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

November 1, 2010

Sandra Lavender
Acting Chief Environmental Analysis, Branch A
California Department of Transportation District 11
4050 Taylor Street, MS 242
San Diego, CA 92110

Subject: EPA Comments on the State Route 76 South Mission Road to Interstate 15 Highway Improvement Project (CEQ# 20100347)

Dear Ms. Lavender:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Report/Environmental Impact Statement (DEIS) for the State Route 76 South Mission Road to Interstate 15 Highway Improvement Project (SR76 Project). Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. We note that NEPA compliance for this project has been delegated from the Federal Highway Administration (FHWA) to California Department of Transportation (Caltrans) pursuant to the *Memorandum of Understanding Between the FHWA and Caltrans Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program (June 2007).*

EPA is a "Participating Agency" (as defined in 23 USC 139 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)) for this project. EPA has also coordinated with the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and other resource and regulatory agencies to provide early agency input pursuant to the NEPA/Clean Water Act Section 404 Integration Process Memorandum of Understanding (NEPA/404 MOU). EPA appreciates the efforts of Caltrans in including EPA in DEIS development through this forum and commends Caltrans for their incorporation of wildlife crossings throughout the corridor and for thoughtful proposed mitigation.

While we are supportive of the extensive coordination between our agencies, following our review of the DEIS, EPA has rated the document as *Environmental Concerns – Insufficient Information* (EC-2). This rating is due to the need for an expanded indirect effects analysis for waters of the U.S. for each of the alternatives and to further identify avoidance and minimization opportunities for the Existing Alignment Alternative.

The enclosure further describes the above-listed concerns and the additional environmental concerns that EPA identified following our review of the DEIS. A "Summary of Rating Definitions" for further details on EPA's rating system is also provided. We appreciate the opportunity to review the DEIS and believe that continued coordination through the NEPA/404 forum will ensure that environmental issues are addressed as early as possible.

We look forward to continuing our coordination with Caltrans as a participating agency and are available to discuss the issues addressed in this letter during upcoming interagency meetings. If you have any questions, please contact Susan Sturges (415-947-4188) or Elizabeth Goldmann (415-972-3398), lead reviewers for this project.

Sincerely,

/s/ Chris Ganson for

Connell Dunning, Transportation Team Supervisor
Environmental Review Office
Communities and Ecosystems Division

Enclosures: EPA's Detailed Comments
Summary of Rating Definitions

CC: Stephanie Hall, U.S. Army Corps of Engineers
Sally Brown, Fish and Wildlife Service
John Chisholm, Caltrans District 11

Waters of the United States

Indirect Impacts

Table 3.21-2 identifies permanent and temporary impacts to jurisdictional waters (federal and state); however this table does not identify indirect impacts to these resources. Although the Draft Environmental Impact Statement (DEIS) makes some brief, general statements of possible indirect effects of the project to jurisdictional wetlands and other waters, it does not effectively evaluate or quantify indirect impacts to waters of the U.S. from each of the alternatives. These impacts would include: (1) increases in impervious surfaces and the corresponding increases in the volume and velocity of polluted stormwater; (2) hydrologic and sediment transportation effects influenced by placement of new permanent fill, structures, and crossings (3) vegetative changes and disturbance to wetlands habitat which results in a reduction in the functional capacity of adjacent wetlands; (4) fragmentation of large, undeveloped, high functioning wetlands ecosystems; (5) the creation of noise, glare, and other similar human-related disturbances to aquatic resources; (6) shading of wetland habitat from roads and bridges; and (7) decreases in biodiversity and ecosystem stability. In addition, particularly when considering indirect effects from the Southern Alignment Alternative, the impacts associated with San Diego County's potential upgrade of the existing State Route (SR) 76 should be accounted for as a part of the indirect effects analysis.

Recommendations:

- Assess and report in the Final Environmental Impact Statement (FEIS) the changes in ecosystem functions as a result of the proposed project**.**
- Update Table 3.21-2 to identify what the estimated indirect impacts to jurisdictional waters will be. Include impacts associated with the County's potential update of Existing SR 76.
- Provide a description of the proposed mitigation to offset indirect impacts if the current description refers only to mitigation for direct impacts.

Avoidance and Minimization

EPA appreciates the efforts Caltrans has made to incorporate wildlife crossings and proposed, large, contiguous mitigation parcels along the San Luis Rey River. As the existing SR76 alignment flanks the San Luis Rey River, any proposed efforts to widen and realign within the existing corridor will encroach upon the river system. To the extent practicable, EPA recommends that Caltrans further avoid and minimize impacts to jurisdictional wetlands and other waters associated with fill and structures for the Existing Alignment Alternative. EPA is available to discuss what options are available to further avoid and minimize impacts from the Existing Alignment Alternative.

Recommendations:

- In the FEIS, identify any further opportunities to avoid and minimize impacts to waters of the U.S. from the Existing Alignment Alternative. If constraints exist that restrict the ability to reduce impacts to waters of the U.S. for segments of the alignment (e.g., archeological sites, property takings, grade limitations, etc…), EPA recommends the

FEIS include a discussion of the constraints that affect the ability to move segments of the proposed alignment away from the river.

- We encourage you to work with appropriate regulatory agencies prior to publishing the FEIS to identify and discuss opportunities for further avoidance and minimization of impacts.

Transnet Net Benefit

Part of the project's purpose and need is to implement aspects of "net benefit" as required by the 2004 TransNet Sales Tax Extension Ordinance. The Transnet Ordinance indicates that "direct and indirect impacts to sensitive plant and animal populations, and to the function of the wildlife corridors, should be mitigated in order to produce an on-site 'net benefit' to species and to the movement of wildlife." (p. 1-4). It's unclear to EPA how the Southern Alignment Alternative meets the intent of an on-site 'net benefit' to species and the movement of wildlife since the Southern Alignment Alternative would create new potential barriers and new crossings of the San Luis Rey River that do not currently exist. EPA recommends further discussion of how the Southern Alignment Alternative does or does not meet the on-site 'net benefit' requirements of Transnet in the FEIS.

Air Quality Impacts

Mobile Source Air Toxics (MSAT)

EPA disagrees with the claim in the DEIS on page 3-204 that "…available technical tools do not enable us to predict the project-specific health impacts of the emission changes associated with implementation of the proposed project." Tools and models are available that EPA (as well as other agencies) routinely use effectively. Both EPA and California Office of Environmental Health Hazard Assessment (OEHHA) have long-standing experience and published, peer-reviewed guidance for evaluating long-term health effects, including cancer risk. The concerns raised about estimating exposure over a 70-year lifetime have been addressed extensively by our agencies. EPA has published an Air Toxics Risk Assessment Reference Library (http://www.epa.gov/ttn/fera/risk_atra_main.html) that addresses the precise shortcomings raised in the MSAT analysis for this project – namely how to develop appropriate exposure scenarios in a risk assessment. Similarly, California OEHHA has hot spot risk assessment guidance published in support of California's Air Toxics "Hot Spots" Information and Assessment Act of 1987 (a.k.a. AB2588, http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf). While we agree with the statement in the DEIS that there are always uncertainties associated with such an analysis, for this project most uncertainties would be consistent across alternatives, and thus such an analysis would still be sufficient for distinguishing between the impacts among scenarios and informing mitigation.

EPA recommends striking this and related statements regarding technical shortcomings and uncertain science. The March 2007 report entitled "Analyzing, Documenting, and Communicating the Impacts of Mobile Source Air Toxic Emissions in the NEPA Process" conducted for the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on the Environment and funded by the Transportation Research Board (http://www.trb.org/NotesDocs/25-25(18)_FR.pdf) discusses available methodologies and tools. Procedures for toxicity-weighting, which EPA has found to be especially useful for the

targeting of mitigation, are described in EPA's Air Toxics Risk Assessment Reference Library (Volume 3, Appendix B, beginning on page B-4, http://www.epa.gov/ttn/fera/risk_atra_main.html).

The qualitative discussion of MSAT impacts (p. 3-206-207) is misleading because it does not discuss and consider localized impacts as "hot spots" along the proposed alignments and proximity to sensitive receptors. Any change in traffic density resulting from the Proposed Alternatives is likely to lead to both an increase in MSAT impacts at one location (such as road segments or interchanges with anticipated higher traffic volumes that currently do not exist that are associated with the realigned roadway) and a decrease in MSAT impacts at another location (such as areas along the existing SR76 alignment if the Southern Alignment is selected). The net result of this change is especially dependent on the relative locations of sensitive receptors and may be either unacceptable or beneficial, but cannot be determined without further analysis.

Recommendations:
EPA recommends the FEIS include an MSAT analysis that identifies project segments that have the closest sensitive receptors and project segments with the largest increase in vehicle miles traveled (VMT) in proximity to sensitive receptors. If significant impacts are identified, include appropriate mitigation or design changes to reduce potential operational impacts in the FEIS. EPA suggests that Caltrans District 11 follow, as applicable to this project, a similar strategy to assess MSATs currently in development for the Interstate 710 Project. Caltrans District 7 is heading in the right direction in developing the appropriate models and level of stakeholder involvement to assess MSATs.

Climate Change

EPA appreciates that the DEIS indicates that the climate change discussion in the California Environmental Quality Act (CEQA) chapter of the document can be used to inform the National Environmental Policy Act (NEPA) decision (p.3-208). The DEIS notes that the EPA and Federal Highway Administration (FHWA) have not issued specific Climate Change guidance or methodology to conduct project-level greenhouse gas analysis. However, this doesn't preclude a lead agency's responsibility to disclose potentially significant impacts under NEPA related to the project's contribution to climate change impacts or assess how climate change may potentially affect the project itself or influence the project's impacts to other resources. EPA recommends including the climate change analysis in the NEPA portion of the document or more definitively stating that the CEQA analysis for climate change is relevant for NEPA and informing the federal decisions.

Construction Mitigation Measures

The DEIS includes requirements to reduce emissions. In addition to these measures, EPA recommends the following additional measures to reduce the impacts resulting from future construction associated with this project.

Recommendations:
We recommend that the following additional and/or revised measures be incorporated into a Construction Mitigation Plan.

Fugitive Dust Source Controls:
- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:
- Minimize use, trips, and unnecessary idling of heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications. The California Air Resources Board has a number of mobile source anti-idling requirements which could be employed. See their website at: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.
- If practicable, lease new, clean equipment meeting the most stringent of applicable Federal[1] or State Standards[2]. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible[3]. Lacking availability of non-road construction equipment that meets Tier 4 engine standards, Caltrans should commit to using the best available emissions control technologies on all equipment.
- Utilize EPA-registered particulate traps and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site.

Administrative controls:
- Identify all commitments to reduce construction emissions and update the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.

[1] EPA's website for nonroad mobile sources is http://www.epa.gov/nonroad/.
[2] For ARB emissions standards, see: http://www.arb.ca.gov/msprog/offroad/offroad.htm.
[3] Diesel engines < 25 hp rated power started phasing in Tier 4 Model Years in 2008. Larger Tier 4 diesel engines will be phased in depending on the rated power (e.g., 25 hp - <75 hp: 2013; 75 hp - < 175 hp: 2012-2013; 175 hp - < 750 hp: 2011 - 2013; and ≥ 750 hp 2011- 2015).

- Identify sensitive receptors in the project area, such as children, elderly, and infirm, and specify the means by which you will minimize impacts to these populations. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.
- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.) Meet EPA diesel fuel requirements for off-road and on-highway, and, where appropriate, use alternative fuels such as natural gas and electric.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.