



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105**

May 31, 2011

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2015 East Shields Avenue, Suite 100
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Subject: Draft Tier 1 Environmental Impact Statement for the State Route 180 Westside
Expressway Route Adoption Study (CEQ #20110085)

Dear Mr. Norris:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document. Our enclosed detailed comments were prepared pursuant to the NEPA, Council on Environmental Quality regulations (40 CFR Parts 1500-1508) and our NEPA review authority under Section 309 of the Clean Air Act. The State of California has assumed responsibilities under NEPA for this project pursuant to the Memorandum of Understanding between the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program.

As described in the Draft Programmatic (Tier 1) Environmental Impact Statement (PEIS), this project aims to identify a corridor for the future expansion and/or relocation of State Route (SR) 180 in order to provide a reliable east-west connection between Fresno and Interstate 5. Currently, SR 180 terminates in the city of Mendota, approximately 18 miles from Interstate 5. Three alternatives are evaluated, including expansion of existing SR 180 (Alternative 1) and relocation of SR 180 to the north (Alternatives 2 and 3). The Draft PEIS does not identify a preferred alternative.

Based on our review of the Draft PEIS, we have rated the document and corridor alternatives as Environmental Objections-Insufficient Information (EO-2; see enclosed Summary of EPA Rating Definitions). The basis for our rating is: (1) extensive impacts to aquatic resources; (2) insufficient analysis of indirect and cumulative impacts of the expressway to resources of concern; and (3) impacts to agriculture as a result of farmland fragmentation. The Draft PEIS appears to exclude from analysis the indirect impacts of building a new expressway through areas that previously had little or no access, nor does it discuss opportunities for discouraging induced development along these new corridors.

We appreciate the opportunity to discuss our concerns via teleconference with Caltrans and the U.S. Army Corps of Engineers on May 5, 2011, and we look forward to resolving these issues

during future coordination on the SR 180 Westside Expressway project, including a site visit and resource agency coordination meeting scheduled for this June. We look forward to jointly visiting potential impact areas along the future corridors and exploring opportunities for avoidance, minimization, and mitigation of impacts.

Given the extent of potential impacts to aquatic resources (54 to 84 acres), we strongly recommend Caltrans reconsider the decision not to coordinate on this project pursuant to the NEPA/Clean Water Act Section 404 Integration Process MOU (NEPA/404 MOU, attached). Section VI of the NEPA 404/MOU, signed by Caltrans, specifically outlines the process for NEPA/404 integration on Tier 1 evaluations. We have twice recommended that this project work through the NEPA/404 MOU process (EPA letters of July 11, 2008, and November 18, 2009), and request that Caltrans convene a meeting of the NEPA/404 MOU signatory agencies to initiate this process for the remainder of the project timeline. We recommend that Caltrans initiate the next steps in the NEPA/404 MOU process, as modified for Tier 1 projects: 1) select the corridor(s) most likely to contain the least environmentally damaging practicable alternative (LEDPA), the only alternative that can be permitted under CWA Section 404, and 2) determine the general mitigation framework for the project. We offer our assistance with these NEPA/404 MOU checkpoints both now (during the programmatic Tier 1 EIS process) and during future project level environmental analyses.

We appreciate the opportunity to review this Draft PEIS. When the Final PEIS is released for public review, please send one hard copy and one copy on disc to the address above (mail code: CED-2). If you have any questions, please contact me at 415-972-3843 or Clifton Meek, the lead reviewer for this project. Clifton can be reached at 415-972-3370 or meek.clifton@epa.gov.

Sincerely,

/s/

Enrique Manzanilla, Director
Communities and Ecosystems Division

Enclosures: Summary of EPA Rating Definitions
EPA's Detailed Comments
NEPA/Clean Water Act Section 404 Integration Process MOU (2006)

Cc via email: Bob Pavlik, California Department of Transportation
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Impacts to Aquatic Resources

The goal for this Tier 1 Programmatic Environmental Impact Statement (PEIS) is to identify a corridor for future right-of-way preservation. The Tier 2 Project-level EIS will identify specific alignments for the State Route 180 Westside Expressway (Expressway) within the corridor(s) identified for further analysis in Tier 1. After Tier 2 project approval, but before project construction, the project proponent will need to obtain a Clean Water Act (CWA) Section 404 individual permit from the Corps.

The CWA Section 404(b)(1) Guidelines (Guidelines) are binding, substantive regulations that restrict CWA Section 404 permits to the "least environmentally damaging practicable alternative (LEDPA)." The Corps cannot grant a CWA Section 404 permit to a preferred project-level alternative that is not the LEDPA; therefore, it is critical that the LEDPA, and the route most likely to contain the LEDPA, is not prematurely eliminated during the Tier 1 NEPA review.

Given the proximity to important aquatic and biological resources, including Fresno Slough, the San Joaquin River, Mendota Pool, the Mendota Wildlife Area, and the Kerman and Alkali Sink Ecological Reserves, future Tier 2 project-level projects are likely to involve the discharge of dredged or fill material into jurisdictional wetlands and waterways. Section 3.3.2 of the Draft PEIS reviews impacts to waters for each Alternative corridor, estimating the acreage of potential impacts to wetlands and waters in the range of 54 to 84 acres. While we understand that actual impacts at the project level will likely be less than these estimates, the Draft EIS does not provide commitments regarding specific potential avoidance and minimization techniques that could be employed to reduce the acreage of impacts within each corridor. Furthermore, the Draft PEIS does not sufficiently describe potential activities proposed relevant to these resources and what functions would potentially be affected with each alternative. As such, the Draft PEIS does not present enough information to ensure that a corridor chosen at the Tier 1 phase would ultimately contain the LEDPA.

Recommendations:

- The Final PEIS should disclose for each Alternative:
 - (1) name of each crossing,
 - (2) aquatic resource type (concrete channel, open water, riparian habitat),
 - (3) type of activity proposed (viaduct, box culvert, arched culvert),
 - (4) acreage of waters potentially impacted,
 - (5) the effect to aquatic resource function from the proposed activity, and
 - (6) potential avoidance/minimization measures that could be employed at project level.

These should be summarized both in the text and in a table format for reader clarity.

- Include in the Final PEIS a description of which floodplain areas would likely be spanned and which would be avoided through elevation of roadway structures. Include a map of spanned/elevated areas, an estimate of spanned/elevated road distances, and a quantification of resource impacts that could be avoided by a viaduct or other spanning-type structure.
- Include in the Final PEIS a commitment to use, for future project-level analyses, newer technology culverts and less damaging culverts such as large bottomless or arched culverts and a commitment to span vernal pool areas and major waterway crossings. While newer techniques to reduce impacts may be available in the future when the projects are ultimately implemented, it is appropriate to commit to best available technologies at this time (along with an estimate of the resources that can be avoided by integrating these techniques).

San Joaquin River Restoration

Given its proximity to the San Joaquin River and Mendota pool, EPA is concerned about the potential direct and indirect impacts Alternative 3 would have on the ongoing restoration efforts along this reach of the San Joaquin River. Restoration efforts include integration and restoration of floodplain habitat that appears to be within the Alternative 3 corridor. Other aspects of the restoration could include modifications of the river channel, setting back of levees, and relocation of existing infrastructure, all of which would potentially be impacted by a future project within the Alternative 3 corridor.

Recommendations:

- The Final PEIS should discuss potential project impacts on restoration efforts along the San Joaquin River and detail any coordination with the Bureau of Reclamation and Department of Water Resources regarding future alignments in proximity to the River. The Final PEIS should include a specific commitment to avoid any actions that would negatively affect long-term restoration of the San Joaquin River. Information on restoration activities can be found at <http://www.restoresjr.net>.

Integration of Clean Water Act and National Environmental Policy Act Requirements

The Draft PEIS estimates that the proposed project will affect 54 to 84 acres of aquatic resources within the project corridor, as assessed at the programmatic scale. It is highly likely that actual impacts to waters of the United States from a project built within any of the corridors assessed will be at least 5 acres. Therefore, this project meets the criteria for coordination under the April 2006 *National Environmental Policy Act and Clean Water Action Section 404 Integration Process for Federal Aid Surface Transportation Projects in California Memorandum of Understanding* (NEPA/404 MOU), as modified for Tier 1 projects. The NEPA/404 MOU includes specific agreement points to assist in developing the EIS and involves active participation in meetings and document reviews and provides modifications to approach a tiered project. The goal of the modified NEPA/404 MOU

process is to ensure that Tier 1 decisions reflect careful consideration of the Guidelines. The Guidelines should be addressed as early as possible in the Tier 1 NEPA evaluation to eliminate the need to revisit decisions at the Tier 2 project-level that might otherwise conflict with CWA 404 permit requirements.

In our comments on the Notice of Intent (July 11, 2008), and again in our comments on Purpose & Need and Range of Alternatives (November 18, 2009), EPA requested that Caltrans initiate the NEPA/404 MOU integration process so that agreement points could be addressed as early as possible in the EIS process. Despite these requests, Caltrans decided not to initiate this process or review project impacts with the NEPA/404 MOU signatory agencies. EPA requests that Caltrans convene a meeting of the NEPA/404 MOU signatory agencies at this time to initiate the integration process for use through the remainder of the project timeline. The next steps in the process are the following: 1) select the corridor(s) most likely to contain the “least environmentally damaging practicable alternative (LEDPA)” and 2) determine the general mitigation framework for the project.

Recommendations:

- Convene a meeting of the EPA, U.S. Army Corps of Engineers, and other resource agencies at this time to initiate the integration process for use through the remainder of the project timeline.
- Engage all resource agencies in the identification of the route most likely to contain the LEDPA and general mitigation framework prior to publication of the Final PEIS.

Corridor(s) Most Likely to Contain the LEDPA

The Guidelines call for an analysis that compares the total impact – direct and secondary (indirect) – for each alternative. However, the Draft PEIS only includes direct impacts in the comparison of alternatives (e.g., Table 3.30). It is important to include indirect impacts in the alternatives analysis, because an alternative with fewer direct impacts may not necessarily be the LEDPA if its indirect impacts (including growth-related impacts) have greater environmental significance.

Recommendations:

- In order to be consistent with the Guidelines, the alternatives analysis should compare the alternatives using both direct and indirect impacts to aquatic resources. Specific recommendations are included below under **Indirect and Induced Growth Impacts**.

In addition, when evaluating differences between each corridor, it is important to consider resource avoidance options (e.g., elevated structures, bottomless culverts) that are available *within* each corridor, so as to not prematurely eliminate a potential LEDPA alignment.

Recommendations:

- Include planning-level avoidance commitments in the Final PEIS for each alternative that will be considered in the LEDPA assessment, such as arched (bottomless) culverts and elevated roadway structures or spans.

Finally, given the magnitude of potential resource impacts, particularly to aquatic resources and special status species, we recommend that Caltrans prepare a robust cumulative impacts analysis, appropriate for this programmatic scale, that will 1) determine the resource study area and baseline condition of each resource of concern, 2) assess reasonably foreseeable changes to environmental resources over time, and 3) identify potential landscape-level mitigation opportunities.

Recommendations:

- Prepare a thorough cumulative impact analysis to sensitive resources affected by the project. Specific recommendations are included below under **Cumulative Impacts Analysis**.

Mitigation Framework

In the Final PEIS, Caltrans should present the framework it will use to prepare the Tier 2 project-level detailed mitigation plan. The Tier 1 mitigation framework should describe the processes that Caltrans will use, and commitments it will make, to maximize opportunities for successful mitigation of environmental impacts associated with the construction and operation of the Expressway, including long-term mitigation and management of resources.

Recommendations:

Identify the following in the Final PEIS mitigation framework:

- Mitigation options available for creation, restoration, enhancement and preservation (e.g., land dedication, acquisition of conservation easements, mitigation banks).
- Potential mitigation sites.
- Opportunities to integrate with existing or planned conservation efforts (specifically address mitigation and/or expansion opportunities for the Kerman Ecological Reserve, Alkali Sink Reserve, and Mendota Wildlife Area).
- Potential for improvements to existing infrastructure to enhance aquatic system and wildlife use (e.g. spanning the Kerman Ecological Reserve to enhance wildlife movement/genetic exchange between north and south side of existing SR 180).
- Habitat types and approximate acres of impact. Special status species and critical habitat impacted. Discussion of any buffer areas and habitat linkages that will be adversely affected and replaced.
- Institutions and instruments (e.g., established maintenance endowments) for long-term management of mitigation sites.

Indirect and Induced Growth Impacts

The proposed State Route 180 Westside Expressway expansion/relocation will create a major new freeway in a rural area with abundant aquatic and biological resources. The Draft PEIS recognizes that the proposed project will have significant direct impacts on these resources, but makes an assumption (based upon current growth projections) that the project will not have significant growth-inducing impacts. However, the Draft PEIS also states that one of the major factors preventing unplanned growth is underdeveloped infrastructure. By providing new infrastructure, better transportation conditions, and easier access to currently undeveloped areas, the proposed project will remove several barriers to growth in the area. Further, the project will likely increase growth pressure on any areas near Expressway intersections that are not currently planned for development. As such, unplanned growth associated with the Expressway will likely have significant adverse impacts to sensitive aquatic and biological resources, as well as farmland. EPA is concerned that the Draft PEIS does not contain an estimate, by alternative, of indirect impacts to these resources, and does not sufficiently describe and commit to measures that avoid and minimize growth-inducing impacts (e.g. limiting the number of intersections, increased distances between intersections, etc).

The Draft PEIS also states that no significant distinction exists among corridor alternatives regarding potential growth impacts (Section 3.1.2) but does not provide data to support this conclusion. The potential growth-inducing impacts to resources from the alternatives could vary significantly, depending on the location of the corridor, the intersections, and their proximity to existing development. The northerly alternatives (Alternatives 2 and 3) provide access to largely undeveloped areas that currently have little or no planned growth. Alternative 1 (expansion of existing SR 180) provides additional access closer to existing and planned development. Corridor alternatives and intersection locations that direct growth along existing SR 180 rather than to the north would likely have fewer growth-related impacts to environmental resources and result in less farmland fragmentation.¹

Methodology and Scope of Analysis of Indirect Impacts

EPA believes that a more detailed qualitative analysis of indirect impacts to resources of concern should be provided in the Final PEIS. Caltrans has guidance, developed in concert with EPA and FHWA, regarding growth-inducing indirect impacts of projects. We recommend using this guidance to analyze the potential growth-inducing impacts of the project and to compare alternatives in the Final PEIS.

¹ For information on how the location of a transportation facility can influence and direct growth, see Chapter 5, Guidance for Preparers of Growth-related, Indirect Impact Analyses; National Cooperative Highway Research Program (NCHRP) Report 423A, Land Use Impacts of Transportation: A Guidebook; and NCHRP Report 466, Desk Reference for Estimating the Indirect Effect of Proposed Transportation Projects.

Recommendations:

- Prepare a robust qualitative analysis of indirect impacts -- including growth-related impacts to environmental resources and farmland fragmentation – appropriate for assessment at the programmatic scale for each alternative, and provide supporting data, assumptions, and conclusions.
- Use the Caltrans' Growth Related Indirect Impacts Guidance to analyze the potential growth-inducing impacts of the project and to compare alternatives.²
- Include more detailed information on intersection locations and analyze both the direct and indirect impacts of proposed intersections.
- Commit to measures in the Final PEIS that avoid and minimize growth-inducing impacts such as limiting the number of intersections and increasing the distances between intersections.

Farmland Fragmentation

The Draft PEIS does not adequately address adverse impacts associated with farmland fragmentation from proposed alternatives and/or growth adjacent to the Expressway. All proposed Expressway alternatives move through a large landscape of prime and Williamson Act farmland. While the Draft PEIS states that a new expressway could have substantial indirect effects on access and viability of farmland, it makes no attempt to compare the indirect effects by alternative. Alternative 1, for example, would primarily run along existing roadway alignments, and thus would generally not cause further division of agricultural parcels that are already bisected by a roadway. Alternatives 2 and 3 would create entirely new roadway corridors, resulting in potential segmentation and isolation of agricultural lands, a common cause of indirect conversion of farmland. Growth-inducement could lead to further losses of farmland in the area. This is particularly concerning because the Fresno County General Plan lists long-term conservation of productive agricultural lands among its top priorities. As stated in the Draft PEIS, the county of Fresno has been ranked first among all California counties in farm and ranch production.

Recommendations:

- Include in the Final PEIS an assessment and comparison of impacts to potential farmland, including the number of parcels estimated to be bisected by each alternative corridor and resulting acreage of fragmented segments.

² Caltrans' Growth Related Indirect Impacts Guidance is available at http://www.dot.ca.gov/ser/Growth-related_IndirectImpactAnalysis/gri_guidance.htm

Cumulative Impacts Analysis

The Draft PEIS includes a brief qualitative discussion of cumulative impacts for each resource area. Given the history of habitat and farmland loss in Fresno County, we strongly recommend a more comprehensive analysis of cumulative impacts to resources of concern. We recommend using the Caltrans guidance on Cumulative Impact Analysis, co-developed by FHWA and U.S. EPA Region 9, as a framework.

The Council on Environmental Quality's regulations implementing NEPA define cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." (40 CFR 1508.7)

For example, aquatic resources in Fresno County have been cumulatively affected by past actions and are likely to be adversely impacted by future development, including the proposed Expressway. Historical impacts on aquatic ecosystems include California's rapid population growth and agricultural expansion, resulting in losses of approximately 95% of the State's wetlands and up to 85% of the vernal pools. Holland estimated that more than 32,000 acres of vernal pool habitat had been lost in the San Joaquin Valley vernal pool region alone from the late 1980's until 1997. Through section 7 of the Endangered Species Act, the Sacramento Fish and Wildlife Office has reviewed projects converting more than 15,000 acres of vernal pool habitats in this region since 1994. The majority of the remaining vernal pool habitat is located on private lands and vulnerable to permanent removal. As such, the loss of any additional acreage of vernal pools, regardless of size, may be a significant cumulative impact to this resource.

We recommend a robust cumulative analysis at Tier 1 because it allows Caltrans and other stakeholders to identify early opportunities to avoid and minimize cumulative impacts to resources, and to identify landscape-level opportunities able to protect or restore environmental resources that may be cumulatively at risk.

Recommendations:

- Include a more robust cumulative impact analysis in the Final PEIS.³
- Identify potential landscape-level opportunities to avoid, minimize, and mitigate cumulative impacts to resources of concern, including those that are outside of Caltrans's authority. Specifically, in the Final PEIS, provide resource avoidance guidance for the preparation of the Tier 2 environmental documentation and identify measures that can be accomplished early, before the Tier 2 environmental review process is required.

³ The Caltrans Cumulative Impact Guidance is a useful reference and is available at http://www.dot.ca.gov/ser/cumulative_guidance/approach.htm