

US EPA ARCHIVE DOCUMENT



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX**

75 Hawthorne Street  
San Francisco, CA 94105

February 8, 2011

Mr. Cesar Perez  
Federal Highway Administration  
650 Capitol Mall, Suite 4-100  
Sacramento, CA 95814

**Subject:** EPA Comments on the Tier II Draft Environmental Impact Statement for a New State Route and Port of Entry in the East Otay Mesa Area, San Diego County, California (CEQ # 20100458)

Dear Mr. Perez:

The U.S. Environmental Protection Agency (EPA) has reviewed the Tier II Draft Environmental Impact Statement (DEIS) for a New State Route and Port of Entry (POE) in the East Otay Mesa Area, San Diego County, California San Diego County, California, pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The DEIS is a joint effort of the California Department of Transportation (Caltrans) and Federal Highway Administration (FHWA). The FHWA, in cooperation with Caltrans, and U.S. General Services Administration (GSA), published a Phase 1 EIS (PEIS) that identified a preferred corridor for State Route (SR) 11 and location for the Otay Mesa East POE. The intent of the Tier II EIS is to evaluate design and operational alternatives for SR 11, the POE, and a potential Commercial Vehicle Enforcement Facility (CVEF).

EPA is a "Participating Agency" (as defined in 23 USC 139 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)) and a "Cooperating Agency" (as defined in the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR 1508.5)) for this project. EPA previously commented on the PEIS, participated in several working group meetings, and provided comments following our review of the Notice of Intent (NOI) for the Tier II project (December 2008), and the project's Purpose and Need and Range of Alternatives (October 2009). EPA commends FHWA, Caltrans, and GSA for your efforts that considered cross-border wildlife linkages and habitat during the Phase 1 EIS.

Based on our review, we have rated the DEIS as Environmental Concerns - Insufficient Information (EC-2). A *Summary of EPA Ratings* is enclosed. EPA's concerns, as described in the enclosed detailed comments, focus on: (1) air quality impacts; (2) impacts to waters of the United States; (3) indirect growth impacts; and (4) recommendations regarding sustainability and green building.

Thank you for the opportunity to comment on the DEIS. When the FEIS is published for public review, please send two hard copies and, if available, two electronic copies to the address above (mail code: CED-2). If you have any questions, please contact Susan Sturges in EPA Region 9's Environmental Review Office (415-947-4188 or sturges.susan@epa.gov) and Dave Fege in Region 9's Border Office (619-235-4769 or fege.dave@epa.gov) for further coordination on this project.

Sincerely,

/s/

Kathleen M. Goforth, Manager  
Environmental Review Office (CED-2)

Attachments:

EPA's Detailed Comments

cc: Sandra Lavendar, Caltrans  
Bruce April, Caltrans  
Ramon Riesgo, General Services Administration  
Michelle Mattson, U.S. Army Corps of Engineers, San Diego Field Office  
Susan Wynn, U.S. Fish and Wildlife Service

## Air Quality

### *National Ambient Air Quality Standards (NAAQS)*

The project area is currently classified as a nonattainment area for the federal 8-hour ozone National Ambient Air Quality Standard (NAAQS) and a maintenance area for the 1-hour ozone NAAQS. The area is currently in attainment for the NAAQS for particulate matter under ten microns (PM<sub>10</sub>) and under 2.5 microns (PM<sub>2.5</sub>) in diameter and is not in attainment for the state PM<sub>10</sub> standard. Direct and indirect vehicular emissions are major components of PM<sub>2.5</sub>. While San Diego is not designated as nonattainment for the PM<sub>2.5</sub> NAAQS, levels are near the 35 ug/m<sup>3</sup> PM<sub>2.5</sub> NAAQS. Nationally, monitored air quality values for PM<sub>2.5</sub> have been trending upwards.

### *Recommendations:*

- Table 3.16-2 indicates that the NAAQS for 24-hour PM<sub>2.5</sub> is 65 ug/m<sup>3</sup>, however the standard is 35 ug/m<sup>3</sup>. Reflect the correct standard in the table and update the results accordingly.
- Federal Highway Administration (FHWA) should include a Construction Emissions Mitigation Plan in the Final Environmental Impact Statement (FEIS) and adopt this plan in the Record of Decision (ROD). In addition to all applicable local, State, or federal requirements and the measures identified in Section 3.16.4 of the Draft Environmental Impact Statement (DEIS), EPA recommends that the following mitigation measures be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of particulate matter (PM) and other toxics from construction-related activities:

### *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<sup>1</sup> or State Standards<sup>2</sup>. 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<sup>3</sup>. Lacking availability of non-road construction equipment that meets Tier 4 engine standards, FHWA and California Department of Transportation (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.
- 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.

*Southbound Inspections*

The proposed project provides space and conceptual facilities for southbound inspections and refers to these inspections as "future southbound inspections". Implementing regular southbound inspections would likely increase idling vehicle emissions as vehicles wait to cross the border. It is unclear if the air quality analysis in the DEIS takes into consideration queuing associated with U.S. and Mexico southbound inspections. The FEIS should provide the latest information available on southbound inspection requirements and clarify whether southbound vehicular inspections would occur regularly as part of the possible enhanced security operations at the Port of Entry (POE) facilities at the borders. Proposed southbound inspections to be

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<sup>1</sup> EPA's website for nonroad mobile sources is <http://www.epa.gov/nonroad/>.

<sup>2</sup> For ARB emissions standards, see: <http://www.arb.ca.gov/msprog/offroad/offroad.htm>.

<sup>3</sup> 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  $\geq$  750 hp 2011- 2015).

performed by the U.S. and Mexico and their impacts to local roadways, freeways, and air quality, should be analyzed in the FEIS as they relate to this project.

The air quality analysis of the project's operational impacts in the DEIS appears to primarily focus on the SR 11 component of the project. In addition to analysis of operational impacts to air quality at intersections near the POE facility, the FEIS should assess the main vehicle emissions resulting from the project from vehicles queued for inspection at the POE, rather than just those at nearby intersections, so the FEIS sufficiently assesses the overall impact. Use an area source model, such as AERMOD, to assess vehicle emissions from cars waiting to cross the border (including implementation of any increased/regular southbound inspections). Vehicle idling emissions from traffic queuing at intersections and traffic queuing to cross the border might also be modeled together as an area source. EPA is available to discuss these recommendations.

#### *Emissions from Idling Trucks*

Emissions from heavy duty diesel trucks include direct emissions of particulate matter, as well as precursors to particulate matter, such as sulfur oxides, volatile organic compounds (VOCs), and nitrogen oxides (NOx). VOCs and NOx are also precursors to ozone. San Diego County has a history of not meeting federal ozone standards. While air quality trends for the San Diego Air Basin for ozone have shown improvement, the area is expected to continue to violate the federal standard for several years, and if that standard is lowered, for longer. With the expected increase in idling and vehicle miles traveled (VMT) truck emissions related to the POE and SR11, there will be increased human exposure to these direct emissions and the secondary particulate and ozone pollutants in an area of already degraded air quality.

The proposed project will likely result in idling of engines as heavy duty diesel trucks wait in queue for inspection by Mexican and U.S. Customs. At the existing Otay POE, trucks sometimes wait for hours before crossing the border. To minimize impacts to air quality, the FEIS should identify specific designs and strategies that could reduce wait time for trucks. Direct emissions from tailpipes, brake surfaces, and road wear, as well as indirect, secondary emissions from precursors forming particulate matter and ozone should be minimized. Truck stop electrification (TSE) provides an off-site location for trucks to stop, turn off their engines, and hook to the grid to provide for air conditioning and other electrical needs, thereby eliminating idling. As discussed during our interagency workgroup meetings, Caltrans and FHWA have considered the potential of TSE as a way to reduce air quality impacts associated with idling trucks waiting to cross the border. EPA notes that the DEIS explains that most congestion and long wait times at the existing San Ysidro and Otay Mesa POEs currently occur on the Mexican side of the border and affect northbound traffic and that Anti-idling (AI)/TSE strategies would most appropriately be implemented by the Mexican POE authorities at their discretion (p. 2-17). EPA reiterates our previous comment to also consider new southbound inspections and how they may result in queuing north of the border. However, EPA recognizes that the DEIS further indicates that Caltrans and other stakeholders will continue to evaluate the potential use of AI/TSE strategies for the proposed project. EPA is available to participate in further discussions on TSE and other AI strategies. Please contact Dave Fege of our San Diego Field Office at 619-235-4769.

*Recommendations:*

- Include truck stop electrification or other anti-idling strategies as a consideration for right-of-way footprint in the FEIS and as a mitigation option to reduce emissions from truck idling. EPA recommends that the Project Alternatives incorporate a discussion about truck stop electrification or other anti-idling strategies, such as the batching of vehicles, as this would influence the size of the site's development.
- Consider other infrastructure- and efficiency-based improvements to reduce idling and improve throughput at the port of entry, such as:
  - A more automated system to streamline truck processing;
  - Incentives to cross the border at different times to stagger the flow of trucks;
  - Removal of barriers to join the U.S. Customs and Border Protection's Fast and Secure Trade (FAST) program and the increased use of the FAST lanes by fleet owners. (FAST, a bilateral initiative between the U.S. and Mexico designed to ensure security and safety while enhancing the economic prosperity of both countries, improves the efficiency of screening and clearing commercial traffic);

*Mobile Source Air Toxics (MSAT)*

EPA disagrees with the claim in the DEIS on page 3.16-12 that "...information is incomplete or unavailable to credibly predict the project-specific health impacts due to change in MSAT emissions associated with a proposed set of highway alternatives." 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. EPA has published an Air Toxics Risk Assessment Reference Library ([http://www.epa.gov/ttn/fera/risk\\_atra\\_main.html](http://www.epa.gov/ttn/fera/risk_atra_main.html)) that addresses 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](http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf)).

EPA recommends eliminating incorrect 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](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](http://www.epa.gov/ttn/fera/risk_atra_main.html)).

*Addressing Climate Change Under NEPA*

EPA notes that the document relegates analysis and discussion of climate change and greenhouse gas (GHG) emissions mitigation to a section entitled *Chapter 4 – CEQA Evaluation*. While we are aware that the EPA and FHWA have not issued specific climate change guidance

or methodology to conduct project-level greenhouse gas (GHG) analysis, this does not preclude a lead agency's responsibility, under NEPA, to disclose potentially significant impacts related to greenhouse gas emissions nor to assess how climate change may affect the project itself or influence the project's impacts on other resources. While the DEIS indicates that the California Environmental Quality Act (CEQA) climate change section may be used to inform the NEPA decision, 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.

### **Waters of the United States**

The construction of the roadway and POE facility will impact approximately 4,400 to 4,500 linear feet of jurisdictional drainages identified as waters of the U.S. EPA recommends that Caltrans, FHWA, and General Services Administration (GSA) consider minimizing impacts to the drainages to ensure that the least environmentally damaging practicable alternative (LEDPA) under Section 404 of the Clean Water Act is selected.

#### *Recommendations:*

- Coordinate with adjacent property owners that are currently pursuing development projects (e.g., Otay Business Park, Otay Crossings) and the reviewing resource and regulatory agencies of those projects to ensure that impacts to waters of the U.S. and habitat are considered from a broader perspective. Drainages affected by the proposed SR11 and POE project also cross those adjoining properties. Decisions to avoid and minimize impacts to waters of the U.S. from those projects could help inform the best strategies to address impacts to waters of the U.S. for the SR11 and Otay Mesa East POE project.
- Consider additional opportunities to further reduce impacts to waters of the U.S., such as shifting alignments or footprints, or using spanned crossings or other less damaging designs, to minimize impacts.

### **Indirect Growth Impacts**

Growth-related impacts may occur near interchanges where neighboring lands may be developed or redeveloped as a result of the project. The DEIS provides a combined assessment for all of the build alternatives indicating that no substantial impacts related to growth influence would be expected to result from implementation of the build alternatives (p. 3.3-7). However, the number of interchanges is one of the primary differences between the alternatives (No Interchange Alternative, One Interchange Alternative, and Two Interchange Alternative). Increased access to local roads and proximity to the proposed SR 11 is likely to influence development opportunities at or near these new intersections. EPA recommends the FEIS include a separate analysis for each Build Alternative that specifically addresses how the number and locations of these interchanges could influence development at or near the interchanges.



## Sustainability

### *Green Building*

GSA utilizes the Leadership in Energy and Environmental Design (LEED) Green Building Rating System design criteria to help apply principles of sustainable design and development to facilities projects. Using LEED ensures that sustainable strategies are considered in the development of building projects. LEED also serves as a means of evaluating and measuring green building achievements. Beginning in fiscal year (FY) 2003, all new GSA building projects must be certified through the LEED Green Building Rating System, and a Silver LEED rating is encouraged. The general design philosophy of the Facilities Standards for the Public Buildings Service – GSA’s design standards and criteria for new buildings and alterations – also states this commitment to sustainable design. It includes provisions for sustainable landscape design, energy efficiency, use of recycled-content products, LEED requirements, and other guidance to help make GSA’s facilities more sustainable.

EPA recommends that the Caltrans, FHWA, and GSA strive to achieve a Gold rating for the new proposed facility, which may have significant impacts on the environment and human health. Due to the significant expected truck traffic associated with this proposal, particular emphasis on indoor air quality is critical.

#### *Recommendations:*

- Pursue the construction of a U.S. Green Building Council’s LEED Rating System Gold building or better. Develop a green showcase project that complies with the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (Available on-line at [http://www.fedcenter.gov/\\_kd/Items/actions.cfm?action=Show&item\\_id=4713&destination=ShowItem](http://www.fedcenter.gov/_kd/Items/actions.cfm?action=Show&item_id=4713&destination=ShowItem)).
- Encourage a partnership between the U.S. and Mexico construction teams with the U.S. and Mexican Green Building Councils to make the new stations on both sides of the border healthier and to take advantage of economies of scale.
- Encourage the facilities to provide environmental education on features associated with the green POE projects.

GSA has significant experience in green building and has done specific work related to the unique opportunities at border stations, such as the work performed for the Alexandria Bay POE. EPA recommends the agencies host a comprehensive stakeholder engagement charrette and develop implementation teams with participants from the U.S. and Mexico station teams and key participants from GSA’s Alexandria Bay POE charrette. For additional information, please see the profile information (p. 17 – 21 of the Appendix) on the Alexandria Bay POE from the December 15, 2005 BuildingGreen, Inc. report entitled *Expanding Our Approach to Sustainable Design Report – An Invitation* available on-line at <http://gyre.buildinggreen.com/report.html>. EPA also recommends encouraging the team to require specific credits in the areas of indoor environmental quality, water efficiency, and energy and atmosphere. For questions on green building, please contact Timonie Hood with EPA Region 9’s Solid Waste Office at 415-972-3282.

EO 13514

The DEIS does not provide an "integrated strategy towards sustainability", as required by Executive Order (EO)13514<sup>4</sup>, nor does it sufficiently address many of the EO requirements. EO 13514 states:

*"In order to create a clean energy economy that will increase our Nation's prosperity, promote energy security, protect the interests of taxpayers, and safeguard the health of our environment, the Federal Government must lead by example. It is therefore the policy of the United States that Federal agencies shall increase energy efficiency; measure, report, and reduce their greenhouse gas emissions from direct and indirect activities; conserve and protect water resources through efficiency, reuse, and stormwater management; eliminate waste, recycle, and prevent pollution; leverage agency acquisitions to foster markets for sustainable technologies and environmentally preferable materials, products, and services; design, construct, maintain, and operate high performance sustainable buildings in sustainable locations; strengthen the vitality and livability of the communities in which Federal facilities are located; and inform Federal employees about and involve them in the achievement of these goals."*

EPA recommends that Caltrans, FHWA, and GSA commit to implementing the measures in Section 3.18.4 that "...could be implemented to minimize the effects of energy use" in the FEIS and ROD. EPA also recommends that Caltrans, FHWA, and GSA provide additional measures in the FEIS to satisfy other requirements of the EO policy.

#### *HUD/DOT/EPA Partnership for Sustainable Communities*

In June 2009, the U.S. Department of Housing and Urban Development (HUD), the U.S. Department of Transportation (DOT), and EPA entered into a partnership to better coordinate federal housing, transportation, and environmental protection investments. The partnership is based on the following principles:

- Provide more transportation choices
- Promote equitable, affordable housing
- Enhance economic competitiveness
- Support existing communities
- Coordinate and leverage federal policies and investment
- Value communities and neighborhoods

We encourage FHWA and Caltrans to integrate these principles into proposed improvements in the project area, and to coordinate with HUD, other modes at DOT, and EPA to ensure that potential improvements reflect the goals of the Partnership for Sustainable Communities. For additional information on the partnership, please visit EPA's website at <http://www.epa.gov/smartgrowth/partnership/>.

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<sup>4</sup> E.O. is available at: <http://edocket.access.gpo.gov/2009/pdf/E9-24518.pdf>