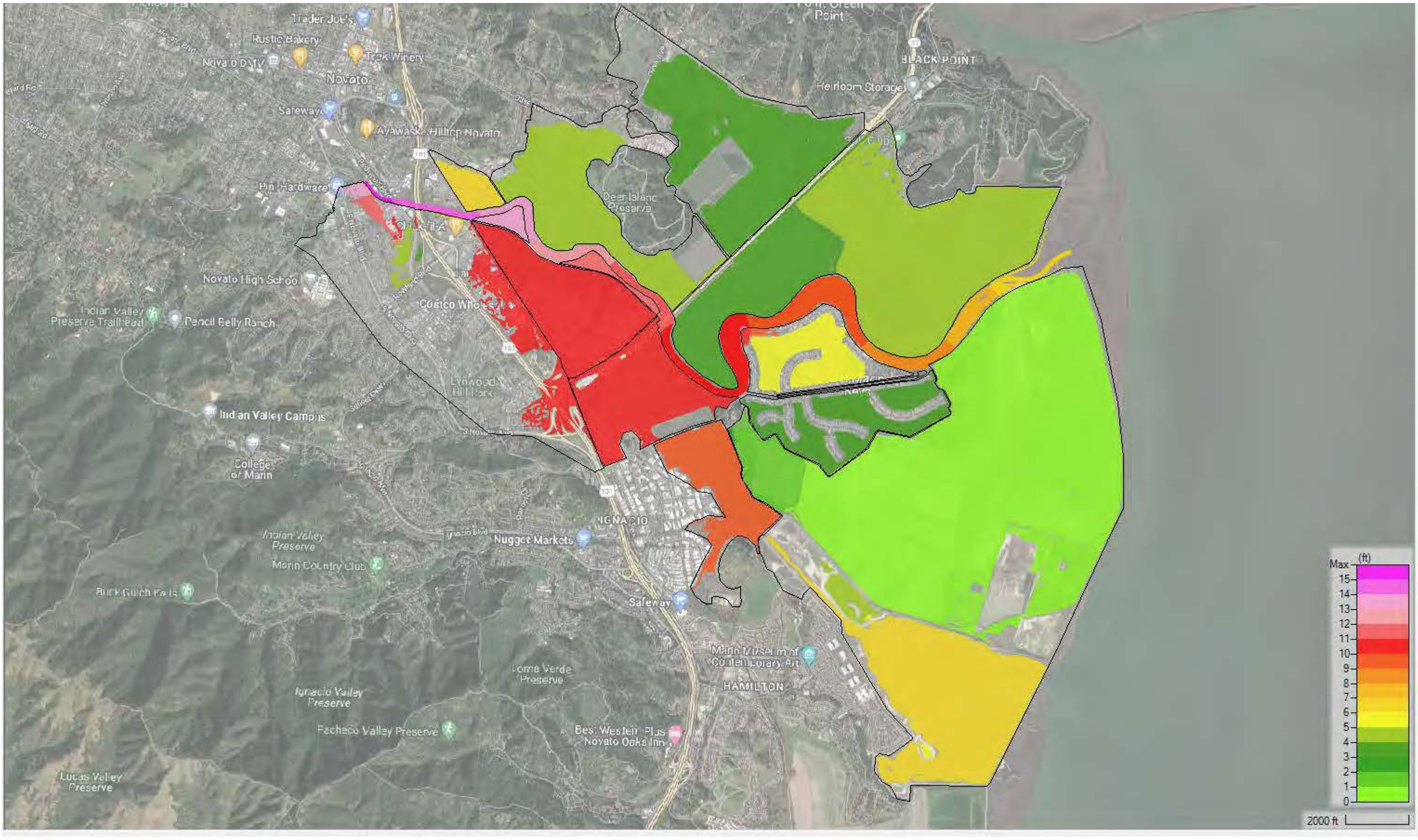
Existing Condition, 2030 Sea Level Rise, 100-year Flow Depth



Appendix F Hydraulic Analysis, Proposed Condition

Appendix F.1 Phase 1 with No SLR

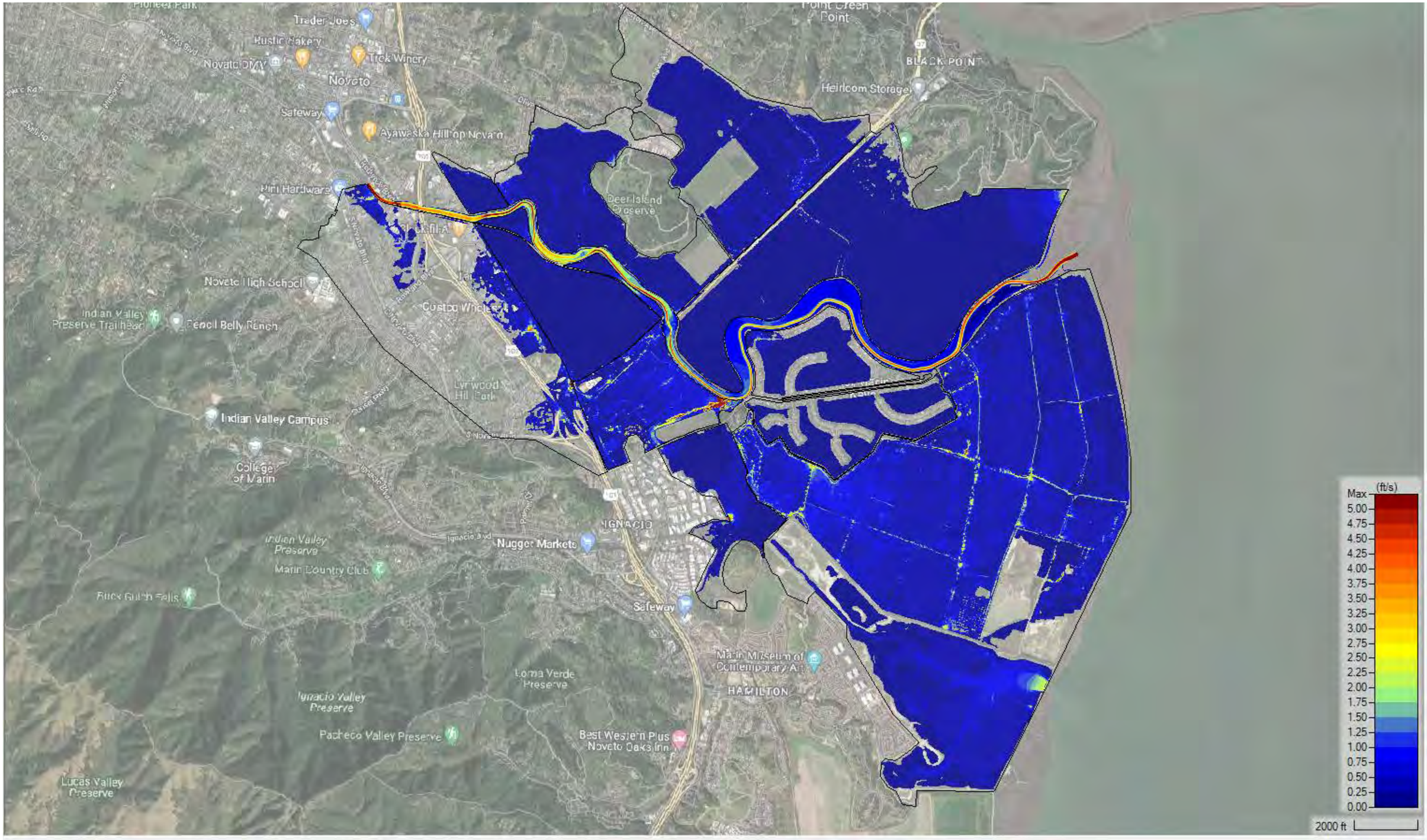
Phase 1, No Sea Level Rise, 100-year WSE



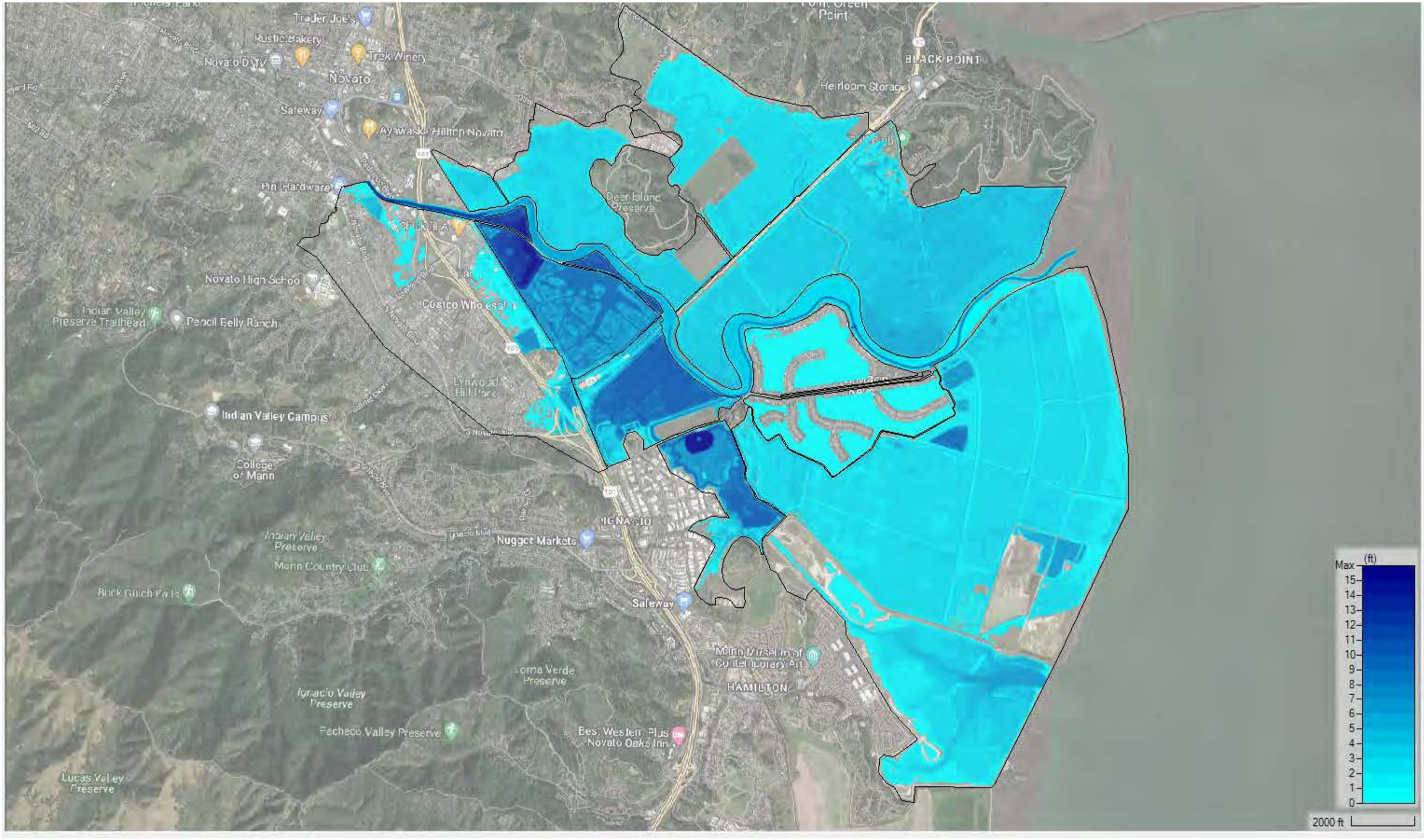
Phase 1, No Sea Level Rise, 100-year WSE change from Existing Condition



Phase 1, No Sea Level Rise, 100-year Flow Velocity

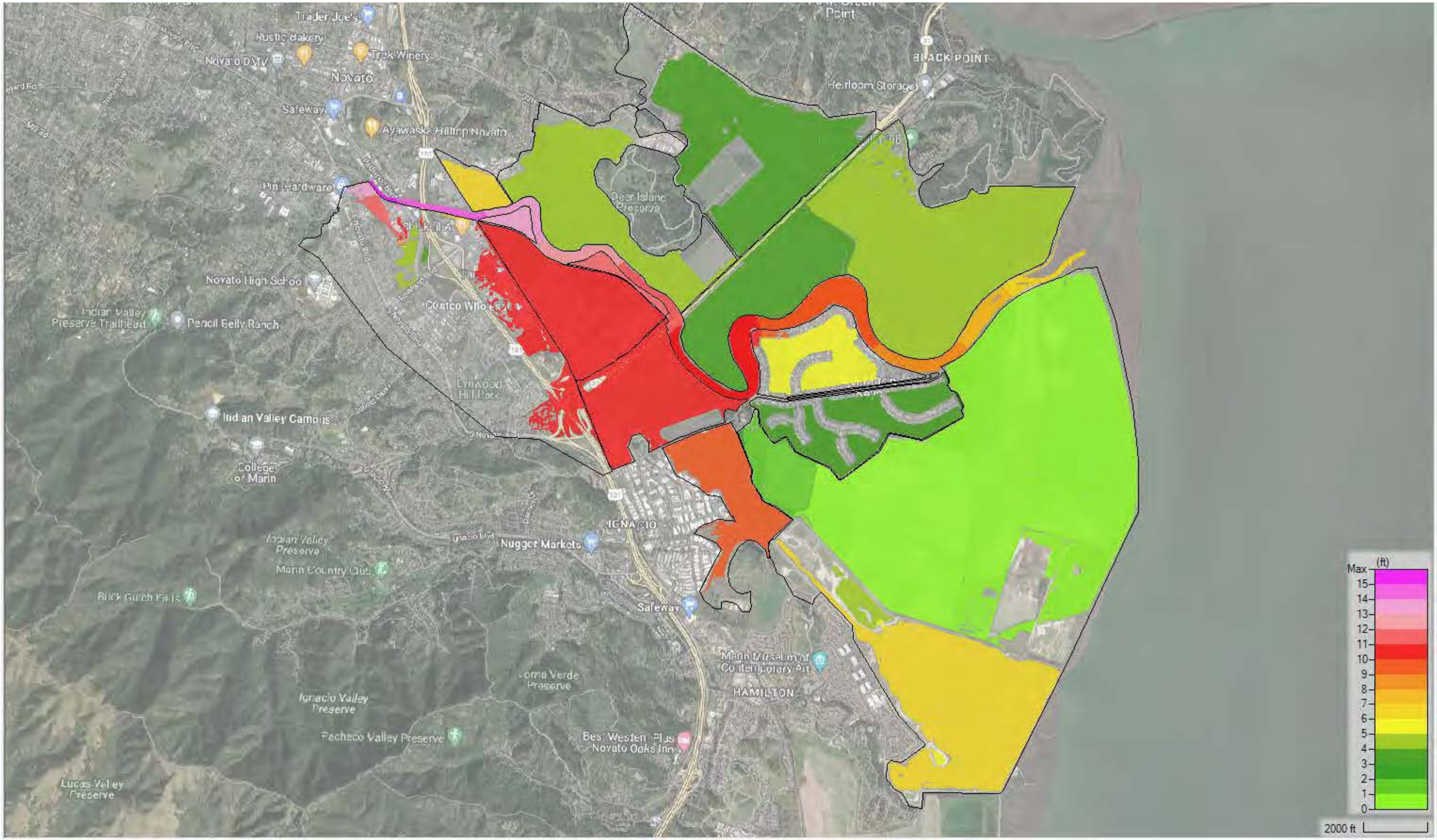


Phase 1, No Sea Level Rise, 100-year Flow Depth



Appendix F.2 Phase 2 with No SLR

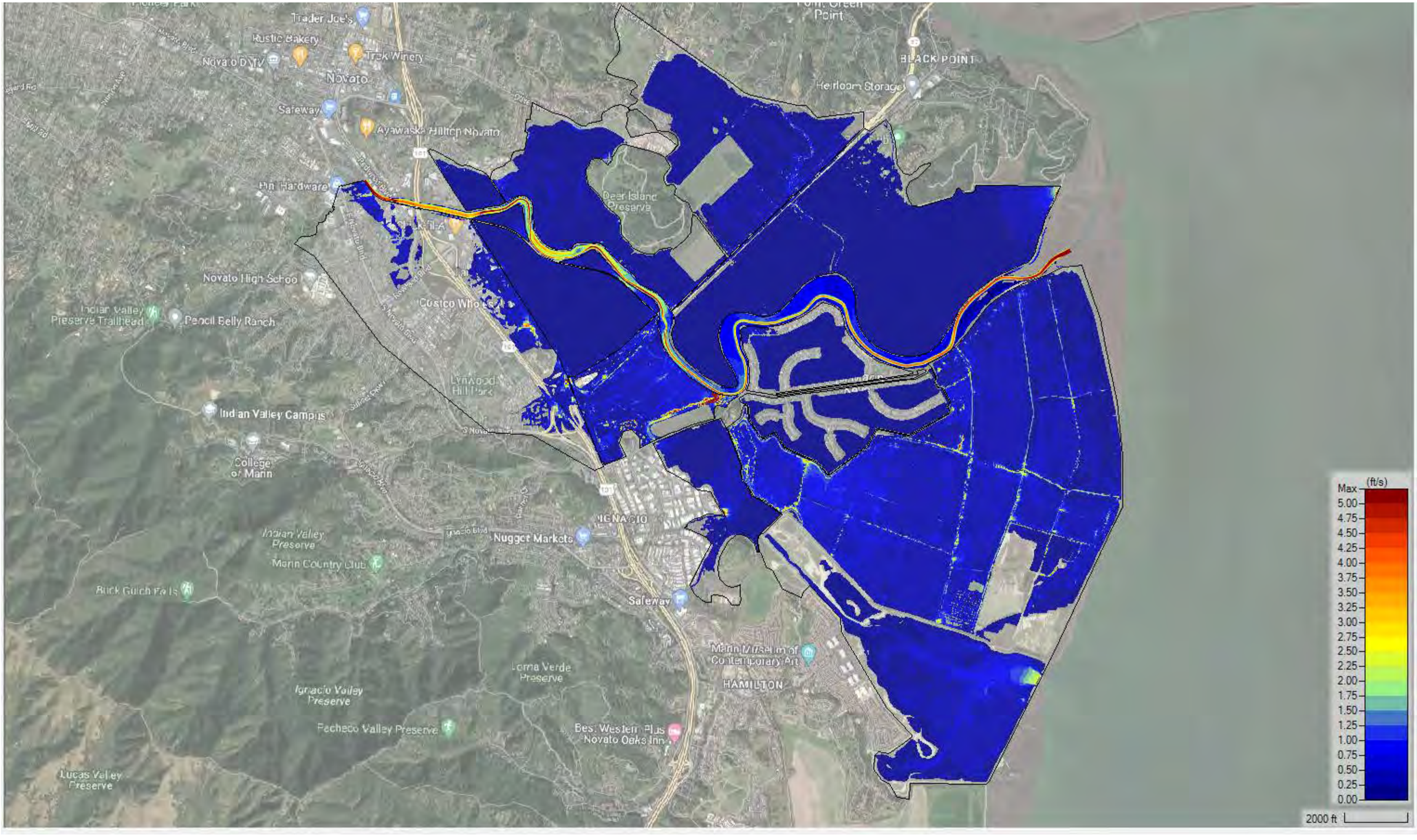
Phase 2, No Sea Level Rise, 100-year WSE



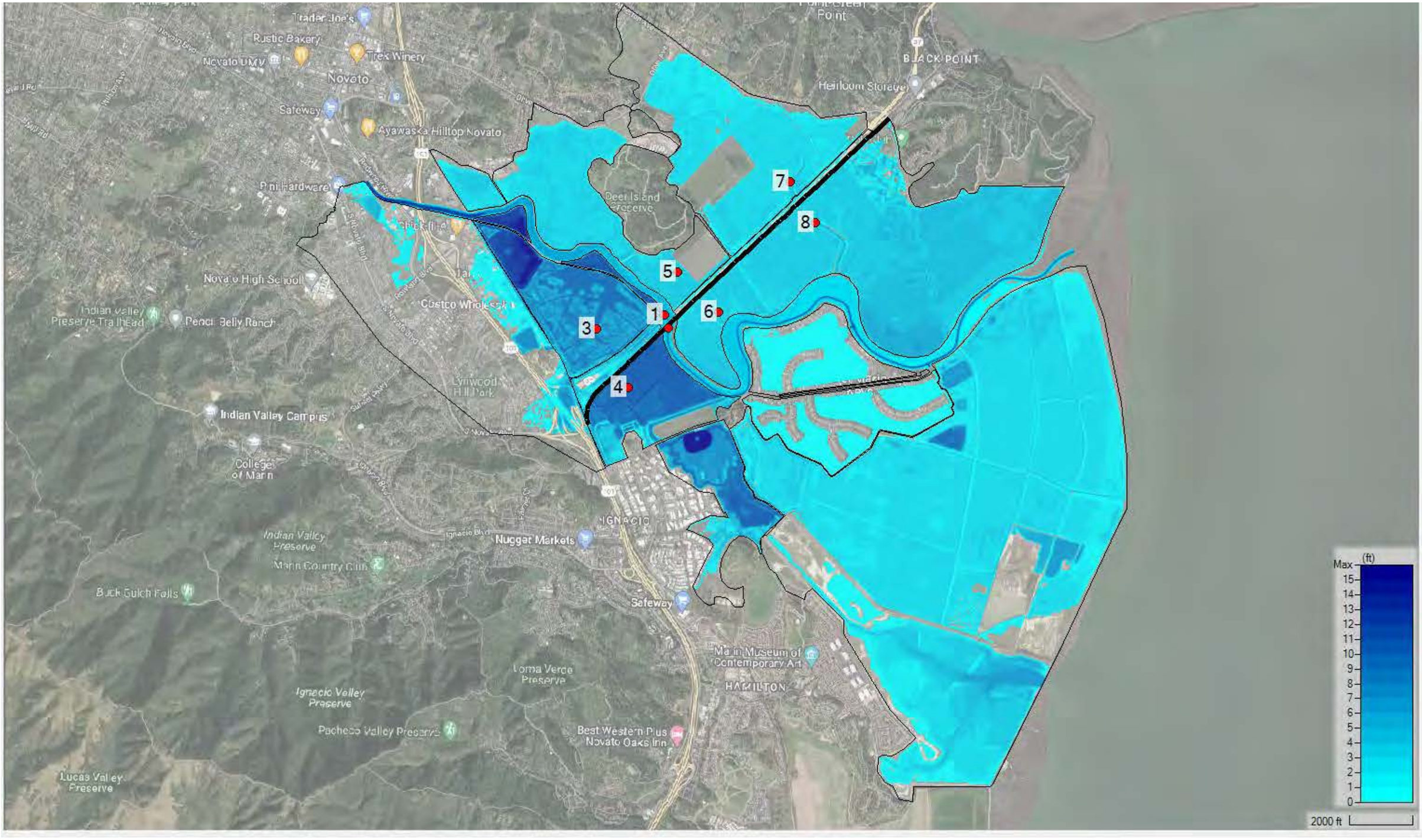
Phase 2, No Sea Level Rise, 100-year WSE change from Existing Condition



Phase 2, No Sea Level Rise, 100-year Flow Velocity

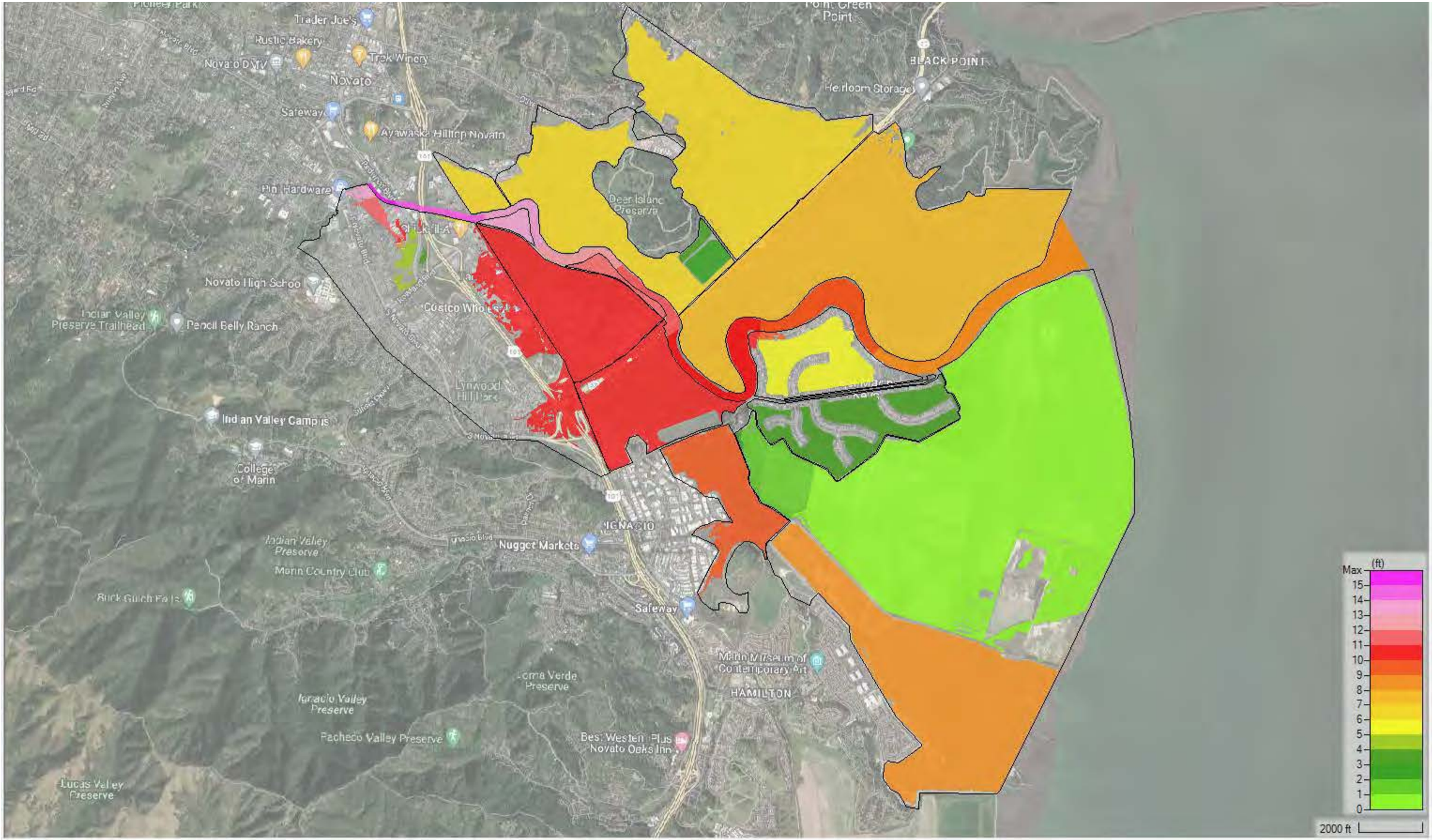


Phase 2, No Sea Level Rise, 100-year Flow Depth

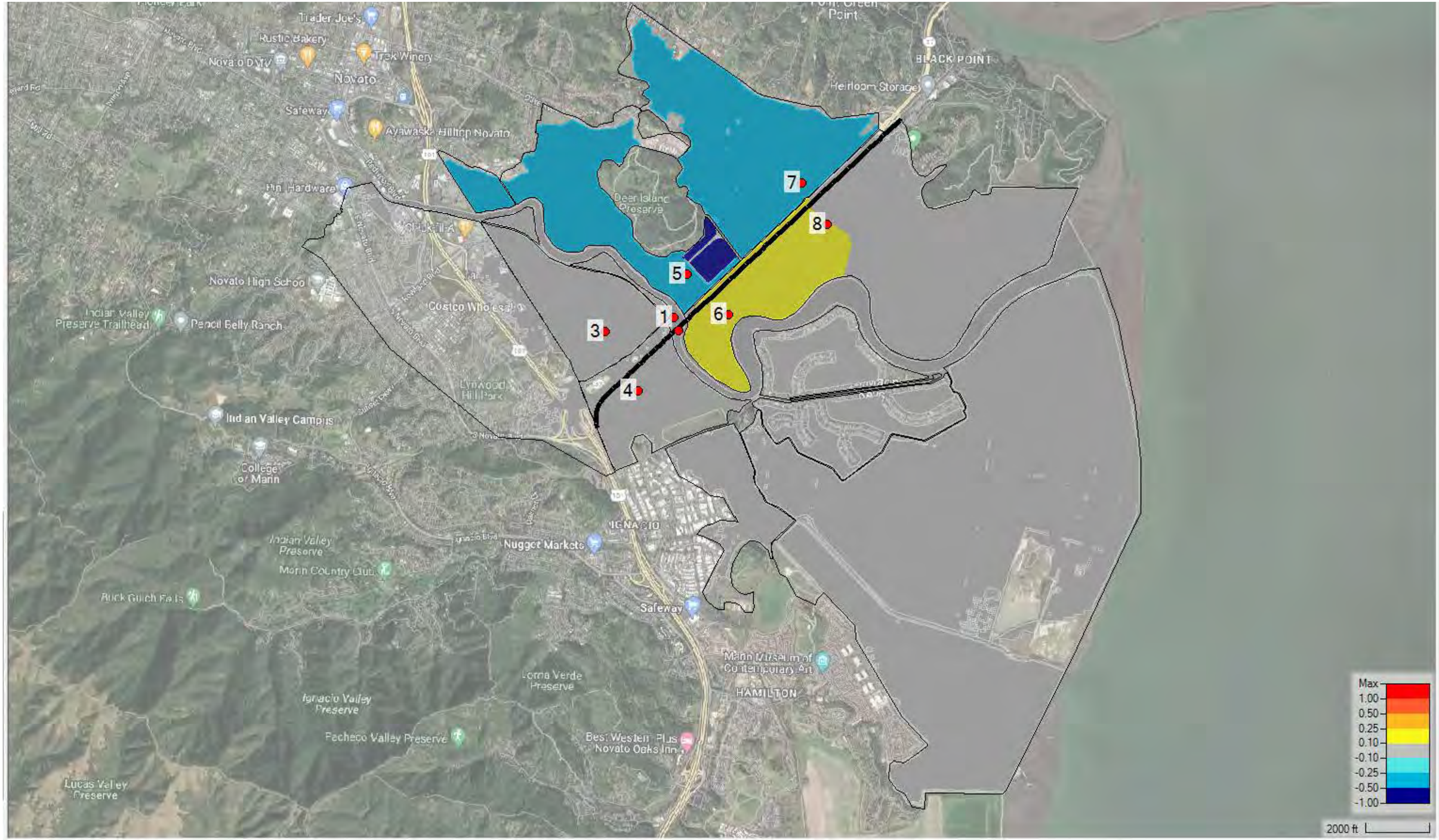


Appendix F.3 Phase 1, with 2050 SLR

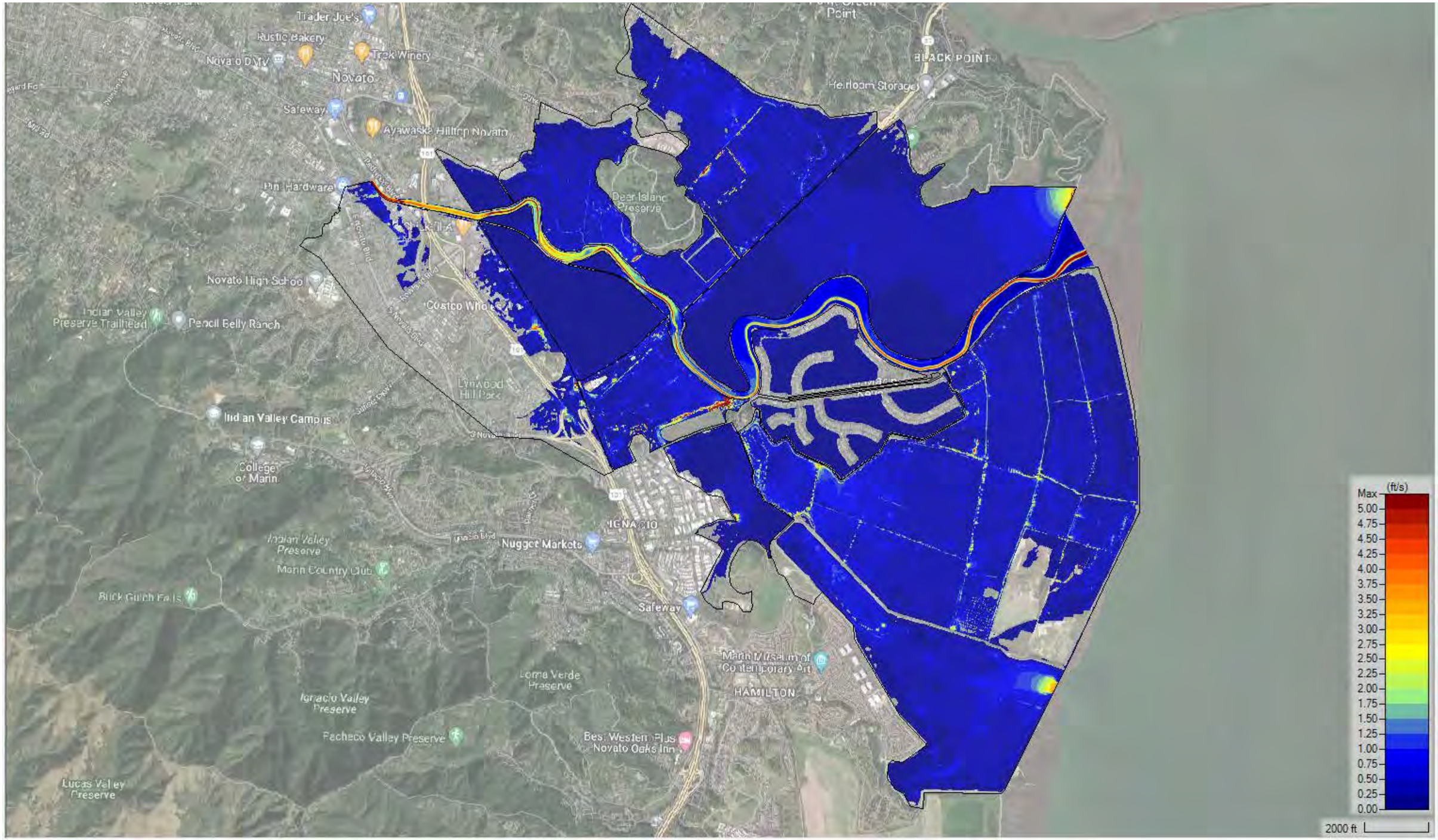
Phase 1, 2050 Sea Level Rise, 100-year WSE



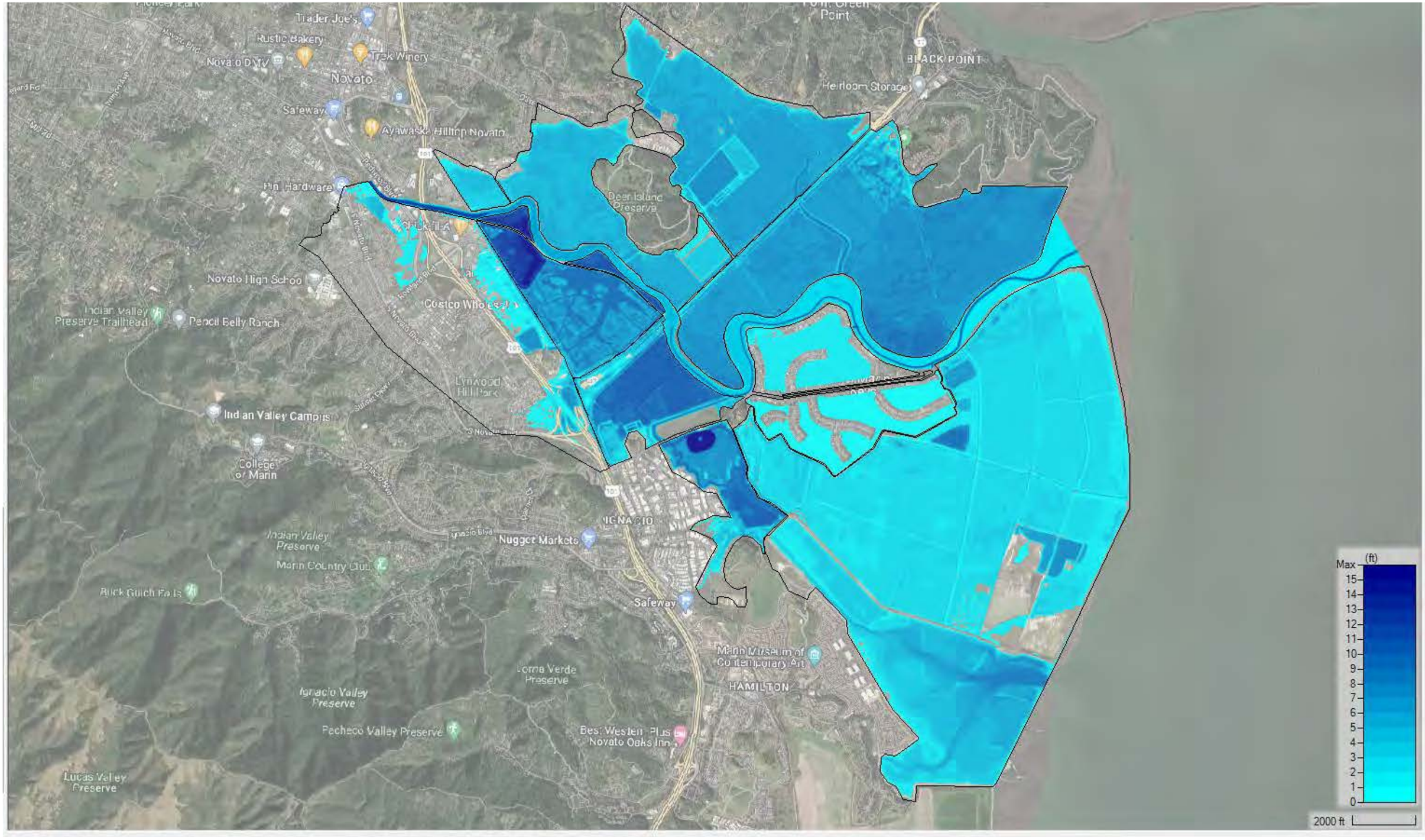
Phase 1, 2050 Sea Level Rise, 100-year WSE change from Existing Condition



Phase 1, 2050 Sea Level Rise, 100-year Flow Velocity

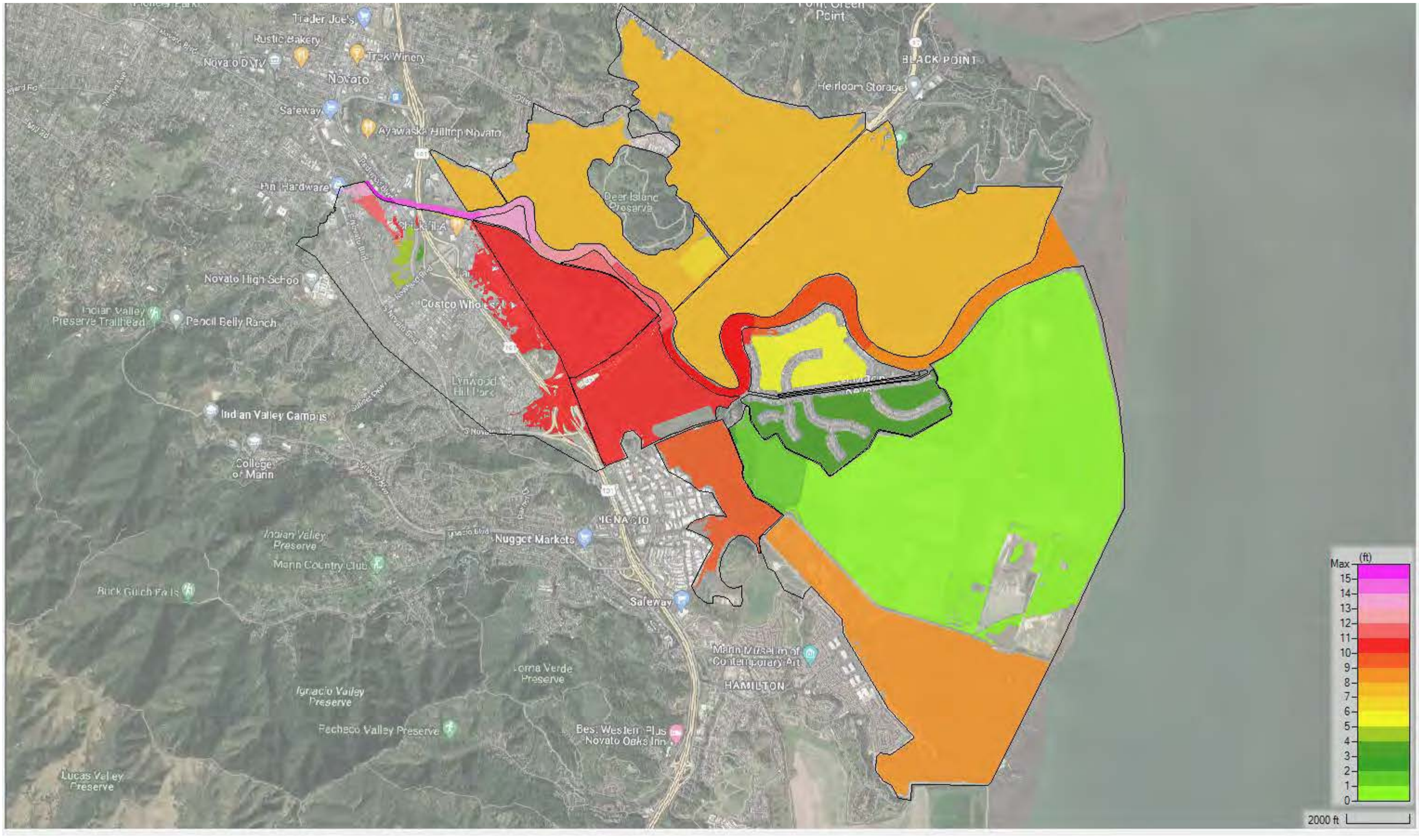


Phase 1, 2050 Sea Level Rise, 100-year Flow Depth

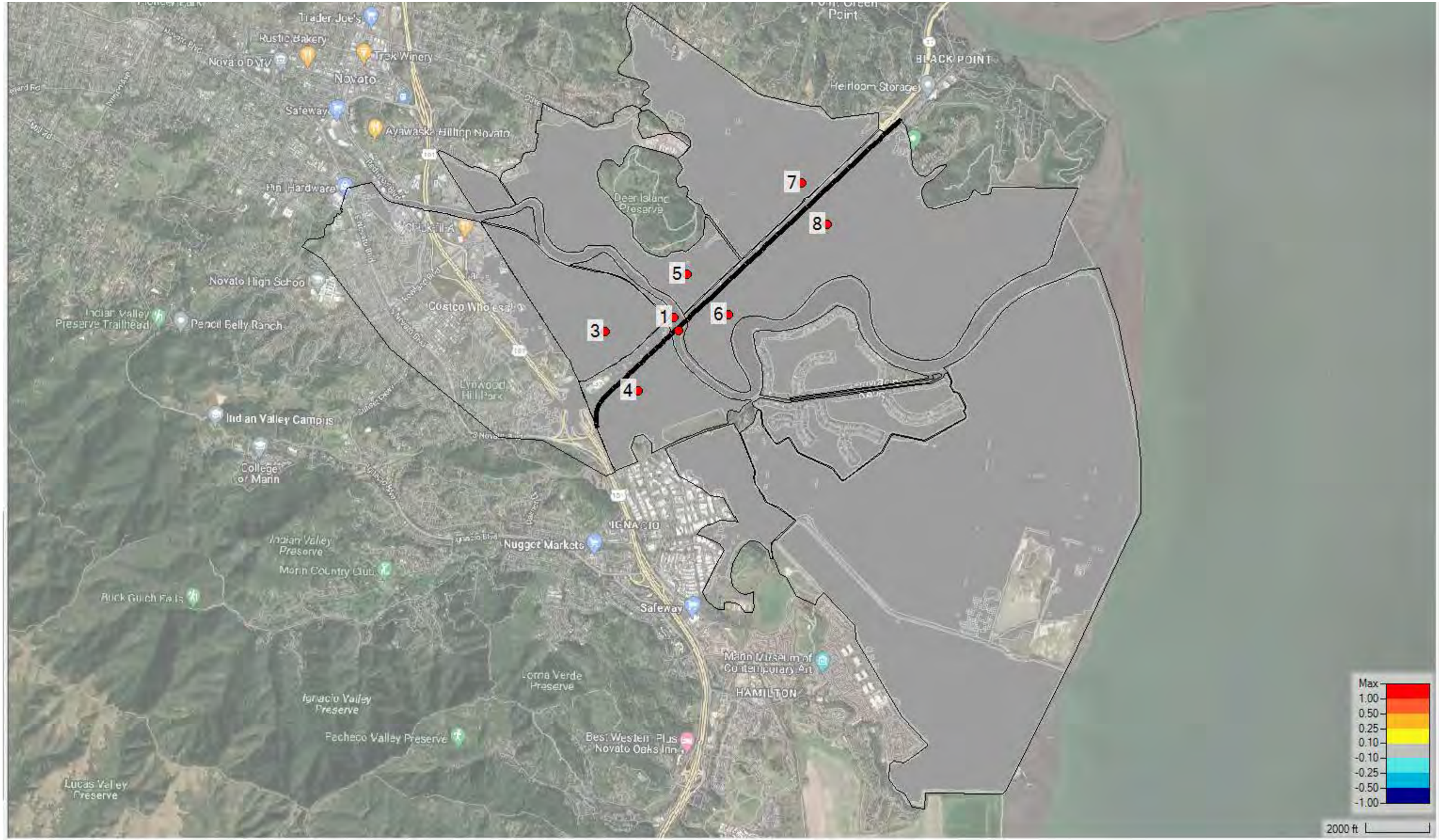


Appendix F.4 Phase 2, with 2050 SLR

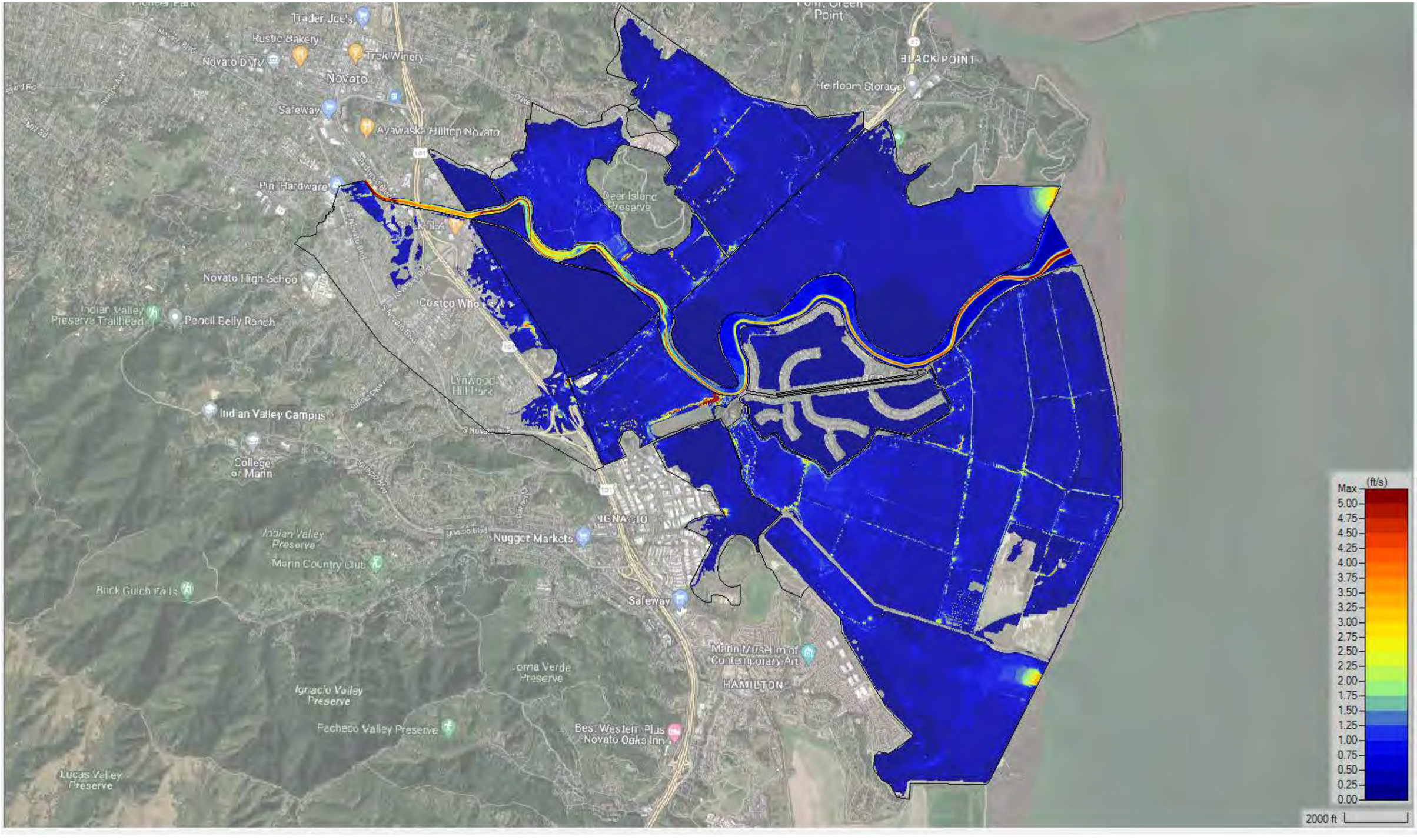
Phase 2, 2050 Sea Level Rise, 100-year WSE



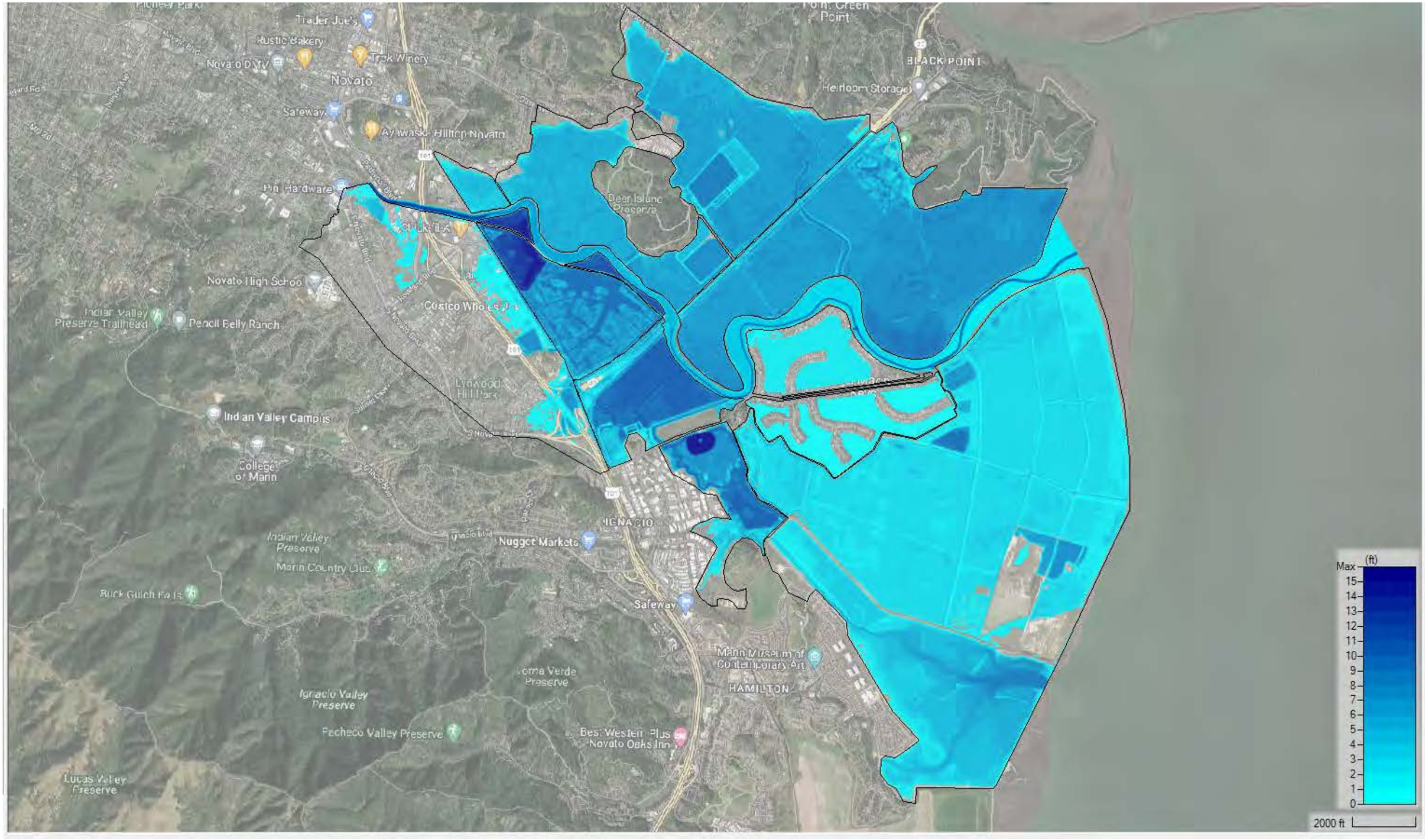
Phase 2, 2050 Sea Level Rise, 100-year WSE change from Existing Condition



Phase 2, 2050 Sea Level Rise, 100-year Flow Velocity

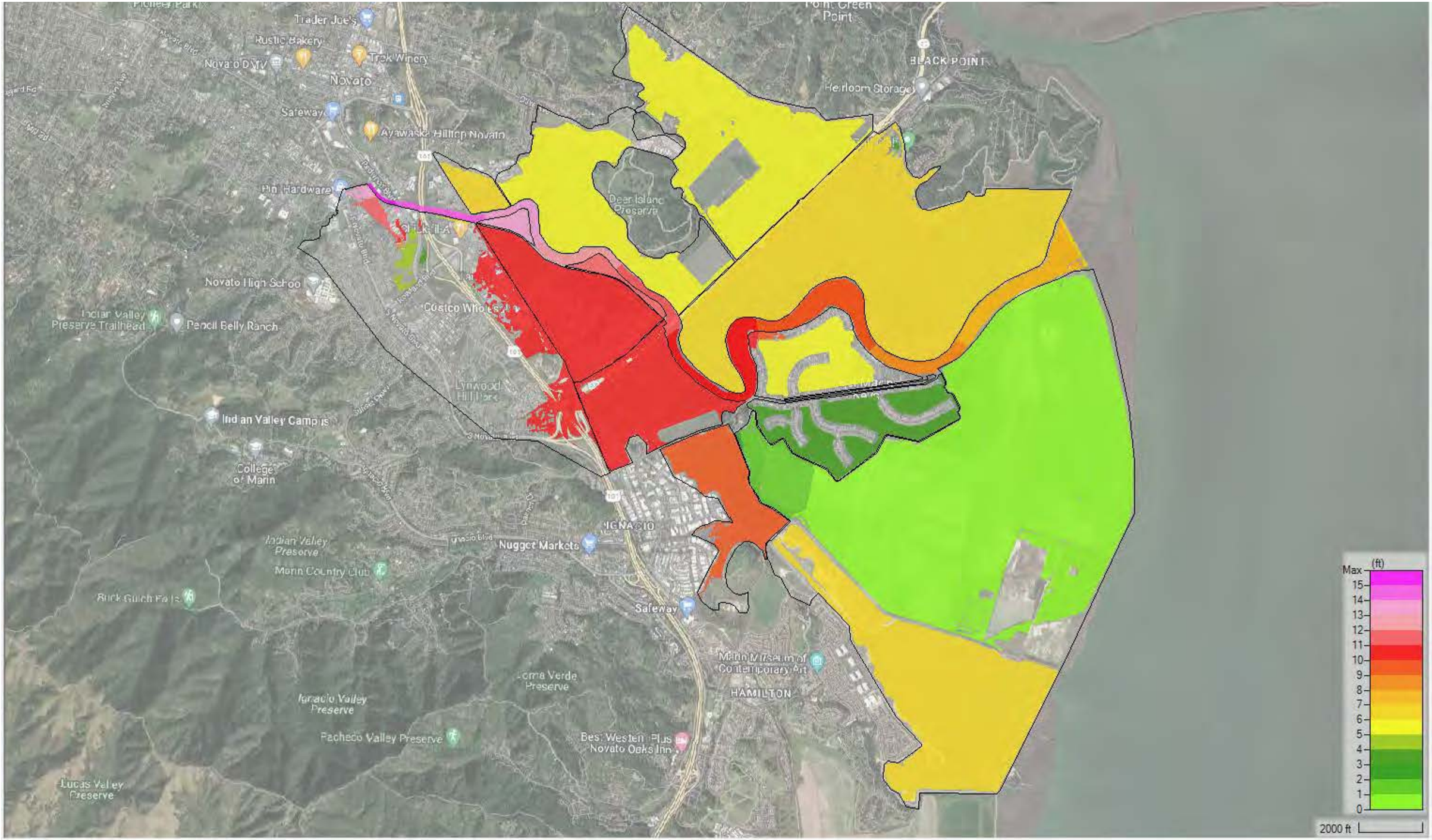


Phase 2, 2050 Sea Level Rise, 100-year Flow Depth

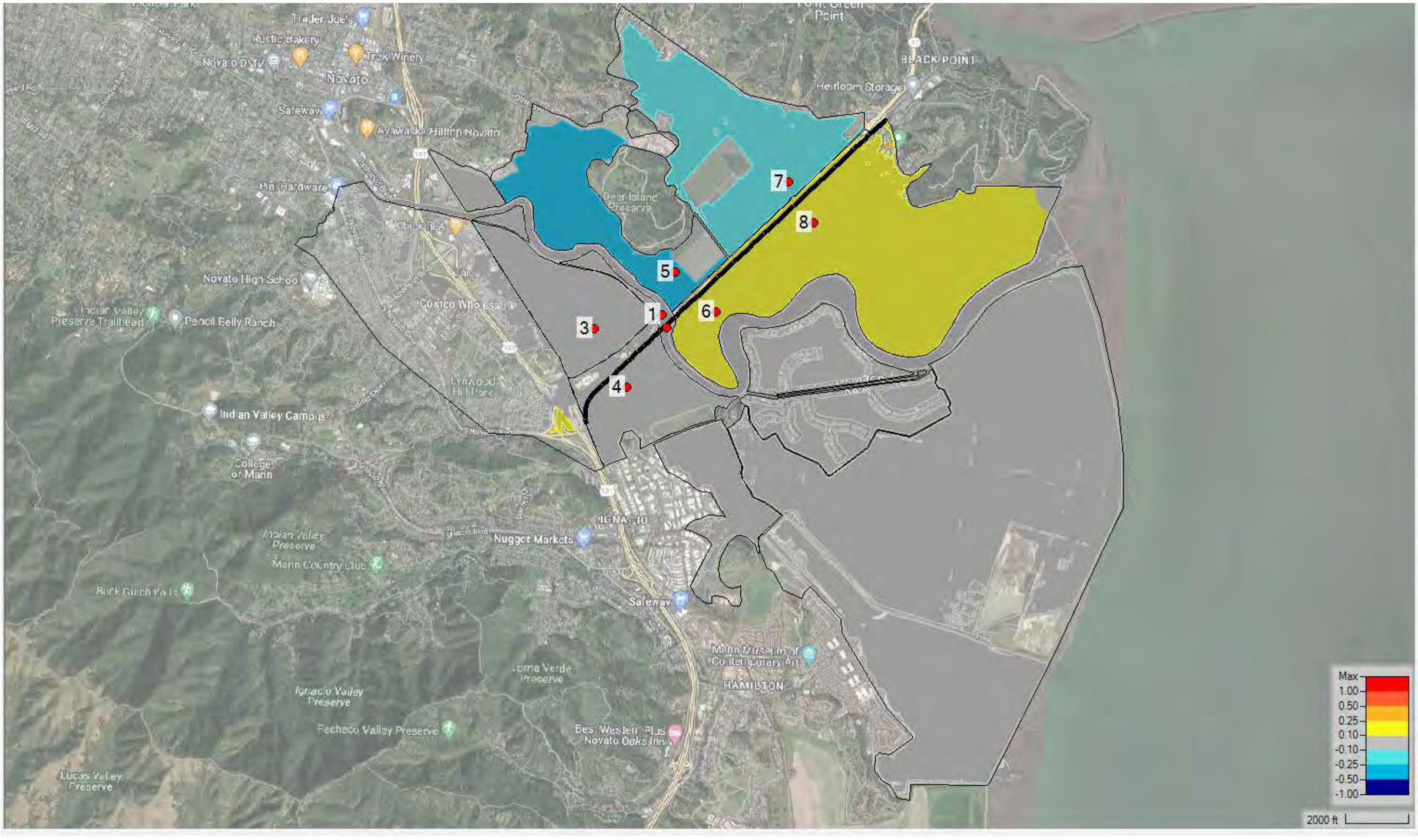


Appendix F.5 Phase 1, with 2030 SLR

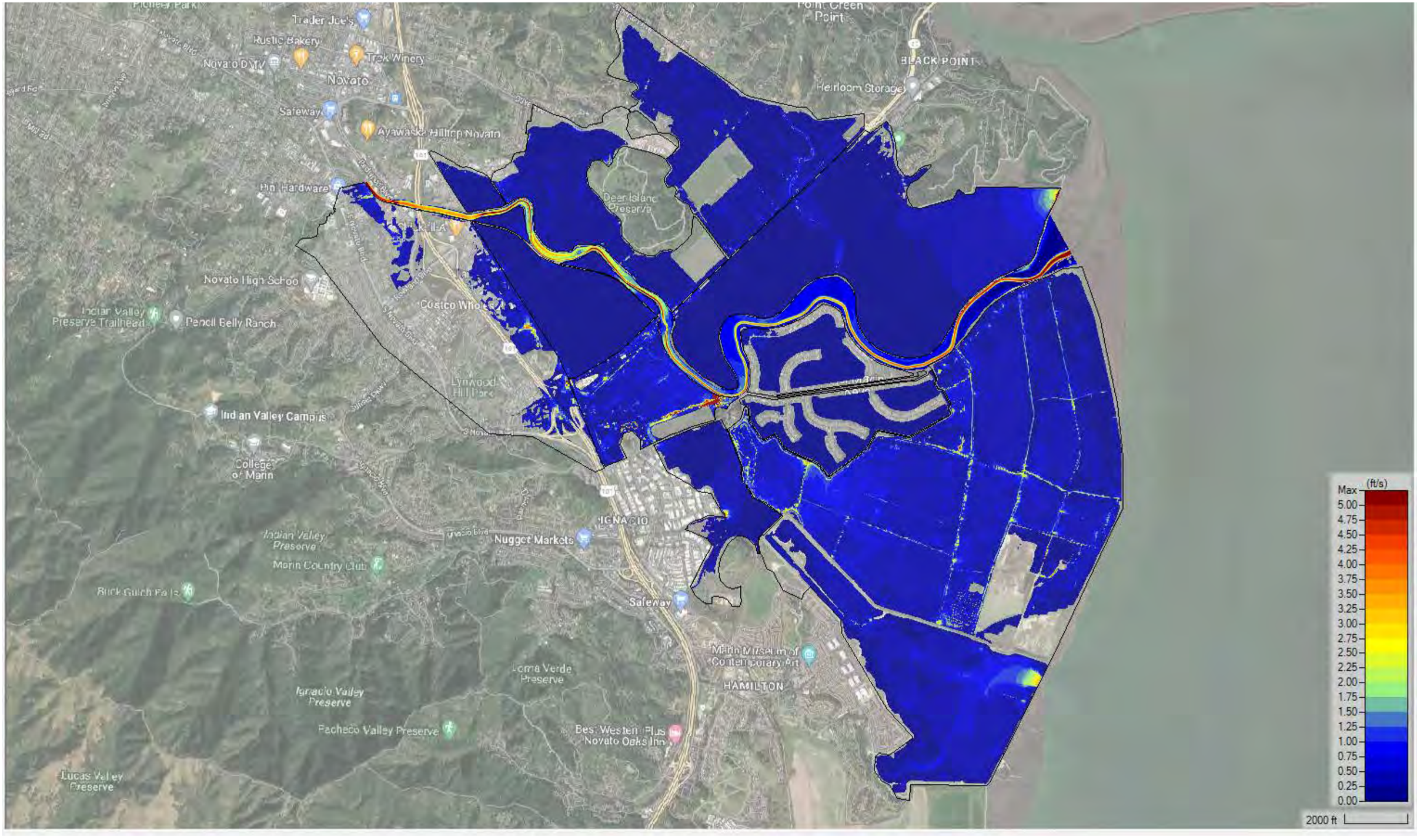
Phase 2, 2030 Sea Level Rise, 100-year WSE



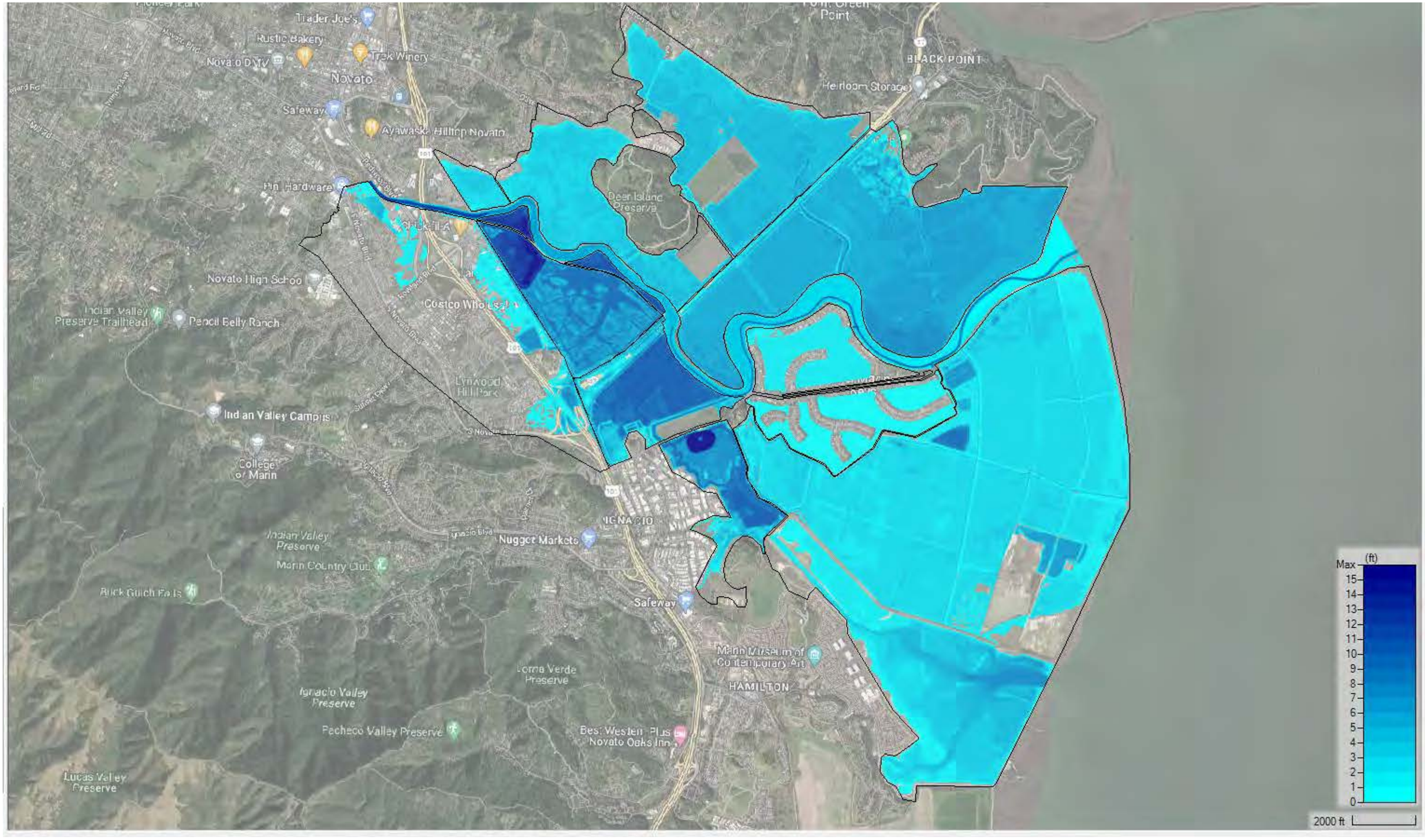
Phase 2, 2030 Sea Level Rise, 100-year WSE change from Existing Condition



Phase 2, 2030 Sea Level Rise, 100-year Flow Velocity



Phase 2, 2030 Sea Level Rise, 100-year Flow Depth



Appendix N Public Meeting Summary Memorandum

Jacobs

Public Meeting - September 21, 2023

Date:	December 8, 2023
Project Name:	State Route 37 Flood Reduction Project (EA 4Q320)
Attention:	Skylar Nguyen
Company:	Caltrans, District 4
Prepared by:	Jasmin Mejia

2201 Broadway
4th Floor
Oakland, CA 94612
United States
T +1.510.251.2426
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On September 21, 2023, Caltrans (California Department of Transportation) held a public meeting for the proposed State Route 37 Flood Reduction Project (Project) in compliance with the California Environmental Policy Act (CEQA) and National Environmental Policy Act (NEPA). The public participated in-person at Margaret Todd Senior Center in the city of Novato and virtually from 6:00 p.m. to 7:30 p.m. The public, including agencies and organizations, were invited to learn more about the Project, ask questions, and share feedback on the Project.

Caltrans, as assigned by the Federal Highway Administration, has prepared a Draft Environmental Impact Report/Environmental Assessment (Draft EIR/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed Project located in Marin County, California. Caltrans is the lead agency under both NEPA and CEQA. The Draft EIR/EA explained why the Project is being proposed; what alternatives Caltrans considered for the Project; potential effects to the environment resulting from the Project; potential impacts of each of the alternatives; and proposed avoidance, minimization, and mitigation measures.

Meeting advertisement involved publishing the Notice of Availability of the Draft EIR/EA (Attachment 1) in the San Francisco Chronicle, Mercury News, Daily Public, Press Democrat, and Marin Independent Journal on different dates in the months of August and September 2023. In addition, postcards advertising the public meeting and public review period of the Draft EIR/EA were sent to 4,962 individual addresses. The public review period of the Draft EIR/EA was from August 23, 2023, to October 10, 2023.

A total of 28 people participated in the meeting; 12 people attended in-person (Attachment 2) and 16 people attended virtually. The meeting started with a presentation of the Project by senior Caltrans team members. The presentation was then followed by a question and answer session that included both in-person and virtual attendees. The meeting transcript is provided in Attachment 3 to this memorandum.

The comment themes from the meeting are as follows:

- Traffic on Crest Road during construction
- Tolling within the Project area
- Removal of the existing State Route 37 roadway at Project completion
- Accessibility near the U.S. Highway 101 interchange
- Support for the Project
- Bicycle and pedestrian access before Phase 2
- Mitigation of biological impacts
- Traffic noise and construction noise impacts on nearby communities

- Integration of SMART (Sonoma-Marin Area Rail Transit) (light rail) in the Project
- Concern about sea level rise and residents' safety
- Flooding impacts from the Project on surrounding infrastructure and communities

Photographs 1 and 2 show the public meeting in progress.



Photograph 1



Photograph 2

Attachment 1
Notice of Availability

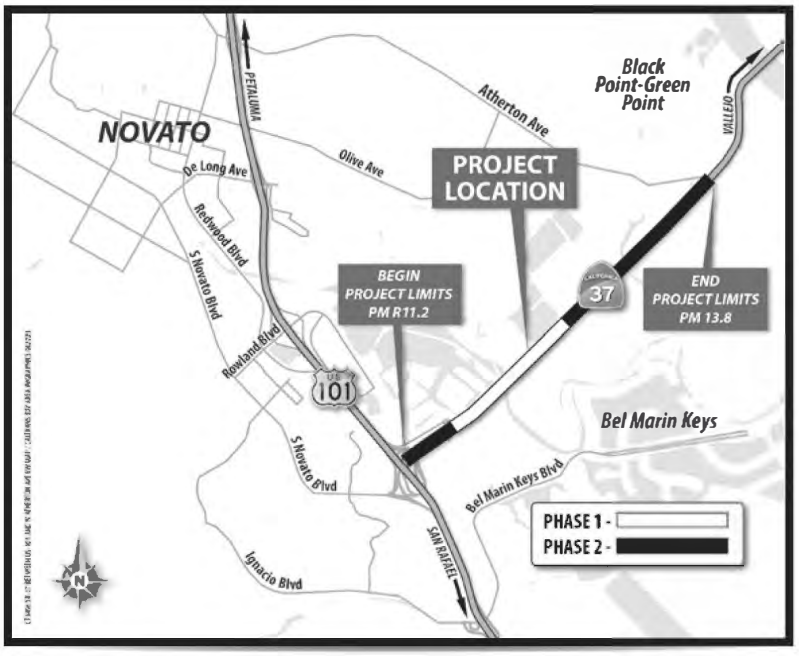
Caltrans

PUBLIC NOTICE

SCAN TO JOIN THE MEETING

SCAN TO VIEW 360 TOUR OF ALTERNATIVES

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) AND ENVIRONMENTAL ASSESSMENT (EA) FOR THE STATE ROUTE (SR) 37 FLOOD REDUCTION PROJECT (STATE CLEARINGHOUSE NO. 2021110045)



WHAT IS BEING PLANNED?
The California Department of Transportation (Caltrans) proposes to reduce flooding from stormwater overtopping and adapt to the projected 2130 sea level rise on SR 37 from Post Mile (PM) R11.2 to 13.8, in Marin County, California. The Project would replace the Novato Creek Bridge and construct a causeway at an elevation of 35 feet in 2 phases. The causeway would extend from U.S. 101 to Atherton Avenue.

WHY THIS ADVERTISEMENT?
Caltrans, as the lead agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), prepared an Environmental Impact Report/Environmental Assessment (EIR/EA) to analyze potential effects the proposed Project would have on the human and natural environment. This notice is to inform the public of the Draft EIR/EA's availability for review during a 45-day public comment period.

WHAT IS AVAILABLE?
The Draft EIR/EA and other project information are available to download on the Caltrans environmental document website: **https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs.** Additionally, hard copies of the document will be made available at the following locations:

Novato Library	**South Novato Library**
1720 Novato Boulevard	**931 C Street**
Novato, CA 94947	**Novato, CA 94949**

WHERE YOU COME IN:
We welcome your comments on the Draft EIR/EA during the 45-day public comment period from **August 25, 2023 through October 08, 2023.** Comments may be submitted via the following methods:

- Email to: **SR37FloodProject@dot.ca.gov**
- Postal Mail addressed to: **Caltrans, District 4**
  ATTN: Skylar Nguyen, Senior Environmental Scientist
  P.O. Box 23660, MS: 8B, Oakland, CA 94623-0660

A hybrid public meeting will be held on **September 21, 2023**, beginning at 6 pm to discuss the Project. Participants will have the opportunity to review a brief presentation and speak with project team members. You are invited to attend the virtual public meeting via Webex using this link**: http://bit.ly/3YZzlRP**. You can also attend the meeting in person at:

Margaret Todd Senior Center
1560 Hill Rd, Novato, CA 94947

For more information about this Project, or if you have comments, questions, or concerns please contact: **Skylar Nguyen, Senior Environmental Scientist** at **skylar.nguyen@dot.ca.gov or (510) 496-9551.** TDD users may contact the California Relay Service TDD line at **1-800-735-2929** or Voice Line at **1-800-735-2922.**

Para obtener más información, visite: **https://bit.ly/45yXK8J**

Attachment 2
Public Meeting Sign-in Sheet

State Route 37 Flood Reduction Public Meeting Sign-in

Name	E-mail	Company/Agency/Community
Vince O'Brien	obrienvendorok@gmail.com	Novato (Self)
Leslie Weber	LWeber@marincounty.org	Marin County
Garrett Low	hongkongfooey1316@gmail.com	Novato
GREG HODGES	greghodges1950@gmail	NOVATO
LIZ PEER	lpeer@peermusic.com	Novato
Rick Fraites	rickfraites@aol.com	self!
Molly Graham	mgraham@tam.ca.gov	TAM
[illegible]		Marin Conservation
Susan Wernick	swernick@novato.org	City of Novato
Stephany Simmons		City of Novato
Susan Stompe	SSStompe@aol.com	self

State Route 37 Flood Reduction Public Meeting Sign-in

Name	E-mail	Company/Agency/Community
NICK NGUYEN	NNGUYEN@TAM.CA.GOV	TRANS. AUTHORITY OF MARIN.

Attachment 3
Meeting Transcript

Transcript of Proceedings

September 21, 2023

State Route 37 Flood Reduction Project EIR/EA

aptus COURT REPORTING

www.aptusCR.com | 866.999.8310

PUBLIC HEARING RE:

DRAFT ENVIRONMENTAL IMPACT REPORT (EIR), and

ENVIRONMENTAL ASSESSMENT (EA)

FOR THE STATE ROUTE (SR-37) FLOOD REDUCTION PROJECT

REPORTER'S TRANSCRIPT OF PUBLIC HEARING PROCEEDINGS

Thursday, September 21, 2023

6:15 p.m. - 7:31 p.m.

Margaret Todd Senior Center

1560 Hill Road

Novato, CA 94947

STENOGRAPHICALLY REPORTED BY: Alesia L. Collins, CLR

Certified Shorthand Reporter No. 7751

JOB NO. 10127647

CALTRANS PUBLIC INFORMATION OFFICERS:

BART NEY, Office Chief of Public Affairs
PEDRO QUINTANA, Public Information Officer
MATT O'DONNELL, Public Information Officer

CALTRANS HEARING PANELISTS:

DINA EL-TAWANSY,
District 4 Director

JAVIER MENDIVIL,
Regional Project Manager and State Route 37 Corridor Manager

MAXWELL LAMMERT,
Acting Office Chief for Environmental Analysis

AHMED RAHID,
Senior Transportation Engineer

DIANA PINK,
Landscape Associate

Lindsay Vivian,
Biological Sciences and Permits Office Chief

Shilpa Mareddy,
Senior Transportation Engineer

REPORTER'S TRANSCRIPT OF PUBLIC HEARING PROCEEDINGS

Thursday, September 21, 2023

6:15 p.m. - 7:31 p.m.

MR. NEY: Okay. If we can have our panelists head up to the panel seats, we're going to be starting in about a minute. And, if people here in the audience can have a seat, we will be getting started very shortly.

Folks online, it's about one more minute.

All right. We'll let everyone get seated comfortably.

All right. We're underway.

Good evening, everyone. My name is Bart Ney. I'm the office chief of public affairs for CalTrans here in the Bay Area, and I'm the CalTrans lead for communications on State Route 37.

Tonight we're going to be focusing on the flood reduction project that's here in -- in Marin, but first a few safety things:

The -- the exits for this room, you've probably already seen 'em. One's in the back at that location. The other ones are the ones you came in. Bathrooms are out that door and to the left. So, important stuff first.

Okay. With that, I would like to introduce our CalTrans district director, District 4 director, Dina El-Tawansy, to give a few opening comments as we get started.

Dina?

MS. EL-TAWANSY: Thank you, Bart.

Good evening, everyone, and thank you very much for joining us this fine evening. I'm really thrilled to see people here in the room, and I also want to welcome everybody that's online.

My name is Dina El-Tawansy. I'm district director for CalTrans in the Bay Area, and we serve the nine Bay Area counties. We're really excited to be here with you tonight to engage more on State Route 37.

This is a very important night on so many fronts because we're taking our very first step towards a resilient 37. You know, we've been -- we know all the challenges of State Route 37. It's very susceptible to sea-level rise. We know that there's also a lot of opportunities for environmental and ecological restorations to be done on the San Pablo Bay.

So, we had a scoping meeting back in November 2021, and we have another one in December 2022, and we're here tonight to continue to engage with you.

You spoke about some of your concerns back

then. You didn't want to see embankments. We heard you. And, we are working on how we can develop this fine route to make sure that it's meeting the challenge of the sea-level rise for the ultimate design year of 2130.

Your input is extremely important to us, so please do engage, ask us questions. We can do our very best to capture every comment and question that we get here. If we're unable to answer all the questions that we receive here tonight or online, we will make sure that we actually do that afterwards, so continue to provide that input for us.

So, with that said, I welcome you again. Thank you for being with us, and I will turn it over to Bart to get us started.

Thank you.

MR. NEY: All right. Thank you, Dina.

We're working with the PA system.

Okay. So, as I mentioned, tonight we're focusing on the flood reduction project for State Route 37 here in Marin. However, State Route 37 -- however, State Route 37 is a 21-mile corridor, and there are several other projects that are also on this corridor.

So, there are no -- there are no dumb questions. We want to hear from everybody what your --

what your concerns are, what your thoughts are. However, if one of your questions is about one of the other projects, then we will talk with you after the presentation and lead you to the information for those other projects, if that makes sense.

Okay. With that, we'd like to acknowledge the city of Novato and the County of Marin for hosting us tonight, and in particular, Leslie Weber, from Supervisor Eric Lucan's office, who helped us out. Thanks, Leslie.

We would also like to thank the California Highway Patrol for their attendance at tonight's meeting. Safety is always a priority with us at every meeting that we have and every effort that we take.

And, finally, we will be conducting a Q&A at the end of our presentation. If we run out of time and do not get to your question, please feel free to submit them by email or online. And, there will be more information on that in our presentation.

So, with that -- we can go ahead and advance the slide, Tam. Oh, we are going to be recording this -- this meeting.

Okay. Go ahead and can you advance. All right. There are a few slides that I have to read for Title VI. I'm just going to go ahead and do that as

soon as Tam has them.

Okay. So, our non-discrimination policy statement:

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 ensures no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, denied -- be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal finance assistance -- federal financial assistance.

CalTrans will make every effort to ensure non-discrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, national -- national origin -- or national origin.

In addition, CalTrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner. Related to federal statutes, remedies and state law further those protections to include sex, disability, religion, sexual orientation and age.

For additional information or guidance on how to file a complaint or obtain more information regarding

Title VI, please contact the Title VI branch manager at (916) 324-8379 or visit the following web page, dot.ca.gov/programs/civil-rights/title-vi.

Now I have a Spanish translation.

Jasmine?

MS. MEJIA: Thank you. I will read the Spanish translation for those that are participating and speak Spanish.

(Reading in Spanish language.)

MR. NEY: Thank you, Jasmine.

All right. Now for our meeting protocol for online attendees. For written questions or comments, please type them in the "chat" box by pressing this icon at the bottom of your screen -- the little word balloon.

For verbal comments, please hold them until the Q&A session after the presentation, and then please use the raise your hand icon to be unmuted.

Verbal comments have a two-minute limit tonight. We will try -- we will try to get as many comments as possible within our meeting. For closed captioning -- for closed caption, press the closed caption icon and choose your language.

A court reporter is present to record all public comments. Please be respectful of other community members' concerns and input. And, that's for

the online protocol.

All right. For the -- okay. For the in-person attendees, very similar. Please hold comments and questions until the end of the presentation. Please approach the microphone at the front of the room. We will put this back there for you when you speak.

Each speaker will have a two-minute limit to share their comment -- same as online. Please state and spell your name and identify the organization you're with -- you're affiliated with, if you're affiliated with an organization.

A court -- again, the court reporter is here to record all public comments, whether you're in the room or virtually. And just like the other one, please be respectful of all community members' concerns and comments. So, those are the protocol for the -- for the meeting today.

Now I'd like to introduce our CalTrans panelists. They can raise their hand as we -- as we call their name.

First is Javier Mendivil. He's our regional project manager and State Route 37 corridor manager. He's our quarterback tonight, the guy that's responsible for kind of the whole thing.

Then we have Maxwell Lammert, acting office

chief for environmental analysis. And, I am going to be handing off to him in just a -- a couple of minutes.

We have Ahmed Rahid, our senior transportation engineer for design. Diana Pink, our landscape associate. Lindsay Vivian, our office chief for biological sciences and permits. We have me, Bart Ney. Pedro Quintana, online, and Matt O'Donnell out in the audience in the back there, Matt, are your public information officers for tonight.

With that, Max, I'll turn it over to you for meeting purpose.

MR. LAMMERT: Thanks, Bart.

Hi, everyone. Good evening. So, let's talk about now while we're here -- why we are here today.

So, CalTrans has released a draft Environmental Impact Report and Environment Assessment -- or Draft EIR/EA -- to comply with the California Environmental Quality Act and the National Environmental Policy Act -- or CEQA and NEPA -- as you may hear them referred to throughout the rest of the presentation.

CEQA and NEPA are the two -- are the state and federal umbrella laws that cover the environmental compliance and guide agencies like CalTrans through the environmental compliance process.

So, these laws require us to provide an

overview of the proposed project and any impacts associated with the project, as well as any mitigation measures to offset those impacts. It also requires us to accept public comments on these projects to help inform the project.

So, the comment period for this Draft EIR/EA began on August 25th, 2023, and will end on October 8th, 2023. We'll be accepting comments until October 8th at 5:00 p.m., or by physical mail postmarked by that date.

We also -- we have a physical copy of the Draft EIR/EA, I think it's in the back over there -- okay. It's the back over there if someone would like to review it here in person.

We also have green handouts on the table that have a link to where you can find that, and then for those of you online, we will put a link to where you can find it in the "chat."

Next slide, please.

So, let's briefly go over the agenda for today's meeting. So, in a moment I'll hand it off to Javier, who will get us started with a project history that will kind of tell a tale about how we got to where we are today.

Then we'll go into the location, purpose and need of the project, the proposed project alternatives,

the environmental analysis and significance determinations that have been made for CEQA and NEPA.

And, during that time we'll also have a 360 tour of the project, and we will give a brief overview of that and kind of guide people through that before concluding, by reviewing the comment submission instructions, and then continuing on to our question-and-answer session.

Now I'm going to hand it off to Javier Mendivil, our regional project manager for the State Route 37 corridor.

MR. MENDIVIL: Thank you, Max. Good evening, everybody. Thanks for being here tonight. I'd like to start off with a little bit of a project history.

So, as Dina alluded to earlier, this project originally included an interim embankment option that would have sustained sea-level -- sea-level rise to 2050 projected elevations.

At the November 2021 scoping meeting, CalTrans received feedback indicating concern regarding the permanent impacts associated with the embankment alternative, so CalTrans went back to the drawing board to come up with additional alternatives, and these included passive flood barrier, embankments at different elevations and limits, strengthening the levies, and

interim causeways.

In March 2022, at the SR-37 policy committee meeting, CalTrans announced that it would be refining the limits to the project between U.S. 1 and Atherton in order to address the -- the most vulnerable section of the corridor that's most susceptible to sea-level rise and flooding.

A couple of months later, in summer 2022, the SR-37 planning and environmental linkages study identified the existing corridor as a preferred alignment for long-term development and a causeway as solution to flooding to year 2130.

In December 2022, CalTrans hosted a second scoping meeting to provide the update of the ultimate causeway for year 2130 sea-level rise. And, then the team began drafting the draft environmental document, which has been released for public input just last month, which brings us to where we are today.

Next slide, please.

So, this graphic shows the project vicinity. As I mentioned, it spans between U.S. 101 and Atherton, and the purpose of the project is to incorporate resiliency on the corridor to the effect of sea-level rise to year 2130 and flooding from stormwater. The need is due to recurring flooding from high tide events

and heavy winter storms, which have caused delays and closures in this area.

Next slide, please.

This map shows -- depicts the elevations of -- of SR-37 in this area and the levies through color-coded linework. SR-37 is represented by that diagonal line in mostly red and orange, and as you can see from the legend, that represents the lowest elevation in that area. In this segment the elevation of the roadway can be as low as two feet.

And then that green and yellow line that snakes across the corridor there represents the levy system. And, this levy system is what protects the surrounding area from flooding.

Right there where it crosses the highway, where that number 1 is in the bottom left-hand corner is where the Novato creek is. And, during heavy windstorms, during high tide events and winter storms, water ends up overtopping the levy in this area and eventually making its way to -- to the roadway and cause flooding.

Next slide, please.

And, that's what this looks like. So, these are photos from past winter storms that -- where we have experienced flooding along the corridor. In 2017 we experienced 28 days of flooding that caused closures on

the highway. In 2019 it was eight days. And, just this year in January we experienced three days of closures due to flooding on the corridor.

So, these -- these photos really highlight the need for a long-term solution on this segment of the corridor, which is what this -- this project will provide.

At this point I'd like to hand it off to my colleague in design, Ahmed Rahid -- next slide, please -- for the build alternative.

MR. RAHID: Thank you, Javier.

Good evening, everyone. Thanks for attending our meeting tonight. In the next few slides I'm going to go over our project alternative. Two alternatives have been analyzed in the environmental document. The build alternative would elevate two-and-a-half miles of State Route 37 to an elevation of 35 feet on the causeway.

The build alternative would elevate two-and-a-half miles of State Route 37 to an elevation of 35 feet on the causeway in two phases. These complete the purpose and need of our -- of the project. The no-build alternative would not make any changes to the existing condition; therefore, not addressing the current flooding problems and projected sea-level rise.

Next slide, please.

On the screen you can -- you will see the cross section of the project after its completion. Our project will have four 12-foot lanes, two lanes in each direction. On each direction there will be ten feet of inside shoulder, which would be separated by a two feet wide median barrier. We'll also have 12 feet of outside shoulder.

And, on the south side of the bridge we will have 14 feet bidirectional, mixed-use pedestrian and bike path, and that path would be separated from the mainline with a two feet barrier. And, on the outside edge of the bridge we will have two outside barrier. Consisting all of it, the total width of bridge would be 114 feet.

The project will be completed in two phases, and phase one of the project will be our first construction package.

Next slide, please.

Phase one of the project would start at the most flood prone area within our project limit, that is the Novato Creek Bridge. Phase one would replace the existing Novato Creek Bridge with a longer structure at an elevation of 35 feet. And, there will be two transitional bridges on either side of the bridge that

will connect the new bridge with the rest of the freeway.

So, under phase one we will have two 12-feet lanes in each direction. The inside shoulder width will be five feet. The outside shoulder width will be ten feet on each direction, and the bike path on the south side of the bridge of that one will be ten feet. So, the total width of the bridge under -- after phase one will be 96 feet.

This is a simulated view looking westward. You can see the new Novato Creek Bridge and also the western transitional bridge.

So, the western -- the length of the western transitional bridge is roughly hundred -- 1,153 feet. It will start at an elevation of three-and-a-half feet, and it will connect to the western part of the new Novato Creek Bridge at an elevation of 35 feet.

Next slide, please.

And, here's a similar type view of phase one completion looking eastward. You can see part of the new Novato Creek Bridge and also the eastern transition bridge.

The length of the eastern transitional bridge roughly is 963 feet. It will connect to the eastern part of the new Novato Creek Bridge at an elevation of

35 feet, and it will conform to the existing 37 at an elevation of three-and-a-half feet.

Next slide, please.

So, here's another similar-type view looking westward after -- what it would look like after the phase two completion. The transitional bridge that we built under phase one on both direction, eastern and western, will be removed, and it will be replaced by the causeway.

So, under phase two -- the length of phase two will be two-and-a-half miles long, and it will connect from U.S. 101 to Atherton Avenue.

So, here is a similar-type view looking westbound. You can see the U.S. 101/37 connection, and there's no -- you cannot see western transition bridge at this picture, this simulation, because that will be removed, and it will be one connection from the US 101 to Novato Creek Bridge that we build under phase one.

Next slide, please.

And, here is another similar-type view looking eastward. You can see the -- the Novato Creek Bridge that we built under phase one, but you -- there's no transitional -- eastern transitional bridge because that part will be removed, and it will be one connection from U.S. 101 to Atherton Avenue.

The completed causeway will be two-and-a-half miles long, at an elevation of 35 feet, and it will have two, 12-feet lanes in each direction. Ten feet of inside shoulder, 12 feet of outside shoulder, and 14 feet mixed direction bike and pedestrian path -- bidirectional, I'm sorry -- bike and pedestrian path on the south side of the bridge.

And, later on we'll show you a 360 tour of the project with more views of how the project would look like after completion.

Next slide, please.

So, we started our environmental phase roughly two years ago, and throughout this time we looked into different alternatives. So, we looked into raised embankment entering causeway, Novato Creek Bridge replacement and passive flood barriers, Novato Creek Bridge replacement with combination of causeway and embankments, strengthen levies, strengthen 37 viaduct causeway, and transportation system management/transportation demand management.

So, I'm not going to go into details about the description of the alternatives and our reason for rejection. I'm going to refer you to the draft environmental document. The details for all this alternatives and our reason for rejection mention right

there.

So, at this point I'm going to hand it over to Max.

MR. LAMMERT: Thank you, Ahmed. Now we're going to get into the environmental review that's been conducted for the project and the impacts that we've determined to different resource areas during that review.

We will begin by covering the areas where we determined the project would have no impact. These resource areas are agriculture and forestry resources, coastal zone, growth, environmental justice, mineral resources, parks and recreation facilities, population and housing, recreation, and relocation and property acquisition.

So, we determined that we wouldn't have an impact on these resources for a variety of reasons, but generally it's because they were not included in the scope of the project or were not located within the project vicinity.

Like the rejected alternatives, we do have more information about why we made the no-impact determination for these resource areas in the draft environmental document.

Next slide, please.

Now let's cover the resource areas where we determined that the project would have some impact, but that it would not rise to the level of significance under CEQA.

Those resource areas are: Air quality, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, public services, tribal cultural resources, utilities and service systems and wildfire.

So, for these resource areas we are proposing project features which are measures that are applied indiscriminately on all CalTrans projects to reduce the impacts. Kind of regardless of what those impacts are we apply those project features, as well as more specific avoidance and minimization measures to reduce those impacts. Those -- the list of those is fairly lengthy but, again, you can find that in the draft environmental document if you're interested in that.

On the next couple of slides we're going to go into depth on two more of these resource areas that we think the public will be concerned about, so we want to give them special attention.

Next slide, please.

So, the first one impact area that we wanted to

talk about is to hydrology. We wanted to talk about this a little bit more because the purpose and need of the project is closely tied to the hydrology and the flooding in the area.

We prepared a location hydraulic study to evaluate impacts to the floodplain for the project, and we found that as a result of the proposed project flooding in the surrounding areas would not be changed, so the effect that is happening currently would happen to the surrounding area.

So, we are planning to raise State Route 37 to -- to kind of escape that flooding, and we have elevated it to that 100 year flood elevation at projected 2130 sea-level rise, which is the data we got from the Ocean Protection Council.

So, right now the project area benefits from protection from the surrounding levies. We are not proposing changes to the surrounding levies as part of this project.

During construction there would be some impacts to the natural and beneficial values that the floodplain provides, and -- but in the long term the State Route 37 corridor would be more resilient to flooding and sea-level rise, and so we expect there to be that benefit for our facility.

And, you may have noticed that there are SMART rail lines that run directly adjacent to the -- the State Route 37 corridor here. You can kind of faintly see them on the backdrop of this map to the right of the highway.

CalTrans is currently not proposing any changes to the SMART rail lines to also address flooding, but we are coordinating with SMART to develop a project study report to further evaluate how this project or future CalTrans projects could accommodate benefits to that rail line to escape flooding.

Next slide, please.

The other resource area we wanted to discuss was noise. We know that noise can be a sensitive topic for folks that live adjacent to the facility or businesses that operate nearby.

Good news first: We are anticipating that as a result of this project the noise increase would be minimal. We are raising the facility, which kind of changes where the noise source is coming from. That elevated roadway profile causes the sound to travel differently to the surrounding area.

We are anticipating temporary noise from construction activities, for example, pile driving is a large source of noise, but we are produce -- proposing

noise reducing measures during construction. These include both noise monitoring to make sure that the noise level is staying at an appropriate level, as well as scheduling the -- the highest intensity things, like pile driving, during regular business hour to avoid disruptions when you're most likely to be at home.

Next slide, please.

So, yeah. Now we're going to get into the resource areas that we determined that there would be a significant impact under CEQA, but with mitigation we can reduce that impact to a less than significant level. These are biological resources and traffic, and we are going to get into them in the next slide.

So, we're going to first go into biological resources, and we're going to begin with wetlands and other waters.

So, the construction package one activities will have the following impact to wetlands and other waters:

It will have permanent impact to .7 acres of wetlands and open water, which consists of 0.24 acre of freshwater marsh, .43 acre tidal salt marsh, and .03 acre of open water.

Temporary impacts from that same construction package would be to 5.36 acres of wetlands and other

waters of the U.S. and state, which is a combination of the same habitats, but also including diked brackish marsh.

Construction package two would have permanent impacts to .08 acres of tidal salt marsh and open water, temporary impacts to 5.48 acres of wetlands and other waters of the U.S. and state, which include diked brackish marsh, freshwater marsh, tidal salt marsh, and open water habitats.

So, we are proposing the mitigation measure BIO-1 on the screen, as well as a combination of onsite restoration, which is obviously the preferred measure -- the preferred way to reduce impacts to wetlands and other waters.

So there are mitigation measures, specifically compensatory mitigation, and a package of that developed in conjunction with the resource agencies.

Next slide, please.

So, now we're going to talk about the endangered species that we determined could be present or would be present within the project area. And, we have a few examples of these on the screen. We have the white-tailed kite, the clapper rail, the long fin smelts, California red-legged frog, green sturgeon and salt -- salt marsh harvest mouse.

So, there's going to be a wide -- a varying range of impacts to these species, and it would probably take quite a bit of time to go into that right now. That information is in the draft environmental document for your review if you were interested in that.

One area in impact to endanger species we did want to specifically mention is impacts to California red-legged frog. We determined that that impact in particular would be significant, and that we would need mitigation to reduce that to a less than significant level.

Onsite restoration, again, would be preferred to offset those impacts to California red-legged frog, but we would also be developing a compensatory mitigation packet with input from the regulatory agencies to further offset that.

Next slide.

Oh, actually, there were a couple of thing -- couple of more things I wanted to mention about biological resources. So, the project would have no impact on protected natural communities and special status plant species.

The project proposes no tree removal, and we anticipate that raising the SR-37 corridor would have a net benefit on wildlife movement through the corridor,

because you're raising the hazard to wildlife, that is the highway above where the natural environment would travel through it.

Now you can move on to the next slide. Thank you, Tam.

The other area that we determined we would have a less than significant with mitigation impact on was traffic. So, during construction we anticipate that the project would result in temporary construction delays of up to 15 minutes.

We did have a proposed detour route for the project that's shown in purple on the screen here. We start on the east side up at the Harbor Drive exit before continuing onto Atherton Avenue, connecting to U.S. 101 in the north, and then traveling down south on U.S. 101 back to 37.

So, this detour would be proposed in conjunction with a regional strategy to alert the traveling public to any -- any use of this detour or any proposed -- any proposed lane closures.

We would be using our changeable message signs to alert the traveling public of that -- of that detour, so hopefully those measures would encourage people to use alternate routes instead of the detour. We're hoping that would keep that to a minimum.

Our mitigation measure that we proposed is a traffic analysis that will be proposed closer to phase two construction. Right now the -- the traffic analysis that we have can't accurately project out to the construction -- the anticipated construction year of phase two, so we will have that mitigation measure in place to make sure that any additional recommendations from that traffic analysis are incorporated into our traffic management plan for phase two.

We would also have delays and interruptions to service for pedestrians and cyclists throughout the 37 corridor in this -- in the project vicinity during -- during construction.

Next slide.

All right. So, we have visual and aesthetic resources here. This is the one area that we determined would have significant impact under CEQA and we would not be able to mitigate that to a less than significant level.

Next slide.

So, on this slide we have a simulated view of the existing conditions, as well as the phase one project completion. So, the viewpoint that we're using here is from the Bel Marin Keys, from Montego Park facing north. And, as you can see, the new elevated

roadway facility over the Novato Creek would be a fairly substantial view change for this vicinity.

Next slide.

Here's the same -- same viewpoint. This is after phase two construction. So, you can see the remainder of the causeway and highway has been elevated to that 35-foot height. This is, again, another substantial change to the view shed.

We are proposing several avoidance and minimization measures for visual resources to reduce impacts. These measures include restoring in the areas disturbed by construction to pre-construction conditions as feasible. Any new slopes associated with the project would be graded to mimic natural contours.

We would limit construction lighting during construction to be focused on the areas needed for construction and not allow the spillover into adjacent properties or habitat.

We would screen the construction area as feasible from the traveling public's view. And, when we would design the structures we would have the project components designed in a way to minimize visual contract -- contrast. Unfortunately, these avoidance and minimization measures would not reduce the impacts to a less than significant level.

Next slide, please.

Now I'm going to hand it off to Diana Pink, from our landscape architect service office, and she is going to give us a 360 -- 360 tour of the project.

MS. PINK: Thank you, Max. And, good evening everyone. As you may have seen, hopefully utilizing the QR code in the mailer or the QR code that's posted on some of the display boards here tonight, we have developed a 3D simulation of the project, known as the 360 Tour.

After opening the link you will arrive at the project location here on State Route 37. Once there, you can click and drag with the mouse or pan with your finger on a smartphone or tablet. You're also able to zoom in -- not so fast, sorry -- zoom in and out in particular areas.

You will see three orange targets along the roadway which can be selected and will take you to that particular location. Once you arrive at that location you will see the conditions as they exist today, and you will also see two orange circles that can be selected that will show you the proposed project after the completion of that particular phase.

The arrow icon will take you back to the main page, where you can find a link to the State Route 37

corridor website and find the draft environmental document and additional information about the corridor.

So, we encourage you to please check out the 360 tour and explore and get more information. And, now back to Max to discuss the project schedule.

MR. LAMMERT: Thank you, Diana.

And so, for those of you here in person there's a QR code in the back that you can scan to take you to that website that Diana was running us through.

Now we're going to briefly go over the schedule for the project. We have the date the draft environmental document was circulated, which was August 25th, 2023. We are here today, on the 21st night of September, at the public meeting. We will complete the environmental phase for the project in December of 2023 and we'll be certifying our final EIR/EA by that date.

We will complete design for phase one. We're anticipating to do that for the Novato Creek Bridge replacement by spring of 2026, and then begin construction on that same phase spring of 2027.

So, then design and construction of phase two right now is subject to funding availability. We are working very closely with our stakeholders and partners in the region to identify funding. We're aggressively pursuing grants to obtain additional funding to fund

that phase.

Next slide, please.

All right. So, here are a few ways that you can submit comments on the project. And, we just want to say that your comments are very important to us. They help inform our projects and mold them, and it's how we better serve you.

So, our public comment period ends October 8th, 2023, at 5:00 p.m., or if you submit by postal mail postmarked by that date. You can submit comments if you're here in person on a physical comment card. Those are located over with Jasmine at the front desk. You can also submit comments by email at sr37floodproject@dot.ca.gov, or you can submit via postal mail to CalTrans District 4, Attention Skylar Nguyen, PO Box 23660, Mail Station 8B, Oakland, California, 94623. And, we'll be addressing comments in the final EIR/EA.

And so now, thank you. That concludes our presentation, and we're going to move on to a question-and-answer session. I'm going to hand the microphone to Bart, and he's going to moderate us through that question-and-answer session.

MR. NEY: All right. Excellent.

Max, thank you. And, thanks to all our

presenters who conveyed that information. We'll give our IT team a moment to set up the -- the microphone.

I'd also like to acknowledge our partners at TAM that are in the room today, Molly Graham, Nick Nguyen, and their executive director, Anne Richman. Great partners working on this with us.

Okay. With that, we are actually into the Q&A session. We are going to start with anyone in the room here that actually has questions for our project team. And, then -- and then we've got Pedro Quintana, our public information officer online that's going to be taking -- taking questions from the folks that are watching online.

And, can we bring Pedro in? Can he --

MR. QUINTANA: I'm here.

MR. NEY: There he is. Pedro is actually there. So, if anyone in the room has --

MR. QUINTANA: I've teleported here. I'm here, right here ready to go.

MR. NEY: Fantastic, Pedro.

Okay. Anyone in the room that has a question, you can come down to the mic and -- and you'll have two minutes.

Question: Thank you. Susan Wernick, from the Novato City Council. I do have one question in terms of

the routing of the traffic during the project.

So, it looks like it will be routed via Atherton Avenue. So, I'm just trying to picture this. Does this mean that all day, every day, during the course of the building that's the route the traffic will be taking? So, if you could just kind of speak to that a little bit, that would be appreciated. Thank you.

MR. NEY: All right. Thanks, Susan. I'll give it to Javier.

MR. MENDIVIL: Thank you for your question, Susan. So, most of the construction -- at least for the phase one. I'll talk about the phase one first. Most of that will be done through nightly closures and traffic will be maintained, so that detour won't be used most of the time. But, we do have a little -- a few construction operations that are more involved where we'll require full closure of the corridor. So, we're expecting to need to use that detour for three weekends, maximum, during the construction of -- of the first phase, which is the Novato Creek Bridge replacement.

We're still working on refining the -- or, we're working on the logistics for the second phase still, so we're not certain yet what the traffic management will look like for -- for that phase of the project.

Oh, and then, I'd like add -- Bart could talk about this a little bit more, but there will be an aggressive public information's office campaign to try to reduce use of the corridor and the detours so Atherton doesn't get hit as hard as it would if normal traffic was using it.

MR. NEY: All right. Thanks, Javier. Just very quickly on that. When -- when construction time comes our PIO team will work with TAM, and we have an integrated communications team that regularly meets every week to look at how to get the information out there, and then we will evaluate our best ways to reduce traffic trips by informing the public about what their options are. So, we will do that when construction time comes.

And, Pedro, I should give you a minute to say how you would like folks to ask their questions. They need to raise their hand, right?

MR. QUINTANA: Yes, that is correct. If you are joining us online, please raise your hand with the icon on your right-hand side below your screen. Or, if you would like to give a question on our "chat" room, I'm currently logging those questions down, and I will read them out loud as well.

MR. NEY: All right. Thanks, Pedro.

So, back to the room. Are there any other questions for our project team? Come on up.

Question: I'm Barbara Salzman, and I'm representing the Marin Audubon Society, and I have a couple of comments.

First, I -- I would like to say thank you for getting rid of the -- the embankment and going to a causeway. That was a good change. Many of us had asked in the scoping comments for you to address what was going on under the causeway. I didn't see -- there was no mention of anything about what's going on under the -- what you're proposing to go on under the causeway, so that needs to be addressed in the EIR.

And, I'm glad to hear you say that the -- there is -- the onsite mitigation is preferred because that's not said in the EIR. So, you need to address that further.

The -- I would prefer onsite mitigation. And, the -- it seems highly unlikely that you'll ever get to phase two. If you do, it will be so far in the future that we'll all be gone -- I mean, I certainly will be, but even the young people here. There's too many other demands in this corridor.

So, in order to participate with all of the other planning that's going on in this area you really

need to at least extend the -- this causeway to cover Simmons Slough, because that would -- if you don't do Simmons Slough so that that opens up too it would prevent expansion of tidal, you know, influence of marshes to the north. So, we want you to add that as another alternative. Thanks.

MR. NEY: Thanks for those comments, Barbara, and our court recorder has taken them down.

Project team, did you want to respond to any of that? Javier?

MR. MENDIVIL: So, thank you for your comments, Barbara. They're very helpful. So, what happens under the causeway for phase two. I think we are planning on removing the existing roadway to enhance wildlife activity.

And then for phase two, I hear your concern -- you know, the price tag is very high, so it is a big ask, but I assure you that the partners -- partner agencies, the other transportation authorities and CalTrans are working really hard to identify funding opportunities for it.

And then, Ms. Lindsay, did you want to add something about the mitigation?

MS. VIVIAN: Yeah. Thank you for your comment again. And, I definitely noted about the lack of detail

related to mitigation and restoration in the environmental document. And so, thank you. We will work to address that in the final EIR.

But, also we have begun coordination with the Baylands Group and the resource agencies to identify restoration opportunities with elevation of the roadway with phase one and phase two, so we look forward to working with the Baylands Group and the Audubon Society to help identify the restoration potential with elevation of the causeway.

Unfortunately, with the timing of the project and the need to get this environmental document out so that we can complete this phase of the project, those were -- are a lot of details that aren't available to us right today, but we do need to begin that process now so that we can get this project permitted and get it in the ground, but also have the best bang for the buck ecologically when we do elevate the roadway and working with groups such as the Audubon.

QUESTION: We're part of the Baylands Group.

MS. VIVIAN: Perfect. We look forward to further conversations.

MR. MENDIVIL: And, Barbara, one more thing: You talked about Simmons Slough. So, Simmons Slough will be covered as -- as part of phase two.

QUESTION: You're never going to get to that. That's not an option.

MR. NEY: We're striving to get there, Barbara. This is exactly why we have these meetings, so we can get your comments and work toward the best possible solution. So, thanks for that, Barbara.

Any other questions or comments for the record from the -- from the room? Pedro, we're going to go to you in just a -- just a minute.

MR. QUINTANA: Thank you.

MR. NEY: Come on up.

Question: I'm Susan Stompe, a long time resident of Novato. And, the west end of the -- of the project where it connects to 101, there is a need for an exit and an access at the west end other than just 101 because of all of the development that has occurred in the city on the east side of 101.

As you know, there is a shopping center there, and there is now an industrial park there. And, I think there needs to be care taken and coordination with the city on providing access to those areas.

Way back when the EIR was done for the shopping center, the -- there was a requirement for an alternative access to that area and everyone was saying, well, nothing is ever going to happen there. Well, now

something is happening, and I'm hoping that there is some coordination there too. Thank you.

MR. NEY: All right. Thanks for that question, Susan. That -- that may be outside the project limits, Javier. Is there anything that you wanted to add to that?

MR. MENDIVIL: Yeah, we could definitely note that. We'll take that into consideration, but the purpose and need of the project is limited to addressing the flooding on the corridor, but it's definitely something valuable that we can take into account.

MR. NEY: All right. As I mentioned at the beginning, State Route 37 is 21 miles long, and we are trying to -- to update the entire corridor, so we'll -- we'll take that into consideration even though it doesn't fit the boundaries of this particular project.

Okay. Why don't, Pedro, we go over to you and take any questions that we have online.

MR. QUINTANA: Yes. We have several questions in the "chat" room, and also we have two raised hands, so I am going to unmute Tony Taddeo. Tony, go ahead.

MR. NEY: You have two minutes.

MR QUINTANA: Unmute yourself. There you go.

Question: Thank you, Pedro. And, thanks everybody. And, I just want to say that this is a

project that needs to happen because of what happened last season, the flooding.

But, one thing of concern -- and, I live up on the Renaissance -- up on the hill up off Atherton. And, one of the concerns of the community is really the sound that's -- that's going to be generated by both the construction and also by the normal traffic operations at the construction.

So, I'm assuming CalTrans has developed a sound study and how the sound study affects the -- the houses on the hill. I -- I understand that what was said that, you know, the sound that's going to travel is -- it's going to be better, right, and I don't buy that. I'm an engineer myself.

But, anyway, during construction, I mean, we're really concerned about the pile driving, and is that going to be done at night? Is it going to be done weekends? Is it -- is it something that can be mitigated during -- and happen during business hours?

I know I'm running out of time here, but also it seems like the cast-in-place structure here is going to take a long, long time, especially, you know, depending on the staging, and would a better solution be like precast girders to that extent, or whatever?

And then, during traffic operations after

construction there is going to be an increase ridership, I assume, because it's going to be -- it's going to be wider. That comes with an increased noise level, and usually in these situations usually the agency has built sound walls on the side if the -- if the sound is really affects the community.

MR. NEY: Okay, Tony. I think you're at your two minutes. You got a lot of good questions in there. We'll start with Javier.

MR. MENDIVIL: Hi, Tony. Thank you for your questions, and I appreciate your support for the project. Let me start backwards.

In terms of traffic, although we're widening the structure or the cross section of the highway we're not adding additional lanes, so we won't be adding additional capacity.

And then for noise, we do have our noise specialist, Shilpa, online. Are we able to unmute her?

MR. PHAM: Pedro can unmute her if she's online.

MR. MENDIVIL: Pedro, can you check if Shilpa can address the noise comment? If not, I can hand it off to Max here.

MS. MAREDDY: Yeah, we actually did a noise study for this project, and then it doesn't make it

better, like he was saying, Tony. The increase is very minimal. It's about -- for phase one it's about just plus one decibels, and for phase two it's approximately zero to three decibels, so -- which is not a significant increase in regards to CEQA.

And then for NEPA, it's not exceeding or approaching the noise abatement criteria, so we don't really have to look into sound walls for this project because that's NEPA requirement and CEQA requirement. So, that's for operational noise.

And for construction, like Max was telling during the presentation, the pile driving work will be done during the normal business hours, and any of the noise involved which will exceed the CalTrans standards will be done during the normal business hours and not on the weekends and not on the night. I hope that answers the question.

MR. MENDIVIL: And, I'd like to add, Tony, to your -- in response to your comment about the precast girders, we are planning on using precast girders for construction of this structure.

Max, did you want to add something?

MR. LAMMERT: No. I think Shilpa got it.

MR. MENDIVIL: So, pass it back to Bart.

MR. NEY: Okay. Thanks, Project Team. Pedro,

go ahead with the next question.

MR. QUINTANA: Yes. We have Steven Birdlebough. I'll unmute you. Go ahead, Steven. Unmute yourself.

Question: Yes, Steve Birdlebough, with the Transportation Land Use Coalition. I want to commend you -- commend CalTrans on shifting to the ultimate project instead of doing an interim project and then raising the causeway. And, the causeway is the right way to go.

We do have a concern that we're receiving from people in Vallejo about the issue of tolling to pay for the project. At the moment it looks like the project in the segment between Sears Island and -- between Sears Point and Mare Island is going to be paid for, in part, by tolls. This part of the section appears so far to be paid for by the federal government largely. And, that means that people living in Sonoma Valley may not pay tolls, but people in Vallejo that have to, to use the causeway.

What do you see in the future to have equitable tolling so that the folks that are gardeners and so forth, housekeepers, have to pay a toll when people who are commuting from wealthier parts of the counties don't have to pay tolls? Thank you.

MR. QUINTANA: Thank you, Steve.

MR. NEY: All right. Thanks -- thanks, Steve. I'm going to give it over to our project manager in a second. But -- but, first on the tolling question.

There -- there -- as Steve said, tolling is not part of the funding for this particular project. And, I'll let Javier talk about what the -- what the funding picture is for the flood reduction project.

As Steve also pointed out, that the tolling is associated with a congestion project that is on the Vallejo side, and that is being overseen by the Bay Area Toll Authority.

So, Steve, you can get more information on that on our website, or you can contact me and I can put you in touch with someone that can talk a little bit more about the pilot project that the Bay Area Toll Authority is looking at for that. But, there are no toll funds on this particular project.

And, Javier, if you don't mind, could you talk a little bit about how the project is funded.

MR. MENDIVIL: Sure. So for the environmental phase, which we're undergoing right now, we got 10 million from the state SHOP Program. For the design phase, which is coming up next, early next year, we have 20 million set aside from the state General Fund. And,

for construction and right-of-way activities we have 155 million from IIJA Protect grant funding.

And, yeah, as Bart mentioned, Steve, you could find more information on -- on the other project and tolling on our -- on our website. The Sears Point to Mare Island project is still under development, so I'll refer you to that.

MR. NEY: All right. Did you say $155 million?

MR. MENDIVIL: I did.

MR. NEY: We're so excited about that.

All right. So, that's the funding picture. Pedro, did we have any other questions online?

MR. QUINTANA: Yeah. We have some questions in our "chat" room. We have one from Natalia Shorten. She's asking, it would be helpful in the 360 tour if you would include the Novato Creek all the way past Bel Marin Keys so residents -- sorry -- Bel Marin Keys, so residents can see the impact from their homes. We live on Montego Key creek side, and would like to understand more how it would impact us directly.

And then she's also asking if you guys, you can have the presentation from this meeting made public --

MR. NEY: I'm sorry, Pedro. I couldn't hear that second part.

MR. QUINTANA: Yeah. She's asking if the

presentation from tonight, that could be made public.

MR. NEY: Oh, yes. It will be on -- it will be online after we complete the meeting, and we'll upload it there. And, thank you for the suggestion for putting that -- for modeling out further. Anything the project team wants to add to the 360 tour?

MS. PINK: Something we'll look at. We'll take a look at it.

MR. NEY: Okay. So, we'll take a look at it. Thanks, Diana.

Okay. Next question.

MR. QUINTANA: Next question. We have it from Dave Ball. He's asking will we have to pay a toll to go from Blackpoint to Vintage Oaks. These are communities in Marin County.

MR. NEY: Okay. So -- so, for all toll questions tonight, there is no toll funding on the flood reduction project that's going forward. The tolling question is one for the other project on the eastern side of the -- of the route.

So, Pedro --

MR. QUINTANA: Next question.

MR. NEY: -- how many questions do you have?

MR. QUINTANA: I have a total of I think like five more questions in the "chat."

MR. NEY: Okay. Let me ask the room. Is there anyone in the room that has a question? We'll let Pedro continue.

Okay. Keep going, Pedro.

MR. QUINTANA: Yes, sir. So, this one is from Matthew Hartzell. He is asking about the multi-use path that is included in phase one. Based on the plain views -- I'm sorry -- based on the plan views in the draft EIR it looks like the multi-use path in phase one will be "orphaned" in the middle of a new structure with no way for pedestrians or bicyclists to actually access it, and that actual use of the facility will not be possible until phase two; is that correct?

MR. NEY: Okay. Javier?

MR. MENDIVIL: Thank you for that question. The pedestrian bike path will only serve as one-way in the eastbound direction, and then once it goes into the existing highway, there will be ten feet of shoulder throughout the rest, but it will not be protected as the -- as the one in the structure that we're proposing.

Ahmed, did you want to add to that?

MR. RAHID: Thank you, Javier. No. I think you covered it perfectly.

So as he say, that after phase -- after phase one completion the ten feet, mixed-directional bike and

ped pad that we have on the south side, it will be utilized for eastbound direction only. But, beyond the bridges -- before and after the bridges we will have ten feet of shoulder. You can utilize that.

And, I'd also like to point out that the current Novato Creek Bridge has shoulder -- two feet of shoulder. We are improving that so the new Novato Creek Bridge will have ten feet of outside shoulder that can also be utilized.

MR. NEY: Thanks, Ahmed.

Okay, Pedro. Onto the next question.

MR. QUINTANA: Thank you, Bart. The next question is from Dave Ball. He's asking, how about integrating light rail, SMART, into the project and tearing up those tracks?

MR. NEY: Okay. SMART?

MR. MENDIVIL: Thank you for that question. So, CalTrans -- as Max mentioned during the presentation, CalTrans is currently working with SMART on developing a project study report that will analyze different alternatives on -- on how to incorporate resilience onto SMART as we're doing on the -- on the highway.

It's -- it wasn't possible to incorporate SMART into the first phase of this project, the Novato Creek

Bridge replacement, due to the steep grades on the transition structures. The rail has a much more strict grade -- or, grade limitations than -- than cars would on -- on highways. So, we're -- we are going to -- to keep working on this project study report and investigate ways to incorporate SMART resiliency onto the second phase of our project. Thank you.

MR. NEY: All right. Thanks, Javier.

Next question, Pedro.

MR. QUINTANA: Yes. The next question is from Claire De Biasio. She's asking what will be -- what will be done to deter traffic from using Crest Road during construction to bypass Atherton?

MR. NEY: Okay. So, I -- I can take the first part of that question. So -- so, part of what we do when we go into construction is we put together a robust communications plan. So, we'll be working with our partners at TAM to get the information out when we're going to be closing roads or having any impacts. So, that hopefully reduces some trips.

But from that, Javier, is there anything else you guys want to add how we're detouring traffic during construction? Max?

MR. LAMMERT: I think you covered it.

MR. NEY: It's about communication. Letting

people know where we're going to be and when.

MR. QUINTANA: Thank you, Bart. Next question from Scott Stender. He's asking again about the railroad tracks.

The rail tracks are not currently SMART rail, but freighted to the dump. The tracks will still block the water flow. How is this being mitigated?

Also, Atherton Avenue traffic will increase dramatically. It will pose a danger to bikes and pedestrians using that corridor with all of the new traffic. How will you protect pedestrians and bicyclists on Atherton? And, question marks on "cones."

MR. NEY: Okay. More focus on Atherton.

MR. MENDIVIL: So, I can answer the second question there. So, we will be conducting a very wide-reaching outreach campaign when we're planning on -- on performing these full closures and detouring traffic onto Atherton, so we will make sure to incorporate safety measures as well to -- to protect the -- the users of -- of that road.

And, for the SMART -- for the freight rail, I don't -- I'm not sure what mitigation measures are being asked for. I don't know if -- if the person asking the question could submit a clarifying statement in the "chat" on that one.

MR. NEY: Pedro, do you have anything more from him?

MR. QUINTANA: Yes, I'm here. For Kate Powers, she has another question.

Is the hydrology study mentioned earlier tonight during the review of the impacts included in the DEIR report?

MR. NEY: Okay. Pedro, hold on -- hold that question for a second. The -- the previous person that used their two minutes, can they clarify what Javier just asked? Can you unmute them?

MR. QUINTANA: Give me a minute.

MR. NEY: Okay. Clarification, Javier.

MR. QUINTANA: So, Scott Stender, I'm going to unmute you if you want to ask your question.

MR. NEY: Scott, are you there?

MR. QUINTANA: You can go ahead and unmute yourself, Scott.

MR. NEY: Okay. We might have lost him.

Okay. Go ahead to the next question, Pedro.

Question: Can you hear me now?

MR. NEY: Yes.

MR. QUINTANA: I can. Go ahead.

Question: This is Scott. I -- I'm saying that the water flow will still be blocked by the existing

railroad tracks. How are you going to deal with the water flow with the existing railroad tracks still blocking everything? I mean, you're going to be removing -- removing the dike that the road is currently on when you raise the road up higher, and the water is going to just slam up against the railroad tracks. What's gonna -- that doesn't seem like a full solution yet.

MR. MENDIVIL: Okay. Thank you for clarifying that, Scott. So, as I mentioned earlier, we are working with SMART to develop a project study report to identify solutions for them which would probably take care of the issue that you're mentioning. But, as part of this project we're not -- we're not touching their features, especially for the first Novato Creek Bridge replacement phase of the project. So...

MR. NEY: All right. Thanks, Javier. And, that is one of the challenges to State Route 37 is that we are continuously working with our agency partners to determine the best way to make these solutions when we don't have them complete.

Okay, Pedro. Do you have any other questions?

MR. QUINTANA: Yes, I do have more questions. Thank you, Bart.

So, this is for -- from Kate Powers. She's

asking is the hydrology study mentioned earlier tonight during review of the impacts included in the DEIR report.

And she goes on to ask, once the final EIR is adopted will there be an opportunity to review changes that have occurred in the water shed during restoration activities after construction in phase one to re-look at any new previously undetermined impacts that may occur during phase two?

MR. NEY: Okay. Max?

MR. LAMMERT: Thanks, Bart. So, that's a -- that's a great question. Thank you for submitting that comment.

So, the -- the actual location hydrology study is not contained in the draft environmental document, but the findings of that study are summarized in the draft environmental document. And that study, if you're especially interested in, that's a public document. It's available upon request.

To answer your question about what will be contained in the final environmental impact report. As a standard, we do denote any changes from what was submitted during the draft in that final environmental impact report. Those will be denoted with a line in the margin, and any changes in impact levels will also be

denoted with a line in the margin.

MR. NEY: All right. Thanks, Max. I know we're coming close to 7:30, right, Tam?

MR. PHAM: One more minute.

MR. NEY: So, maybe -- maybe we have time to take one more question, Pedro. Do you have another one?

MR. QUINTANA: I do, yes. Let's see here. There's lots of questions here.

MR. PHAM: There's a hand raised.

MR. NEY: Yeah. Why don't we go with the raised hand.

MR. QUINTANA: Natalia, I'll unmute you. Go ahead.

Question: Okay. Thank you so much. We're residents of Bel Marin Keys, and so obviously we're just in the direct line of how this is impacting us. And, understandably we need to work on restoring the marsh lands, restoring the walkways, restoring all of that, but it seems a little short-sighted that the neighborhood that is right next to this project to combat sea-level rise is not being considered to be incorporated with the project, because we also need protection. So, I'm just wondering what has been evaluated or what's being considered to protect Bel Marin Keys.

The Novato creek needs to be dredged and widened. We have already seen increased flooding over the years because it has not been taken care of. And so, this just seems like a natural like combination together in order to make sure that the Bel Marin Keys residents are, again, you know, protected in line with Highway 37.

MR. NEY: That's an excellent question that might fall just outside of our project limits.

But, impacts to Bel Marin Keys, Javier?

MR. MENDIVIL: Thank you, Natalia, for your question. That's a good -- hello? That is a good question.

So, we -- we are maintaining the -- the existing levies that run across our corridor, so we -- we're certainly doing our best not to make the situation any worse for -- for the community. But, the project isn't scoped to -- to provide protection outside of the project limits. But, if you would like, you can submit a formal comment and we can address it in -- in more detail in the final environmental document.

Question: Okay. Yeah. We would love to do that.

MR. NEY: Okay. Fantastic. And -- and, for anyone who didn't get a chance to submit a question

today -- can we bring that slide back up, Tam, that's got the -- the website and the email address so we can end on that?

All right. We'll say goodbye to Pedro.

So, we can -- all right. There you have it. Sr37floodproject@dot.ca.gov is the email where you can submit your question. Or, from -- if you want to mail it, you can go to CalTrans District 4, care of Skylar Nguyen, PO Box 23660, MS-8B, Oakland, California, 94623.

And with that, we're at the end of our public meeting for the Flood Reduction Project for State Route 37. Thank you very much for your attendance and your excellent questions today, and we'll continue to do our best for State Route 37.

Thanks, everyone.

(Hearing adjourned at 7:31 p.m.)

State of California) ss:
County of Solano)

I, Alesia L. Collins, CSR No. 7751, CLR, do hereby certify:

That the foregoing proceedings were taken before me, at the time and place therein set forth, that the PROCEEDINGS were recorded stenographically by me, and were thereafter transcribed under my direction and supervision, and that the foregoing pages contain a full, true and accurate record of all proceedings and testimony to the best of my skill and ability.

IN WITNESS WHEREOF, I have subscribed my name this 1st day of October, 2023.



ALESIA L. COLLINS, CSR No. 7751, CLR

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Appendix O Noise Study Report

State Route 37 Flood Reduction Project



Noise Study Report

STATE ROUTE 37 FLOOD REDUCTION PROJECT

MARIN COUNTY, CALIFORNIA

04-MRN-37 (PM R11.2/13.8)

EA 04-4Q320

PROJECT ID 0419000376

August 2023

Caltrans

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Noise Study Report

STATE ROUTE 37 FLOOD REDUCTION PROJECT

MARIN COUNTY, CALIFORNIA

04-MRN-37 (PM R11.2/13.8)

EA 04-4Q320

PROJECT ID 0419000376

AUGUST 2023

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Summary

The California Department of Transportation (Caltrans) is the lead agency for the State Route 37 (SR 37) Flood Reduction Project (Project). The purpose of the Project is to build resiliency to the effects of projected 2130 sea level rise (SLR) and stormwater overtopping onto SR 37 from Post Mile [PM] R11.2 to PM 13.8 in Marin County.

The Project proposes a causeway that would be 35 feet in elevation and consist of four 12-foot-wide lanes, a 22-foot-wide median with a 2-foot median barrier and two 10-foot-wide inside shoulders, and two 12-foot-wide outside shoulders, two 2-foot-wide outside barriers, with a 14-foot-wide bicycle or pedestrian path with a 2-foot barrier, for a total roadway width of 114 feet. There would be no change to the long-term vehicular capacity on SR 37.

The Project is subject to both State and federal environmental review requirements because the use of federal funds is anticipated for the Project. Project documentation is being prepared in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans is the lead agency under both CEQA and NEPA.

This Noise Study Report (NSR) summarizes the evaluation of noise impacts and abatement under the requirements of Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772) "Procedures for Abatement of Highway Traffic Noise." According to 23 CFR 772, all highway projects that are developed in conformance with this regulation are deemed to be in conformance with Federal Highway Administration (FHWA) noise standards.

The Project is a Type I project and would be eligible to receive federal funding from the FHWA, administered through Caltrans. Therefore, the Project requires noise abatement to be considered for impacted receptors. Compliance with 23 CFR 772 provides compliance with the noise impact assessment requirements of NEPA.

Activity Category B (residential), Category C (active sports area, parks and trails), Category E (other developed lands), Category F (utilities), and Category G (undeveloped) land uses were identified in the vicinity of the Project. Vehicles traveling along SR 37 are the primary sources of noise for receptors located along the Project alignment. The study included noise measurements, calculation of future noise levels with the construction and operation of the Project, and identification of measures to reduce construction noise levels and to abate traffic noise levels at adjacent receptors. The FHWA Traffic Noise Model 2.5 (TNM 2.5) was used to calculate existing and future traffic noise levels, analyze traffic

noise impacts, and analyze the feasibility of noise abatement. The model was validated based on measured noise and traffic conditions documented during the field survey. Following validation, noise levels were assessed in TNM 2.5 based on 2049 No-Build, 2049 Phase 1 Build, 2065 No-Build, and 2065 Phase 2 Build traffic conditions provided by *Caltrans.*

Phase 1

The loudest-hour noise levels at Category B land uses are calculated to range from 40 to 64 dBA $L_{eq[h]}$ under Existing conditions, from 40 to 64 dBA $L_{eq[h]}$ under 2049 No-Build conditions, from 40 to 64 dBA $L_{eq[h]}$ under 2049 Phase 1 Build conditions. The 2049 Phase 1 Build traffic noise levels are not predicted to approach or exceed the Noise Abatement Criteria (NAC) at any Category B receptors.

The loudest-hour noise levels at Category C land uses are calculated to range from 42 to 64 dBA $L_{eq[h]}$ under Existing, from 43 to 64 dBA $L_{eq[h]}$ under 2049 No-Build, and from 43 to 64 dBA $L_{eq[h]}$ under 2049 Phase 1 Build conditions. The 2049 Phase 1 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category C receptors.

The loudest-hour noise levels at Category E land uses are calculated to range from 60 to 67 dBA $L_{eq[h]}$ under Existing conditions, from 61 to 67 $L_{eq[h]}$ under 2049 No-Build conditions, and from 61 to 67 dBA $L_{eq[h]}$ under 2049 Phase 1 Build conditions. Phase 1 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category E receptors.

The Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Protocol) defines a noise increase as substantial when the predicted noise levels with Project implementation exceed existing noise levels by 12 dBA or more. Under Phase 1, noise levels are calculated to increase by 0 to 2 dBA over Existing conditions assuming 2049 No-Build conditions. The 2049 Phase 1 Build conditions would produce noise levels that would range from 0 to 2 dBA over Existing conditions.

In accordance with 23 CFR 772, noise abatement is considered where noise impacts are predicted in areas of frequent human use that would benefit from a lowered noise level. Noise abatement, in the form of replacement and increased height noise barriers, was assessed at receptors where noise levels would approach or exceed the NAC and where an existing wall does not meet the feasibility and reasonableness requirements.

No new barriers were evaluated for feasibility and acoustical reasonableness (i.e., would achieve the Caltrans noise reduction goal) under Phase 1 Build conditions.

Phase 2

The loudest-hour noise levels at Category B land uses are calculated to range from 40 to 64 dBA $L_{eq[h]}$ under Existing conditions, from 40 to 65 dBA $L_{eq[h]}$ under 2065 No-Build conditions, from 40 to 65 dBA $L_{eq[h]}$ under 2065 Phase 2 Build conditions. The 2065 Phase 2 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category B receptors.

The loudest-hour noise levels at Category C land uses are calculated to range from 42 to 64 dBA $L_{eq[h]}$ under Existing, from 43 to 64 dBA $L_{eq[h]}$ under 2065 No-Build, and from 43 to 64 dBA $L_{eq[h]}$ under 2065 Phase 2 Build conditions. The 2065 Phase 2 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category C receptors.

The loudest-hour noise levels at Category E land uses are calculated to range from 60 to 67 dBA $L_{eq[h]}$ under Existing conditions, from 61 to 67 $L_{eq[h]}$ under 2065 No-Build conditions, and from 61 to 67 dBA $L_{eq[h]}$ under 2065 Phase 2 Build conditions. Phase 2 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category E receptors.

Under Phase 2 noise levels are calculated to increase by 0 to 2 dBA over Existing conditions assuming 2065 No-Build conditions. The 2065 Phase 2 Build conditions would range from 0 to 4 dBA over Existing conditions.

No new barriers were evaluated for feasibility and acoustical reasonableness (i.e., would achieve the Caltrans noise reduction goal) under Phase 2 Build conditions as noise levels are not expected to approach or exceed the NAC at receptors or be substantially increased above existing conditions.

Construction

Construction activities would result in temporary increases to noise and vibration levels at adjacent sensitive receptors. Construction activities would be conducted following applicable local regulations and would be short-term and intermittent. Measures to reduce construction noise and vibration are included in this report.

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List of Abbreviated Terms

23CFR772	Title 23, Part 772 of the Code of Federal Regulations
ABAG	Association of Bay Area Governments
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CIDH	Cast-In-Drilled-Hole
CISS	Cast-In-Steel-Shell
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-Weighted Decibel
DSM	Deep Soil Mixing
FHWA	Federal Highway Administration
HT	Heavy Truck
Hz	Hertz
I-80	Interstate 80
kHz	Kilohertz
L_{dn}	Day-Night Level
L_{eq}	Equivalent Sound Level
$L_{eq[h]}$	Equivalent Sound Level over one hour
L_{max}	Maximum Instantaneous Sound Level
LOS	Level of Service
LT-#	Long-Term Reference Noise Measurement
L_{xx}	Percentile-Exceeded Sound Level
MBGR	Metal Beam Gardrails
mPa	micro-Pascals
mph	miles per hour
MT	Medium Truck
MTC	Metropolitan Transportation Commission
NAC	Noise Abatement Criteria
NADR	Noise Abatement Decision Report
NAVD	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NSR	Noise Study Report
PC/PS	Pre-Cast/Pre-Stressed
PM	Post Mile
Project	State Route 37 Flood Reduction Project
Protocol	Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects
PPV	Peak Particle Velocity
PSL	Project Study Limits
RCNM	FHWA Roadway Construction Noise Model v.1.0
ROW	Rights of Way
RTP	Regional Transportation Plan
SHOPP	State Highway Operation and Protection Program
SLM	Sound Level Meter

SLR	Sea Level Rise
SPL	Sound Pressure Level
SR 37	State Route 37
ST-#	Short-Term Noise Measurement
TeNS	Caltrans' Technical Noise Supplement
TIP	Transportation Improvement Program
TMP	Traffic Management Plan
TNAP	Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects
TNM 2.5	FHWA Traffic Noise Model Version 2.5
US 101	United States Highway 101

Chapter 1. Introduction

1.1. Purpose of the Noise Study Report

The purpose of this NSR is to evaluate noise impacts and abatement under the requirements of 23 CFR 772 "Procedures for Abatement of Highway Traffic Noise." 23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for Federal and Federal-aid highway projects. According to 23 CFR 772.3, all highway projects that are developed in conformance with this regulation are deemed to be in conformance with FHWA noise standards. Compliance with 23 CFR 772 provides compliance with the noise impact assessment requirements of NEPA.

The Protocol (Caltrans 2020) provides Caltrans policy for implementing 23 CFR 772 in California and outlines the requirements for preparing NSRs. The primary objective of the NSR is to identify noise-sensitive receptors where noise levels would approach or exceed the NAC with the Project or receptors that would experience a substantial increase in noise levels as a result of the Project. Noise impacts associated with the Project under the California Environmental Quality Act (CEQA) are not evaluated in the NSR. The Project Development Team determines the significance of impacts and adverse effects, and these determinations are summarized in the Project's Environmental Impact Report / Environmental Assessment.

This NSR documents the assessment of existing and future traffic noise levels at noise-sensitive receptors in the vicinity of the proposed Project and identifies whether or not preliminary noise abatement measures are necessary for the Project to comply with State and Federal noise abatement requirements. The primary objective of this study is to identify noise-sensitive receptors where noise levels would approach or exceed the NAC with the Project or receptors that would experience a substantial increase in noise levels as a result of the Project.

1.2. Project Description

Caltrans is the lead agency for the SR 37 Flood Reduction Project under CEQA and NEPA. The purpose of the Project is to build resiliency to the effects of projected 2130 SLR and stormwater overtopping onto SR 37 from PM R11.2 to PM 13.8 in Marin County. Within the Project limits, SR 37 is a four-lane highway with metal beam guardrails and includes a bridge over Novato Creek and the Simonds Slough Bridge beneath the highway. There are no dedicated bicycle or pedestrian facilities along SR 37 within the Project limits. The shoulders of SR 37 within the Project limits range from 2 to 10 feet wide and are used by bicyclists.

The Project proposes a causeway that would be 35 feet in elevation and consist of four 12-foot-wide lanes, a 22-foot-wide median with a 2-foot-wide median barrier, two 10--foot-wide inside shoulders, two 12-foot-wide outside shoulders, two 2-foot-wide outside barriers, and a 14-foot-wide bicycle or pedestrian path with a 2-foot-wide barrier, for a total roadway width of 114 feet. There would be no change to the long-term vehicular capacity on SR 37. To maintain regional connectivity, the Project would be phased with the most flood-prone component, the Novato Creek Bridge and connecting structures, being built in Phase 1. Phase 2 would raise the rest of SR 37 within the Project area to reduce flooding and improve resiliency.

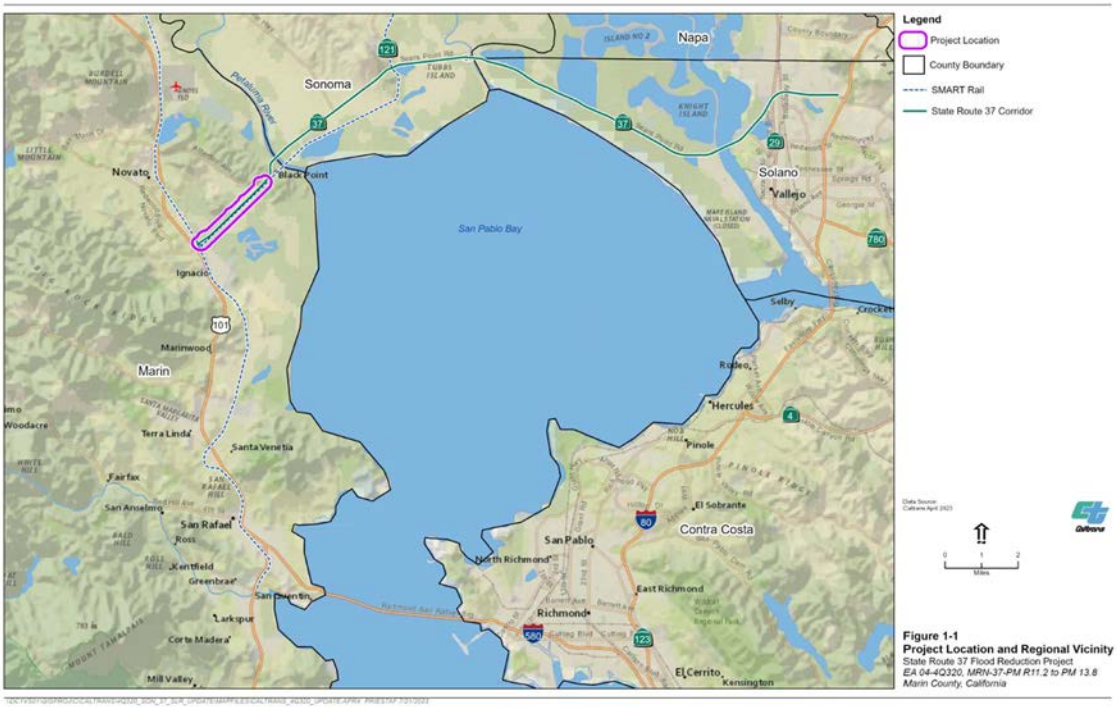
The Project area (which for the purposes of this Environmental Impact Report [EIR]/Environmental Assessment [EA] refers to the entire footprint of proposed Project construction activities, including staging and access areas) is mostly surrounded by open space and agricultural lands, although at the eastern end of the Project area there is a Park & Ride facility, a residential area, commercial uses near the Atherton Avenue undercrossing, and the Sonoma-Marin Area Rail Transit (SMART) tracks are on the eastbound side of SR 37 (see Figure 1-1). There are seven on- and off-ramps, one local access road crossing, and connection to two at-grade local access roads that serve County properties within the Project area.

The Project area is at the western terminus of the SR 37 corridor, a 21-mile-long facility that follows the northern shore of San Pablo Bay, from U.S. 101 in Novato, Marin County, to Interstate 80 (I-80) in Vallejo, Solano County (Figure 1-1). This corridor links job markets and housing within Marin, Sonoma, Napa, and Solano Counties. It also provides access to popular destinations such as the Golden Gate National Recreation Area in Marin County, Sonoma Raceway, the Napa and Sonoma wine regions, and the North Coast. Its commuting, freight movement, and recreational functions require efficient traffic management on both weekdays and weekends.

Plan Bay Area 2050's (Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC] 2021) Regional Transportation Plan (RTP) includes an Adapt to Sea Level Rise strategy (RTP ID 21-T01-006) for SR 37. The scope of this strategy includes funding to implement adaptation infrastructure along the SR 37 corridor, including elevation of critical infrastructure (MTC 2021).

Additionally, the Project is funded by the State Highway Operation and Protection Program (SHOPP) and by the MTC Transportation Improvement Program (TIP) under TIP ID VAR170005 (MTC 2022).

Figure 1-1. Project Location and Regional Vicinity



1.3. Project Purpose

The purpose of the Project is to build resiliency to the effects of projected 2130 SLR and stormwater overtopping onto SR 37 from PM 11.2 to PM 13.8.

1.4. Project Need

The SR 37 corridor occurs along the northern shore of the San Pablo Bay. Highway flooding from stormwater overtopping occurs during winter rain and high tide events causing delays and highway closures. The roadway within the Project limits is relatively low-lying, except in the immediate vicinity of U.S. 101 and Atherton Avenue

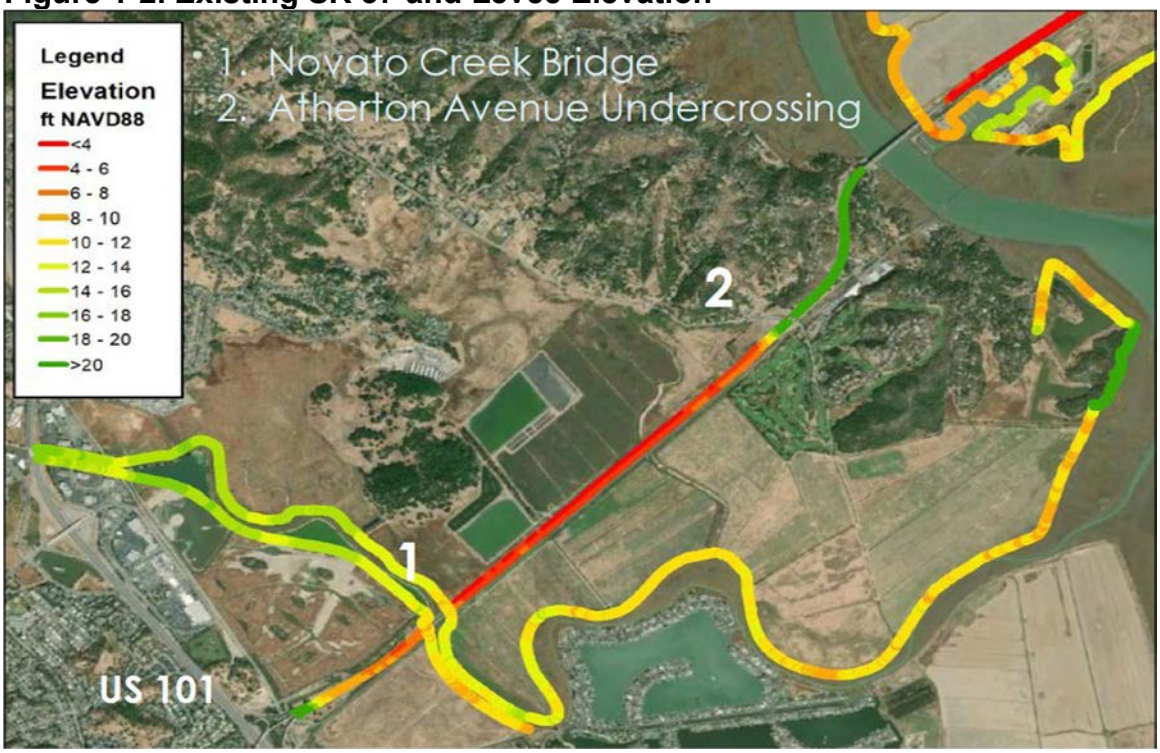
Undercrossing (near the Project begin and endpoints), where the roadway climbs to higher elevations. The low-lying roadway relies on levees and berms which were not originally designed to protect the road, but to reclaim the area for agricultural use.

In January and February 2017 both eastbound and westbound directions of the roadway were closed for 27 days due to flooding at the Novato Creek Bridge. Flooding closed the highway again in February 2019 when a levee was breached in two places resulting in roadway closures for 8 days (Caltrans 2021e). In January 2023, Novato Creek overtopped a levee and flooded SR 37, causing the highway between U.S. 101 and Atherton Avenue to be closed for 4 days.

Caltrans conducted field surveys that identified several low spots in the existing levee system making portions of the roadway more vulnerable to immediate short-term flooding from stormwater overtopping and future SLR. Current roadway elevations are as low as 2-3 feet (North American Vertical Datum of 1988 [NAVD 88]) within the Project limits. The Novato Creek Bridge deck is at approximately 9 feet (NAVD 88), and the portion of SR 37 between the Novato Creek Bridge and west of Atherton Avenue is at ranges from 4 to 6 feet (NAVD 88) (AECOM 2021) (Figure 1-2).

According to the projections in the *SR 37 Transportation and Sea Level Rise Corridor Improvement Plan*, the Project area is the most vulnerable to SLR primarily due to its low elevation and reliance on levees and berms to provide flood protection for the highway. Projections from the *SR 37 Segment A PIR Sea Level Rise and Flooding Risk Assessment and Shoreline Evaluation* (AECOM 2021) show that the levee segments in the vicinity of Novato Creek are within an area containing low mudflats and emergent marsh that would be submerged during a storm surge event, potentially exposing the levees to open water and waves from the Bay (AECOM 2021). In addition, the Novato Creek Bridge is exposed to both riverine and coastal flood hazards under current and future conditions with SLR (AECOM 2021). Many of the levees are privately owned and were not constructed to protect SR 37 from flooding. Instead, protection of SR 37 is an indirect benefit of the levees. Caltrans does not have a role in managing or maintaining the levees responsible for protecting SR 37. The Project area will flood during a 10-year storm surge event and may be permanently inundated around the year 2050 with projected roadway flooding depths ranging up to 5 feet (Caltrans 2021e).

Figure 1-2. Existing SR 37 and Levee Elevation



According to the projections in the SR 37 Transportation and Sea Level Rise Corridor Improvement Plan, the Project area is the most vulnerable to SLR primarily due to its low elevation and reliance on levees and berms to provide flood protection for the highway. Independent Utility and Logical Termini

Federal Highway Administration (FHWA) regulations (23 Code of Federal Regulations 771.111 [f]) require that the action evaluated do the following:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.

2. Have independent utility or independent significance (be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made).

3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

The SR 37 Flood Reduction Project includes logical starting and ending points, or termini, that are centered around the most vulnerable section of SR 37 to flooding from stormwater overtopping and SLR. The Project would have independent utility, which means that the

proposed improvements can be implemented within the Project limits and not dependent on the completion of other projects to gain the benefits of the proposed improvements. The Project would not preclude consideration of alternatives for other reasonable, foreseeable transportation improvements in the area, as it is a separate proposal that differs in implementation compared to other projects. The Project is proposed to reduce flooding from stormwater overtopping and adapt to projected SLR up to year 2130 within the Project limits regardless of whether other transportation improvement projects in the area are implemented. In addition, the Project limits are sufficient to address the need and purpose of the Project and the potential environmental effects. Therefore, the Project is deemed to have independent utility and logical termini.

Chapter 2. Project Description

Caltrans proposes to reduce flooding from stormwater overtopping and adapt to 2130 SLR on SR 37 from (PM R11.2 to 13.8) by constructing a causeway at an elevation of 35 feet and replacing the Novato Creek Bridge. The causeway would extend from U.S. 101 to Atherton Avenue.

The proposed Project alternatives to meet the purpose and need: the Build Alternative and the No-Build Alternative. These alternatives consist of the following:

- Build Alternative – Build the causeway along SR 37 within the Project limits, constructed in two phases:
    - Phase 1 – Replace the Novato Creek Bridge
    - Phase 2 – Build remaining portions of the causeway from U.S. 101 to Novato Creek Bridge and from Novato Creek Bridge to Atherton Avenue
- Build No-Build Alternative – No action is proposed, the current conditions would remain.

The Build Alternative and the No-Build Alternative are further described below.

2.1. No-Build Alternative

Under the No-Build Alternative, there would be no improvements to SR 37 to prevent flooding from stormwater overtopping and the projected 2130 SLR. With the No-Build Alternative, the Project area would flood during 10-year storm surge events and current models show the area to be permanently inundated around the year 2050 with roadway flooding depths ranging up to 5 feet. SLR increases the annual probability that the highway or levee would experience inundation over time. Under the medium-high risk aversion SLR scenario presented in the *SR 37 Segment A PIR Sea Level Rise and Flooding Risk Assessment and Shoreline Evaluation*, a levee or highway elevation of 9 feet (NAVD 88) is projected to have a 22% chance of flooding due to inundation by 2030, a 38% chance by 2035, a 64% chance by 2040, and a 100% chance by 2045. For reference, the Novato Creek Bridge is at approximately 9 feet NAVD 88, and the remainder of the Project area, excluding the begin and end points, is at an elevation between 4 to 6 feet (NAVD 88) (AECOM 2021). As shown in Photos 1 and 2, the Project area experiences flooding and is

projected to continue to experience a higher frequency of flooding as the year 2050 approaches.

Under the No-Build Alternative, SR 37 would be unable to continue linking job markets and housing within Marin, Sonoma, Napa, and Solano Counties. It would also cease to provide access to destinations such as the Golden Gate National Recreation Area in Marin County, the Sonoma Raceway, the cities of Sonoma and Napa, and their wine producing regions. The Napa Valley wine industry provides an annual economic impact of more than $9.4 billion locally, nearly $34 billion in the U.S., and creates 44,000 jobs in Napa County and nearly 190,000 jobs nationwide (Napa Valley Vintners 2021). The one local access road crossing, two at-grade local access roads that serve Marin County properties, the Black Point Park & Ride, and the Stone Tree Gold Club that connect to SR 37 within the Project limits would no longer be accessible under the No-Build Alternative. Additionally, it would no longer serve freight movement or recreational functions.

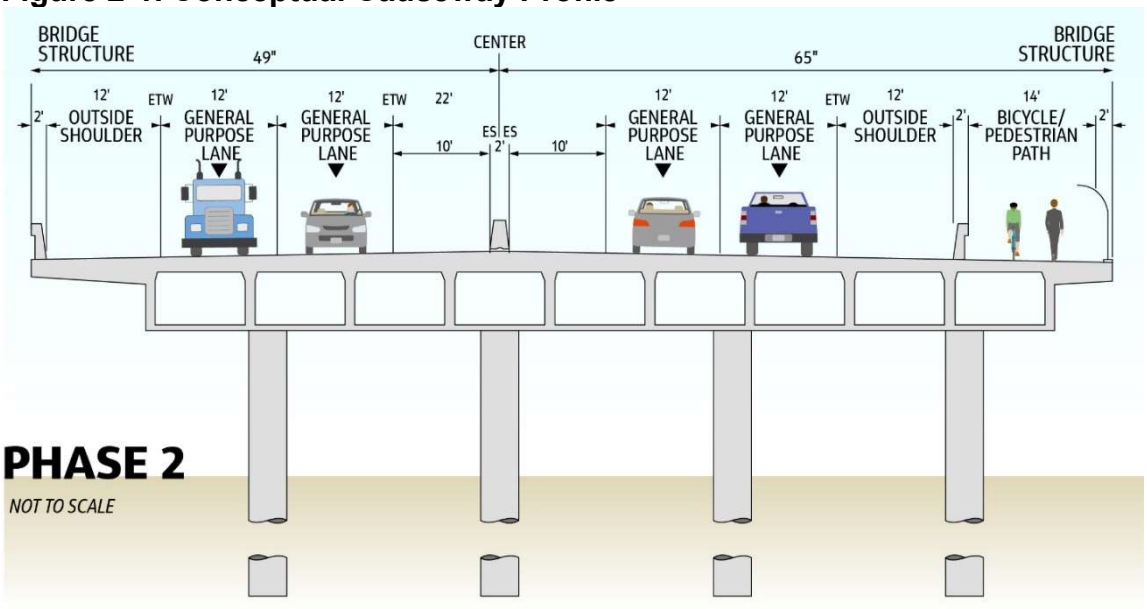
The No-Build Alternative would allow for reoccurring floods to disrupt accessibility and mobility between Marin and Sonoma counties. Under the No-Build Alternative, the purpose and need of the Project would not be met because it would not prevent recurring flooding and accommodate projected 2130 SLR on SR 37. The severity of highway flooding would increase during winter rain and high tide events, continuing to disrupt connectivity and accessibility with highway closures.

2.2. Build Alternative

The Build Alternative proposes to elevate approximately 2.5 miles of SR 37 on a causeway. The Build Alternative would raise the existing pavement elevation, which ranges between 3 feet to 9 feet (NAVD 88), to 35 feet (NAVD 88), and the elevated SR 37 would be constructed along the existing alignment.

The completed causeway would consist of four 12-foot-wide lanes, a 2-foot-wide median barrier, two 10-foot-wide inside shoulders, two 12-foot-wide outside shoulders, two 2-foot-wide outside barriers, and a 14-foot-wide bicycle or pedestrian path with a 2-foot-wide barrier, and a total roadway width of 114 feet (Figure 2-1).

Figure 2-1. Conceptual Causeway Profile

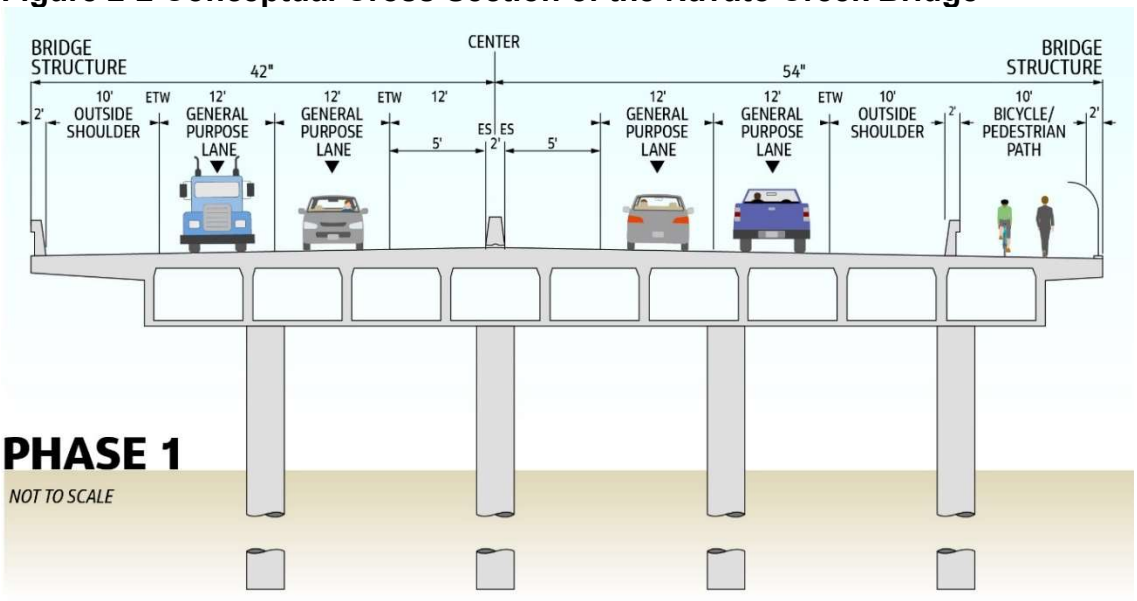


The Build Alternative would be constructed in two phases as discussed in the following subsections. The first phase would replace the Novato Creek Bridge and construct two temporary transition bridge structures to tie it in to existing grades on either end, and then 11 years later, the second phase would replace the temporary transition bridges with a permanent causeway and widen the bridge by an additional 18 feet to match the causeway width.

2.2.1. Phase 1: Replace Novato Creek Bridge

Phase 1 would replace the existing Novato Creek Bridge with a new, longer bridge that would free-span Novato Creek. The existing Novato Creek Bridge (Bridge No. 27-0011 L&R) consists of two separate bridge structures (eastbound and westbound) spanning 720 feet in length and 34 feet in width, with a 40-foot space between the two bridges. The existing bridge has 224, 16-inch in diameter piles. The new bridge would be a single 1,000-foot-long, 96-foot-wide structure. Two temporary transition bridges on either end of the Novato Creek bridge would connect the new Novato Creek Bridge to the embankments that would bring SR 37 back to an at-grade elevation (Figure 2-2).

Figure 2-2 Conceptual Cross Section of the Navato Creek Bridge



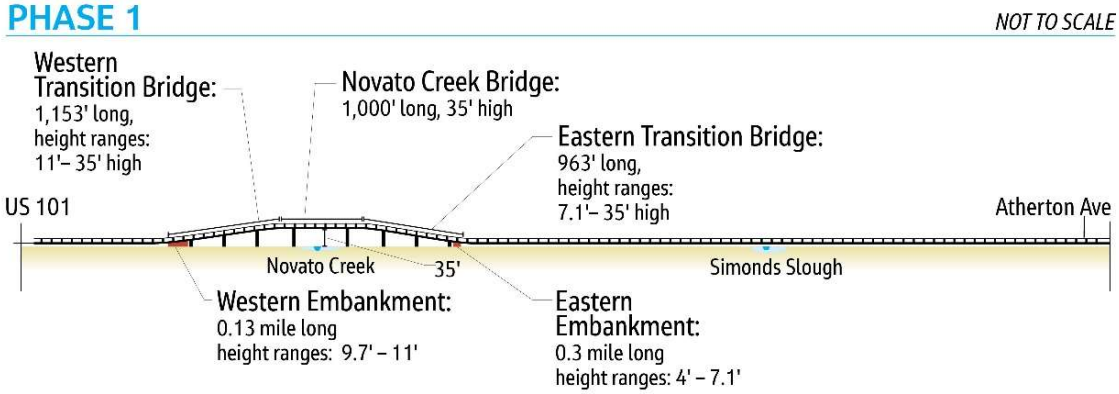
Phase 1 extends from approximately PM R11.5 to PM 12.6. Starting on the western end, at PM R11.5, the embankment would start at an elevation of 9.7 feet and extend west until it connects with the western transition bridge structure at an elevation of 11 feet. The western transition bridge would be 1,153 feet long with a 4 percent grade and range in elevation from 11 feet to 35 feet where it would connect with the Novato Creek Bridge (Figure 1-5). A 10-foot-wide designated bicycle and pedestrian 'path would start on the western transition and extend across the Novato Creek Bridge to the embankment east of the Novato Creek Bridge (Figure 2-3).

The Novato Creek Bridge would span the Novato Creek channel at an elevation of 35 feet. The bridge would be 1,000 feet long with a 10-foot-wide designated bicycle and pedestrian path in the eastbound direction. The bridge would have two 12-foot-wide lanes in each direction, a 2-foot-wide median, 10-foot-wide outside shoulders, 5-foot-wide inside shoulders, the eastbound 10-foot-wide bicycle, and pedestrian path, and three 2-foot-wide barriers for a total roadway width of 96 feet (Figure 2-2). The new bridge would have Type 85 barriers.

The Novato Creek Bridge would connect to the eastern transition bridge structure east of Novato Creek. This eastern transition bridge structure would be at a 5 percent grade for 963 feet with an elevation range of 35 feet to 7.1 feet. At an elevation of 7.1 feet, the transition bridge structure would connect with an embankment that would extend from approximately PM 12.3 to 12.6. (Figure 2-3).

The outside shoulders along the embankment, western and eastern transition bridge structures, and Novato Creek Bridge would be 10 feet wide. At the eastern end of the Phase 1 limits, the outside shoulders would connect with the existing 10-foot-wide shoulders.

Figure 2-3 Conceptual Profile of Phase 1



Local Access Roads

The local access road on the western bank of Novato Creek would extend 1,901 feet west towards the new access point on the Hanna Ranch Road off-ramp. The new local access road would be built to an elevation of 8.5 feet to meet the existing elevation at Hannah Ranch Road. The local access road east of the Novato Creek would extend east north of SR 37 for 2,530 feet at an elevation of 5 feet until it connects with an existing local access road. The relocated local access roads would continue to be within the Caltrans ROW. Each relocated local access road would have a total width of 16 feet with no barriers and 2:1 side slopes.

Culverts

Under Phase 1, 17 culverts would be replaced and one culvert would be extended.

Drainage Channel

The existing drainage channel that parallels SR 37, east of Novato Creek, would be regraded in its existing location. The regraded drainage channel would be a trapezoidal drainage channel with a 4-foot wide bottom that would extend for 1,565 linear feet. The ditch would have a 4:1 slope on the north side of the ditch and a 2:1 slope on the south side until it meets the access road.

2.2.2. Phase 2: Build Causeway from U.S. 101 to Novato Creek Bridge and from Novato Creek Bridge to Atherton Avenue

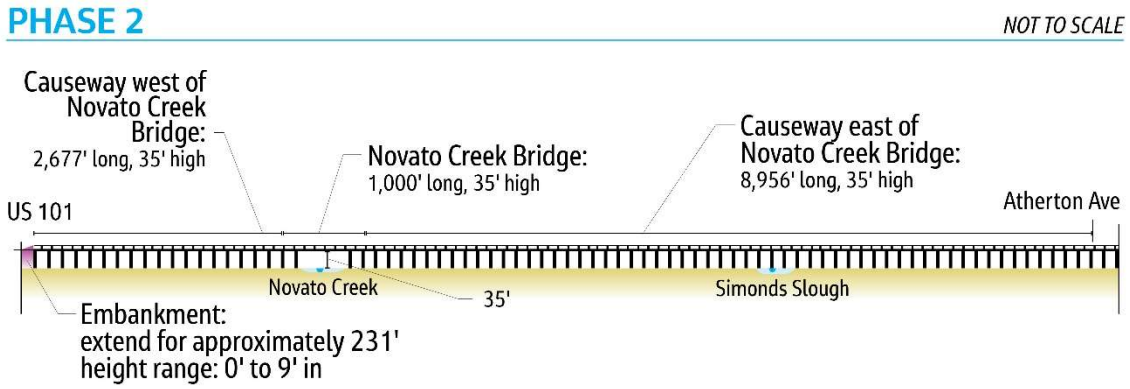
Under Phase 2, planned to occur 11 years after Phase 1 is completed, the Build Alternative would remove the temporary transitional bridges installed in Phase 1 and replace them with a causeway from U.S. 101 to the new Novato Creek Bridge and from the eastern end of the new Novato Creek Bridge to the Atherton Avenue Undercrossing. The following subsections describe the activities under Phase 2.

Causeway

Phase 2 would construct approximately 2.2 miles of the causeway. The Novato Creek Bridge constructed under Phase 1 would remain at elevation 35 feet. The Phase 1 transition bridge structures and embankments on either end of the new Novato Creek Bridge would be replaced with segments of the causeway. The new causeway segment west of the Novato Creek Bridge would be around 2,677 feet (0.51 mile) long and the eastern segment would be 8,906 feet (1.70 miles) long and built to an elevation of 35 feet (Figure 2-4). The new causeway would consist of four 12-foot-wide lanes, a 2-foot-wide median barrier, two 10-foot-wide inside shoulders, two 12-foot-wide outside shoulders, two 2-foot-wide outside barriers, and a 14-foot-wide bicycle and pedestrian path with a 2-foot-wide barrier, for a total roadway width of 114 feet (Figure 2-1).

The Build Alternative would be constructed in two phases as discussed in the following subsections. The first phase would replace the Novato Creek Bridge and construct two temporary transition bridge structures to tie it in to existing grades on either end, and then 11 years later, the second phase would replace the temporary transition bridges with a permanent causeway and widen the bridge by an additional 18 feet to match the causeway width.

Figure 2-4 Conceptual Profile of Phase 2



SR 37 would be elevated on an embankment at the U.S. 101 connector until transitioning to the causeway. The embankment would extend for approximately 231 feet and range from 0 to 9 feet in height. The embankment would connect the existing U.S. 101/SR 37 connector, elevation 36.5 feet, to the proposed causeway. The existing elevation of the embankment and causeway connection point is approximately 26 feet, and thus the embankment would increase it by 9 feet to meet the causeway.

On the eastern end of the Project limits, the Build Alternative would replace the existing Atherton Avenue Undercrossing with the causeway. The causeway would end immediately east of the existing Atherton Avenue Undercrossing where it would connect to the existing SR 37 roadway at an elevation of 35.6 feet. The Project would resurface the highway between the eastern limits of the causeway and project limits.

Simonds Slough

The Build Alternative would replace the existing Simonds Slough Bridge with the new causeway resulting in an open channel. The existing Simonds Slough Bridge (Bridge No. 27-0012) consists of a double 10-foot by 6-foot reinforced-concrete box culvert. Removal of the existing Simonds Slough Bridge would require a temporary construction easement on the south side.

Ramps

The Hanna Ranch Road, Marsh Drive, and Atherton Avenue on- and off-ramps would be reconstructed on elevated structures on the same alignment conforming to the causeway (Figure 1-6). Non-standard guardrails would be upgraded to current Type 85 barriers.

Culverts

Two culverts would be replaced during Phase 2. One of the culverts would be replaced with a longer culvert of similar diameter. The second culvert would be replaced with a shorter culvert of similar diameter.

2.3. Construction Methodology

2.3.1. Phase 1

Local Access Roads

Prior to replacing the Novato Creek Bridge, the local access roads would be relocated and extended. Extending the roads would maintain access to the County property post-construction and would allow construction equipment to move along the construction area with minimal disruptions to traffic. The relocated local access roads would be 16 feet wide with 2:1 side slopes. The western local access road would be built to an elevation of 8.5 feet while the eastern local access road would be built to an elevation of 5 feet. Regionally imported soil would be used to extend and elevate the roadways.

Novato Creek Bridge and Transition Structures

The new Novato Creek Bridge would free-span across the Novato Creek channel, avoiding the installation of permanent fill in the channel. The new bridge would be 1,000 feet in length and have a total of 7 spans and 8 bents. The superstructure includes the roadway and a total of 10 girders with a structure depth of 7 feet. Six 54-inch piles would be installed per bent for a total of 448 piles.

The West Transition structure would consist of 22 spans and 23 bents with an abutment at the beginning of the structure. The East Transition structure would consist of 19 spans and 18 bents with an abutment at the end of the structure. Girders would be supported on 30-inch-diameter columns and 30 and 36-inch-diameter piles. There would be seven columns at each bent for a total of 273 columns. There would be 273 such piles installed at the bents and a total of 42 piles would be installed at each transition bridge structure abutment.

Four lanes of traffic would be maintained throughout construction by building the new Novato Creek Bridge structure in stages. First, a 36-foot-wide and 1,000-foot-long median would be constructed between the existing westbound and eastbound structures along with 36-foot-wide transition structures on either ends of the bridge. Westbound traffic would then be placed on the new median and the westbound bridge would be removed. The new median and transition structures would then be widened to the north by 30 feet and 6 inches.

Both eastbound and westbound traffic lanes would then be placed on the newly widened structure and the existing eastbound structure would be demolished. The new structure would then be widened to the south by 29 feet 6 inches. The total width of the new Novato Creek Bridge and transition structures would be 96 feet.

The new bridge piles would be vibrated in as deep as possible before using an impact pile hammer. The new bridge piles would be installed to a maximum depth of 150 feet below the ground. An abutment would be constructed at either end of the bridge structure. The maximum depth of excavation for construction of the abutments is 10 feet below the ground.

An above-ground trestle measuring approximately 720 feet long and 20 feet wide would be built to construct the Novato Creek Bridge. Construction equipment, potentially including a 150-ton crane, would use the trestle to avoid entering the sensitive marshland. Up to 50 piles that would installed up to a maximum depth of 100 feet below the surface. The piles for the trestle would be fully removed after construction of the Novato Creek Bridge is complete.

Demolition

Demolition of the existing westbound and eastbound bridges would occur over Novato Creek. A protective cover would be attached to the existing bridge structure to minimize debris entering the waterway. The solid barrier would include a 2-foot-wide walkway and add 4 feet to the width of the bridge during demolition. Removal of the existing piles would involve sawcutting to remove the piles in chunks.

For in-water bridge removal, cofferdams or isolation casings would be installed in the streambed to demolish the existing bridge piles. The bridge piles would be cut three feet below the surface. The cofferdams or isolation casings would be removed after the former bridge piles are removed above the mudline.

Embankment

The embankment would consist of a series of compacted layers or lifts of suitable material placed on top of each other until the level of the subgrade surface is reached. The embankment would serve as the surface to place the pavement materials starting first with the load-bearing layer for the roadway. Suitable materials would be obtained from a locally-approved source that meets the construction requirements. The embankment would

be built in compliance with Caltrans Construction Manual and Caltrans Standard Specifications.

2.3.2. Phase 2

Phase 2 would start with the removal of the 36-foot-wide transition structures from the median area and widening of the new Novato Creek Bridge by 7 feet on the north side and by 11 feet on south side, for a total bridge width of 114 feet. Widening of the Novato Creek Bridge would occur from the roadway, avoiding entry into Novato Creek. The widening of the bridge would require the installation of new bridge support structures in the marsh area of Novato Creek. The 36-foot-wide median of the proposed causeway structure would then be constructed at 35 feet of elevation between the U.S. 101 interchange (PM R11.4) and the western end of the Novato Creek Bridge and between the eastern end of the Novato Creek Bridge and PM 13.8, just east of the Atherton Avenue Undercrossing. All eastbound traffic would then be shifted to the new causeway structure. The new causeway structure would then be widened by 40.5 feet to the south throughout its length, over the existing eastbound lanes. The eastbound off-ramp exit for Atherton Avenue would be closed during this stage. Traffic detour is discussed in Section 2.3.4.

Both eastbound and westbound traffic would be shifted to the new causeway structure. The causeway would be widened by 37.5 feet to the north, throughout its length, over the existing westbound lanes. Both ramps for westbound traffic at Atherton Avenue would be closed during this widening. After widening is completed, traffic lanes would then be moved to the final configuration, which would include a bike and pedestrian path.

The western causeway structure connecting Novato Creek Bridge to U.S. 101 would be 2,677 feet long, including 21 spans, 20 bents, and an abutment near the U.S. 101 connector. A Minimum of 12 girders would be placed in each span which would be supported on 54-inch-diameter columns and 54-inch-diameter piles. There would be six columns minimum at each bent for a total of 132 columns, and 132 such piles would be installed at the bents. A total of 56 piles would be installed at the abutment.

The eastern causeway structure connecting Novato Creek Bridge to just east of Atherton Avenue Undercrossing would be 8,906 feet long, including 63 spans, 62 bents, and an abutment just east of the Atherton Avenue Undercrossing. A minimum of 12 girders would be placed in each span which would be supported on 54-inch-diameter columns and 54-inch-diameter piles. There would be six columns minimum at each bent for a total of 376 columns, and 376 such piles would be installed at the bents. A total of 42 piles would be installed at the abutment.

The Simonds Slough Bridge would be replaced with a bridge structure. The slough would be temporarily diverted to demolish the existing double box culvert. After the double box culvert is demolished and removed, the channel would be restored back to the slough's original path.

2.3.3. Utilites

Utilities within the Project area include gas, electric, telephone, and fiber optic cables. PG&E electric overhead lines and poles are within the Caltrans ROW and

2.3.4. Traffic Management

Phase 1

Phase 1 would maintain traffic on SR 37 throughout most of the construction period. Construction of Phase 1 would cause traffic delays of up to 15 minutes with current traffic volumes. Periodic disruption to traffic would occur when lane closures are necessary.

Two weekend closures would be required for constructing the median on the new bridge due to the time needed to cure the concrete deck pours. These closures would require temporary traffic detours that would be developed during the design phase as part of the traffic management plan (TMP). The TMP would describe a Regional Detour Plan and a Local Detour Plan. The Regional Detour Plan would be a wide reaching and include the Golden Gate Bridge, the Richmond-San Rafael Bridge, the SF-Oakland Bay Bridge, the Carquinez Bridge, and the Benicia-Martinez Bridge. The Local Detour Plan would include US 101, Harbor Drive and Atherton Avenue. During closure of the Novato Creek Bridge, the US 101 traffic wanting to travel eastbound on SR 37 would be diverted to northbound U.S. 101 and then to the Atherton Avenue exit. At the highway exit, traffic would be directed south to access Atherton Avenue. This detour is 6.1 miles and would take about 8 minutes.

Vehicles heading westbound on SR 37 from Sonoma County would be diverted to Harbor Drive and then north on Atherton Avenue to access US 101. This detour is 6.5 miles and would take about 9 minutes.

Nighttime construction work would also be required. Construction lighting would be required during nighttime work. All construction lighting would be directed downwards, away from traffic to minimize glare.

The TMP would be prepared by Caltrans during the design phase of the project. The TMP would be incorporated as part of standardized project measures to minimize traffic delays for the traveling public and emergency responders. The TMP would include procedures to notify local agencies, community members, and businesses of traffic delays and disruptions and to coordinate closely emergency responders to allow for continued access. **Phase 2**

Temporary widening would be required in the eastbound direction between the eastern edge of the existing Novato Creek Bridge and the Atherton Avenue off-ramp to accommodate the first stage of median construction. This temporary widening would be necessary to maintain two lanes of traffic in each direction during the first stage of median construction.

Traffic detours would be necessary during the Atherton Avenue on- and off-ramp closures. Oversized vehicles would continue to use SR 37 during construction. Nighttime and weekend construction work would be required; however, any weekend work would occur in the evening or outside of the high peak traffic times. Similar to Phase 1, construction lighting would be required during nighttime work. All construction lighting would be directed downwards, away from traffic to minimize glare.

Construction of Phase 2 would cause traffic delays of up to 15 minutes under current traffic volumes on SR 37, not counting the additional travel time necessitated by the detour routes during Atherton Avenue ramp closures. Temporary lane closures and rerouting of traffic lanes within the Project area would be necessary to accommodate construction activities.

As discussed in Section 2.3.7 Schedule, construction of Phase 2 is anticipated to commence in year 2041. As such, using projected traffic volumes and patterns for the construction period of Phase 2 to estimate traffic delays during construction would be speculative, as construction is anticipated to occur in two decades from publication of this Draft EIR/EA. Therefore, Caltrans would develop a TMP during the Phase 2 design. Caltrans would work closely with local agencies and emergency responders prior to finalizing the TMP for Phase 2.

2.3.5. Construction Staging Areas and Temporary Bridge Access Area

Four staging areas within Caltrans' ROW would be used during construction.

The western most staging area is located between Marsh Road and the eastbound SR 37 off-ramp to Marsh Road. This staging area would be used during construction of Phase 1 and 2.

There would be two staging areas north of SR 37 on either side of Novato Creek. These staging areas would be used for construction of the new Novato Creek Bridge under Phase 1 and to widen the bridge during Phase 2.

The easternmost staging area is located along westbound SR 37 in the area between the westbound off-ramp to Atherton Avenue. The easternmost staging area serves as the Black Point Park & Ride and a maintenance yard. The staging areas would be used for equipment storage and stockpiling of construction materials during Phase 1 and Phase 2.

During construction of Phase 1, a temporary bridge access area would be required within the Novato Creek floodplain. The temporary steel trestle would provide an area of 14,400 square feet for construction above the marsh area. The trestle would consist of up to 50 piles that would be installed to a maximum depth of 100 feet. The piles would be installed using a combination of vibratory and impact pile hammer. This temporary bridge access area would be 0.32 acres.

2.3.6. Project Features

This Project contains a number of standard Project Features (such as best management practices) that are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed Project. These Project Features are evaluated within the scope of the entire Project in the Environmental Document.

2.3.7. Schedule

Replacement of the Novato Creek Bridge is anticipated to begin in May 2027 and end in June 2029 for a maximum duration of 26 months. Replacement of the Novato Creek Bridge would occur during the dry season between June 15 and October 15. Construction of Phase 2 would start in 2041 and end in 2045.

Chapter 3. Fundamentals of Traffic Noise

The following is a brief discussion of fundamental traffic noise concepts. For a detailed discussion, please refer to Caltrans' Technical Noise Supplement (TeNS) (Caltrans 2013), a technical supplement to the Protocol that is available on Caltrans' Web site (https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf). Technical terms are defined in Appendix E.

3.1. Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting noise propagation to the receptor determines sound level and characteristics of the noise perceived by the receptor. The field of acoustics deals primarily with the propagation and control of sound.

3.2. Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 and 20,000 Hz.

3.3. Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this huge range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure

level (SPL) in terms of decibels (dB). The threshold of hearing for young people is about 0 dB, which corresponds to 20 mPa.

3.4. Addition of Decibels

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB—rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dB louder than one source.

3.5. A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of dBA) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make a judgment of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with highway-traffic noise. Noise levels for traffic noise reports are typically reported in terms of A-weighted decibels or dBA. Table 3-1 describes typical A-weighted noise levels for various noise sources.

Table 3-1. Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 miles per hour (mph)		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	**— 70 —**	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	**— 60 —**	
		Large business office
Quiet urban daytime	**— 50 —**	Dishwasher next room
Quiet urban nighttime	**— 40 —**	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	**— 0 —**	Lowest threshold of human hearing

Source: Caltrans 2013.

3.6. Human Response to Changes in Noise Levels

As discussed above, doubling sound energy results in a 3-dB increase in sound. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different than what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000 Hz–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound, would generally be perceived as barely detectable.

3.7. Noise Descriptors

Noise in our daily environment fluctuates over time. Some fluctuations are minor, but some are substantial. Some noise levels occur in regular patterns, but others are random. Some noise levels fluctuate rapidly, but others slowly. Some noise levels vary widely, but others are relatively constant. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors most commonly used in traffic noise analysis.

- **Equivalent Sound Level (L_{eq}):** L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour A-weighted equivalent sound level ($L_{eq[h]}$) is the energy average of A-weighted sound levels occurring during a one-hour period and is the basis for NAC used by Caltrans and FHWA.

- **Percentile-Exceeded Sound Level (L_{xx}):** L_{xx} represents the sound level exceeded for a given percentage of a specified period (e.g., L_{10} is the sound level exceeded 10% of the time, and L_{90} is the sound level exceeded 90% of the time).

- **Maximum Sound Level (L_{max}):** L_{max} is the highest instantaneous sound level measured during a specified period.

- **Day-Night Level (L_{dn}):** L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during nighttime hours between 10 p.m. and 7 a.m.

- **Community Noise Equivalent Level (CNEL):** Similar to L_{dn}, CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m., and a 5-dB penalty applied to the A-weighted sound levels occurring during evening hours between 7 p.m. and 10 p.m.

3.8. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

3.8.1. Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 decibels for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 decibels for each doubling of distance from a line source.

3.8.2. Ground Absorption

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water,), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 decibels per doubling of distance.

3.8.3. Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) from the highway due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

3.8.4. Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor specifically to reduce noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. Taller barriers provide increased noise reduction. Vegetation between the highway and receptor is rarely effective in reducing noise because it does not create a solid barrier.

Chapter 4. Federal Regulations and State Policies

This report focuses on the requirements of 23 CFR 772, as discussed below.

4.1. Federal Regulations

4.1.1. 23 CFR 772

23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for Federal and Federal-aid projects. Under 23 CFR 772.7, projects are categorized as Type I, Type II, or Type III projects.

FHWA defines a Type I project as a proposed Federal or Federal-aid project for the construction of a highway or roadway on a new location or the physical alteration of an existing highway, which significantly changes either the horizontal or vertical alignment of the highway. The following projects are also considered to be Type I projects:

- The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a HOV lane, HOT lane, bus lane, or truck climbing lane;
- The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane;
- The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange;
- Restriping existing pavement for the purpose of adding a through traffic lane or an auxiliary lane;
- The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot, or toll plaza.

If a project is determined to be a Type I project under this definition, the entire project area, as defined in the environmental document, is a Type I project.

A Type II project is a noise barrier retrofit project that involves no changes to highway capacity or alignment. A Type III project is a project that does not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis.

Under 23 CFR 772.11, noise abatement must be considered for Type I projects if the project is predicted to result in a traffic noise impact. In such cases, 23 CFR 772 requires that the project sponsor "consider" noise abatement before adoption of the final NEPA document. This process involves identification of noise abatement measures that are reasonable, feasible, and likely to be incorporated into the project, and of noise impacts for which no apparent solution is available.

Traffic noise impacts, as defined in 23 CFR 772.5, occur when the predicted noise level in the design-year approaches or exceeds the NAC specified in 23 CFR 772, or a predicted noise level substantially exceeds the existing noise level (a "substantial" noise increase). 23 CFR 772 does not specifically define the terms "substantial increase" or "approach;" these criteria are defined in the Protocol, as described below.

Table 4-1 summarizes NAC corresponding to various land use activity categories. Activity categories and related traffic noise impacts are determined based on the actual or permitted land use in a given area.

In identifying noise impacts, primary consideration is given to exterior areas of frequent human use. In situations where there are no exterior activities, or where the exterior activities are far from the roadway or physically shielded in a manner that prevents an impact on exterior activities, the interior criterion (Activity Category D) is used as the basis for determining a noise impact. Indoor analysis is conducted at Activity Category D land uses only after all outdoor analysis options have been exhausted and after a determination has been made that exterior abatement measures would not be feasible and reasonable.

4.1.2. Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects

The Protocol specifies the policies, procedures, and practices to be used by agencies that sponsor new construction or reconstruction of Federal or Federal-aid highway projects. The Protocol defines a noise increase as substantial when the predicted noise levels with project implementation exceed existing noise levels by 12 dBA or more. The Protocol also states that a sound level is considered to approach a NAC level when the sound level is within 1 dB of the NAC identified in 23 CFR 772 (e.g., 66 dBA is considered to approach the NAC of 67 dBA, but 65 dBA is not).

The Technical Noise Supplement to the Protocol provides detailed technical guidance for the evaluation of highway traffic noise. This includes field measurement methods, noise modeling methods, and report preparation guidance.

Table 4-1. Activity Categories and Noise Abatement Criteria (23 CFR 772)

Activity Category	Activity $L_{eq}[h]$[1]	Evaluation Location	Description of Activities
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67	Exterior	Residential.
C[2]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F			Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G			Undeveloped lands that are not permitted.

[1] The $L_{eq[h]}$ activity criteria values are for impact determination only and are not design standards for noise abatement measures. All values are A-weighted decibels (dBA).

[2] Includes undeveloped lands permitted for this activity category.

4.2. State Regulations and Policies

4.2.1. California Environmental Quality Act

Noise analysis under CEQA may be required regardless of whether or not the Project is a Type I project. The CEQA noise analysis is completely independent of the 23 CFR 772 analysis done for NEPA. Under CEQA, the baseline noise level is compared to the build noise level. The assessment entails looking at the setting of the noise impact and then how large or perceptible any noise increase would be in the given area. Key considerations include: the uniqueness of the setting, the sensitive nature of the noise receptors, the magnitude of the noise increase, the number of residences affected, and the absolute noise level.

The significance of noise impacts under CEQA are addressed in the environmental document rather than the NSR. Even though the NSR (or noise technical memorandum) does not specifically evaluate the significance of noise impacts under CEQA, it must contain the technical information that is needed to make that determination in the environmental document.

Chapter 5. Study Methods and Procedures

This chapter describes the methodology used to measure and evaluate noise levels in the Project area.

5.1. Methods for Identifying Land Uses and Selecting Noise Measurement and Modeling Receptor Locations

A field investigation was conducted from Wednesday, March 1, 2023, to Saturday, March 4, 2023 to identify land uses that could be subject to traffic and construction noise impacts from the proposed Project and to document existing traffic noise levels for model validation purposes. Existing land uses in the Project area were categorized by land use type and Activity Category (see Table 4-1), and the extent of frequent human use areas was documented. The geometry of the Project, relative to nearby existing and planned land uses, was also identified.

Noise receptor locations in the Project area were identified through a review of Project mapping, aerial photographs, and field reconnaissance. Activity Category B, C, E, F, and G land uses border the Project. Although all land uses are evaluated in this analysis, the focus is on locations of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, which include residential backyards, the golf course, commercial uses, and offices.

Long-term measurement sites were selected to capture the diurnal traffic noise level pattern in the Project area. Short-term measurement locations were selected to serve as model validation points for representative modeling locations. Additional non-measurement locations were selected as modeling locations.

Photographs of the measurement sites are provided in Appendix F. Receptor locations selected for the Project area are illustrated in Figure 5-1 and 5-2 and Figures 7-1 through 7-3.

5.2. Field Measurement Procedures

A field noise study was conducted in accordance with recommended procedures in the Protocol. Noise measurements were made with Larson Davis Model LxT1 Integrating Sound Level Meters (SLMs) set at “slow” response. The sound level meters were equipped with PCB Model 377B02 1/2" free-field, prepolarized condenser microphones fitted with windscreens. The SLMs were calibrated prior to the noise measurements using a Larson Davis Model CAL200 or Model CA250 acoustical calibrator. The response of the system

was checked after each measurement session and was always found to be within 0.2 dBA. No calibration adjustments were made to the measured sound levels. At the completion of monitoring, the noise data were obtained from the SLM using the Larson Davis G4 software program. All instrumentation used during the noise survey met the requirements of the American National Standards Institute SI 4-1983 for Type I use.

5.2.1. Short-Term Measurements

Eleven short-term noise measurement sites, ST-1 through ST-11, were identified along the Project corridor, and 10 short-term noise measurements were ultimately made, as two of the originally planned locations were not accessible and an additional location was added in the field. Short-term measurements were made in concurrent time intervals with the data collected at the long-term reference measurement sites. This method facilitates a direct comparison between both the short-term and long-term noise measurements and allows for the identification of the loudest-hour noise levels at land uses in the Project vicinity where long-term noise measurements were not made, but where both short-term and long-term measurements are exposed to the same primary noise source. During the short-term measurements, field staff attended each meter. Two or more consecutive 10-minute measurements were made at each noise measurement site. Dominant noise sources were identified and logged. At all locations, noise levels were measured 5 feet above the ground surface and at least 10 feet from structures or barriers. Noise measurement data collected at these locations were used to validate the traffic noise model.

Traffic counts and speed observations were made along SR 37 during the short-term noise measurements for model calibration purposes. Traffic volumes were classified into five vehicle types: (1) light-duty automobiles and trucks; (2) medium-duty trucks (typically trucks with two axles and more than four wheels); (3) heavy-duty trucks (typically trucks with more than two axles); (4) buses; and (5) motorcycles. An automobile was defined as a vehicle with two axles and four tires that are designed primarily to carry passengers. Small vans and light trucks were included in this category. Medium-duty trucks included all cargo vehicles with two axles and six tires. Heavy-duty trucks included all vehicles with three or more axles. The posted speed on SR 37 was 65 mph.

5.2.2. Long-Term Measurements

Long-term reference noise measurements were made at two locations along the Project corridor to quantify the diurnal trend in noise levels and to establish the peak traffic noise hour. These reference noise measurements included one along the SMART train tracks (inactive) approximately 140 feet south of the centerline of nearest through lane of

eastbound SR 37 (LT-1) and one approximately 65 feet north of the centerline of nearest through lane of westbound SR 37 along a service road at the Novato Creek (LT-2). The long-term noise measurements were made over an approximate 72-hour period, from the morning on Wednesday, March 1, 2023, to the morning on Saturday, March 4, 2023. Long-term measurements were taken at heights of about 10 to 12 feet above ground level. Care was taken to select sites that were primarily affected by traffic noise and to avoid those sites where extraneous noise sources, such as barking dogs or mechanical equipment, could contaminate the noise data. After the data were downloaded from the SLM, the data were reviewed to identify any time periods possibly contaminated by local noise sources. Data points were excluded from the dataset where significant contamination was noted. The trends in ambient noise levels measured at long-term locations are summarized graphically in Appendix G.

5.2.3. Meteorology

Handheld weather meters were used to collect weather data at noise measurement locations during the field noise investigation. Meteorological conditions were observed during the long-term and short-term noise measurements. Conditions ranged from clear skies to cloudy with calm to moderate winds (1 to 3 mph). Temperatures generally ranged between 32°F during nighttime and early morning hours to 60°F during midday. Noise monitoring would not occur if weather conditions consisted of rain or high winds (i.e., greater than 11 mph); these weather conditions did not occur during field noise measurements.

5.3. Traffic Noise Levels Prediction Methods

Traffic noise levels were predicted using TNM 2.5. TNM 2.5 is a computer model based on two FHWA reports: FHWA-PD-96-009 and FHWA-PD-96-010 (FHWA 1998a, 1998b). Due to the reliability constraints of TNM 2.5 to accurately calculate noise levels at great distances from the roadway, Caltrans typically limits noise assessments to approximately 500 feet of the roadway source. However, there are sensitive receptors more than 1,000 feet from SR 37.

TNM 2.5 calculates traffic noise levels based on the geometry of the sites, which includes the positioning of travel lanes, receptors, barriers, terrain, ground type, buildings, etc. The noise source is the traffic flow, as defined by the user, in terms of hourly volumes of automobiles, medium-duty trucks, heavy-duty trucks, buses, and motorcycles. Existing traffic (2021), No Build (2049), Build Phase 1 (2049), No Build (2065), and Build Phase 2 (2065) peak hour traffic volume data and speed estimates were used as model inputs for local roads and ramps. Caltrans provided the geometric plans used to create the base traffic

noise model. The proposed roadway, existing and future receptors, terrain lines, ground zones, and noise barriers were digitized and input into the traffic noise model.

5.3.1. Validation of the Traffic Noise Model

TNM 2.5 cannot accurately account for pavement types and conditions, atypical vehicle noise populations, transparent shielding (such as wood fences with shrinkage gaps), reflections from nearby buildings and structures, or meteorological conditions. For these reasons, noise measurements are conducted, and traffic noise model adjustments and validation factors are developed. For each measured condition, the corresponding observed traffic conditions are used in the model to calculate the noise level. The calculated and measured noise levels are compared to assess differences and validate the traffic noise model.

Traffic counts made during the noise monitoring survey were adjusted to reflect one-hour conditions, assuming the traffic volumes during the noise measurement interval (10 minutes) were equal during the six 10-minute intervals of an hour. These adjusted one-hour volumes were input into the model for validation. Traffic volumes and mix information recorded during the noise monitoring survey and used for validation of the model are given in Appendix H.

Validation factors or model adjustments developed from this process are used to modify the model to represent measured conditions more closely. Comparison of model results under different conditions is made after the model results are rounded. Modeled results that vary from measurements by more than 3 dB are adjusted after a careful review of all measurement and modeled data. The adjustments are calculated as follows, based on the supplemental guidance provided in Appendix E of the Protocol:

- A model is considered validated if modeled and measured levels are within +/-3 dB. Adjustment = 0

- Where modeled levels are more than 3 dB lower or higher than measured levels, the modeled results are adjusted to measured conditions: Adjustment = Measured – Modeled.

5.3.2. Traffic Inputs used for Noise Modeling

Once the model was validated in TNM 2.5, the loudest hour traffic noise levels were calculated for Existing Conditions (2021), 2049 No Build, 2049 Build Phase 1, 2065 No Build, and 2065 Build Phase 2. The loudest hour is not necessarily the hour with peak

traffic volumes. Congestion results in slower speeds, which substantially reduces traffic noise levels. The loudest hour is generally characterized by free-flowing traffic at the roadway design speed (i.e., Level of Service [LOS] C/D or better). The highest average traffic volumes on SR 37 are predicted to occur during the PM peak hour; therefore, PM peak hour traffic volumes were used in the model. For this analysis, it is assumed that each mixed-flow lane has a maximum capacity of 1,800 vehicles per hour at the design speed of the highway. The existing and future traffic volumes did not exceed 1,800 vehicles per lane.

Traffic volume and mix inputs for the traffic noise model were taken from the traffic projections. Existing (2021) and Future traffic volumes for 2049 No-Build, 2049 Build Phase 1, 2065 No Build, and 2065 Build Phase 2 cases were provided by *Caltrans*. Arterial roadways were modeled at the posted speed limits for the roadway.

Traffic mix information included in the provided traffic volumes along with Caltrans reported mix data was used for both existing and future scenarios for SR 37. These data are available on the Caltrans Traffic Census Program website (https://dot.ca.gov/programs/traffic-operations/census). The average traffic mix for the SR 37 mainline between U.S. Highway 101 and Atherton Avenue for Existing, 2049 No-Build, 2049 Build Phase 1, 2065 No-Build, and 2065 Build Phase 2 was 96.3% autos, 1.3% medium trucks (MT), and 2.4% heavy trucks (HT). Traffic volumes, speeds and exact mix information used in the TNM 2.5 model are provided in Tables A-1 through A-6 in Appendix A.

5.4. Methods for Identifying Traffic Noise Impacts and Consideration of Abatement

Traffic noise impacts are considered to occur at receptor locations where predicted design-year noise levels are 12 dB or greater than existing noise levels, or where predicted design-year noise levels approach or exceed the NAC for the applicable activity category, as shown in Table 4-1. Caltrans has defined the meaning of approaching the NAC to be 1 dBA below the NAC (e.g., 66 dBA is considered approaching the NAC for Activity Category B activity areas). Where traffic noise impacts are identified, noise abatement must be considered for reasonableness and feasibility, as required by 23 CFR 772 and the Protocol.

Noise abatement is only considered necessary where frequent human usage occurs and where a lowered noise level would be of benefit. Areas of frequent human usage are considered to occur at exterior locations where people are exposed to traffic noise for an

extended period of time on a regular basis. Therefore, impacts are typically assessed at locations with defined outdoor activity areas, such as residential backyards, common exterior use areas, trails, pools, patios, and parks (e.g., playfields, playgrounds, or picnic tables). Other examples are outdoor seating areas at restaurants or outdoor use areas at hotels.

Caltrans policies and procedures for traffic noise analysis are contained in the Protocol and TeNS. The feasibility of noise abatement is an engineering consideration. According to the Protocol, abatement measures are considered acoustically feasible if a minimum noise reduction of 5 dB at impacted receptor locations is predicted with implementation of the abatement measures. Other factors that affect feasibility include topography, utility conflicts, and safety considerations.

Once all feasible noise abatement is identified, a procedure is conducted to assess the reasonableness of the noise abatement. The determination of the reasonableness of the noise abatement is more subjective than the determination of its feasibility. As defined in Section 772.5 of 23 CFR 772, reasonableness is the combination of social, economic, and environmental factors considered in the evaluation of a noise abatement measure. NSRs calculate the reasonable cost allowance for feasible noise barriers but do not determine whether a feasible barrier would be reasonable.

The overall reasonableness of noise abatement is determined by the following three factors:

- The noise reduction design goal (a barrier must be predicted to provide at least 7 dB of noise reduction at one or more benefited receptors).
- The cost of noise abatement (2019 allowance of $107,000 per benefited receptor).
- The viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

The Caltrans acoustical design goal is that a barrier must be predicted to provide at least 7 dB of noise reduction at one benefited receptor.

The Protocol defines the procedure for assessing reasonableness of noise barriers from a cost perspective. Cost considerations for determining noise abatement reasonableness are based on an allowance per benefitted receptor. This reasonable allowance may be adjusted based on the most recent annual Construction Price Index. The annual price index for the fourth quarter of any year is usually posted by February of the following year. The base cost allowance for any 2019 reasonable/feasible analysis is $107,000 for each benefited

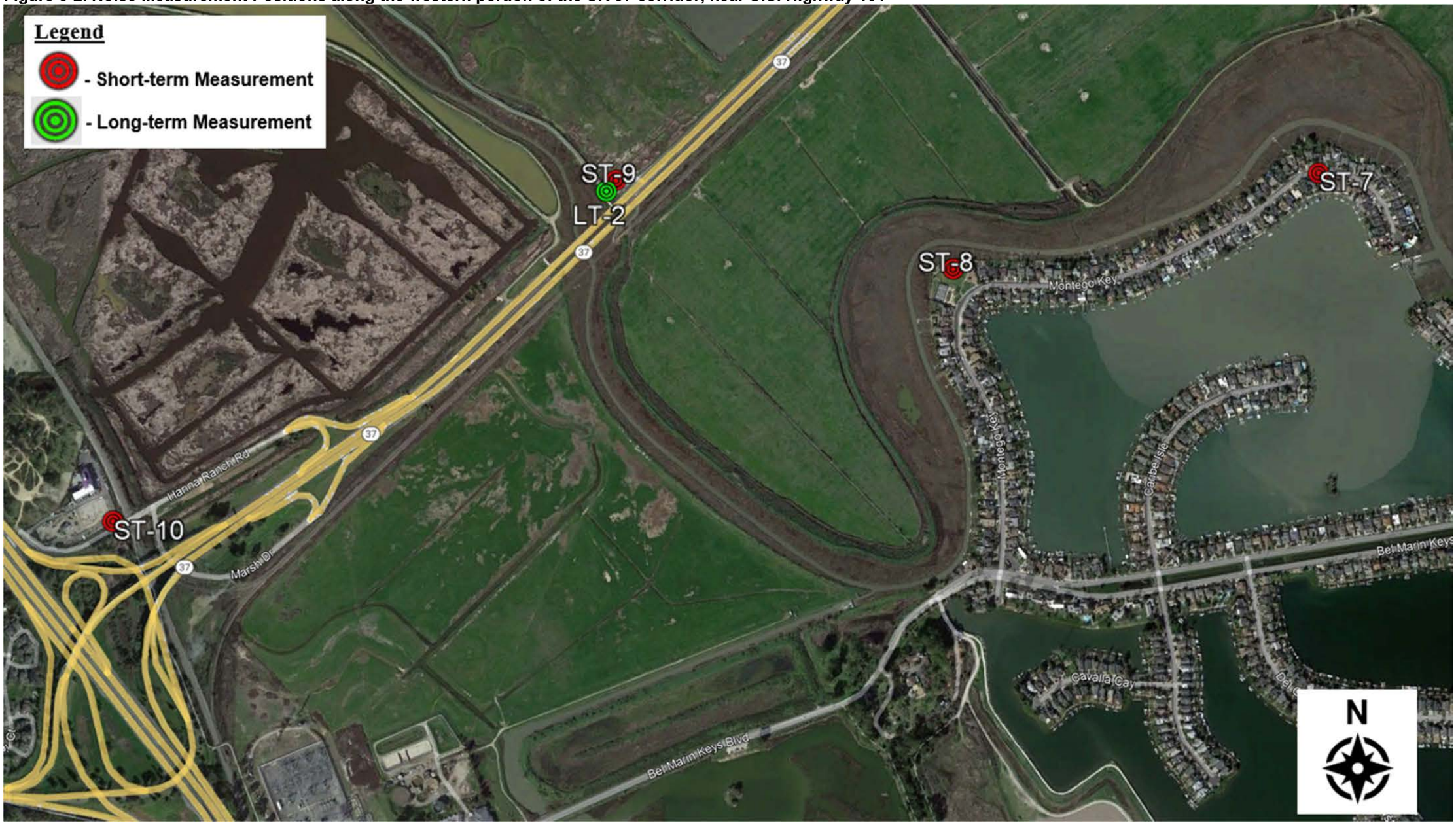
receptor (i.e., receptors that receive at least 5 dB of noise reduction from a noise barrier). The cost allowance has not yet been updated for 2020, 2021, 2022, or 2023. The total allowance for each barrier is calculated by multiplying the number of benefited receptors by $107,000.

The NSR identifies traffic noise impacts and evaluates noise abatement for acoustical feasibility. It also reports information that will be used in the reasonableness analysis, including if the 7 dB design goal reduction in noise can be achieved, and the abatement allowances. The overall feasibility and reasonableness of noise abatement is reported in the NADR.

Figure 5-1. Noise Measurement Positions along the eastern portion of the SR 37 corridor, near Atherton Avenue



Figure 5-2. Noise Measurement Positions along the western portion of the SR 37 corridor, near U.S. Highway 101



Chapter 6. Existing Noise Environment

The following is a discussion of existing noise levels in the Project area.

6.1. Existing Land Uses

Existing land uses in the Project area were categorized by Activity Category, as outlined in Section 4.1 (see Table 4-1 for land use descriptions). Activity Category A land uses (lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose) were not identified in the Project area. The following noise-sensitive land uses were identified in the Project area:

- Activity Category B - Residential;
- Activity Category C – Active Sports Area; Trail, Park;
- Activity Category E – Other Developed Land;
- Activity Category F – Utilities, Warehousing; and
- Activity Category G – Undeveloped.

Activity Category F and G land uses located in the Project area are not noise-sensitive. Although all developed land uses are evaluated in this analysis, noise abatement is only considered for areas of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards and parks. The noise-sensitive uses identified in the Project area are described in further detail in Chapter 7.

6.2. Noise Measurement Results

The existing noise environment throughout the Project area varies by location, depending on site characteristics, such as proximity of receptors to SR 37, local roadways, or other significant sources of noise in the area, the relative base elevations of roadways and receptors, and the presence of any intervening structures or barriers.

6.2.1. Short-Term Monitoring

Eleven short-term noise measurement sites, ST-1 through ST-11 were identified along the Project corridor, and 10 short-term noise measurements were ultimately made, as two of

the originally planned locations were not accessible and an additional location was added in the field. All short-term noise measurements were made at heights of 5 feet above ground level. Short-term noise measurement locations were used to validate the traffic noise model. The 10-minute traffic volumes counted during the short-term measurements are shown in Table 6-1. Table H-1 in Appendix H contains the computed hourly traffic counts used to validate the model.

The calculated existing loudest-hour noise levels at short-term noise measurement locations are based on validated noise modeling results.

Table 6-1. Summary of Short-Term Noise Measurements

Receptor ID	Location (See Appendix E)	Activity Category	Land Use	Date	Start Time	10-minute L_{eq}, dBA	Autos	Medium Trucks	Heavy Trucks	Observed Speeds, mph
ST-1	50 Green Point Lane	B	Residential	3/2/2023	11:20 a.m.	51	303	20	7	65/65/55
					11:30 a.m.	52	330	23	5	65/65/55
ST-2	A Self Storage - 101 Renaissance Road	F	Warehousing	3/2/2023	10:50 a.m.	57	363	12	10	65/65/55
					11:00 a.m.	57	331	9	6	65/65/55
ST-3	Stone Tree Golf Club - 9 Stone Tree Lane	C	Active Sports Area	3/2/2023	10:10 a.m.	54	320	6	5	65/65/55
					10:20 a.m.	54	296	19	10	65/65/55
ST-4	Black Point Park N Ride	E	Other Developed Lands	3/2/2023	10:50 a.m.	65	363	12	10	65/65/55
					11:00 a.m.	64	331	9	6	65/65/55
ST-5	31 Glen Road	B	Residential	3/2/2023	11:20 a.m.	53	303	20	7	65/65/55
					11:30 a.m.	58	330	23	5	65/65/55
ST-6	Stone Tree Golf Club (12th Hole) - 9 Stone Tree Lane	C	Active Sports Area	3/2/2023	10:00 a.m.	54	319	9	6	65/65/55
					10:10 a.m.	54	320	6	5	65/65/55
ST-7	276 Montego Key	B	Residential	3/2/2023	12:30 p.m.	35	309	8	15	65/65/55
					12:40 p.m.	36	290	3	12	65/65/55
ST-8	Montego Park – 113 Montego Key	C	Park	3/2/2023	12:20 p.m.	41	331	7	10	65/65/55
					12:30 p.m.	41	309	8	15	65/65/55

Receptor ID	Location (See Appendix E)	Activity Category	Land Use	Date	Start Time	10-minute L_{eq}, dBA	Autos	Medium Trucks	Heavy Trucks	Observed Speeds, mph
ST-9	Service Road to Marin County Flood Control and Water Conservation District	F	Utilities	3/2/2023	11:50 a.m.	66	312	23	11	65/65/55
					12:00 p.m.	67	300	32	13	65/65/55
ST-10	5400 Hanna Ranch Road	E	Office	3/2/2023	11:50 a.m.	55	312	23	11	65/65/55
					12:00 p.m.	54	300	32	13	65/65/55

Note: Refer to Figures 5-1 and 5-2 for measurement locations

6.2.2. Long-Term Monitoring

Two long-term noise measurements (LT-1 and LT-2) were made to quantify the diurnal trend in noise levels and establish the peak traffic noise hour. The long-term noise measurements were made over approximately a 72-hour period, from the morning on Wednesday, March 1, 2023, to Saturday, March 4, 2023.

Long-term monitoring location LT-1 was located along the SMART train tracks (inactive), approximately 140 feet south of the centerline of nearest through lane of eastbound SR 37. LT-2 is located north of SR 37 along a service road at Novato Creek. LT-2 was approximately 65 feet from the centerline of the nearest through lane of westbound SR 37. Long-term measurements were taken at heights of about 10 to 12 feet above ground level.

The daily trends in ambient noise levels measured at long-term locations are summarized graphically in Appendix G. The results of the long-term field measurements are also summarized in Table 6-2. As indicated in Table 6-2, existing loudest hour noise levels ranged from 70 to 71 dBA $L_{eq[h]}$ at the long-term locations. Note that at 12:00 a.m. on Friday morning, LT-2 had an unusually high hourly average noise level of 73 dBA $L_{eq[h]}$. These high nighttime levels may be due to maintenance workers or by some vehicle accessing the service road. Since the other daily trends do not indicate this type of noise behavior at LT-2, data from this hour is disregarded as atypical and not included in loudest hour data. Figures 6-1 and 6-2 summarize the results of the long-term noise monitoring for sites LT-1 and LT-2, respectively.

Table 6-2. Summary of Long-Term Noise Monitoring at Locations LT-1 and LT-2

Receptor ID	Location (See Photos in Appendix E)	Date	Loudest Hour(s)	Loudest Hour $L_{eq[h]}$, dBA
LT-1	Along SMART tracks at the eastern end of the alignment	3/2/2023	7:00 a.m.	71
		3/3/2023	6:00 a.m.	71
LT-2	Service Road to Marin County Flood Control and Water Conservation District	3/2/2023	4:00 p.m.	71
		3/3/2023	5:00 p.m.	70

Figure 6-1. Long-Term Monitoring at Location LT-1, March 1 through March 4, 2023

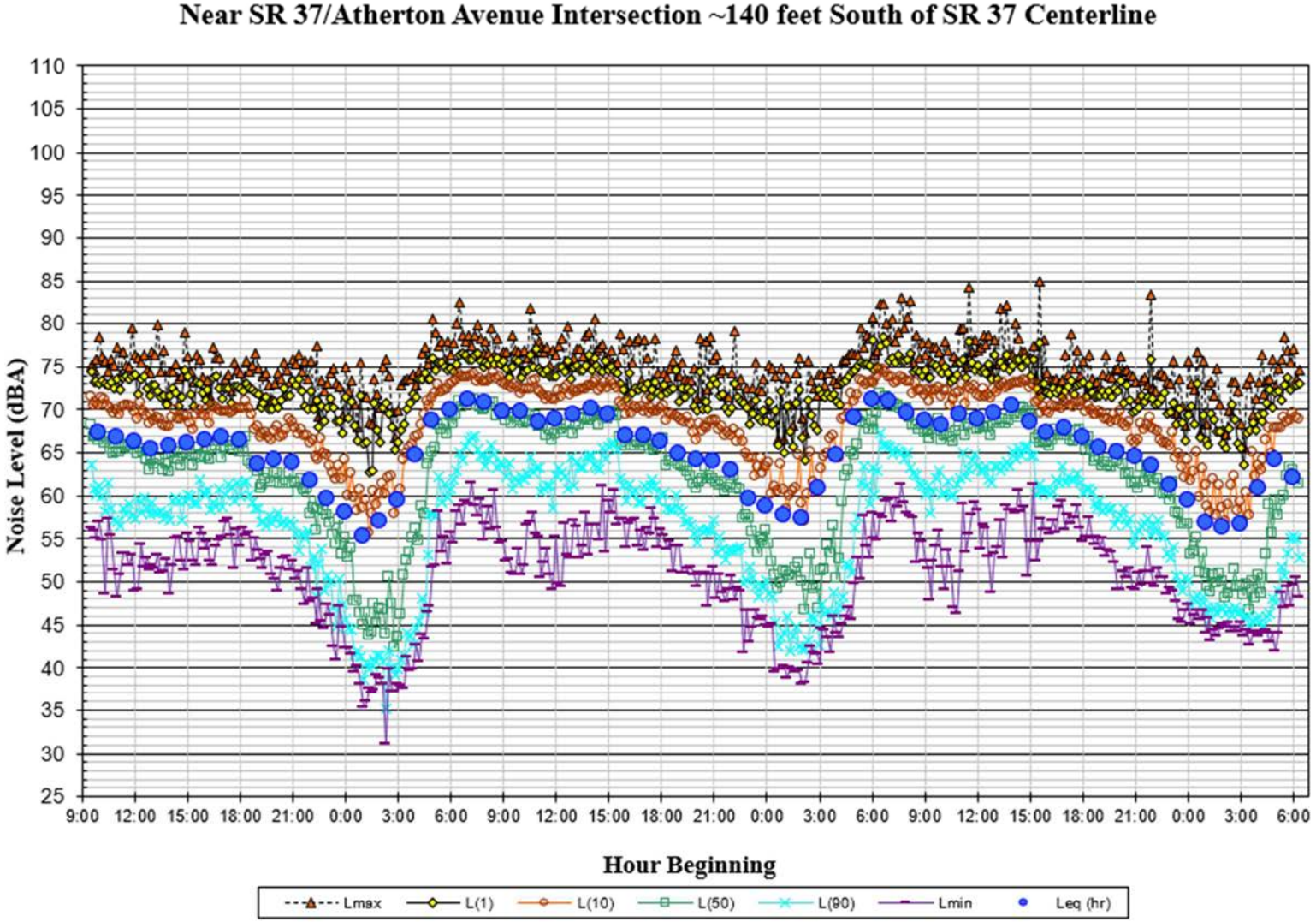
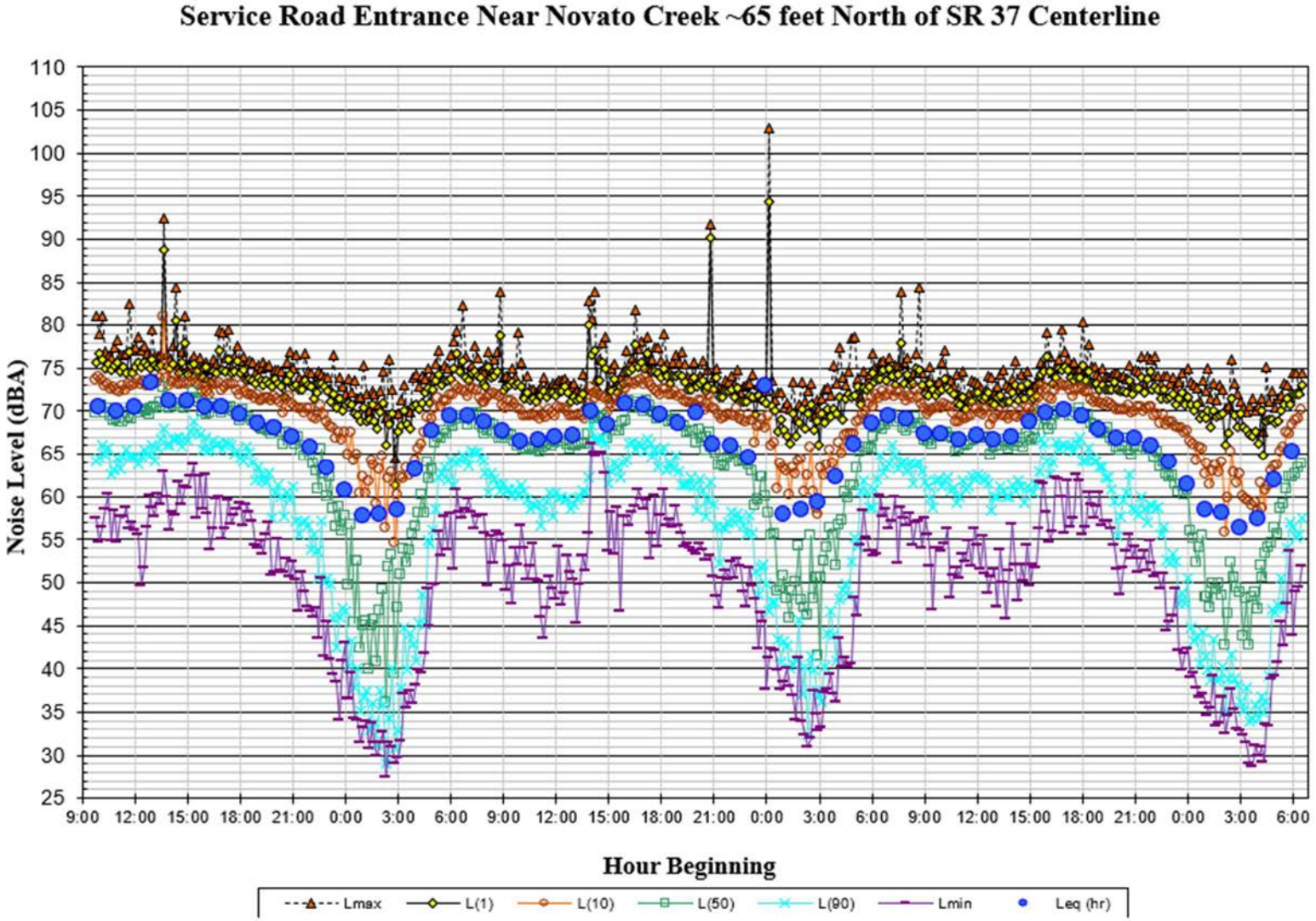


Figure 6-2. Long-Term Monitoring at Location LT-2, March 1 through March 4, 2023



6.3. Model Validation to Existing Conditions

TNM 2.5 was used to calculate existing noise levels at field measurement locations during periods when the measurements were made and traffic was counted. Adjustments or "Validation Factors" were then developed where the traffic noise model and the measured levels varied by 3 dBA or greater. The development of each Validation Factor followed the methodology detailed in Section 5.3. The Validation Factor is added to modeled results for existing and future loudest-hour traffic conditions. The Validation Factor for each receptor are summarized in Table 6-3.

Table 6-3. Comparsion of Measured to Predicted Sound Levels in the TNM Model

Receptor ID	10-min L_{eq} Noise Level, dBA						Validation Factor, dBA
	Measured Level	TNM 2.5 Modeled Level	Difference (Measured - Modeled)	Measured Level	TNM 2.5 Modeled Level	Difference (Measured - Modeled)	
ST-1	51	54	-3	52	55	-3	0
ST-2	57	60	-3	57	59	-2	0
ST-3	54	59	-5	54	60	-6	-6[1]
ST-4	65	64	1	64	63	1	0
ST-5	50	50	0	52	51	-1	0
ST-6	54	57	-3	54	57	-3	0
ST-7	35	38	-3	36	37	-1	0
ST-8	41	45	-4	41	45	-4	-4
ST-9	66	64	2	67	64	3	0
ST-10	55	55	0	54	55	-1	0

1. TNM is not correctly accounting for the terrain and multiple barriers.

6.4. Future Undeveloped Land Uses

The Protocol requires that the NSR discuss the development of future land uses in the vicinity of the Project. Some of the land in the Project area is developed. Lists of planned and approved projects in the City of Novato[1] and the County of Marin[2] were reviewed to identify undeveloped lands for which development is planned, designed, and programmed so that those proposed developments may be considered approved (or a part of the existing conditions). According to the Protocol, future development would be considered planned,

[1]City of Novato. March 2, 2023. Planned Developments, accessed via https://www.novato.org/government/community-development/planning-division/planning-projects.

[2] Marin County. March 3, 2023. Planning Projects, accessed via https://www.marincounty.org/depts/cd/divisions/planning/projects.

designed, and programmed once it receives final development approval. The review focused on projects within approximately 500 feet of the Project limits, where traffic noise levels from the improved Project roadways could dominate the noise environment. Projects located beyond this distance were excluded from further analysis.

The City of Novato showed two development projects along the SR 37 corridor: the Hanna Ranch Mixed-Use Project, which is located south of the end of Rowland Boulevard at Vintage Way (more than 700 feet from SR 37); and the StoneTree Driving Range, which is located south of the StoneTree Golf Course at Twowater Trail (more than 1,700 feet from SR 37). Since both of these projects are more than 500 feet from the project corridor, neither are analyzed here.

The Ronsheimer Survivors Trust TAM Energy Storage Project (P3932) located at 495 Bel Marin Keys Boulevard in unincorporated Marin County is within 500 feet of the Project. The Ronsheimer Survivors Trust TAM Energy Storage Project would require a land use designation change from AGC3 to PF. The applicant is proposing a lithium-ion battery energy storage facility with a capacity of storing and delivering approximately 300 megawatts of electric energy and associated ancillary services to the California electric grid. Associated equipment would include a substation, water storage tanks, and two modular structures. Receptor R12 is within the boundaries of the Ronsheimer Survivors Trust TAM Energy Storage Project (see Figure 7-3). This receptor would not be considered noise-sensitive since they would fall within the Category F designation.

Chapter 7. Future Noise Environment, Impacts, and Considered Abatement Build Alternatives

This chapter discusses potential noise impacts and presents a preliminary analysis of noise abatement measures.

7.1. Future Noise Environment and Impacts

Traffic noise modeling results and predicted traffic noise impacts for existing and design year conditions are shown in Appendix B Table B-1 for Build Phase 1 and Table B-2 and for Build Phase 2. In Tables B-1 and B-2, Build/Project condition exterior noise levels are compared to Existing conditions and to No-Build conditions. The comparison to Existing conditions is included in the analysis to identify traffic noise impacts, as defined under 23 CFR 772. The comparison between Build and No-Build conditions indicates the direct effect of the Project. As stated in the TeNS, modeling results are rounded to the nearest decibel before comparisons are made.

Noise levels discussed in this section are based on the adjusted model results, using loudest-case traffic conditions (in terms of noise generation) for the Existing, No-Build, and Build scenarios.

Ten short-term noise measurements, ST-1 through ST-10 were identified along the Project corridor. In addition, there are 17 modeled receptor locations (R1 through R17). Receptors are shown in Figures 7-1 through 7-3.

Figure 7-1. Receptor Locations at Atherton Avenue

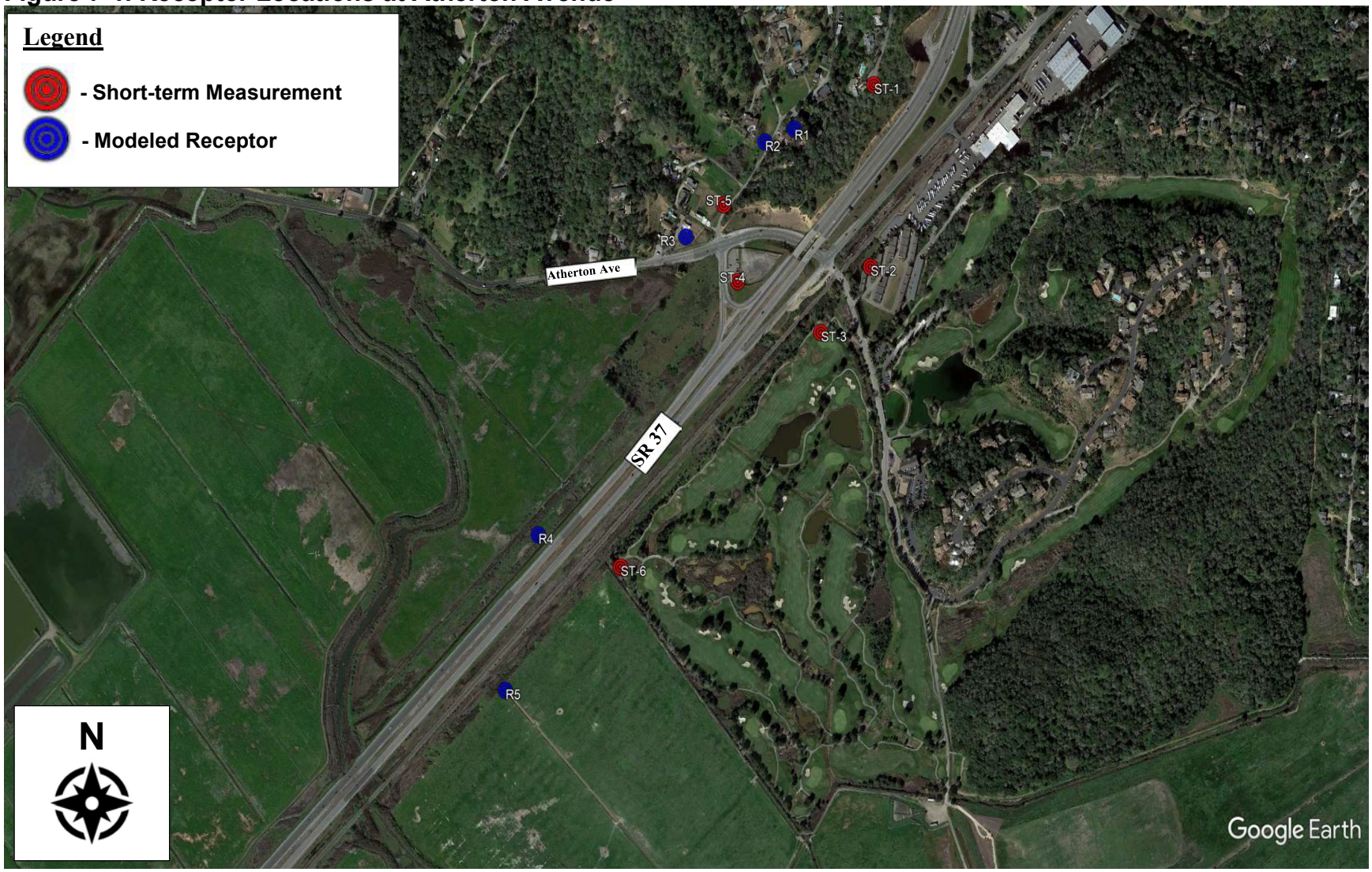
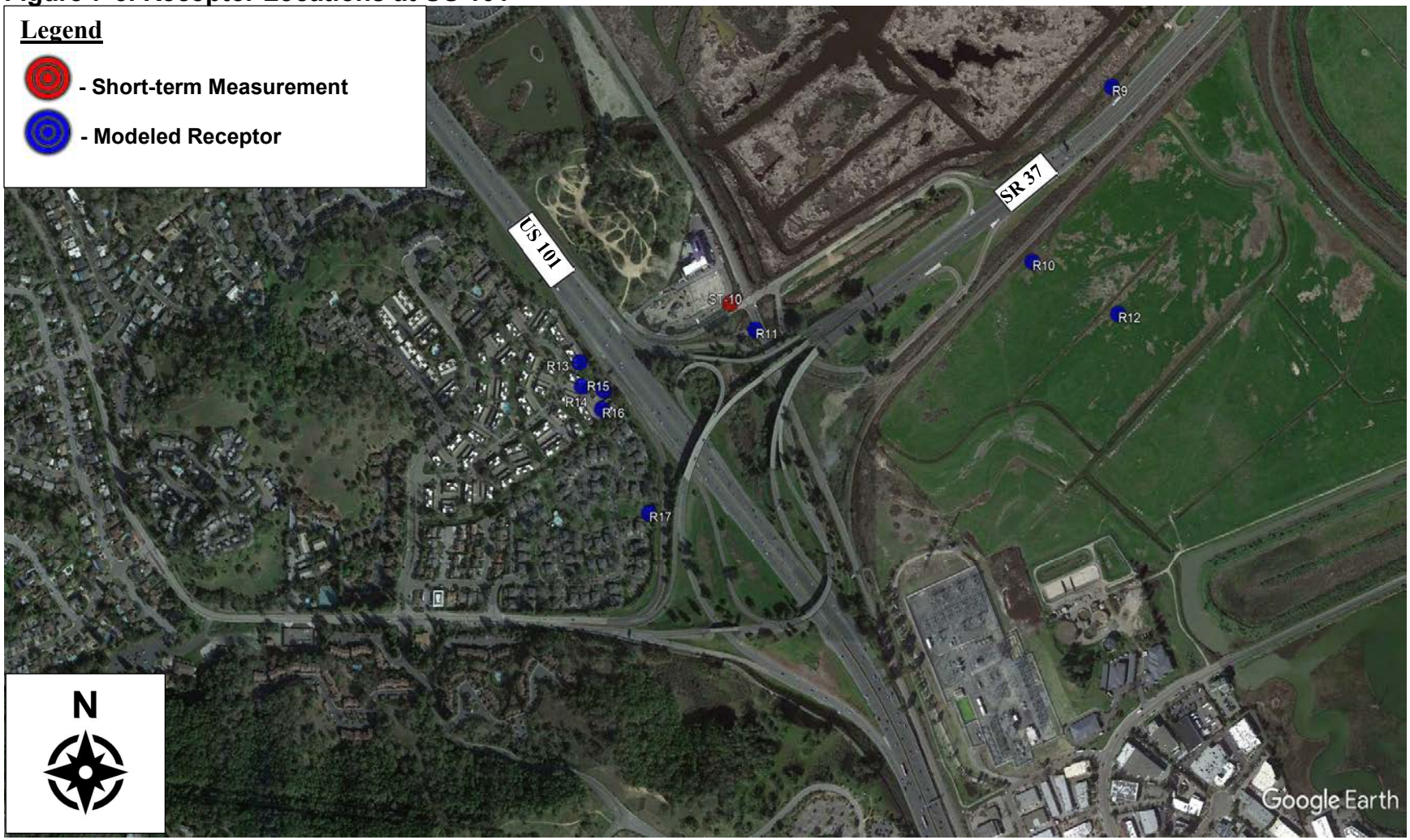


Figure 7-2. Receptor Locations between Atherton Avenue and US 101



Figure 7-3. Receptor Locations at US 101



7.1.1. Exterior Noise Levels at Category B, C, and E Land Uses

As shown in Table B-1[3] the loudest-hour noise levels at Category B land uses for Build Phase 1 are calculated to range from 40 to 64 dBA $L_{eq[h]}$ under Existing conditions, from 40 to 64 dBA $L_{eq[h]}$ under 2049 No-Build conditions, from 40 to 64 dBA $L_{eq[h]}$ under 2049 Phase 1 Build conditions. The 2049 Phase 1 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category B receptors.

As shown in Table B-2[4] the loudest-hour noise levels at Category B land uses for Build Phase 2 are calculated to range from 40 to 64 dBA $L_{eq[h]}$ under Existing conditions, from 40 to 65 dBA $L_{eq[h]}$ under 2065 No-Build conditions, from 40 to 65 dBA $L_{eq[h]}$ under 2065 Phase 2 Build conditions. The 2065 Phase 2 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category B receptors.

The loudest-hour noise levels at Category C land uses are calculated to range from 42 to 64 dBA $L_{eq[h]}$ under Existing, from 43 to 64 dBA $L_{eq[h]}$ under 2049 No-Build, and from 43 to 64 dBA $L_{eq[h]}$ under 2049 Phase 1 Build conditions. The 2049 Phase 1 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category C receptors.

The loudest-hour noise levels at Category C land uses are calculated to range from 42 to 64 dBA $L_{eq[h]}$ under Existing, from 43 to 64 dBA $L_{eq[h]}$ under 2065 No-Build, and from 43 to 64 dBA $L_{eq[h]}$ under 2065 Phase 2 Build conditions. The 2065 Phase 2 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category C receptors.

The loudest-hour noise levels at Category E land uses are calculated to range from 60 to 67 dBA $L_{eq[h]}$ under Existing conditions, from 61 to 67 $L_{eq[h]}$ under 2049 No-Build conditions, and from 61 to 67 dBA $L_{eq[h]}$ under 2049 Phase 1 Build conditions. Phase 1 Build traffic noise levels are not predicted to approach or exceed the NAC at any Category E receptors.

The loudest-hour noise levels at Category E land uses are calculated to range from 60 to 67 dBA $L_{eq[h]}$ under Existing conditions, from 61 to 67 $L_{eq[h]}$ under 2065 No-Build conditions, and from 61 to 67 dBA $L_{eq[h]}$ under 2065 Phase 2 Build conditions. Phase 2

[3]The planned 2-foot median barrier and the two 2-foot outside barriers were not included in modeling to present the worst-case noise levels.

[4]The planned 2-foot median barrier and the two 2-foot outside barriers were not included in modeling to present the worst-case noise levels.

Build traffic noise levels are not predicted to approach or exceed the NAC at any Category E receptors.

The Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Protocol) defines a noise increase as substantial when the predicted noise levels with Project implementation exceed existing noise levels by 12 dBA or more.

Noise levels would increase by up to 2 dBA over Existing conditions under 2049 No-Build conditions. When compared to Existing conditions, changes in noise levels under 2049 Phase 1 Build conditions would range from 0 to +2 dBA. When compared to No-Build conditions, changes in noise levels under 2049 Phase 1 Build conditions would range from 0 to +1 dBA. Noise levels are not predicted to approach or exceed the NAC at any receptors. The noise level increases that would result from the Project are not considered substantial as they would not be at or above the Caltrans 12 dBA threshold.

Noise levels would increase by up to 2 dBA over Existing conditions under 2065 No-Build conditions. When compared to Existing conditions, changes in noise levels under 2065 Phase 2 Build conditions would range from 0 to +4 dBA. When compared to Design Year No-Build conditions, changes in noise levels under 2065 Phase 2 Build conditions would range from 0 to +3 dBA. Noise levels are not predicted to approach or exceed the NAC at any receptors. The noise level increases that would result from the Project are not considered substantial as they would not be at or above the Caltrans 12 dBA threshold.

7.1.2. Interior Noise Levels in Category D Land Uses

A noise impact would occur if, as a result of a proposed project, noise levels approach or exceed 52 dBA $L_{eq[h]}$ in the interior of auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios. Based on FHWA Guidance, a typical Category D use structure would be anticipated to provide about 10 dBA of noise reduction from exterior noise sources with windows open and 20 to 30 dBA of noise reduction with windows in the closed position, depending on the window and exterior wall construction. [5] Therefore, Category D use structures that do not have forced-air mechanical ventilation, to allow occupants to keep windows closed to control noise, could be anticipated to have interior noise levels approaching or exceeding

[5] FHWA Highway Traffic Noise: Analysis and Abatement Guide, December 2011

52 dBA $L_{eq[h]}$, with exterior exposures of 62 dBA $L_{eq[h]}$ or more. For structures with windows in the closed position, exterior noise levels of 72 to 82 dBA $L_{eq[h]}$ or less, depending on the acoustical construction of the structure, would result in acceptable interior noise levels. There were no Category D land uses identified within 500 feet of the project alignment.

7.2. Preliminary Noise Abatement Analysis Build Alternative

Noise abatement was not considered for this Project because noise impacts were not predicted in areas of frequent human use for Phase 1 or Phase 2.

Chapter 8. Construction Noise

Components of the Project are described in detail in Chapter 2. Noise generated by Project-related construction activities would be a function of the noise levels generated by individual pieces of construction equipment, the type and amount of equipment operating at any given time, the timing and duration of construction activities, the proximity of nearby sensitive land uses, and the presence or lack of shielding at these sensitive land uses. Construction noise levels would vary on a day-to-day basis during each phase of construction depending on the specific task being completed.

8.1. Regulatory Criteria

Noise associated with construction is controlled by Caltrans Standard Specification Section 14-8.02, "Noise Control," which states the following:

- Control and monitor noise resulting from work activities.
- Do not exceed 86 dBA L_{max} at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.
- Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

8.2. Construction Phasing and Noise Levels

8.2.1. Phase 1

Project construction for Phase 1 is anticipated to occur over a period of 26 months and would include grubbing / land clearing, grading / excavation / foundation / sheet pile walls, drainage / utilities / sub-grade, and paving. Construction of the bridge structure would include extensive pile driving for the foundations of the structure, for both Phase 1. Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. The types of equipment needed to complete the construction may include, but are not limited to, the following: crawler tractors, excavators, signal boards, cranes, grades, rollers, rubber-tired loaders, scrapers, backhoes, bore / drill rigs, cement and mortar mixers, air compressors, generator sets, plate compactors, pumps, rough terrain forklifts, pavers, and paving equipment.

The new Novato Creek Bridge would have a total of 10 pre-cast/pre-stressed (PC/PS) Wide Flange girders with a structure depth of 6.25 feet. Six 48-inch cast-in-steel-shell (CISS) piles would be installed per bent for a total of 54 piles.

The transition structures on either end of the Novato Creek Bridge would use PC/PS slab girders as superstructure which would be supported on 30-inch-diameter columns and 30-inch-diameter CISS piles. There would be seven columns at each bent for a total of 126 columns. There would be 126 such piles installed at the bents and a total of 48 HP10x57 H-piles would be installed at each transition bridge structure abutment.

The new bridge piles would be vibrated in as deep as possible before using an impact pile hammer. The new bridge piles would be installed to a maximum depth of 150 feet below the ground. An abutment would be constructed at either end of the bridge structure. The maximum depth of excavation for construction of the abutments is 10 feet below the ground.

Demolition of the existing westbound and eastbound bridges would occur over Novato Creek. A protective cover would be installed to minimize debris entering the waterway. Removal of the existing piles would involve full sawcut to remove the piles in chunks. Installation of the piles would involve a combination of vibratory and impact pile hammer methods. To minimize the use of impact pile driving, the piles would be vibrated in as deep as possible before an impact pile hammer is utilized.

Table 8-1 presents noise levels calculated for each major construction phase of the Project at a distance of 50 feet, based on calculations conducted in FHWA's Roadway Construction Noise Model (RCNM) using construction information detailed in Appendix I. This construction noise model includes representative sound levels for the most common types of construction equipment and the approximate usage factors of such equipment that were developed based on an extensive database of information gathered during the construction of the Central Artery/Tunnel Project in Boston, Massachusetts (CA/T Project or "Big Dig"). In some instances, maximum instantaneous noise levels are calculated to be slightly lower than hourly average noise levels. This occurs because the model reports the maximum instantaneous noise level generated by the loudest single piece of construction equipment, while reporting the hourly average noise levels resulting from the additive effect of multiple pieces of construction equipment operating simultaneously. Noise generated by construction equipment drops off at a rate of 6 dB per doubling of distance.

Table 8-1. Noise Levels by Construction Phase at 50 Feet

Construction Phase	Maximum Instantaneous Noise Level (L_{max}, dBA)	Hourly Average Noise Level ($L_{eq[h]}$, dBA)
Grubbing/Land Clearing	84	82
Grading/Excavation	85	88
Drainage/Utilities/Sub-Grade	85	88
Paving	90	85
Impact Pile Driving	101	94
Vibratory Pile Driving	101	94

Source: FHWA's RCNM

8.2.2. Phase 2

Project construction for Phase 2 is anticipated to occur over a period of 4 years and would include grubbing / land clearing, grading / excavation / foundation / sheet pile walls, drainage / utilities / sub-grade, and paving. Construction of the bridge structure would include extensive pile driving for the foundations of the structure, for Phase 2. Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. The types of equipment needed to complete the construction may include, but are not limited to, the following: crawler tractors, excavators, signal boards, cranes, grades, rollers, rubber-tired loaders, scrapers, backhoes, bore / drill rigs, cement and mortar mixers, air compressors, generator sets, plate compactors, pumps, rough terrain forklifts, pavers, and paving equipment.

Phase 2 would start with the removal of the 36-foot-wide transition structures from the median area and widening of the new Novato Creek Bridge. The widening of the bridge would require the installation of new substructure in the marsh area of Novato Creek.

The western structure connecting Novato Creek Bridge to U.S. 101 would be 2,677 feet long, including 19 spans, 18 bents, and an abutment near the U.S. 101 connector. A total 12 of PC/PS wide flange girders would be placed in each span which would be supported on 48-inch-diameter columns and 48-inch-diameter CISS piles. There would be six columns at each bent for a total of 108 columns, and 108 such piles would be installed at the bents. A total of 58 HP10x57 H-piles would be installed at the abutment.

The eastern structure connecting Novato Creek Bridge to just east of Atherton Avenue undercrossing would be 8,906 feet long, including 63 spans, 62 bents, and an abutment just east of the Atherton Avenue undercrossing. A total 12 of PC/PS wide flange girders would

be placed in each span which would be supported on 48-inch-diameter columns and 48-inch-diameter CISS piles. There would be six columns at each bent for a total of 372 columns, and 372 such piles would be installed at the bents. A total of 58 HP10x57 H-piles would be installed at the abutment.

The Deep Soil Mixing (DSM) method would be required to construct the embankment that would extend from the U.S. 101/SR 37 connector to the causeway. The DSM method would improve the characteristics of the soils by mechanically mixing them with cementitious binder slurry. The DSM method would be applied below the existing ground surface to increase the supporting ground-bearing resistance of the newly elevated roadway and to minimize total and differential settlements of the embankment.

Table 8-2. Noise Levels by Construction Phase at 50 Feet

Construction Phase	Maximum Instantaneous Noise Level (L_{max}, dBA)	Hourly Average Noise Level ($L_{eq[h]}$, dBA)
Grubbing/Land Clearing	84	82
Grading/Excavation	85	88
Drainage/Utilities/Sub-Grade	85	88
Paving	90	85
Impact Pile Driving	101	94
Vibratory Pile Driving	101	94

Source: FHWA's RCNM

8.3. Construction Noise Impacts

Build out of Phase 1 is expected to take approximately 26 months, with an anticipated start date of May 2027 and completion date of June 2029. Replacement of the Novato Creek Bridge would occur during the dry season (between June 15 and October 15). Construction of Phase 2 would start in 2041 and be completed by the end of 2045. With over 10 years separating the construction of Phases 1 and 2, exposure to construction noise from the project would be treated as two separate projects.

Within each phase, roadway construction activities typically occur for relatively short periods of time in any specific location as construction proceeds along the Project's alignment. Construction noise would mostly be of concern in areas where heavy construction would be concentrated for extended periods of time in areas adjacent to noise-sensitive receptors, where noise levels from individual pieces of equipment are

substantially higher than ambient conditions, or when construction activities would occur during noise-sensitive early morning, evening, or nighttime hours.

8.3.1. Phase 1

As indicated through comparison of Table 8-1, most construction phases would generate average noise levels ranging from 82 to 88 dBA $L_{eq[h]}$ at 50 feet without impact pile driving, which would exceed ambient daytime noise levels measured at the measurement locations by 15 to 25 dBA $L_{eq[h]}$. Average noise levels with impact pile driving/vibratory pile driving a would be up to 94 dBA $L_{eq[h]}$ at 50 feet. However, most sensitive receptors along the project corridor are set back further from SR 37. Sensitive receptors (residences at the Bel Marin Keys) would be more than 1,700 feet from the SR 37 alignment. Receptors shielded by noise barriers would be exposed to a similar increase in noise, albeit at lower overall noise levels because the shielding provided by the existing noise barriers would attenuate construction noise at a similar rate to traffic noise. Maximum instantaneous noise levels would range from 84 to 90 dBA L_{max} at 50 feet without impact pile driving, and up to 101 dBA L_{max} at 50 feet with impact pile driving/vibratory pile driving. With the exception of impact pile driving and possible nighttime construction involving heavy equipment, construction noise levels would not be expected to exceed the quantitative noise limits established by Caltrans.

8.3.2. Phase 2

As indicated through comparison of Table 8-2, most construction phases would generate average noise levels ranging from 82 to 88 dBA $L_{eq[h]}$ at 50 feet without impact pile driving, which would exceed ambient daytime noise levels measured at the measurement locations by 15 to 25 dBA $L_{eq[h]}$. Average noise levels with impact pile driving/vibratory pile driving a would be up to 94 dBA $L_{eq[h]}$ at 50 feet. However, most sensitive receptors along the project corridor are set back further from SR 37. Construction near the eastern end of the corridor would be within 400 feet of westbound SR 37 (residences) and within 200 feet of eastbound SR 37 (golf course), while other sensitive receptors (residences at the Bel Marin Keys) would be more than 1,700 feet from the SR 37 alignment. Receptors shielded by noise barriers would be exposed to a similar increase in noise, albeit at lower overall noise levels because the shielding provided by the existing noise barriers would attenuate construction noise at a similar rate to traffic noise. Maximum instantaneous noise levels would range from 84 to 90 dBA L_{max} at 50 feet without impact pile driving, and up to 101 dBA L_{max} at 50 feet with impact pile driving/vibratory pile driving. With the exception of impact pile driving and possible nighttime construction involving heavy equipment,

construction noise levels would not be expected to exceed the quantitative noise limits established by Caltrans.

8.4. Construction Noise Minimization Measures

To reduce the potential for noise impacts resulting from Project construction, the following measures shall be implemented during Project construction.

- All construction equipment shall conform to Section 14-8.02, Noise Control, of the latest Standard Specifications.
- When feasible, noise-generating construction activities shall be restricted to between 7:00 a.m. and 7:00 p.m. on weekdays, with no construction occurring on weekends or holidays. If work is necessary outside of these hours, Caltrans shall require the contractor to implement a construction noise monitoring program and provide additional noise controls where practical and feasible.
- Pile driving activities shall be limited to daytime hours only.
- All internal combustion engine driven equipment shall be equipped with manufacturer recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Noise-generating equipment shall be located as far as practical from sensitive receptors when sensitive receptors adjoin or are near the construction Project area.
- "Quiet" air compressors and other "quiet" equipment shall be utilized where such technology exists.

Chapter 9. Construction Vibration

Construction activities are described in Chapter 2 and would include Grubbing/Land Clearing (including mobilization), Grading/Excavation, Drainage/Utilities/Sub-Grade, and Paving. The structures work includes a new bridge structure, which would require pile driving as a method of construction for the foundations. Blasting, which has the potential to result in high levels of vibration, would not be utilized. Traffic, including heavy trucks traveling on a highway, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.

Due to the short-term nature of construction, the primary concern is the potential for vibration to damage a structure. Demolition and construction activities required for construction often generate perceptible vibration levels; however, due to the distance of the nearest structures to the project alignment (more than 200 feet from SR 37), vibration levels generated by heavy equipment or impact tools (e.g., jackhammers, hoe rams) are not expected to result in damage, while pile driving could result in potential damage. Building damage generally falls into three categories:

- Cosmetic damage (also known as threshold damage) is defined as hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects.
- Minor damage is defined as hairline cracking in masonry or the loosening of plaster.
- Major structural damage is defined as wide cracking or the shifting of foundation or bearing walls.

Critical factors pertaining to the impact of construction vibration on sensitive receptors include the proximity of the existing structures to the Project site, soil conditions, the soundness of the structures, and the methods of construction used.

9.1. Regulatory Criteria

Caltrans identifies a vibration limit of 0.5 in/sec Peak Particle Velocity (PPV) as the threshold at which there is a potential risk of damage to new residential and modern commercial/industrial structures, 0.3 in/sec PPV for older residential structures, and a conservative limit of 0.25 in/sec PPV for historic and some old buildings (see Table 9-1, below).

Table 9-1. Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential structures
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures

Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, April 2020.

9.2. Construction Vibration Levels

Construction activities with the greatest potential of generating perceptible vibration levels would include the removal of pavement and soil, the dropping of heavy objects, and the movement of heavy tracked equipment. Table 9-2 presents typical vibration levels that could be expected from representative construction equipment at a reference distance of 25 feet and calculated vibration levels at distances representative of the setbacks from the Project to the nearest structures. Vibration levels are highest close to the source, and then attenuate with increasing distance depending on soil conditions. Assuming normal propagation, construction vibration would attenuate at the rate $(D_{ref}/D)^{1.1}$, where D is the distance from the source in feet and D_{ref} is the reference distance of 25 feet.

Table 9-2. Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	Representative of Setbacks of Nearest Structures	
			260 feet	330 feet
Pile Driver (Impact)	upper range	1.158	0.088	0.068
	typical	0.644	0.049	0.038
Pile Driver (Sonic)	upper range	0.734	0.056	0.043
	typical	0.17	0.013	0.010
Clam shovel drop		0.202	0.015	0.012
Hydromill (slurry wall)	in soil	0.022	0.001	0.0005
	in rock	0.047	0.001	0.001
Vibratory Roller		0.210	0.016	0.012
Hoe Ram		0.089	0.007	0.005
Large bulldozer		0.089	0.007	0.005
Caisson drilling		0.089	0.007	0.005
Loaded trucks		0.076	0.006	0.004
Jackhammer		0.035	0.003	0.002
Small bulldozer		0.003	0.0002	0.0002

Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, September 2018, as modified by Illingworth & Rodkin, Inc., March 2023.

[1]These levels calculated assuming normal propagation conditions, using a standard equation of *PPVeqmt-PPVref * (25/D)* $^{1.1}$, from Caltrans, September 2013.

9.3. Construction Vibration Impacts

As shown in Table 9-1, Caltrans recommends a vibration limit of 0.5 in/sec PPV for new residential and modern commercial/industrial structures, 0.3 in/sec PPV for older residential structures, and 0.25 in/sec PPV for historic and some old buildings. Distances to exceedances of the vibration limits for various structure types are shown in Table 9-3.

Table 9-3. Distance to Exceedance of Vibration Limit by Structure Type

Structure Type	Threshold	Distance to Exceedance of Threshold, feet[1]	
		Impact Pile Driving	Heavy Construction
Historic Buildings	0.25 in/sec PPV	100 feet	22 feet
Older Residences	0.3 in/sec PPV	85 feet	18 feet
New Residential and Commercial/Industrial Buildings	0.5 in/sec PPV	55 feet	12 feet

[1]These levels calculated assuming normal propagation conditions, using a standard equation of *PPVeqmt-PPVref * (25/D)* $^{1.1}$, from Caltrans, September 2013.

Impact pile driving located within 100 feet of historic buildings, and heavy construction located within 22 feet of historic buildings and would have the potential to exceed the 0.25 in/sec PPV threshold. Based on a review of the Marin County historic resource inventories/mapping, there are no historic structures located within 100 feet of the Project limits. Therefore, vibration levels due to project construction activities would not exceed the 0.25 in/sec PPV threshold at sensitive historic buildings in the vicinity of the project alignment.

Impact pile driving within 85 feet of older residential structures or within 55 feet of new residential and modern commercial/industrial structures, and heavy construction located within 18 feet of older residential structures or within 12 feet of new residential and modern commercial/industrial structures, would have the potential to exceed the 0.3 and 0.5 in/sec PPV thresholds, respectively.

The nearest building to the construction activities in both phases would be over 200 feet from pile driving activities and heavy construction equipment. Vibration levels would be less than 0.12 in/sec PPV at all existing structures. The 0.3 and 0.5 in/sec PPV are not expected to be exceeded at any existing structure, even during impact pile driving.

Chapter 10. References

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Chapter 11. List of Preparers

The following individuals had substantial roles in the preparation of this report:

- Heather Bruce (Illingworth & Rodkin, Inc. — Senior Consultant) – Project Manager, data analysis, traffic noise modeling, report preparation, and quality assurance review.
- Michael Thill (Illingworth & Rodkin, Inc. — Principal Consultant) – Noise measurements, data analysis, traffic noise modeling, report preparation, and quality assurance review.
- Carrie Janello (Illingworth & Rodkin, Inc. — Senior Consultant) – Report preparation and review, data analysis.
- Micah Black (Illingworth & Rodkin, Inc. — Staff Consultant) – Noise measurements, data analysis, report preparation.

Appendix A Traffic Data

This appendix contains Tables A-1 through A-6 which present the traffic data for existing conditions, design-year conditions without the Project, and design-year conditions with the Project.

Table A-1. MainlineTraffic Data for Existing (2021) Conditions

2021 Existing										
Roadway		Number of Lanes	Total Volume PM Peak Hour Traffic Volume	Auto		Medium Trucks		Heavy Trucks		Speed (A/MT/HT) (mph)
Direction	Segment			%	Volume	%	Volume	%	Volume	
Mainline										
SR 37 Eastbound	Between US 101 and Atherton Avenue	2	1370	96.32%	1320	1.33%	18	2.35%	32	65/65/55
SR 37 Westbound	Between US 101 and Atherton Avenue	2	2070	96.32%	1994	1.33%	28	2.35%	49	65/65/55

Table A-2. Traffic Data for 2049 No Build and Phase 1 Conditions

2021 Existing										
Roadway		Number of Lanes	Total Volume PM Peak Hour Traffic Volume	Auto		Medium Trucks		Heavy Trucks		Speed (A/MT/HT) (mph)
Direction	Segment			%	Volume	%	Volume	%	Volume	
Mainline										
SR 37 Eastbound	Between US 101 and Atherton Avenue	2	1550	96.32%	1493	1.33%	21	2.35%	36	65/65/55
SR 37 Westbound	Between US 101 and Atherton Avenue	2	2330	96.32%	2244	1.33%	31	2.35%	59	65/65/55

Table A-3. Traffic Data for 2065 No Build and Phase 2 Conditions

2021 Existing										
Roadway		**Number of Lanes**	**Total Volume PM Peak Hour Traffic Volume**	**Auto**		**Medium Trucks**		**Heavy Trucks**		**Speed (A/MT/HT) (mph)**
Direction	**Segment**			**%**	**Volume**	**%**	**Volume**	**%**	**Volume**	
Mainline										
SR 37 Eastbound	Between US 101 and Atherton Avenue	2	1650	96.32%	1589	1.33%	22	2.35%	39	65/65/55
SR 37 Westbound	Between US 101 and Atherton Avenue	2	2500	96.32%	2408	1.33%	33	2.35%	59	65/65/55

Table A-4. Ramp Traffic Data for Existing (2021) Conditions

2021 Existing										
Roadway		Number of Lanes	Total Volume PM Peak Hour Traffic Volume	Auto		Medium Trucks		Heavy Trucks		Speed (A/MT/HT) (mph)
Post Mile	Segment			%	Volume	%	Volume	%	Volume	
Ramps										
11.385	On to Eastbound SR 37 from Southbound US 101	2-3	500	96.32%	482	1.33%	7	2.35%	12	45/45/45
11.389	Westbound SR 37 off to Northbound US 101	1	550	96.32%	530	1.33%	7	2.35%	13	45/45/45
11.505	Eastbound SR 37 off to Frontage Road	1	25	96.32%	24	1.33%	0	2.35%	1	25/25/25
11.585	Frontage Road onto Westbound SR 37	1	20	96.32%	19	1.33%	0	2.35%	1	25/25/25
11.668	Westbound SR 37 off to Frontage Road	1	20	96.32%	19	1.33%	0	2.35%	1	25/25/25
11.62	Frontage Road onto Eastbound SR 37	1	20	96.32%	19	1.33%	0	2.35%	1	25/25/25
13.636	Atherton Avenue onto Westbound SR 37	1	170	96.32%	164	1.33%	2	2.35%	4	25/25/25
13.654	Eastbound SR 37 off to Atherton Avenue	1	200	96.32%	193	1.33%	3	2.35%	5	25/25/25
13.705	Westbound SR 37 off to Atherton Avenue	1	140	96.32%	135	1.33%	2	2.35%	3	25/25/25

Table A-5. Ramp Traffic Data for 2049 No Build and Phase 1 Conditions

2049 No Build and Phase 1										
Roadway		Number of Lanes	Total Volume PM Peak Hour Traffic Volume	Auto		Medium Trucks		Heavy Trucks		Speed (A/MT/HT) (mph)
Post Mile	Segment			%	Volume	%	Volume	%	Volume	
Ramps										
11.385	On to Eastbound SR 37 from Southbound US 101	2-3	540	96.32%	520	1.33%	7	2.35%	13	45/45/45
11.389	Westbound SR 37 off to Northbound US 101	1	590	96.32%	568	1.33%	8	2.35%	14	45/45/45
11.505	Eastbound SR 37 off to Frontage Road	1	35	96.32%	34	1.33%	0	2.35%	1	25/25/25
11.585	Frontage Road onto Westbound SR 37	1	30	96.32%	29	1.33%	0	2.35%	1	25/25/25
11.668	Westbound SR 37 off to Frontage Road	1	30	96.32%	29	1.33%	0	2.35%	1	25/25/25
11.62	Frontage Road onto Eastbound SR 37	1	30	96.32%	29	1.33%	0	2.35%	1	25/25/25
13.636	Atherton Avenue onto Westbound SR 37	1	190	96.32%	183	1.33%	3	2.35%	4	25/25/25
13.654	Eastbound SR 37 off to Atherton Avenue	1	220	96.32%	212	1.33%	3	2.35%	5	25/25/25
13.705	Westbound SR 37 off to Atherton Avenue	1	150	96.32%	144	1.33%	2	2.35%	4	25/25/25

Table A-6. Ramp Traffic Data for 2065 No Build and Phase 2 Conditions

2065 No Build and Phase 2										
Roadway		Number of Lanes	Total Volume PM Peak Hour Traffic Volume	Auto		Medium Trucks		Heavy Trucks		Speed (A/MT/HT) (mph)
Post Mile	Segment			%	Volume	%	Volume	%	Volume	
Ramps										
11.385	On to Eastbound SR 37 from Southbound US 101	2-3	720	96.32%	694	1.33%	10	2.35%	17	45/45/45
11.389	Westbound SR 37 off to Northbound US 101	1	790	96.32%	761	1.33%	11	2.35%	19	45/45/45
11.505	Eastbound SR 37 off to Frontage Road	1	50	96.32%	48	1.33%	1	2.35%	1	25/25/25
11.585	Frontage Road onto Westbound SR 37	1	50	96.32%	48	1.33%	1	2.35%	1	25/25/25
11.668	Westbound SR 37 off to Frontage Road	1	50	96.32%	48	1.33%	1	2.35%	1	25/25/25
11.62	Frontage Road onto Eastbound SR 37	1	50	96.32%	48	1.33%	1	2.35%	1	25/25/25
13.636	Atherton Avenue onto Westbound SR 37	1	250	96.32%	241	1.33%	3	2.35%	6	25/25/25
13.654	Eastbound SR 37 off to Atherton Avenue	1	300	96.32%	289	1.33%	4	2.35%	7	25/25/25
13.705	Westbound SR 37 off to Atherton Avenue	1	200	96.32%	193	1.33%	3	2.35%	5	25/25/25

Appendix B Predicted Future Noise Levels and Noise Barrier Analysis

Table B-1 summarizes the traffic noise modeling results for existing and design-year conditions (2049 Build Phase 1) with and without the Project. Table B-2 summarizes the traffic noise modeling results for existing and design-year conditions (2065 Build Phase 2) with and without the Project.

Table B-1. Predicted Future Noise and Barrier Analysis for Phase 1

Receptor I.D.	Barrier I.D.	Land Use	Number of Dwelling Units	Address	Existing Noise Level $L_{eq}(h)$, dBA[2,3]	SR 37 Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA Phase 1																										
						Design Year Noise Level without Project[2,3] $L_{eq}(h)$, dBA	Design Year Noise Level with Project[2,3] $L_{eq}(h)$, dBA	Design Year Noise Level without Project minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Levels with Project Minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Project Minus Design Year No Project Conditions $L_{eq}(h)$, dBA	Activity Category (NAC)	Impact Type[1]	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receptors (NBR)																			
													6 feet			8 feet			10 feet			12 feet[4]			14 feet[4]			16 feet[4]		
													$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR
ST-1	-	Residential	4	50 Green Point Lane	56	57	57	1	1	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-2	-	Warehousing	1	A Self Storage - 101 Renaissance Road	61	62	62	1	1	0	F	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-3[4]	-	Active Sports Area	1	Stone Tree Golf Club - 9 Stone Tree Lane	56	56	56	0	0	0	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-4	-	Other Developed Lands	1	Black Point Park N Ride	67	67	67	0	0	0	E (72)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-5	-	Residential	2	31 Glen Road	53	54	54	1	1	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-6	-	Active Sports Area	1	Stone Tree Golf Club (12th Hole) -9 Stone Tree Lane	60	60	60	0	0	0	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-7	-	Residential	43	276 Montego Key	40	40	40	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-8[5]	-	Park	1	Montego Park – 113 Montego Key	42	43	43	1	1	0	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Receptor I.D.	Barrier I.D.	Land Use	Number of Dwelling Units	Address	Existing Noise Level $L_{eq}(h)$, dBA[2,3]	SR 37 Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA Phase 1																										
						Design Year Noise Level without Project $L_{eq}(h)$, dBA	Design Year Noise Level with Project $L_{eq}(h)$, dBA	Design Year Noise Level without Project minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Levels with Project Minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Project Minus Design Year No Project Conditions $L_{eq}(h)$, dBA	Activity Category (NAC)	Impact Type[1]	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receptors (NBR)																			
													6 feet			8 feet			10 feet			12 feet[4]			14 feet[4]			16 feet[4]		
													$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR
ST-9	-	Utilities	1	Service Road to Marin County Flood Control and Water Conservation District	68	68	68	0	0	0	F	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-10	-	Office	1	5400 Hanna Ranch Road	60	61	61	1	1	0	E (72)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1	-	Residential	2	70 Glen Road	40	40	40	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R2	-	Residential	2	61 Glen Road	46	46	46	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R3	-	Residential	3	90 Atherton Avenue	57	58	58	1	1	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R4	-	Undeveloped	1	SR 37 Westbound	68	69	69	1	1	0	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5	-	Undeveloped	1	SR 37 Eastbound	65	65	65	0	0	0	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R6	-	Undeveloped	1	SR 37 Eastbound	63	64	64	1	1	0	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R7	-	Undeveloped	1	SR 37 Westbound	66	67	67	1	1	0	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R8	-	Undeveloped	1	SR 37 Eastbound	64	65	66	1	2	1	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Receptor I.D.	Barrier I.D.	Land Use	Number of Dwelling Units	Address	Existing Noise Level $L_{eq}(h)$, dBA[2,3]	SR 37 Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA Phase 1																										
						Design Year Noise Level without Project $L_{eq}(h)$, dBA[2,3]	Design Year Noise Level with Project $L_{eq}(h)$, dBA[2,3]	Design Year Noise Level without Project minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Levels with Project Minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Project Minus Design Year No Project Conditions $L_{eq}(h)$, dBA	Activity Category (NAC)	Impact Type[1]	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receptors (NBR)																			
													6 feet			8 feet			10 feet			12 feet[4]			14 feet[4]			16 feet[4]		
													$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR
R9	-	Undeveloped	1	SR 37 Westbound	66	67	68	1	2	1	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R10	-	Undeveloped	1	SR 37 Eastbound	61	63	63	2	2	0	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R11	-	Trail	1	SMART Trail	61	62	62	1	1	0	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R12	-	Utility	1	495 Bel Marin Keys Boulevard	51	51	52	1	1	0	F	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R13	-	Residential	4	710 Samoa Lane	64	64	64	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R14	-	Residential	4	616 Fairhaven Way	59	59	59	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R15	-	Residential	4	635 Fairhaven Way	64	64	64	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R16	-	Residential	4	630 Fairhaven Way	64	64	64	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R17	-	Park	1	44 Inyo Circle	64	64	64	0	0	0	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[1] Impact Type: S = Substantial Increase (12 dBA or more), A/E = Approach or Exceed NAC, None = Increase is less than 12 decibels and noise levels do not approach or exceed the NAC.
[2] As stated in the TeNS, modeling results are rounded to the nearest decibel before comparisons are made.
[3] The planned 2-foot median barrier and the two 2-foot outside barriers were not included in modeling to present the worst-case noise levels.
[4] A validation factor of -6 was applied at this receptor location.
[5] A validation factor of -4 was applied at this receptor location.

Table B-2. Predicted Future Noise and Barrier Analysis for Phase 2

Receptor I.D.	Barrier I.D.	Land Use	Number of Dwelling Units	Address	Existing Noise Level $L_{eq}(h)$, dBA[2,3]	SR 37 Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA Phase 2																										
						Design Year Noise Level without Project[2,3] $L_{eq}(h)$, dBA	Design Year Noise Level with Project[2,3] $L_{eq}(h)$, dBA	Design Year Noise Level without Project minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Prouect minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Project Minus Design Year No Project Conditions $L_{eq}(h)$, dBA	Activity Category (NAC)	Impact Type[1]	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receptors (NBR)																			
													6 feet			8 feet			10 feet			12 feet[4]			14 feet[4]			16 feet[4]		
													$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR
ST-1	-	Residential	4	50 Green Point Lane	56	57	58	1	2	1	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-2	-	Warehousing	1	A Self Storage - 101 Renaissance Road	61	62	63	1	2	1	F	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-3[4]	-	Active Sports Area	1	Stone Tree Golf Club - 9 Stone Tree Lane	56	56	57	0	1	1	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-4	-	Other Developed Lands	1	Black Point Park N Ride	67	67	67	0	0	0	E (72)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-5	-	Residential	2	31 Glen Road	53	54	54	1	1	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-6	-	Active Sports Area	1	Stone Tree Golf Club (12th Hole) -9 Stone Tree Lane	60	61	64	1	4	3	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-7	-	Residential	43	276 Montego Key	40	40	40	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-8[5]	-	Park	1	Montego Park – 113 Montego Key	42	43	43	1	1	0	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Receptor I.D.	Barrier I.D.	Land Use	Number of Dwelling Units	Address	Existing Noise Level $L_{eq}(h)$, dBA[2,3]	SR 37 Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA Phase 2																										
						Design Year Noise Level without Project[2,3] $L_{eq}(h)$, dBA	Design Year Noise Level with Project[2,3] $L_{eq}(h)$, dBA	Design Year Noise Level without Project minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Prouect minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Project Minus Design Year No Project Conditions $L_{eq}(h)$, dBA	Activity Category (NAC)	Impact Type[1]	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receptors (NBR)																			
													6 feet			8 feet			10 feet			12 feet[4]			14 feet[4]			16 feet[4]		
													$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR
ST-9	-	Utilities	1	Service Road to Marin County Flood Control and Water Conservation District	68	69	69	1	1	0	F	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST-10	-	Office	1	5400 Hanna Ranch Road	60	61	61	1	1	0	E (72)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1	-	Residential	2	70 Glen Road	40	40	40	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R2	-	Residential	2	61 Glen Road	46	47	49	1	3	2	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R3	-	Residential	3	90 Atherton Avenue	57	58	60	1	3	2	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R4	-	Undeveloped	1	SR 37 Westbound	68	69	69	1	1	0	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5	-	Undeveloped	1	SR 37 Eastbound	65	65	66	0	1	1	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R6	-	Undeveloped	1	SR 37 Eastbound	63	64	66	1	3	2	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R7	-	Undeveloped	1	SR 37 Westbound	66	67	69	1	3	2	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R8	-	Undeveloped	1	SR 37 Eastbound	64	65	66	1	2	1	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Receptor I.D.	Barrier I.D.	Land Use	Number of Dwelling Units	Address	Existing Noise Level $L_{eq}(h)$, dBA[2,3]	SR 37 Future Worst Hour Noise Levels - $L_{eq}(h)$, dBA Phase 2																						
						Design Year Noise Level without Project[2,3] $L_{eq}(h)$, dBA	Design Year Noise Level with Project[2,3] $L_{eq}(h)$, dBA	Design Year Noise Level without Project minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Prouect minus Existing Conditions $L_{eq}(h)$, dBA	Design Year Noise Level with Project Minus Design Year No Project Conditions $L_{eq}(h)$, dBA	Activity Category (NAC)	Impact Type[1]	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefited Receptors (NBR)																
													6 feet			8 feet			10 feet			12 feet[4]			14 feet[4]			16 feet[4]		
													$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR	$L_{eq}(h)$	I.L.	NBR
R9	-	Undeveloped	1	SR 37 Westbound	66	67	67	1	1	0	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R10	-	Undeveloped	1	SR 37 Eastbound	61	63	64	2	3	1	G	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R11	-	Trail	1	SMART Trail	61	62	62	1	1	0	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R12	-	Utility	1	495 Bel Marin Keys Boulevard	51	52	52	1	1	0	F	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R13	-	Residential	4	710 Samoa Lane	64	65	65	1	1	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R14	-	Residential	4	616 Fairhaven Way	59	59	60	1	1	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R15	-	Residential	4	635 Fairhaven Way	64	64	64	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R16	-	Residential	4	630 Fairhaven Way	64	64	64	0	0	0	B (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R17	-	Park	1	44 Inyo Circle	64	64	64	0	0	0	C (67)	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[1] Impact Type: S = Substantial Increase (12 dBA or more), A/E = Approach or Exceed NAC, None = Increase is less than 12 decibels and noise levels do not approach or exceed the NAC.
[2] As stated in the TeNS, modeling results are rounded to the nearest decibel before comparisons are made.
[3] The planned 2-foot median barrier and the two 2-foot outside barriers were not included in modeling to present the worst-case noise levels.
[4] A validation factor of -6 was applied at this receptor location.
[5] A validation factor of -4 was applied at this receptor location.

Appendix C Noise Barrier Analysis

No noise barriers were analyzed as part of this project.

Appendix D Calculated Interior Noise Levels

There were no Category D land uses along the Project alignment.

Appendix E Definition of Technical Terms

Definitions are from the Handbook of Acoustical Measurement and Noise Control.

Term	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro-Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 p.m. and 7:00 a.m.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels measured in the night between 10:00 p.m. and 7:00 a.m.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Appendix F Site Photogrpahs



LT-1: Along train tracks near SR 37/Atherton Avenue intersection



LT-2: Service Road to Marin County Flood Control and Water Conservation District



ST-1: 50 Green Point Lane



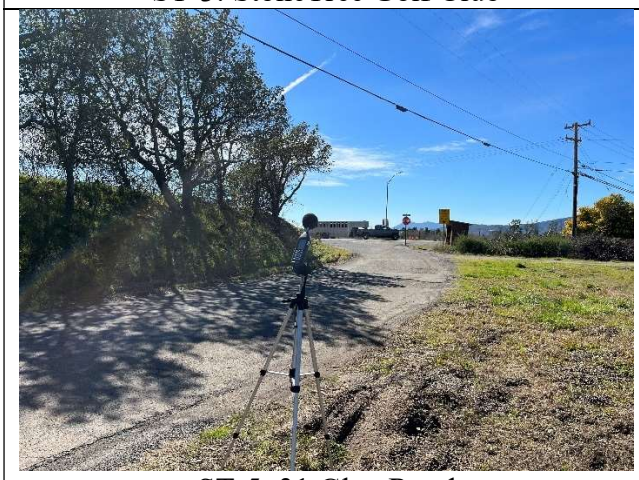
ST-2: 101 Renaissance Road



ST-3: StoneTree Golf Club



ST-4: Atherton Park N Ride



ST-5: 31 Glen Road



ST-6: StoneTree Golf Club 12th Hole



ST-7: 276 Montego Key



ST-8: Montego Park



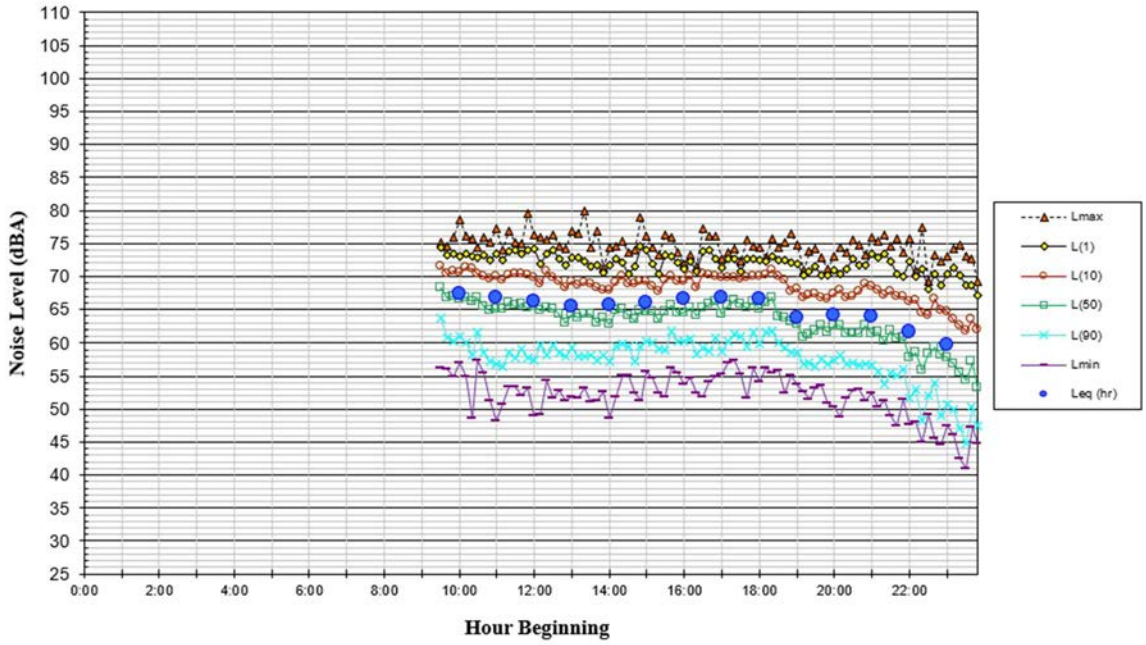
ST-9: Service Road to Marin County Flood Control and Water Conservation District



ST-10: 5400 Hanna Ranch Road

Appendix G Long-Term Noise Measurement Data

Figure G-1. Daily Noise Trends at LT-1, Wednesday March 1, 2023



FigureG-2. Daily Noise Trends at LT-1, Thursday March 2, 2023

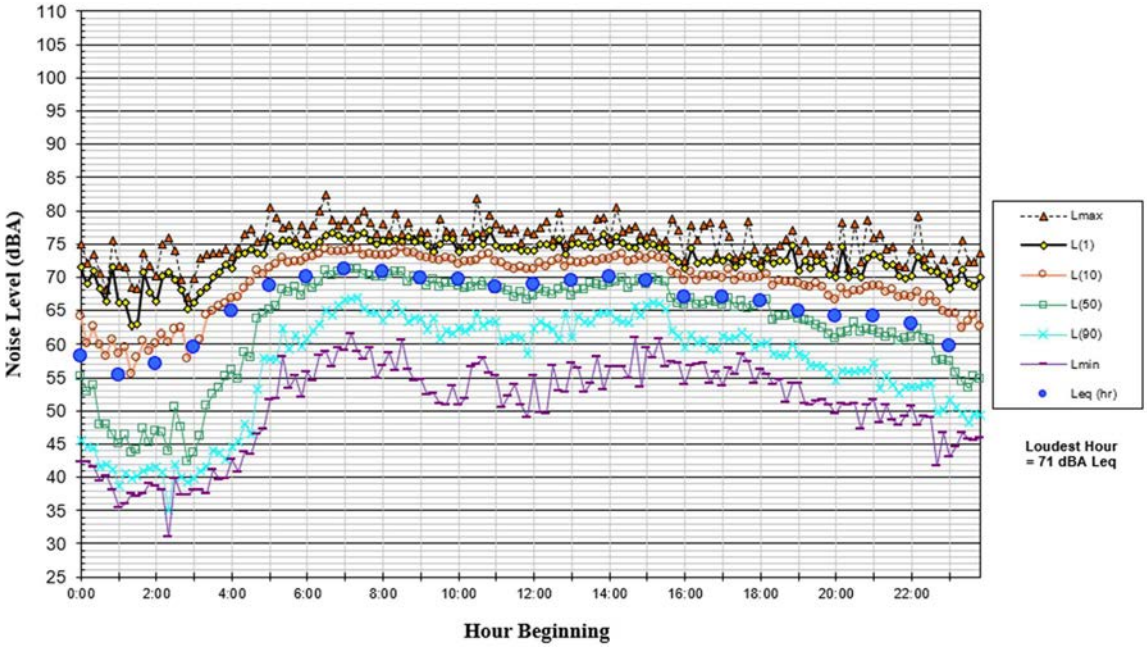


Figure G-3. Daily Noise Trends at LT-1, Friday March 3, 2023

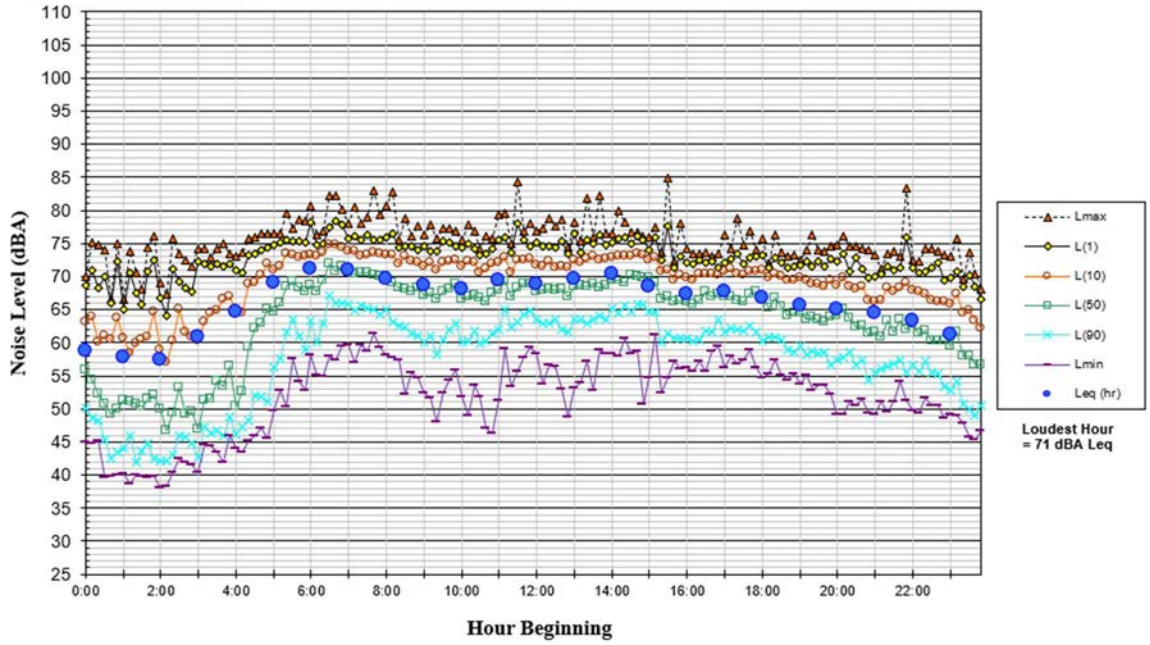


Figure G-4. Daily Noise Trends at LT-1, Saturday March 4, 2023

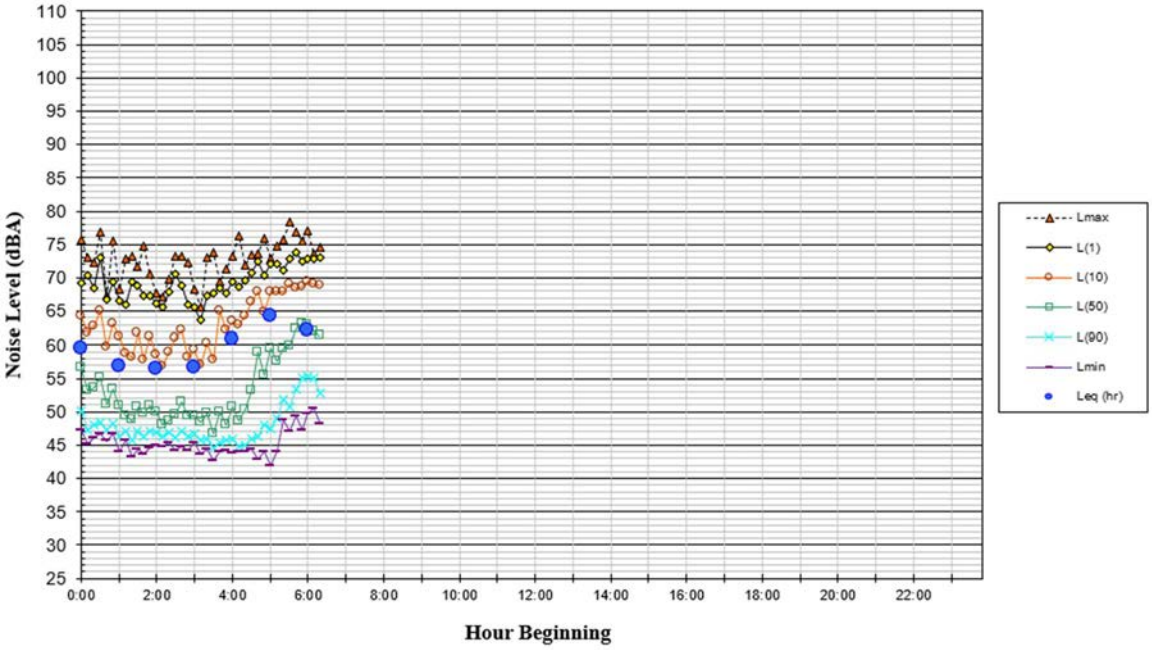


Figure G-5. Daily Noise Trends at LT-2, Wedneday March 1, 2023

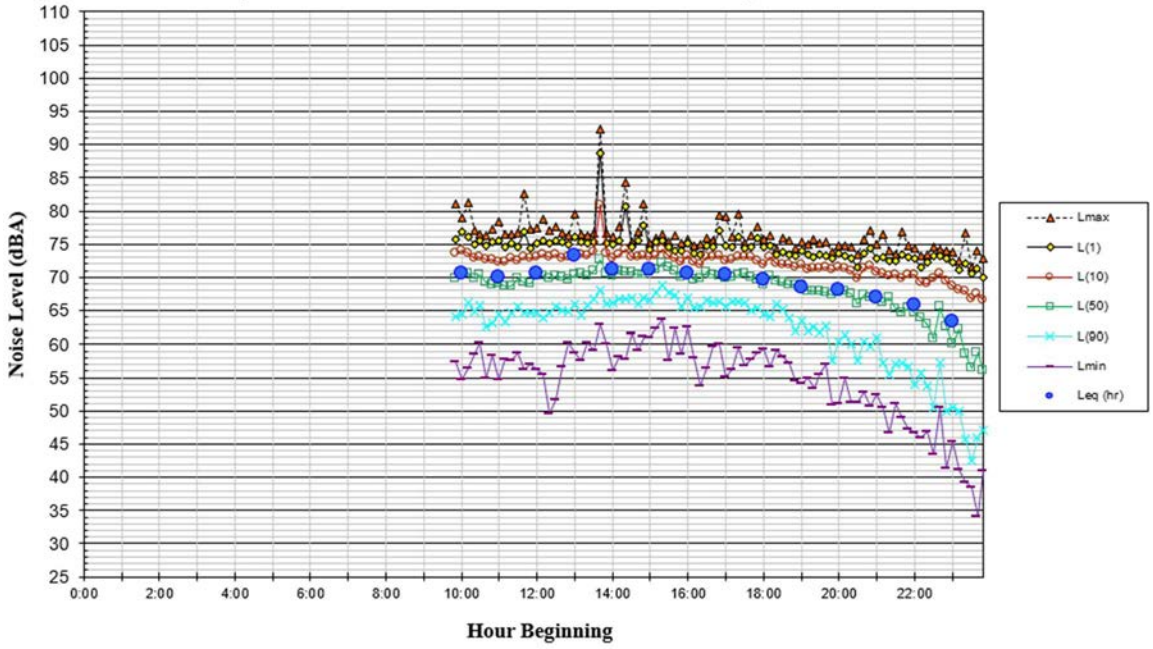


Figure G-6. Daily Noise Trends at LT-2, Thursday March 2, 2023

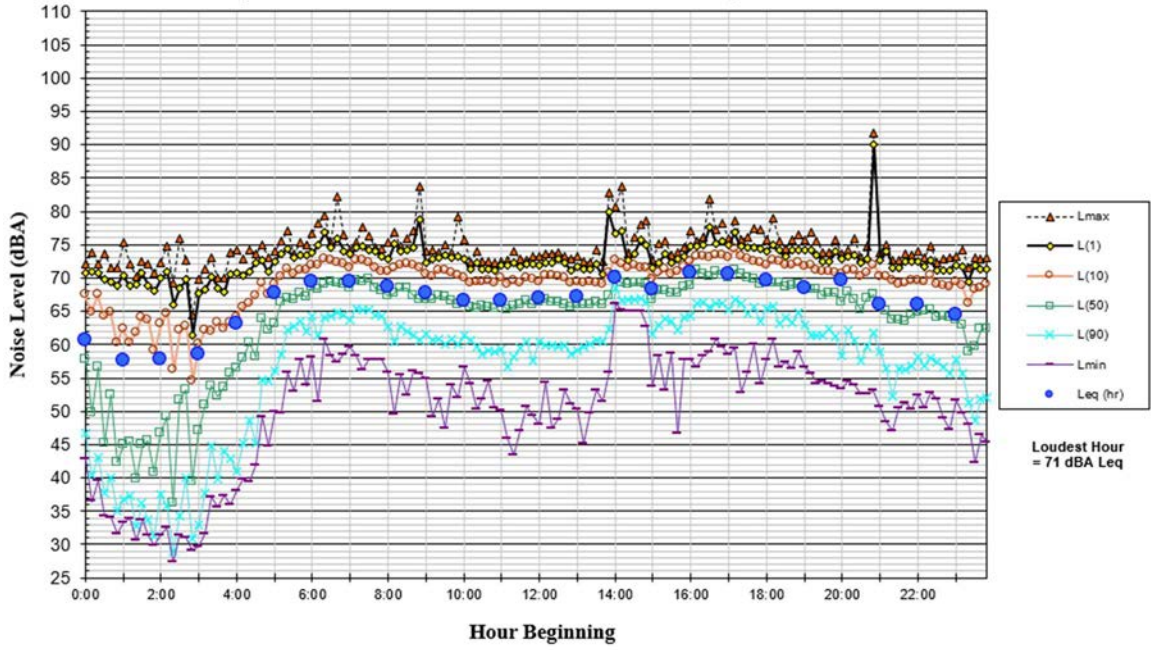


Figure G-7. Daily Noise Trends at LT-2, Friday March 3, 2023

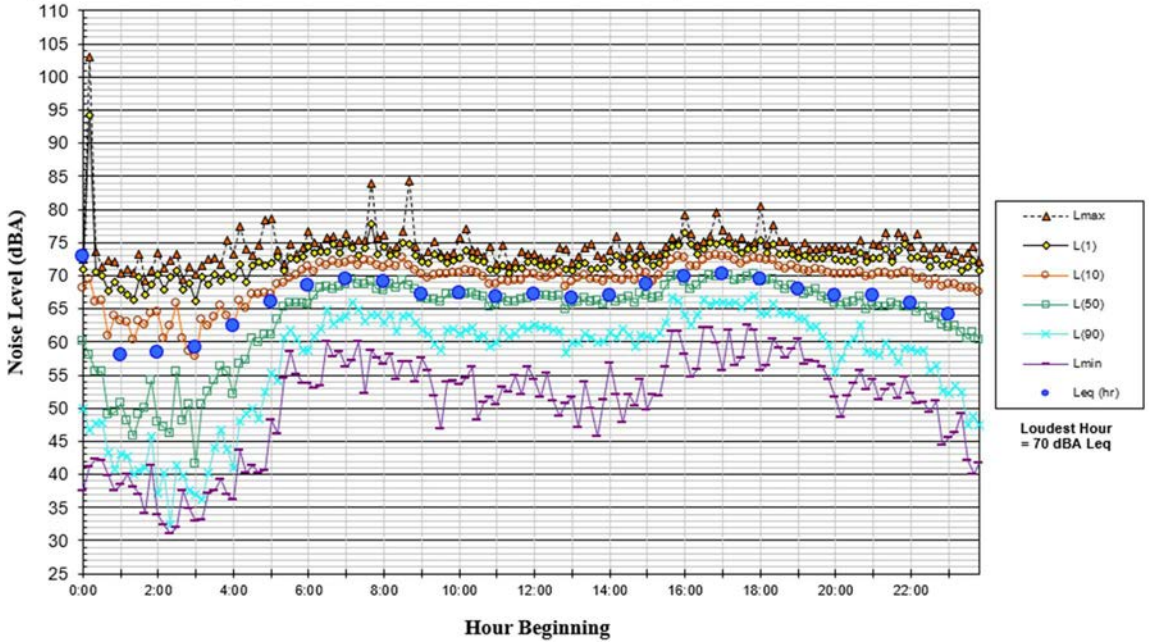
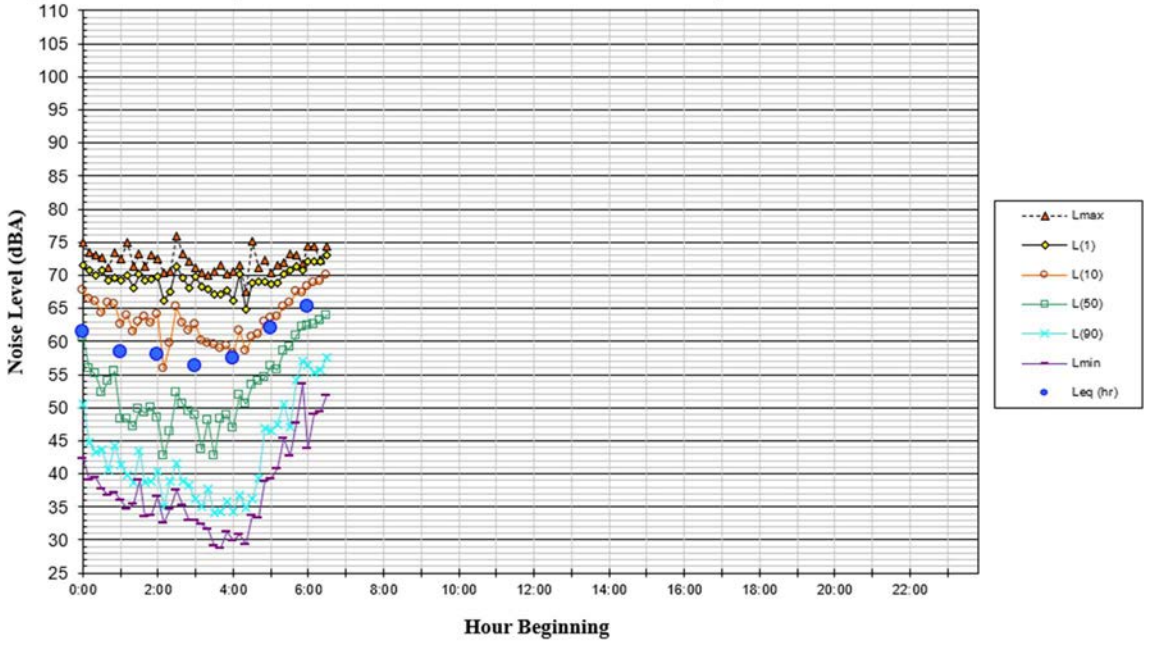


Figure G-8. Daily Noise Trends at LT-2, Saturday March 4, 2023



Appendix H Traffic Volumes Used for TNM Model Validation

Table H-1. SR 37 Traffic Volumes Used for TNM Model Validation

Date	Start Time	Eastbound					Westbound				
		A	M	H	B	X	A	M	H	B	X
3/2/2023	10:00 a.m.	1170	24	24	0	0	1914	54	36	0	0
	10:10 a.m.	1134	24	12	0	0	1920	36	30	0	0
	10:20 a.m.	966	96	30	0	6	1776	114	60	0	6
	10:50 a.m.	1290	42	36	0	0	2178	72	60	6	0
	11:00 a.m.	1020	18	6	0	0	1986	42	36	0	0
	11:20 a.m.	924	30	6	0	0	1818	42	42	0	0
	11:30 a.m.	912	132	6	0	0	1980	162	30	0	0
	11:50 a.m.	918	120	48	0	6	1872	138	66	0	6
	12:00 p.m.	798	144	24	0	0	1800	192	78	0	6
	12:20 p.m.	924	24	36	0	0	1986	42	60	0	0
	12:30 p.m.	828	6	30	0	18	1854	48	90	0	18
	12:40 p.m.	768	6	42	6	0	1740	18	72	6	0

Appendix I RCNM Output File

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/27/2023
Case Description: Bridge-Grubbing/Land Clearning

**** Receptor #1 ****

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
50 feet residential	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Tractor	No	40	84.0	50.0		0.0
Excavator	No	40	80.7	50.0		0.0
Generator (<25KVA, VMS signs)	No	50	72.8	50.0		0.0

Results

	Noise Limits (dBA)			Noise Limit Exceedance (dBA)		
Calculated (dBA)	Day	Evening	Night	Day	Evening	Night

Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator (<25KVA, VMS signs)	72.8	69.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total 84.0 82.0 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/27/2023
Case Description: Bridge-Grading/Excavation/Foundation

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
50 feet residential	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Crane	No	16		80.6	50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Grader	No	40	85.0		50.0	0.0
Roller	No	20		80.0	50.0	0.0
Front End Loader	No	40		79.1	50.0	0.0
Scraper	No	40		83.6	50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Drill Rig Truck	No	20		79.1	50.0	0.0
Concrete Mixer Truck	No	40		78.8	50.0	0.0
Generator (<25KVA, VMS signs)	No	50		72.8	50.0	0.0

Results

	Noise Limits (dBA)			Noise Limit Exceedance (dBA)		
Calculated (dBA)	Day	Evening	Night	Day	Evening	Night
Equipment	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq

| | | |

Compressor (air)	No	40	77.7	50.0	0.0	
Generator	No	50	80.6	50.0	0.0	
Grader	No	40	85.0	50.0	0.0	
Compactor (ground)	No	20	83.2	50.0	0.0	
Pumps	No	50	80.9	50.0	0.0	
Pumps	No	50	80.9	50.0	0.0	
Front End Loader	No	40	79.1	50.0	0.0	
Front End Loader	No	40	79.1	50.0	0.0	
Scraper	No	40	83.6	50.0	0.0	
Generator (<25KVA, VMS signs)	No	50	72.8	50.0	0.0	
Tractor	No	40	84.0	50.0	0.0	

Results

	Noise Limits (dBA)			Noise Limit Exceedance (dBA)		
Calculated (dBA)	Day	Evening	Night	Day	Evening	Night

Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pumps	80.9	77.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pumps	80.9	77.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Generator (<25KVA, VMS signs) 72.8 69.8 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Tractor 84.0 80.0 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Total 85.0 88.1 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/27/2023
Case Description: Bridge-Grubbing/Land Clearning

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
50 feet residential	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Pavement Scarafier	No	20	89.5	50.0	0.0	
Paver	No	50	77.2	50.0	0.0	
Roller	No	20	80.0	50.0	0.0	
Generator (<25KVA, VMS signs)	No	50	72.8	50.0	0.0	
Tractor	No	40	84.0	50.0	0.0	

Results

	Noise Limits (dBA)			Noise Limit Exceedance (dBA)		
Calculated (dBA)	Day	Evening	Night	Day	Evening	Night
Equipment	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq

Pavement Scarafier 89.5 82.5 N/A N/A N/A N/A N/A N/A
N/A N/A N/A N/A N/A N/A
Paver 77.2 74.2 N/A N/A N/A N/A N/A N/A N/A
N/A N/A N/A N/A N/A
Roller 80.0 73.0 N/A N/A N/A N/A N/A N/A N/A
N/A N/A N/A N/A N/A
Generator (<25KVA, VMS signs) 72.8 69.8 N/A N/A N/A N/A N/A
N/A N/A N/A N/A N/A N/A N/A
Tractor 84.0 80.0 N/A N/A N/A N/A N/A N/A N/A
N/A N/A N/A N/A N/A
Total 89.5 85.2 N/A N/A N/A N/A N/A N/A N/A
N/A N/A N/A N/A N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/27/2023
Case Description: Bridge- Impact Pile Driving

**** Receptor #1 ****

Baselines (dBA)
Description Land Use Daytime Evening Night
--- --- --- --- ---
50 foot residential Residential 65.0 55.0 50.0

Equipment

Spec Actual Receptor Estimated
Impact Usage Lmax Lmax Distance Shielding
Description Device (%) (dBA) (dBA) (feet) (dBA)
--- --- --- --- --- --- ---
Impact Pile Driver Yes 20 101.3 50.0 0.0

Results

Noise Limits (dBA) Noise Limit Exceedance (dBA)
--- ---
Calculated (dBA) Day Evening Night Day Evening Night
--- --- --- --- --- --- ---
Equipment Lmax Leq Lmax Leq Lmax Leq Lmax Leq Lmax Leq Lmax Leq Lmax Leq

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