O.6.1 Federal Agency Comments

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F-1

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Pacific Southwest Region
1111 Jackson Street, Suite 520
Oakland, California 94607

IN REPLY REFER TO:
ER# 11/0476

Electronically Filed

11 July 2011

Mr. Aaron Burton
California Department of Transportation, District 8
464 West 4th Street, 6th Floor
San Bernardino, CA 92401
Email: aaron_burton@dot.ca.gov

Subject: Review of Draft Environmental Impact Statement and Section 4(f) Evaluation for State Route 91 Corridor Improvement Project, Riverside and Orange Counties, CA

Dear Mr. Burton,

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement and Section 4(f) Evaluation for the State Route 91 Corridor Improvement Project, Riverside and Orange Counties, California, and offers the following comments.

SECTION 4(f) EVALUATION COMMENTS

The Department concurs that there is no feasible or prudent alternative to the preferred alternative identified in the document, and that all reasonable measures to minimize harm to Section 4(f) property have been identified. F-1-1

Thank you for the opportunity to review this document. Should you have any questions about the Section 4(f) comments, please contact Alan Schmierer, National Park Service, Pacific West Regional Office, at 510-817-1441.

Thank you for the opportunity to review this project.

Sincerely,

Patricia Sanderson Port

Patricia Sanderson Port
Regional Environmental Officer

cc:
Director, OEPC
SHPO CA (mwdonaldson@parks.ca.gov)

bcc:
- OEPC (Loretta_Sutton@ios.doi.gov)
- NPS-WASO-EQD (waso_eqd_extrev@nps.gov)
- NPS-PWR-O (alan_schmierer@nps.gov)

F-1-1

It is acknowledged that the Department of the Interior is the federal agency authorized to make decisions regarding whether there are prudent and feasible alternatives to the use of land from a Section 4(f) property. It is further acknowledged that the Department of the Interior has concurred there is no prudent and feasible alternative to the use of land from CHSP and that all reasonable measures to minimize harm to that Section 4(f) property have been identified. No further response is needed.

F-2

U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92011
(760) 431-9440
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In Reply Refer To:
FWS/CDFG-08B0733-11CPA0256

JUL 11 2011

Mr. Aaron Burton
California Department of Transportation – District 8
464 West Fourth Street
San Bernardino, California 92401

Subject: Draft Environmental Impact Report/Environmental Impact Statement for State Route 91 Corridor Improvement Project, Riverside and Orange Counties, California

Dear Mr. Burton:

The California Department of Fish and Game (Department) and the U.S. Fish and Wildlife Service (Service), hereafter collectively referred to as the Wildlife Agencies, have reviewed the Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) for the State Route 91 (SR-91) Corridor Improvement Project. The proposed project is the widening of SR-91 from the State Route 241 interchange in the cities of Anaheim and Yorba Linda in Orange County to Pierce Street in the city of Riverside in Riverside County. The project would also widen Interstate 15 between the Cajalco Road interchange in the city of Corona and the Hidden Valley interchange in the cities of Corona and Norco, in Riverside County, California.

The Department is a trustee agency under the California Environmental Quality Act and is responsible for ensuring appropriate conservation of fish and wildlife resources including rare, threatened, and endangered plant and animal species, pursuant to the California Endangered Species Act, and administers the Natural Community Conservation Planning Program. The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). F-2-1

On June 22, 2004, the Department issued Natural Community Conservation Plan Approval and Take Authorization for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) as per Section 2800, *et seq.*, of the California Fish and Game Code. Also, the Service issued a section 10(a)(1)(B) permit for the MSHCP. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit.

The purpose of this letter is to provide some clarification in regards to information provided in the DEIR/EIS in regards to B Canyon in the section on Wildlife Corridors (Section 1.17.2.4). The DEIR/EIS states "...the RCA and the wildlife resource agencies would like to amend the Western Riverside County MSHCP to relocate Proposed Constrained Linkage 1 from its current location to B Canyon." The DEIR/EIS also states that "RCTC [Riverside County Transportation Commission] has committed to developing a separate project to improve B Canyon to accommodate more wildlife movement by widening the crossing under SR-91. That project is dependent on the RCA's ability to amend the Western Riverside County MSHCP and to obtain the necessary property rights to ensure the corridor will be successful in the long term." F-2-2

The RCA and Wildlife Agencies in cooperation with Caltrans and RCTC are working on providing an alternative linkage to Proposed Constrained Linkage 1 and an improved wildlife undercrossing at B Canyon to provide wildlife connectivity under the SR-91. The Wildlife Agencies would like to clarify that although achieving connectivity for Wildlife movement is dependent on RCA obtaining the property rights; an amendment to the MSHCP is not required. The alternative reserve assembly strategy is anticipated to be accomplished through the Criteria Refinement process.

We appreciate both Caltrans' and RCTC's ongoing commitment to the improvement of connectivity for wildlife movement in support of MSHCP goals and thank you for the opportunity to provide comments on the DEIR/EIS. If you have any questions pertaining to these comments, please contact Leslie MacNair (Department) at (949) 458-1754 or Karin Cleary-Rose (Service) at (760) 431-9440, extension 228. F-2-3

Sincerely,

Kennon Corey
Assistant Field Supervisor
U.S. Fish and Wildlife Service

Leslie MacNair
Staff Environmental Scientist
California Department of Fish and Game

cc:
Charles Landry, Regional Conservation Authority, Riverside, California

F-2-1

It is acknowledged that this comment letter provides input from the California Department of Fish and Game (CDFG) and USFWS on CDFG's role as a trustee agency and CDFG's approval and take authorization for the Western Riverside County MSHCP. Because this comment does not ask any questions or provide a comment relative to the technical information or environmental analyses in the EIR/EIS, no further response is necessary. Refer to responses to comments F-2-2 and F-2-3, below.

F-2-2

Based on the *Comprehensive Wildlife Corridor Analysis Report* (May 2010) included in the *Natural Environment Study* (NES; June 2010), it was determined that the SR-91 CIP would not substantially reduce, but would contribute to the reduction of, wildlife movement at B Canyon. As discussed in Section 3.17, Natural Communities, in the EIR/EIS, the Build Alternatives would result in temporary, but not substantial, adverse impacts on wildlife movement during construction. Those temporary impacts would be substantially mitigated based on implementation of Measures NC-6 through NC-16. The Build Alternatives would not result in adverse impacts related to wildlife movement after the completion of construction.

Although not needed as mitigation for the SR-91 CIP, the RCTC and several other agencies have committed to study and develop a separate project to improve B Canyon to accommodate more wildlife movement by widening that existing crossing under SR-91. That separate B Canyon project is dependent on the ability to obtain the necessary property rights to ensure the corridor will be a successful long-term solution. It is acknowledged that an amendment to the Western Riverside County MSHCP would not be required for that B Canyon project.

The improvement of a functional wildlife corridor at B Canyon will only be able to come to fruition through the cooperation and participation of many stakeholders. It is not reasonable for any one project such as the SR-91 CIP to carry the burden for the cumulative impacts of many projects on wildlife movement. The Department and RCTC, who are two of the stakeholders, are committed to participating with the other stakeholders in an effort to facilitate wildlife movement and increase connectivity in the area. If the B Canyon project proceeds, RCTC has agreed to contribute some funds toward the construction cost of that project.

F-2-3

No response is necessary because this comment does not ask a question or provide a comment relative to the technical information or environmental analyses in the EIR/EIS.

F-3

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

JUL 11 2011

Mr. Aaron Burton
California Department of Transportation, District 8
464 West 4th Street, 6th floor
San Bernardino, CA 92401

Subject: EPA Comments on the Draft Environmental Impact Statement for State Route 91 Corridor Improvement Project in Riverside and Orange Counties, California (CEQ # 20110158)

Dear Mr. Burton:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the State Route (SR) 91 Corridor Improvement Project in Riverside and Orange Counties, 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. Based upon our review, we have rated the proposed action as *Environmental Concerns-Insufficient Information (EC-2)*. See attached "Summary of the EPA Rating System" for a description of the rating. The basis for the rating and our recommendations are summarized below and further detailed in our enclosed comments. F-3-1

Riverside County Transportation Commission (RCTC) and California Department of Transportation (Caltrans) propose to add a general purpose lane in each direction and convert existing express lanes to toll lanes on approximately 17 miles of State Route (SR) 91 from SR 241 in the Cities of Anaheim and Yorba Linda to just west of I-15 in the City of Riverside. The project also includes a toll lane in each direction for approximately six miles of Interstate 15 at the SR91 junction.

As identified in the DEIS, SR 91 is the major highway for commuting Riverside and San Bernardino residents working in Orange and Los Angeles Counties and sections of the corridor are reported to be used by more than 280,000 vehicles per day. Communities along the heavily travelled and congested SR 91 corridor are already experiencing poor air quality. EPA is concerned with possible increases in localized, or "hot spot" vehicle emissions and exposure to mobile source air toxics (MSAT) for a number of residents and sensitive receptors that are located near the existing SR 91 facility. EPA recommends performing MSAT hot spot analyses, and if significant hot spots are identified, implementing measures to reduce exposure to MSATs, such as targeted project alignment modifications or shifts or the use of buffers. F-3-2

We also recommend that Caltrans identify specific locations of any impacts to waters of the U.S. in the Final Environmental Impact Statement (FEIS) and further discuss why these impacts are unavoidable. In addition, the FEIS should assess indirect impacts to wetlands and other waters and include a description of mitigation to replace affected wetland functions. F-3-3

F-3

F-3-3

F-3-4

The above-listed concerns, along with additional comments on water quality and children's health are further discussed in the attachment. Thank you for the opportunity to comment on the DEIS. When the FEIS is published for public review, please send one hard copy and, if available, two CD-ROMs to the address above (mail code: CED-2). If you have any questions, please contact Susan Sturges, the lead reviewer for this project. You may reach Susan at 415-947-4188 or sturges.susan@epa.gov.

Sincerely,

Connell Dunning

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

Attachments: Summary of Rating Definitions
EPA's Detailed Comments

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

Mobile Source Air Toxics (MSAT)

Because the existing highway already accommodates a tremendous volume of traffic and a number of sensitive receptors and neighboring residential communities are likely currently exposed to substantial MSAT emissions, additional increases in MSATs may have significant impacts. The MSAT Analysis of Results (p. 3.14-33) is misleading because it does not discuss localized impacts as "hot spots" along the proposed alignments and does not assess proximity to sensitive receptors and residential areas. Changes in traffic density resulting from the project may lead to an increase in MSAT impacts at some locations (e.g., neighboring intersections, local roads) and potentially a decrease in MSAT impacts in other locations. The net result of this change may be either unacceptable or beneficial, and is especially dependent on the relative locations of sensitive receptors, but is difficult to determine without further analysis of changes in ambient concentration as a result of each alternative.

EPA recommends including additional quantitative analysis in the Final Environmental Impact Statement (FEIS) to determine if MSAT hotspots are a concern for the project and if so, to inform avoidance, minimization, and mitigation options. This is especially important, given the significant concerns about adverse health effects from mobile source pollutants and the project's potential to increase localized emissions in areas abutting residential communities and sensitive receptors along portions of the SR 91 and Interstate 15 corridors, intersections, and neighboring roads. F-3-5

Recommendations:

- Identify projects segments and/or areas that may have potential for hot spot impacts, such as:
  1) Project segments with the closest sensitive receptors and residential areas,
  2) Project segments with the largest increases in vehicle miles traveled (VMT) or highest baseline emissions, and
  3) Project segments with the largest emissions changes and distance reductions to sensitive receptors and residential areas.

- Quantify emissions and assess whether the project will result in potential MSAT hotspots. Include dispersion modeling and an assessment of health risk for the six primary MSATs for areas above that appear to have potential hot spot concerns. This analysis is further described in 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). 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://epa.gov/ttn/fera/data/risk/vol_3/Appendix_B_April_2006.pdf).

- If significant impacts are identified, include appropriate mitigation or design changes to reduce potential operational impacts in the FEIS and Record of Decision (ROD).

Additionally, EPA disagrees with the claim in the DEIS on page 3.14-26 that "...the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited. These limitations impede the ability to evaluate how the potential health risks posed by MSAT exposure should be factored into project-level decision-making within the context of NEPA". EPA recommends eliminating incorrect statements regarding technical shortcomings and uncertain science in the FEIS. 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) 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). The previously mentioned March 2007 AASHTO Report also discusses available methodologies and tools. F-3-5

Construction Mitigation Measures

EPA recommends supplementing and/or if applicable, modifying the measures in Section 3.14.4.1 Standard Conditions with the following in the FEIS and ROD to reduce the impacts resulting from future construction associated with this project.

Recommendation:

In light of the serious health impacts associated with vehicle and diesel exhaust exposure, we recommend that the best available control measures for these pollutants be implemented at all times and recommend that a Construction Emissions Mitigation Plan is incorporated into the FEIS and committed to in the ROD. We recommend that the following measures be incorporated into a Construction Emissions Mitigation Plan, where feasible and appropriate, in order to reduce impacts associated with fugitive dust and vehicle emissions, diesel exhaust, and mobile source air toxics from construction-related activities: F-3-6

Fugitive Dust Source Controls:

- 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. F-3-6

Administrative controls:

- Specify the means by which impacts to sensitive receptors, such as children, elderly, infirm and others identified in the FEIS, will be minimized. 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.

Clean Water Act Section 404

The DEIS does not clearly identify where specific impacts to jurisdictional and non-jurisdictional waters might occur, making it difficult to assess whether additional options for avoidance and minimization exist. Chapter 3.18 Wetlands and Other Waters in the DEIS includes a summary F-3-7

[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).

of permanent and temporary impacts, by alternative, to wetlands and other waters under jurisdiction of the US Army Corps of Engineers (Corps), California Department of Fish and Game and the Regional Water Quality Control Board, but does not provide information pertaining to the specific impact locations. Instead, the DEIS refers to Appendix B of the November 2009 Jurisdictional Delineation Report (Report) that was submitted to the Corps for verification. The Report is not included in the DEIS, but EPA obtained a copy from Riverside County Transportation Commission's website for the SR 91 Corridor Improvement Project[4]. While the Report maps wetlands and other waters by potential jurisdiction type, it does not superimpose the proposed project alignments and impacts on the mapped waters.

Caltrans should identify specific locations of the project's impacts to wetlands and other waters in the FEIS and further discuss why these impacts are unavoidable. At a minimum, EPA anticipates the alternatives analysis for Corps authorization under Section 404 of the Clean Water Act will contain this level of detail based on the Corps verified jurisdictional delineation. This information is necessary to demonstrate compliance with the Guidelines found in Clean Water Act Section 404(b)(1) which prohibits the discharge of dredged or fill material if there is a practicable alternative which would have less adverse impact on the aquatic ecosystem. F-3-7

Recommendation:
Caltrans should include additional detail in the FEIS on the potential impact sites to wetlands and other waters for both Alternatives 1 and 2, including specific impact locations that would result from proposed project alignments. Include a description of why proposed impacts are unavoidable consistent with the Guidelines.

Indirect Impacts

While permanent and temporary impacts to federal and state jurisdictional waters are quantified, it's unclear if the estimated impacts include indirect effects. The DEIS does not specifically discuss or quantify indirect effects of the project to waters of the U.S. These impacts would include: (1) corresponding increases in the volume and velocity of polluted stormwater from increased impervious surfaces; (2) hydrologic and sediment transportation effects influenced by placement of new permanent fill and structures, (3) vegetative changes and disturbance to wetlands habitat which results in a reduction in the functional capacity of adjacent wetlands; (4) additional noise, glare, and other similar human-related disturbances to aquatic resources; (5) additional shading of wetland habitat from roads and crossings; and (6) decreases in biodiversity and ecosystem stability. F-3-8

Recommendations:

- Assess and report in the FEIS the changes in ecosystem functions as a result of the proposed project associated with permanent direct and indirect effects.
- Update tables in Chapter 3.18 to identify what the estimated indirect impacts to jurisdictional waters will be.
- Provide a description of the proposed mitigation to offset indirect impacts (see comment below).

[4] Available on-line at: http://sr91project.info/environmental/draft_eir_eis.php .

Avoidance, Minimization, and Compensatory Mitigation

The DEIS does not include a description of mitigation to replace lost wetland functions. Section 3.18.4 Avoidance, Minimization and Mitigation Measures in the Wetlands and Other Waters chapter states that compensatory mitigation is as described in Section 3.17.4.1 but this section only mentions mitigation for riparian communities and other native vegetation communities. Caltrans should identify in the FEIS available and reasonable means of mitigation to alleviate the environmental effects of the proposed action (see 19. Mitigation Measures of Forty Most Asked Questions Concerning the Council of Environmental Quality's National Environmental Policy Act Regulations[5]).

Recommendations:

- The FEIS should include a more detailed discussion of available compensatory mitigation measures for wetlands and other waters consistent with the Corps and EPA 2008 Compensatory Mitigation Rule[6]. These regulations were designed to improve the effectiveness of compensatory mitigation to replace lost aquatic resource functions and area and include a mitigation hierarchy with an inherent preference for mitigation banks and in-lieu fee programs before the use of an on-site mitigation site.
- Discuss mitigation for temporary and unavoidable indirect impacts. Temporary impact mitigation should consider additional compensatory mitigation for temporal loss of functions as well as establishing numeric criteria and monitoring of the temporary impact site to ensure that aquatic functions are fully restored. Indirect impact mitigation should consider opportunities to reduce any potential effects from shading and to compensate for possible wetland habitat fragmentation.

F-3-9

Water Quality

Stormwater capture and treatment should be designed to maximize treatment of the existing roadway footprint in addition to new project-related impervious surface areas directly connected to waters. The current MS4 permit requires Caltrans to "seek opportunities to retrofit the Storm Water Drainage System for water quality improvement whenever a section of the rights-of-way undergoes significant construction or reconstruction" (Order 99-06). EPA recognizes that Caltrans proposes to meet stormwater treatment sizing criteria in the statewide MS4 permit that is currently up for renewal, which states that "Where redevelopment results in an increase of less than 50% of the total impervious area of a previously existing development, the numeric sizing criteria apply only to the addition and not to the entire development" (Section 2, Stormwater Program Implementation Requirements). The proposed project would result in a total impervious surface area increase of 27.5 percent for Alternative 1 and 39.2 percent for Alternative 2, which is significant but well below the 50 percent threshold.

F-3-10

The DEIS indicates proposed best management practices would treat runoff from an area equivalent to the impervious surface area added by the project as well as runoff from part of the existing freeway facility (i.e., approximately 125 percent of impervious surface area for Segment A, 116 percent for Segment B, and 102 percent for Section C.) (p. 3.10-23). While these percentages represent potential increases in treated impervious surface area, they leave a

[5] Available on-line at: http://ceq.hss.doe.gov/nepa/regs/40/11-19.HTM#19

[6] Available on-line at: http://www.epa.gov/EPA-WATER/2008/April/Day-10/w6918a.pdf

significant portion of stormwater runoff from existing roadway untreated. Measures to expand treatment would improve water quality in the Santa Ana River watershed and could help address current CWA Section 303(d) listed water quality impairments for lead, copper and other pollutants along the Santa Anna River and tributaries.

Recommendation:
Caltrans should commit to additional opportunities to maximize treatment of stormwater runoff from both new and existing roadway like expanding existing and planned treatment BMPs during project construction in the FEIS and ROD. F-3-10

Children's Health and Safety

While Section 3.4 of the DEIS (Community Impacts) provides basic demographic information on children and locations of schools, the DEIS does not assess the project's potential to affect the health and safety of children. Executive Order (EO) 13045 "Protection of Children from Environmental Health Risks and Safety Risks"[7] requires federal agencies to ensure that their policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks. F-3-11

Given the behaviors of children, such as more active time spent outdoors and closer to the ground during play, and their developing systems, children are more vulnerable due to higher relative doses of air pollution and smaller diameter airways. In addition, traffic-related pollutants have been repeatedly associated with increased prevalence of asthma-related respiratory symptoms in children. Given that the proposal is a proposed expansion of an existing large capacity freeway in an area with existing poor air quality, EPA recommends that Caltrans demonstrate compliance with the EO and specifically identify and assess in the FEIS any potential environmental health risks and safety risks that may disproportionately affect children.

[7] Available on-line at: http://ceq.hss.doe.gov/nepa/regs/eos/eo13045.html .

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

F-3-12

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

Category "1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category "2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category "3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

F-3-1

The EIR/EIS provides a complete and full analysis of the potential impacts of the SR-91 CIP. Refer to responses to comments F-3-2 to F-3-11, below.

F-3-2

Refer to responses to comments F-3-5 to F-3-6, below.

F-3-3

Refer to responses to comments F-3-7 to F-3-10, below.

F-3-4

Refer to response to comment F-3-11, below.

F-3-5

The EIR/EIS discloses the potential for impacts from mobile source air toxics (MSATs) to the extent that current scientific information allows. Sensitive receptors are identified, and a qualitative assessment of impacts to the sensitive receptors, including low-income and minority communities, was performed. Quantitative analysis for MSATs was conducted for the project as described starting on page 3.14-28 in Section 3.14.3.2, Permanent Impacts, in the EIR/EIS. As discussed in that section and shown in Tables 3.14.20 to 3.14.24 in that section,

> "...implementation of the Build Alternatives would result in a slight increase in the MSAT emissions compared to the No Build Alternative. However, the emissions from the No Build and Build Alternatives would be lower than the Existing (2007) emissions for all MSAT pollutants. As shown in Table 3.14.24, Alternative 2 would reduce MSAT emissions in 2035.
>
> In summary, while the Build Alternatives would result in a small increase in localized MSAT emissions in 2015, the EPA's vehicle and fuel regulations, coupled with fleet turnover, will cause substantial reductions over time that would cause regionwide MSAT levels to be substantially lower than they are today."

As a result, a dispersion analysis to calculate the local MSAT emission concentration is not necessary.

The primary pollutant of concern for long-term health risk is diesel particulate matter plus diesel exhaust organic gases (DPM). As shown in Tables 3.14.20 to 3.14.24 in

Section 3.14, Air Quality, the project would reduce the DPM emissions when compared to the No Build Alternative and Baseline/Existing (2007) conditions. Those emissions were modeled using traffic volumes for the project corridor. By reducing the DPM emissions along the project segments of SR-91 and I-15, the project would reduce the long-term health risk along SR-91 and I-15.

The FHWA has indicated that quantitative analysis (i.e., dispersion modeling) cannot provide any meaningful comparison of alternatives and, in fact, may provide misleading information as to the current understanding of MSATs and the capabilities of current tools. As part of the development of the FHWA interim MSAT guidance,[1] FHWA conducted a thorough review of the scientific information related to MSATs from transportation sources. The results of this review are discussed in Appendix C of the MSAT guidance. As a result of that review, FHWA concluded that the available technical tools do not enable us to reliably estimate pollutant exposure concentrations or predict the project-specific health impacts of the emissions changes associated with transportation project alternatives. Therefore, at this time, FHWA does not support dispersion modeling.

As noted in its Standard Environmental Reference (SER), Environmental Handbook Volume I, Chapter 11 – Air Quality, the Department has adopted the FHWA guidance for evaluating MSAT emissions.

F-3-6

The measures addressing short-term air quality impacts were refined in response to this comment. Original Measures SC-1 and SC-2 specifically addressed particulate and other emissions in the context of the recommended Construction Emissions Mitigation Plan. These refined measures are consistent with the intent of the majority of the measures recommended in this comment. The refined short-term air quality measures, which fully replace the existing measures on page 3.14-39 in Section 3.14.4.1, Standard Conditions, in the EIR/EIS are:

SC-1 **Construction Emissions Mitigation Plan.** Prior to any site preparation, grading and/or construction activities, the RCTC Project Engineer will require the design/build contractor to finalize the project-specific Construction Emissions Mitigation

[1] http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/100109guidmem.cfm.

Plan. That plan will specifically incorporate measures for controlling particulate and other emissions during construction from the following sources:

- Department's Standard Specifications Sections 10 and 18 (Dust Control)
- Department's Standard Specifications Section 39-3.06 (Asphalt Concrete Plant Emissions)
- South Coast Air Quality Management District (SCAQMD) Rule 403, including control measures from Tables 1, 2, and 3 in that rule

The plan will also include the following measures:

- Control of ozone precursor emissions from construction equipment vehicles by maintaining equipment engines in good condition and in proper tune per the manufacturers' specifications.
- Control of material on all trucks hauling excavated or graded material from the site by compliance 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.

SC-2 **Implementation of the Construction Emissions Mitigation Plan.** During all site preparation, grading, construction, clean-up, and other activities during construction, RCTC's Resident Engineer will require the design/build contractor to comply with the measures in the Construction Emissions Mitigation Plan. RCTC's Resident Engineer will conduct site inspections at least once a month to ensure that the design/build contractor is complying with the provisions of the Construction Emissions Mitigation Plan.

SC-3 Prior to any construction activities, RCTC's Project Engineer will ensure that the grading plans and project specifications show the anticipated duration of construction in individual construction areas along the project alignment.

SC-4 During the final design and prior to any ground disturbance, RCTC's Project Geologist will conduct appropriate testing to determine whether there are asbestos-containing materials (ACMs) present in the project disturbance limits.

SC-5 If RCTC's Project Geologist determines that ACMs are present in the project disturbance limits during final design, RCTC's Resident Engineer will require the design/build contractor to properly remove and dispose of those ACMs.

Most of the recommended measures in this comment are measures included in one or more of the three sources listed above in refined Measure SC-1. Although all the recommended measures are not included in the refined measures above, it should be noted that the EIR/EIS concluded that compliance with the original Measures SC-1 through SC-5 would reduce the short-term project impacts during construction to below a level of significance under CEQA. Therefore, the requested measures not incorporated into the project or the Final EIR/EIS were not incorporated because neither NEPA nor CEQA requires the imposition of mitigation for impacts that are already less than significant.

No mitigation is required for long-term impacts because, as discussed in Section 3.14 in the EIR/EIS, the Build Alternatives will not result in adverse long-term air quality impacts.

F-3-7

Figures 3.18-2 and 3.18-3 were added on pages 3.18-33 and 3.18-49, and are discussed in Section 3.18.3.1, Summary of Impacts, to show the permanent and temporary project impacts to protected waters under Alternatives 1 and 2, respectively. The temporary and permanent impacts of Alternatives 1 and 2 to the United States Army Corps of Engineers (Corps), CDFG, and the Regional Water Quality Control Board (RWQCB) jurisdictional waters, shown on those figures, are quantified starting on page 3.18-6 in the EIR/EIS in Section 3.18.3.1. Text referring to those new figures was also added to Section 3.18.3.1 starting on page 3.18-6.

As shown in Table 3.18.2 on page 3.18-8 and the new figures in Section 3.18, Wetlands and Other Waters, permanent impacts to protected waters that are potentially jurisdictional range from 2.18 to 2.69 ac for the Corps, 1.31 to 4.41 ac for the CDFG, and 0.42 to 2.69 ac for the RWQCB, depending on the alternative and design variation. As shown in Table 3.18.3 on page 3.18-9 in the EIR/EIS, temporary

impacts to protected waters that are potentially jurisdictional range from 1.66 to 1.98 for the Corps, 2.01 to 3.85 ac for the CDFG, and 1.90 to 2.07 ac for the RWQCB, again depending on the alternative and design variation.

On September 20, 2011, the PDT identified Alternative 2f as the Preferred Alternative. Since that time, design refinements to Alternative 2f have substantially reduced project impacts to wetlands and other waters. Previously, the project impacts were determined based on the entire project footprint, which showed full disturbance at many drainage features. The more detailed engineering now shows that full disturbance at many drainage features is no longer warranted (e.g., a drainage will be bridged instead of disturbed).

Alternative 2f would result in permanent impacts to protected waters as follows:

- Corps Jurisdictional Waters: 0.42 ac
- CDFG Jurisdictional Areas: 1.31 ac
- RWQCB Jurisdictional Areas: 0.42 ac

Because the permanent impact to Corps jurisdictional waters is less than 0.50 ac, the project can be authorized under a Section 404 Nationwide Permit.

The purpose of the proposed project is to relieve congestion along SR-91 and I-15 through the addition of lanes to these existing facilities. Because the proposed project adds new highway lanes to an existing freeway, the project is constrained in terms of the location of those new highway lanes. The existing geometric configuration of the freeway determines the location of the new highway lanes, as new lanes would have to be sited adjacent to the existing highway lanes. Therefore, implementation of the project would have to occur adjacent to existing highway lanes and would require the disturbance and extension of existing culverts along the project segments of those freeways. Because the placement of new highway lanes is dependent on the location of the existing highway lanes, an avoidance alternative is not possible because the new lanes cannot be separated from the existing highway lanes. The project impacts to waters shown on Figures 3.18-2 and 3.18-3 in the EIR/EIS are unavoidable due to the location of the existing SR-91. As discussed in Section 3.18, Wetlands and Other Waters, in the EIR/EIS, the temporary and permanent impacts of the SR-91 CIP Build Alternatives to waters are unavoidable but can be substantially mitigated.

The approved and preliminary determinations for the project were received from the Corps on November 22, 2011; they represent Corps acceptance of the drainage

features considered jurisdictional by the Corps but not Corps acceptance of the project impacts. Corps acceptance of the project impacts will be confirmed upon Corps approval of the Section 404 Nationwide Permit. The permit will not be received prior to the Record of Decision (ROD), but will be obtained prior to the initiation of construction.

During the design/build phase of the project, more refinements may be made to further reduce impacts to jurisdictional waters. Those refinements would be developed and further described in conjunction with the Corps Section 404 Nationwide Permit process.

F-3-8

Alternatives 1 and 2 were evaluated to assess whether they could result in the following types of indirect effects to waters:

- Increase in runoff volumes
- Impacts to water quality
- Invasive species
- Noise, glare and other human disturbance
- Shading, ecosystems stability, and biodiversity

The potential for those types of indirect effects are described briefly in the following sections.

Increase in Runoff Volumes. As discussed in Section 3.10.3.2, Permanent Impacts, compared with existing conditions, there would be a slight increase in runoff volumes due to the addition of new impervious areas from the freeway improvements under Alternatives 1 and 2. Such increases would generally shorten the time of concentrations and runoff travel time to the Santa Ana River. However, because the flow increase to the Santa Ana River is expected to be minimal, this hydrologic impact on the River and other waters is considered negligible.

Sediment Transport. Best management practices (BMPs) are included in the project design to address indirect impacts from volume, velocity, hydrologic, sediment transport, and other water quality issues to federal and State jurisdictional waters. As described starting on page 3.10-23 in Section 3.10.3.2, Permanent Impacts, drainage from the newly added freeway facilities would be treated by biofiltration swales, infiltration basins, detention basins, and/or media filters. These methods work in various ways to treat storm water runoff. Pollutants are removed by slowing down the

flow enough for sedimentation to occur, vegetation uptake, ionic attraction around plant root structures, etc. The BMPs would also reduce the velocity of the runoff.

All runoff from the new net impervious surface areas would be treated by the BMPs. The BMPs would treat runoff from an area equivalent to the impervious surface area added by the project as well as runoff from part of the existing freeway facility. The percentage of runoff from the new net impervious surface area and some of the currently untreated existing impervious surface areas that would be treated ranges from 102 to 125 percent depending on the location along the project alignment. Because the BMPs will treat over 100 percent of all the new impervious surfaces and some existing runoff, water quality from the existing facility is likely to improve, limiting the potential for indirect effects.

Invasive Species. Indirect project impacts from vegetative changes occur through the import of highly invasive, nonnative vegetation. Indirect impacts from vegetative changes are not expected to occur, primarily because the Build Alternatives are located in an existing highway corridor that is highly disturbed. Measure IS-1 on page 3.22-4 in Section 3.22.4, Avoidance, Minimization, and/or Mitigation Measures, addresses the potential for indirect impacts from vegetative changes and disturbance through the implementation of a weed abatement program.

Noise, Glare, and Other Human Disturbances. Permanent indirect impacts to natural communities from the SR-91 CIP due to the increase in noise, glare, and other similar human-related disturbances are not expected to occur as described starting on page 3.17-17 in Section 3.17.3.2, Permanent Impacts. Measure NC-9 on page 3.17-33 in Section 3.17.4.2, Other Measures, addresses the potential for temporary indirect impacts during construction.

Shading, Ecosystem Stability, and Biodiversity. Permanent indirect impacts due to shading, decreases in biodiversity, and ecosystem stability are not expected to occur because the Build Alternatives are located in an existing highway corridor that is highly disturbed.

The following text was inserted in the discussion of the permanent project impacts in the subsection titled "Alternatives 1 and 2" on page 3.18-11 in Section 3.18.3.2, Permanent Impacts, in the EIR/EIS:

> The Build Alternatives are not expected to increase permanent indirect effects (such as increased impervious surfaces, water quality, human-

> related disturbances, vegetative changes, or decrease in biodiversity or ecosystem stability) to protected waters due to the implementation of BMPs and other project features (e.g., revegetation of temporarily disturbed areas with plant species not on the California Invasive Plant Council [Cal-IPC] list). Although permanent indirect impacts are not expected to increase as a result of the SR-91 CIP, permanent impacts are expected to extend into the surrounding natural habitat by approximately the same distance that SR-91 is being widened.

The following text was inserted in the discussion of temporary project impacts in the subsection titled "Alternatives 1 and 2" on page 3.18-12 in Section 3.18.3.3, Temporary Impacts, in the EIR/EIS:

> The Build Alternatives may result in temporary indirect effects to protected waters including construction-related effects such as dust and potential fuel spills from construction equipment or disruption by personnel outside designated construction areas.

In summary, the SR-91 CIP will not result in substantial indirect effects to waters. Because the Build Alternatives will not result in substantial indirect effects on waters, no figures showing areas potentially affected by indirect project effects is provided in the EIR/EIS. Extensive mitigation included in the Build Alternatives, as described in Appendix E, Environmental Commitments Record, would address effects on the natural environmental, including direct and indirect effects to waters.

F-3-9

Measure WET-1 on page 3.18-15 in Section 3.18.4 requires that the project receive the appropriate Section 404 Clean Water Act permit. That permit will require compensatory mitigation for the project effects. The compensatory mitigation for the project impacts to waters under the jurisdiction of the Corps will be developed in detail in consultation with the Corps as part of the 404 permit. Refer also to the response to comment F-4-9, later in this report, which indicates that the identification of opportunities for compensatory mitigation is ongoing and that the compensatory mitigation for the project will comply with the 2008 Mitigation Rule and Guidelines.

Section 3.17, Natural Communities, acknowledges this as discussed in the mitigation requirements for riverine and wetland habitats are specifically cited in the subsection titled Compensatory Mitigation on page 3.17-27 as follows: "Compensatory mitigation for riparian communities in both counties will be required for Corps

for Corps Section 404 and CDFG Section 1600 permitting. Typically, riparian habitat subject to Corps and CDFG jurisdiction is mitigated at a minimum mitigation-to effect ratio of 2:1 for permanent effects and 1:1 for temporary effects, which is consistent with Corps and CDFG policies for no net loss of riparian/riverine habitat (e.g., wetlands). Mitigation for permanent effects of both the Initial Phase and Ultimate Project will be conducted in advance during the Initial Phase in the form of habitat restoration and/or enhancement in on- or off-site areas where similar riparian habitat exists. Temporary effects to riparian communities will be mitigated at a minimum mitigation ratio of 1: 1 to be replaced on site in kind after the temporary impact has occurred. Final details for compensatory mitigation will be coordinated among RCTC, the Department, the resource agencies, and third-party landowners (where needed for any off-site mitigation)."

The compensatory mitigation described on page 3.17-27 in Section 3.17.4.1, Compensatory Mitigation, in the EIR/EIS for riparian communities includes all areas of potential Corps, CDFG, and RWQCB jurisdictions. The success criteria outlined in that section will ensure that the mitigation will be functionally equal or superior to the present disturbed conditions along the existing highway corridor. Annual monitoring and oversight by the resource agencies will ensure the success of the mitigation site. Because the mitigation will result in a net increase in riparian/riverine resources, it is expected to fully mitigate permanent project impacts to these resources.

All the areas available for compensatory mitigation are being analyzed and discussed with Corps, CDFG, and RWQCB representatives as part of the permitting process. The Corps has an extensive internal process they go through before accepting a mitigation bank or in-lieu fee program and it becomes available for use. During that process, success criteria, reporting requirements, and other limitations (e.g., type of project able to use the bank/fee program) are determined. At this time, there are no mitigation banks or in-lieu fee programs for use by the SR-91 CIP that are available and/or acceptable to the Corps. This has been confirmed through on-going coordination with the Corps Regulatory Division. In addition, it is unlikely that a mitigation bank or in-lieu fee program will become available and/or acceptable to the Corps in time to be used by the SR-91 CIP.

As described in Section 3.17.4.1, temporary impacts will be mitigated at a minimum mitigation ratio of 1:1 to be replaced on site in kind after the temporary impact has occurred. In addition, Mitigation Measures WQ-1 (page 3.10-34), NC-1, NC-2, NC-5, NC-8, NC-9, NC-12 (starting on page 3.17-29), and IS-1 (on page 3.22-4) avoid,

minimize, and/or mitigate temporary and/or indirect loss of functions during construction.

F-3-10

Runoff from the existing freeway facilities is part of the existing baseline condition for which no mitigation is required to be provided by the proposed project. The BMPs identified in the *Project Report* (September 2010) address the water quality needs of the SR-91 CIP Build Alternatives. The increase in impervious surfaces as a result of the Build Alternatives is less than the 50 percent threshold identified in the Municipal Separate Storm Sewer System (MS4) Permit. Those BMPs not only meet but exceed the intent of that Permit provision. The analysis for the *Project Report* included a study of the corridor, including approved and alternative BMPs wherever technically feasible and using all available right-of-way.

Existing topographic (mountainous) features along the project alignment and regional features associated with highly urbanized land uses along parts of the project alignment are physical constraints that limit areas available for the placement of BMPs.

Whenever possible, runoff from the entire road surface, not just the new road surfaces, is included for treatment by the BMPs included in the project. As such, the project would treat a part of the runoff from the existing roadway that is currently untreated. Because there is no requirement for the proposed project to treat all the runoff from the existing facility, the water quality analysis and the EIR/EIS did not calculate how much of the existing runoff would remain untreated. As noted in the fifth paragraph in the subsection titled Water Quality/Erosion Control on page 2-20, the amount of runoff from the existing facilities that would be treated by the project BMPs would be determined during the final design of those BMPs. The proposed treatment BMPs would include biofiltration swales, infiltration basins, detention basins, and/or media filters. These BMPs would target pollutants of concern from freeway facilities as well as other pollutants, including lead, copper, and pathogens. Reach 3 of the Santa Ana River is listed as impaired on the 303(d) list for lead, copper, and pathogens. The Treatment BMPs would target constituents of concern from transportation facilities (sediments, trash, petroleum products, metals, and chemicals). Because the Treatment BMPs would target lead and copper, the SR-91 CIP would not contribute to the existing impairment.

Coordination efforts with all applicable regional and local agencies were conducted at the discretion and direction of the Department. As a result, the project team met with

and received approval from the Santa Ana RWQCB and the City of Corona Department of Power and Water during the development of the BMP program for the *Project Report*.

The recommendation provided by the United States Environmental Protection Agency (EPA) to expand water quality treatment to help address current CWA Section 303 water quality impairments is acknowledged. However, the SR-91 CIP design does not include and does not propose treating 100 percent of the existing runoff from the existing freeways, consistent with the requirements of the existing Department MS-4 Permit as noted in this comment. The Department participates in the development of project BMPs, and the maximum BMPs for the SR-91 CIP have been developed in accordance with their responsibilities for FHWA in compliance with the Clean Water Act.

F-3-11

Section 3.14, Air Quality, starting on page 3.14-1 in the EIR/EIS identified the short- and long-term air quality effects of the proposed project. DPM is the primary pollutant of concern when determining a project's long-term health effects. Tables 3.14.20 through 3.14.24 in Section 3.14 list the MSAT emissions generated by traffic on SR-91 and I-15 in the project area in 2015 and 2035. As shown, the proposed project would reduce the traffic-related DPM emissions on these freeways in the project area in those forecast years compared to Baseline/Existing (2007) and No Build (2015 and 2035) conditions. As a result, everyone living, going to school, and/or working in the project vicinity would benefit as a result of the reduction in DPM emissions in 2015 and 2035. By reducing the DPM emissions along the project segments of SR-91 and I-15, the project would reduce the long-term health risk. Therefore, the proposed project would not require additional analysis of the potential effect of the proposed project on the health and safety of children as required under Executive Order (EO) 13045.

The Department evaluated the potential for children to be exposed to health risks due to exposure to hazardous materials or waste during construction based on the information provided in Section 3.13, Hazardous Waste. Eighteen hazardous materials/waste sites of potential concern were noted in Table 3.13.2 and shown on Figure 3.13.2. Three sites (Sites 1, 4, and 18) would not pose a health risk to children because they would not be affected by the Preferred Alternative (Alternative 2f). Nine sites (Sites 2, 3, 6, 7, 8, 9, 12, 13, and 15) would not pose a health risk to children because they are within commercial/industrial areas and/or are over 300 feet from

schools, homes, or other areas frequented by children. Six sites (Sites 5, 10, 11, 14, 16, and 17) require acquisition and removal and/or relocation of ASTs or USTs at locations that are within 300 feet of homes. Area residents (including children) will be protected from exposure to any release of hazardous materials from these six sites through implementation of Measure HW-9 which requires preparation and implementation of a site specific Health and Safety Plan and Measure HW-10 which requires preparation and implementation of a Contaminant Management Plan. In addition, the SR-91 CIP will provide a long-term benefit related to public exposure (including children) to hazardous wastes/materials from these sites because the sites will be fully remediated and free of hazardous wastes prior to acquisition for the project. Therefore, children living or playing near the project limits would not have any direct exposure to potential hazards or hazardous materials on site, and no adverse health-related impacts to children as a result of hazardous materials and wastes are anticipated.

Based on Figure 3.6, Public and Community Facilities from the SR-91 CIP Community Impact Assessment Report, the following schools are located within approximately 0.25 mile (mi) of the SR-91 and I-15 freeway centerlines:

- **Heritage Christian Elementary and High School, Corona:** Approximately 1,565 ft from the SR-91 centerline
- **Orange Grove High School, Corona:** Approximately 840 ft from the SR-91 centerline
- **Parkridge School for the Arts, Corona:** Approximately 1,488 ft from the I-15 centerline
- **El Cerrito Middle School and Elementary Schools, Corona:** Approximately 1,320 ft from the I-15 centerline

EO 13045 requires all federal agencies to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that their policies, programs, activities, and standards address disproportionate risks to children that result from environmental health or safety risks. Because the SR-91 Build Alternatives would result in a reduction in DPM emissions and would not result in direct exposure of children to potential hazards or hazardous materials on the project site, and because the project would, therefore, not affect the long-term health and safety of children, the project is consistent with the requirements and intent of EO 13405.

F-3-12

The Department and RCTC do not believe the EC-2 rating for the project, as noted in comment F-3-1, is appropriate for the project. The EIR/EIS includes all the cited information as follows:

> "...sufficient information for EPA to fully assess environmental effects that should be avoided in order to protect the environment..."

The EIR/EIS includes extensive analyses related to air quality, water quality, jurisdictional resources, and other environmental parameters as documented in Chapter 3, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and Mitigation Measures. The project includes specific mitigation measures to address adverse impacts to the project. For example, impacts to jurisdictional waters are quantified in Section 3.18.3.1, Summary of Impacts, starting on page 3.18-6 in the EIR/EIS, and figures showing the detailed locations of those effects were added to that section.

> "...EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the Draft EIS which could reduce the environmental impacts of the action..."

The EPA did not identify alternatives to the proposed project in its comments so this part of the EC-2 rating of Insufficient Information would not appear to apply to the SR-91 CIP EIR/EIS.

F-4

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. Box 532711
Los Angeles, CA 90017-3401

July 21, 2011

REPLY TO
ATTENTION OF:
Regulatory Division

David Bricker
Deputy District Director
C/O Aaron Burton
Senior Environmental Planner
Caltrans District 8
464 West 4th Street
San Bernardino, California 92401-1400

Dear Mr. Bricker:

This letter transmits our comments on the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) prepared for the State Route 91 (SR-91) Corridor Improvement Project located in Orange and Riverside Counties, California.

On September 5, 2008, the Corps accepted Caltrans' invitation to become a cooperating agency in accordance with 40 C.F.R. 1501.6 and Section 6002 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). We are reviewing and commenting pursuant to the NEPA Regulations at 40 C.F.R. Parts 1500-1508 and the CWA section 404(b)(1) Guidelines (Guidelines) at 40 C.F.R. Part 230. Only after independent review of the final environmental document to ensure that the project satisfies NEPA and other Corps requirements, can the Corps adopt the final environmental document. F-4-1

Upon review of the Draft EIR/EIS, our comments and concerns with the project are provided as follows:

Proposed Project: Purpose of the Proposed Project Section F-4-2

The project purpose should be broad enough to allow for consideration of a range of reasonable (satisfying NEPA) and practicable (satisfying the Guidelines) alternatives that are

commensurate with the level of environmental impacts, but specific enough that the range of alternatives can be appropriately focused. The needs of the project should take scoping comments into account and be presented in terms of quantified deficiencies (i.e., existing deficiencies, future without-project deficiencies, or both) as compared to some relevant local, regional, state, or national standard or goal. The purpose and need should be sufficiently clear and detailed for the Corps to formulate the basic and overall project purpose pursuant to the CWA section 404(b)(1) Guidelines, and so that it can be used to develop an appropriate range of alternatives.

A concise purpose statement should be developed with the objectives, if necessary. Identifying the purpose of the project as: to provide improvements on SR-91 and I-15 as well as to related local roads, (Purpose 2) limits the reasonable range of alternatives. Please clarify the phrase "to more effectively serve existing and future travel demand between and within Riverside and Orange Counties" and how this would be measured and maintained. How can the reduction of local traffic be measured and maintained given that the regional traffic also utilizes the local community roadways? Would Caltrans/RCTC be able to enforce alternatives that restrict regional traffic from diverting to the surrounding communities? The purpose statement should be clearly written so that it can be used to identify or screen alternatives. F-4-2

The Corps suggests the purpose statement be rewritten to: "The proposed SR-91 Corridor Improvement Project purpose is to maintain or improve the existing and future traffic operations in the SR 91 corridor, between and within Riverside and Orange Counties, in order to improve the safe and efficient local and regional movement of people and goods, while minimizing environmental and community impacts for the planning design year of 2035."

Proposed Project: Need for the Proposed Project Section

State Route 60 and State Route 74 are existing major east-west facilities in western Riverside County that have the potential to serve Orange County. Would improvements along these corridors address the regional traffic concerns? Other route improvements may be practicable off-site alternatives. The Draft EIR/EIS does not address whether these routes could be improved as different alternatives or in conjunction with improvements to the SR-91 corridor to address the regional traffic concerns. F-4-3

The Travel Time and Travel Speeds Section describe the travel times and speeds on the SR-91. Please clarify what is the deficiency and why it is important. Please provide a comparison to acceptable standards or other freeways in the region. Please provide justification for why increase in travel time or decrease in speed is a problem. Data are also provided on the build alternatives in this section. The Purpose and Need should focus on identifying the F-4-4

underlying problems and the reasons a project is being considered and should not be written in a way that includes the potential solution itself. F-4-4

Project Alternatives

Appropriate screening criteria should be discussed in the Alternatives Considered and Eliminated From Further Discussion Section in order to appropriately eliminate any alternative from further consideration. If an alternative is proposed for elimination because it is not "practicable" as defined by the Section 404(b)(1) Guidelines, include a brief rationale of why an alternative is eliminated from further consideration. Please, submit any supporting information to the Corps for review. Alternatives should be developed in coordination with the Corps.

According to the Guidelines at 40 C.F.R. 230.10(a)(1), practicable alternatives can include, but are not limited to: (i) Activities which do not involve a discharge of dredged or fill material into waters of the U.S. or ocean waters and (ii) Discharges of dredged or fill material at other locations in waters of the U.S. or ocean waters. The analysis of a "no fill (i.e, no 404 permit required)" is required and provides the baseline for evaluating impacts to aquatic resources for purposes of documenting compliance with the Guidelines. Please provide a complete description and analysis of a "no fill" alternative (i.e., the most likely scenario if a Corps permit is not granted). Off-site alternatives within and outside of the study corridor should be considered (see comment above). Compliance with the Guidelines is required for all standard individual permits. F-4-5

The Guidelines and Section 404 of the Clean Water Act also require the analysis of alternatives that have less adverse impact on the aquatic ecosystem, including avoidance of special aquatic sites. Please consider span culverts, bottomless culverts, bridges with minimal piers, and other types of drainage features that avoid and/or minimize impacts to waters of the U.S. Additionally, the Guidelines specify where the activity associated with a discharge that is proposed for a special aquatic site does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose, practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise (i.e., you would have to rebut this presumption that practicable alternatives exist that would not discharge fill into special aquatic sites such as wetlands). Please provide a complete description and analysis of a "wetland avoidance" alternative. Avoidance and minimization of impacts to the aquatic ecosystem are required for standard individual permits and general permits. F-4-6

Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or F-4-7

Mitigation Measures

According to Chapter 2, Project Alternatives, *Alternative 2: Add General-Purpose Lanes and extend Tolled Express Lanes (GP + Tolled Express Lanes) Alternative* is the RCTC's preferred alternative. According to Table 3.18.2, Alternative 1 would have fewer environmental impacts than Alternative 2 (applicant's preferred alternative). In order for the project to comply with the Guidelines, the Corps must determine that the proposed project is the Least Environmentally Damaging Practicable Alternative (LEDPA). Based on the information presented in the Draft EIS/EIR, Alternative 1 would be the LEDPA when compared to Alternative 2. The Corps will require further information and analysis regarding the alternatives. Please note that the wetland impacts detailed in Table 3.18.2 are inconsistent with the Natural Environment Study (May 2010). It is unclear where and how aquatic resources would be permanently or temporarily impacted. Figures and/or descriptions of aquatic resources impacted should be included in the EIS/EIR. In addition, secondary and indirect impacts were not discussed and should be disclosed in the EIS/EIR.

F-4-7

The Jurisdictional Delineation report (November 2009) included Appendix C, analysis of functions and values of wetlands and other waters of the U.S. Appropriate functional or condition assessment methods must be aquatic resource-based, standardized, comparable from site to site, peer-reviewed, and must receive prior project-specific approval from the Corps (e.g. CRAM, HGM, IBI, etc.). If a functional/condition assessment methodology is available, the Corps will determine if its use for a project is required. It is appropriate and recommended to include the results of the functional/condition assessment in the EIS/EIR. The functional/condition assessment can be an important tool in understanding the impacts to functions/condition and services and therefore is an important tool for evaluating alternatives in terms of their aquatic resource impacts to the determine the range of alternatives, the LEDPA, and the amount of compensatory mitigation required. Pursuant to NEPA and Corps regulations, seeking public input is necessary to evaluate the likely impact of the proposed activity, if any, on public interest factors. For the SR-91 Corridor Improvement Project, the length, complexity, and amount of resource impacts justify that a functional/condition assessment be conducted. The functional/condition assessment should be disclosed in the Final EIS/EIR in the appropriate chapter(s) or technical report(s). The EIS/EIR should also identify and discuss the cause-and-effect relationships between the project activity and the functions/condition and services of the aquatic resources.

F-4-8

A draft mitigation plan and location of mitigation should be disclosed or included in the Final EIS/EIR and submitted as part of the permit application. An approved final mitigation plan is required before a standard individual permit is issued. Any proposed mitigation shall comply with the 2008 Mitigation Rule (33 C.F.R. Part 332) and the Guidelines (40 C.F.R. Part 230). Please be aware of the compensatory mitigation requirements such as the use of the

F-4-9

watershed approach for identifying mitigation projects, and the required conservation easements and financial assurances for Permittee-responsible mitigation, among other requirements. F-4-9

A quantitative and qualitative impacts analysis of past, present, and reasonably foreseeable projects should be sufficiently detailed in Chapter 3.25.5.10. The resource study area for wetlands and other waters of the U.S. was not defined. The appropriate resource study area to analyze cumulative impacts to wetlands and other waters of the U.S. would be the Santa Ana River watershed or appropriate sub-watershed. Supporting data and analysis should be based on the watershed approach and should include detail from available watershed studies, if any. The Corps can provide data on previously authorized and in-process Section 404 permits to appropriately analyze cumulative impacts to aquatic resources in the Santa Ana River watershed. F-4-10

In our DA permit evaluation process, once the project has been determined to comply with the Guidelines, the project must also be evaluated to ensure that it is not contrary to the public interest. The public benefits and detriments of all factors relevant to this transportation project will be carefully reviewed and considered. Relevant factors may include, but are not limited to, conservation, economics, aesthetics, wetlands, cultural values, fish and wildlife values, water quality, and any other factors judged to be important to the needs and welfare of the people. The following general criteria will be considered by the Corps in evaluating the SR-91 Corridor Improvement Project application:

- The relevant extent of public and private needs;
- Where unresolved conflicts of resource use exist, the practicability of using reasonable alternative locations and methods to accomplish project purposes; and
- The extent and permanence of the beneficial and/or detrimental effects the proposed project may have on the public and private uses to which the area is suited.

F--4-11

No DA permit can be granted if the project is found to be contrary to the public interest or is not the LEDPA. We anticipate working with Caltrans and others in the documentation of our public interest review.

We appreciate your coordination efforts and the opportunity to submit comments on the Draft EIS/EIR. Our agency looks forward to continuing an open dialogue with your respective offices to ensure this environmental review process remains comprehensive, technically sufficient, and transparent for the purposes of public disclosure and informed agency decision- F-4-12

making. If you have any questions, please contact Veronica Chan at 213-452-3292 or via e-mail at Veronica.C.Chan@usace.army.mil. Please refer to this letter and SPL-2008-00798-VCC in your reply.

F-4-12

Sincerely,

Spencer D. MacNeil, D.Env.
Chief, Transportation & Special Projects Branch

F-4-1

It should be noted that this comment letter was submitted after the close of the public comment period. The Corps requested an extension of the review period from the Department, and the Department agreed to accept the Corps' comment letter after the formal closure of the public review period for the EIR/EIS. Complete responses are provided to these comments for the purpose of providing a complete and accurate record and satisfying the requirements of NEPA and CEQA.

A primary focus of this comment letter was the Corps' concerns regarding the SR-91 CIP's compliance with Section 404 requirements for an Individual Permit. Subsequent to the receipt of this comment letter, the Department and the RCTC engaged in extensive consultation with the Corps regarding the jurisdictional determinations, the extent of project impacts to protected waters, and the appropriate type of Section 404 permit. As a result of these consultations and the submittal of a supplement to the jurisdictional delineation, the Corps approved Preliminary and Approved Jurisdictional Determinations on November 22, 2011. Based on the approved Jurisdictional Determinations and review of the refined design of the SR-91 CIP Preferred Alternative, the Corps concurred that the permanent impacts to protected waters would be less than 0.5 ac and that the SR-91 CIP could be approved with a Section 404 Nationwide Permit (verbal communication between Veronica Chan [Corps] and David Thomas [RCTC], November 17, 2011). Therefore, an individual Section 404 Permit and a Section 404(b)(1) alternatives analysis would not be required. These conclusions are consistent with the points of agreement reached at the August 22, 2011, meeting among representatives of the Corps, RCTC, and the Department. That meeting is discussed further in Table 5.2 and on page 5-6 in Section 5.2.2.1, Biological Resources Meetings.

Refer to responses to comments F-4-2 through F-4-11, below.

F-4-2

Section 1.2, Purpose of the Proposed Project, on page 1-11 in the EIR/EIS identifies the project purpose as:

1. Improve the vehicle, person, and goods movement within the SR-91 corridor to more effectively serve existing and future travel demand between and within Riverside and Orange Counties.
2. Provide improvements along the SR-91 and I-15 transportation corridors as well as to related local roads, and to reduce diversion of regional traffic from the freeways into the surrounding communities.

This purpose statement was developed as a collaborative effort among the RCTC, the Department, and the PDT, with consideration of input provided during scoping and during the Section 6002 consultation process. As explained in detail in Chapter 1, Proposed Project, starting on page 1-1 in the EIR/EIS, the SR-91 CIP is one of the projects identified in the LPS developed in the 2005 Riverside County-Orange County Corridor MIS to improve east-west travel between Riverside and Orange Counties. In addition, as a result of very high levels of congestion on SR-91, some travelers use local streets in the City of Corona to bypass congestion on SR-91. As a result, the purpose of the SR-91 CIP was specifically defined to be consistent with the intent of the LPS from the MIS (listed as 1 and 2, above) and to address the issue of diversion of traffic into the City of Corona (listed as 2 above).

The comment requested that the needs of the project be presented in terms of quantified deficiencies (i.e., existing deficiencies, future without-project deficiencies, or both) as compared to some relevant local, regional, state, or national standard or goal. As discussed in Section 1.3.1, Capacity, Transportation Demand, and Safety, on page 1-14 in the EIR/EIS, the deficiencies of SR-91 are quantified in terms of level of service (LOS), which is the nationally recognized metric for highway system performance as documented in the *Highway Capacity Manual* (Transportation Research Board, 2010). LOS is defined in Section 1.3.1.3, Level of Service, on page 1-14, and the different LOS are shown graphically on Figure 1-3 on page 1-15 in the EIR/EIS. The Department identifies LOS F as being a deficient LOS due to the lower speeds resulting from high levels of traffic congestion. The quantified LOS deficiencies are presented in the EIR/EIS for existing conditions (Table 1.4 on page 1-20), 2015 without project conditions (Table 1.6 on page 1-23), and 2035 without project conditions (Table 1.9 on page 1-27). The project purpose statement was written to address this quantified need for improvements to SR-91 in response to these identified operational deficiencies.

As suggested in this comment, the project purpose statement does provide the following specific objectives: (1) "to more effectively serve existing and future travel demand between and within Riverside and Orange Counties," and (2) "to reduce diversion of regional traffic from the freeways into the surrounding communities." The comment then requests clarification on the first objective and how it would be measured and maintained. The objective would be measured by quantifying the LOS under the "with project" conditions. The Department does not establish specific maintenance requirements for maintaining improved LOS; however, State highway projects such as the SR-91 CIP are developed to provide improvements for a design

life of at least 20 years (e.g., through 2035 in the case of the SR-91 CIP). With regard to the objective to reduce diversion of regional traffic from the freeways into the surrounding communities, the comment asks how reduction of local traffic would be measured. It is expected that with the improved LOS on the SR-91 mainline and the availability of additional shared ride capacity on that freeway, fewer drivers will use local streets to traverse the study area, particularly in the City of Corona. Refer to Section 1.3.1.7, Traffic Diversion, for additional discussion regarding potential reductions of traffic diversion off the freeway under Alternatives 1 and 2.

The suggested changes to the purpose statement provided in this comment eliminate key components of the project purpose statement, particularly related to local streets and reducing diversion of traffic into local communities, as compared below.

Project Purpose from the EIR/EIS	Proposed Corps Revisions to the Project Purpose	Comparison
Improve the vehicle, person, and goods movement within the SR-91 corridor to more effectively serve existing and future travel demand between and within Riverside and Orange Counties	...maintain or improve the existing and future traffic operations in the SR-91 Corridor, between and within Riverside and Orange Counties, to improve the safe and efficient local and regional movement of people and goods...	Both statements address improving operating conditions in the corridor.
Provide improvements along the SR-91 and I-15 transportation corridors as well as to related local roads,...	--	Corps has no comparable purpose statement.
...and to reduce diversion of regional traffic from the freeways into the surrounding communities.	--	Corps has no comparable purpose statement.
No comparable purpose statement.	...while minimizing environmental and community impacts for the planning year of 2035.	It is not necessary to have a purpose to reduce impacts because that is already a requirement under CEQA, NEPA, and other State and federal laws and regulations. It is not necessary to identify the planning year in the purpose statement because that year is set as part of the planning for a project (minimum 20-year study period).

CEQA = California Environmental Quality Act
Corps = United States Army Corps of Engineers
EIR = Environmental Impact Report
EIS = Environmental Impact Statement
I-15 = Interstate 15
NEPA = National Environmental Policy Act
SR-91 = State Route 91

Therefore, the purpose of the project as identified in Section 1.2 on page 1-11 in the EIR/EIS was not modified.

It is acknowledged that the Corps may use the suggested purpose statement they provided in this comment to formulate the basic and overall project purpose pursuant to Section 404(b)(1) Guidelines. This was discussed and agreed to at a meeting of August 22, 2011 among representatives of the Corps, RCTC, and the Department. However, because the SR-91 CIP can be covered under a Section 404 Nationwide Permit, a Section 404(b)(1) alternatives analysis is not required. Therefore, a separate project purpose statement is not needed for the Section 404 permit process.

F-4-3

Refer to Section O.5.7, Common Response Related to Alternatives, on page O-30 in Section O.5, Common Responses, for a discussion of alternative routes and why they are not evaluated in the current EIR/EIS. Section O.5.7 explains that, as documented in the 2005 MIS, improvements to SR-74 are needed in addition to improvements in Corridors A and B, and the SR-91 corridor. Those improvements to SR-74 do not replace the need for improvements in the SR-91 corridor.

State Route 60 (SR-60) is a major east-west freeway approximately 10 mi north of and generally parallel to the segment of SR-91 between I-15 in Riverside County and SR-241 in Orange County. SR-60 does not provide a direct connection from Riverside County to Orange County and does not cross the western part of Riverside County from the Orange County line to the City of Riverside. As a result, the SR-60 corridor would not effectively meet the demand for east-west travel between western Riverside County and Orange County. For those reasons, the SR-60 corridor was not considered as an alternative to the proposed SR-91 CIP.

Because there is a clearly quantified need for improving the movement of vehicles, people, and goods between and within Riverside and Orange Counties, "off-site" alternatives such as improving SR-60 are not practicable alternatives.

F-4-4

The desirable and projected LOS are presented in detail in the Executive Summary in the EIR/EIS and in Section 4 in the *Traffic Study Report* (July 2010). They are also discussed in Sections 1.3, Need for the Proposed Project, on page 1-11, and 3.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, starting on page 3.6-1 in the EIR/EIS. Based on Department highway design criteria, the minimum acceptable LOS for an urban freeway is LOS E as described in Section 1.3. The corresponding operating speed for LOS E is 53 mph.

Failure to achieve LOS E would mean failure to meet the Department's cited design criteria. As discussed in Chapter 1 in the EIR/EIS, the approved Riverside County Congestion Management Program sets LOS E as the minimum standard for regional highways in Riverside County. As shown earlier in Figure 1-3, LOS F conditions result in very congested traffic, especially in areas where vehicles have to merge. Furthermore, under LOS F conditions, speeds fall to such low levels that the actual capacity of the freeway lanes is decreased, resulting in even greater congestion and potential stop-and-go conditions.

Based on an operating speed of 53 mph, the corresponding travel time for the comparable 11.5 mi long project segment on SR-91 would be 13 minutes. As discussed in Section 1.3, SR-91 does not currently provide that LOS on most of the length of the project segment in the peak hours and will not provide that LOS under the No Build Alternative in 2015 and 2035; that is the operating deficiency the proposed project would alleviate. Low travel speeds result in longer travel times, which reflect LOS F conditions (lower than LOS E, which as noted above is the Department Guideline and the County Standard). Decreases in travel speeds and increases in travel times reflect continuing degradation of operating conditions in a corridor to unacceptable LOS F conditions. Trip travel times and speeds are key considerations in evaluating and assessing traffic operations because these characteristics are important to travelers as they plan and make trips.

This comment also states that the project purpose statement should not be written in such a way that includes the potential solution itself. The Department does not believe that the phrase "Provide improvements along the SR-91 and I-15 transportation corridors as well as to related local roads" limits the range of alternatives of what improvements could be considered. As discussed in response to comment F-4-2, above, the SR-91 CIP was a project recommended as a result of the 2005 MIS, which itself considered a much broader geographic and modal range of alternatives.

F-4-5

As discussed in an inter-agency consultation meeting with the Corps on August 22, 2011, a Draft Section 404(b)(1) alternatives analysis that includes consideration of alternatives to the project was to be provided as an appendix to the EIR/EIS. However, as a result of refinement to the project design, the SR-91 CIP now meets the criteria for a Section 404 Nationwide Permit; therefore, a Section 404(b)(1) alternatives analysis is no longer required.

Screening of the Alternatives. Appropriate screening criteria were used in both the selection of the original alternatives for evaluation in the EIR/EIS and the identification and selection of the Preferred Alternative. Section 2.3.8, Alternatives Considered but Eliminated from Further Discussion, starting on page 2-140 in the EIR/EIS describes the analysis and screening of 23 alternatives and design variations with the specific reasons why they were screened out.

The evaluation of alternatives and identification of the Preferred Alternative were based on the following screening criteria:

- Best meets the project purpose
- Provides the best travel time savings
- Considers substantially differentiating environmental impacts
- Public comments and preferences
- Consistent with system planning

Refer to Section 2.3.7.1, Identification of the Preferred Alternative, on page 2-124 for additional discussion regarding the screening for the Preferred Alternative.

Section 404(b)(1) Alternatives Analysis. Several Corps comments were based on the impact estimates for Alternatives 1 and 2, as described in the Draft EIR/EIS. That data showed project impacts in the 1–3 ac range, which would have required an Individual Permit. Subsequent to circulation of the Draft EIR/EIS, the project design was further refined in consultation with the Corps, with an objective of reducing wetland impacts. In addition, updated Jurisdictional Determinations were developed that reflected the changes that had occurred in the biological study area (BSA) since the original delineation. Those include impacts from the Corps' Santa Ana River project and the Eastbound SR-91 Lane Addition.

The critical change from the perspective of the Corps is that permanent project impacts to waters under Corps jurisdiction for Alternative 2f, the Preferred Alternative, are now estimated at 0.42 ac, which is under the threshold requirement (0.50 ac) for an Individual Permit. This represents a more than 80 percent reduction in the project effects on Corps jurisdictional waters. As a result, the project now qualifies for a Nationwide Permit, as was discussed in an inter-agency consultation meeting with the Corps on August 22, 2011, and as reflected in modified Measure WET-1 in the EIR/EIS.

Qualifying for a Nationwide Permit changes the permitting requirements for the project. In particular, a Nationwide Permit does not require a Section 404(b)(1) Alternatives Analysis. As noted above, a Draft Section 404(b)(1) alternatives analysis that included consideration of alternatives to the project was to be provided as an appendix to the EIR/EIS. However, as a result of refinement to the project design, the SR-91 CIP now meets the criteria for a Section 404 Nationwide Permit and no Section 404(b)(1) alternatives analysis is included in the final EIR/EIS. In addition, a Nationwide Permit does not require the identification of selection of a least environmentally damaging practicable alternative (LEDPA), comparison to a no-fill alternative, or a functional/condition assessment.

F-4-6

It is acknowledged that the SR-91 CIP will need to comply with the Guidelines and Section 404 of the federal Clean Water Act. Refer to response to comment F-4-5, above, on how avoidance and minimization of impacts to the aquatic ecosystem have been addressed through project design refinements, reducing the project impacts to 0.42 ac, and indicating that the project now qualifies for a Nationwide Permit.

F-4-7

The project impacts to potential waters shown in the NES and in Table 3.18.2 on page 3.18-8 in the EIR/EIS are consistent with each other. The impacts shown in the NES are separated by county and in Table 3.18.2 the impacts are the combined impacts of both counties. As described earlier in response to comment F-3-7, above, Figures 3.18-2 and 3.18-3 were added to and are discussed in Section 3.18.3.1, Summary of Impacts, in the EIR/EIS to show the permanent and temporary project impacts to jurisdictional waters under Alternatives 1 and 2, respectively. As discussed at the meeting on August 22, 2011 among the Corps, the Department, and RCTC, although the acreage of impacts to aquatic resources under Alternative 1 is slightly less (about 0.5 ac) than Alternative 2, this difference is negligible when considered in the context of the overall aquatic ecosystem given the limited functions and values of the impacted acreage. As discussed above in response to comment F-4-5, impacts to waters of the United States have been reduced to a total of less than 0.5 ac.

Refer to the response to comment F-4-5 above, which indicates the project now qualifies for a Nationwide Permit and no LEDPA determination by the Corps is required.

F-4-8

As referenced in Section 3.18.2.1, Corps Jurisdiction, on page 3.18-3 in the EIR/EIS, a qualitative functions and values assessment was included in Appendix C of the *Jurisdictional Delineation Report*. The functions of wetlands and other waters are defined as physical and biological benefits (e.g., habitat for protected species, sediment sorting, groundwater recharge, and biogeochemical cycling). The values of these features are defined as the worth that society places on a specific function such as aesthetics, recreation, or protection of wildlife. In this case, a qualitative functions and values assessment is appropriate, because the project consists of widening an existing highway within an urbanized and highly disturbed area.

As noted in the *Jurisdictional Delineation Report*, the qualitative assessment indicated that the affected wetlands are of low function and value because of their isolated nature in an urbanized setting. In addition, the analysis notes that most of the impacts to other waters are associated with the extension of culverts and relocation of concrete channels. These features mainly function as part of conveyance systems that will treat storm water runoff before being discharged into downstream waters as required under the National Pollutant Discharge Elimination System (NPDES) or as flood control facilities to minimize the flooding risk to the highway and surrounding developments. In addition, these man-made drainage features do not provide substantial value, as defined above, to downstream relatively permanent waters (RPWs) and traditional navigable waters (TNWs). In summary, the qualitative assessment supports the conclusion that the project will have minimal effects on the functions and values of wetlands and others waters in the project area because they are either isolated or have been modified as storm water/floodwater conveyance systems.

F-4-9

Opportunities for compensatory mitigation have been and are currently still being identified. Special attention is being paid to opportunities in the Santa Ana River Watershed, but opportunities in that watershed are limited. The specific location of compensatory mitigation will be determined and developed with the Corps, CDFG, and RWQCB as part of those agencies' permit, authorization, and notification processes. A detailed habitat mitigation and monitoring plan, to be approved by those agencies, will be developed during that process. The compensatory mitigation will comply with the 2008 Mitigation Rule and Guidelines. This mitigation will be conducted outside of the project area but within the Santa Ana River Watershed and near the project area. Options currently under evaluation include CHSP, and

properties owned by the Orange County Water District and the Riverside County Resource Conservation District.

F-4-10

A detailed cumulative impacts analysis is provided in Section 3.25, Cumulative Impacts, starting on page 3.25-1 in the EIR/EIS. Table 3.25.1, Summary of Transportation Projects in the SR-91 CIP Study Area on page 3.25-43, and Table 3.25.2, Summary of Land Development and Nontransportation Infrastructure Projects in the SR-91 CIP Study Area, on page 3.25-55 in the EIR/EIS list and describe the cumulative projects included in the analysis and summarize the environmental impacts expected from each of those projects. Figure 3.25-1 in the EIR/EIS shows the locations of the cumulative projects included in that analysis. Section 3.25.4.10, Wetlands and Other Waters of the United States, on page 3.25-37 specifically discusses cumulative impacts to wetlands and other waters of the United States. Text was added to that section explaining that the resource study area is the Santa Ana River Watershed. A quantitative analysis of cumulative impacts to aquatic resources using a watershed based approach is not warranted given the low quality and amount of the aquatic resources impacted by the SR-91 CIP. In addition, as discussed on page 3.17-27 in the EIR/EIS, compensatory mitigation for riparian communities will be required for the Corps Section 404 at a minimum mitigation-to-effect ratio of 2:1 for permanent effects and 1:1 for temporary effects, which is consistent with Corps policies, for no net loss of riparian/riverine habitat (e.g., wetlands).

F-4-11

Based on the evaluation of the project in the EIR/EIS and the public comments received on the Draft EIR/EIS, the SR-91 CIP Build Alternatives are not likely to be contrary to the public interest. Because the SR-91 CIP qualifies for a Section 404 Nationwide Permit, the Corps will not need to issue a public interest finding for the permit.

F-4-12

The Department and RCTC also appreciate the Corps' active involvement in the development of the Draft and Final EISs as a Cooperating Agency under NEPA, and we look forward to working together through the Section 404 permit process as well.