UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

April 28, 2008

Ms. Raina Fulton
Environmental Coordinator
Department of the Army Corps of Engineers
Los Angeles District
915 Wilshire Blvd
P.O. Box 532711
Los Angeles, CA 90017

Subject: Supplemental Draft Environmental Impact Statement (SDEIS) for the Santa Ana River Interceptor Line Protection/Relocation, Orange and Riverside Counties, CA (CEQ#20080080)

Dear Ms. Fulton,

We appreciate the opportunity to review the SDEIS for the Santa Ana River Interceptor (SARI) Line Protection/Relocation. The SDEIS is intended to evaluate the impacts of the federal action to relocate and protect portions of the SARI to prevent scour and damage from increased discharges from the Santa Ana River Project (SARP). EPA has reviewed the SDEIS and provides comments consistent with our authority provided by Section 309 of the Clean Air Act, the National Environmental Policy Act, and Section 404 of the Clean Water Act. Our detailed comments are enclosed and should be considered in the development of the Final EIS (FEIS).

Based on our review, we have rated this SDEIS as EC-2, Environmental Concerns - Insufficient Information (see attached "Summary of the EPA Rating System"). We have concerns with the following: 1) selection of Alternative OC 3B, Orange County Relocate to the South, "Shallow Alternative" as the preferred alternative over Alternative OC 2, Orange County Relocate to the North, or a similar version that would avoid placing the pipeline across the Santa Ana River; 2) lack of analysis of direct and indirect impacts from the proposed grade control structure and associated water diversion; 3) unconformity with the State Implementation Plan (SIP) for the South Coast Air Basin and exceeding South Coast Air Quality Management District (SCAQMD) regional thresholds for daily construction emissions; 4) insufficient analysis of potential impacts to water quality from areas that have been identified as hazardous waste sites; and 5) a lack of information pertaining to indirect impacts from abandoning the pipeline in place.

EPA recommends the Corps further assess Alternative OC 2, or a similar version in the FEIS, that avoids crossing the Santa Ana River. We also recommend the SARI FEIS include a detailed description of the proposed grade control structure and assess direct and indirect impacts from construction and placement of the structure. To address concerns with construction

emissions and SIP conformity, air quality mitigation measures are recommended, as is additional coordination with the SCAQMD. We also recommend the Corps further analyze potential impacts to water quality from hazardous materials and assess potential indirect impacts and mitigation from abandoning the existing pipeline in place.

EPA acknowledges the level of effort that has gone into the development of the SDEIS, and we appreciate having had the opportunity to coordinate with Corps staff and to discuss our questions and comments in advance. We are available to further discuss our recommendations for the FEIS at your convenience. When the FEIS is released for review, please send one hard copy and one CD copy to the address above (mailcode: CED-2). If you have any questions, please contact me at 415-972-3846 or Paul Amato, the lead reviewer for this project. Paul can be reached at 415-972-3847 or amato.paul@epa.gov.

Sincerely,

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Nova Blazej, Manager
Environmental Review Office

Enclosure:
Summary of EPA Rating Definitions
EPA Detailed Comments

Cc:
U.S. Fish & Wildlife Service
California Department of Fish & Game
Santa Ana Regional Water Quality Control Board
South Coast Air Quality Management District

ENVIRONMENTAL PROTECTION AGENCIES' DETAILED COMMENTS ON THE SANTA ANA RIVER INTERCEPTOR (SARI) PROTECTION/RELOCATION SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS), APRIL 28, 2008

Alternatives Analysis

The Corps and local sponsor should further evaluate Alternative OC 2, or a similar northern alignment, in the Final Environmental Impact Statement (FEIS). The SDEIS evaluates four action alternatives for the Orange County segment of the project, including Alternative OC 2 Relocate to the North. This alternative appears to be environmentally preferable as it would fully avoid an alignment that crosses the Santa Ana River while the other Orange County action alternatives require two river crossings and necessitate a grade control structure in the case of OC 3B, the preferred alternative. EPA is concerned that placing the SARI beneath the channel could subject the river to indirect water quality and biological resource impacts if the pipe were to leak or rupture due to channel erosion, or seismic activity. In addition, EPA is concerned that channel bed degradation could eventually lead to maintenance and repair projects to protect the pipeline, resulting in potential grade changes that could become a barrier to migration for Santa Ana sucker, a federally threatened and California species of special concern.

Alternative OC 2 proposes to use micro-tunneling for most of the pipeline relocation, which would reduce direct surface impacts imposed by open cut trenching and a longer alignment. EPA acknowledges the need for significantly more easements in order to construct OC 2, making project implementation more complicated. As an alternative, we suggest the Corps consider moving the alignment outside the existing residential property boundaries and continuing to work with the Burlington Northern Santa Fe Railroad (BNSF) to obtain necessary right of way. EPA acknowledges that while tunneling can be environmentally preferable, it can also result in increased construction risks and project costs.

> *Recommendation:* EPA recommends the Corps further evaluate Alternative OC 2, or a similar northern SARI alignment, that would avoid potential direct and indirect impacts of crossing under the Santa Ana River and constructing a grade control structure.
>
> We also recommend maximizing micro-tunneling for all OC action alternatives, where feasible, to reduce surface impacts to biological resources.

Waters of the U.S.

Impacts to waters of the U.S. (WOUS) should be further assessed in the FEIS to include impacts from the proposed grade control structure. Alternative OC 3B proposes to place a perforated sheet pile grade control structure immediately downstream of the eastern channel crossing in order to trap sediment and prevent damage to the pipeline from channel bed degradation. However, the SDEIS states that this alternative would not require any river diversion or construction in the active channel (p. 5-33). The SDEIS goes on to explain that any construction within the channel is assumed to occur as part of the Corps of Engineers Reach 9 Phase 2b project which has already been reviewed under NEPA and that any impacts associated

with the grade control structure would be reviewed under a separate NEPA document. The Council on Environmental Quality "Forty Most Asked Questions Concerning NEPA Regulations" states that, "Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement" (Question 4(a)). EPA finds the grade control structure and associated construction impacts, including river diversion, to be part of the single course of action to relocate and protect the SARI and therefore should be described and rigorously evaluated in the FEIS.

> *Recommendation:* The Corps should include a detailed description of the proposed grade control structure and associated construction activities, including river diversion, in the FEIS for the SARI. EPA recommends the Corps consider additional methods of grade control that use geomorphic principles and natural materials to reduce erosion, promote stability, and provide fish passage. Direct and indirect impacts of the grade control structure and associated construction activities should be rigorously evaluated and mitigation described, as appropriate.

Air Quality

The FEIS should commit to additional mitigation measures to ensure Clean Air Act (CAA) conformity provisions for nitrogen oxides (NOx) are met. The CAA conformity provisions prohibit federal funding, permitting, approval or support of any action that would create a new air quality problem or make an existing air quality problem worse. Federal actions must be consistent with State Implementation Plans (SIPs) to improve air quality (Section 176(c)). The SDEIS impacts analysis for air quality states that all Orange County action alternatives would exceed the South Coast Air Basin SIP annual emission requirements for NOx, and exceed general conformity thresholds. The FEIS should commit to additional air quality control measures to reduce annual NOx emissions below SIP requirements.

> *Recommendation:* The Corps should work with the South Coast Air Quality Management District (SCAQMD) to identify additional mitigation measures that further reduce annual NOx emissions from construction activities for the SARI. The FEIS should commit to implementing additional measures that will result in conformity with the SIP and demonstrate how these measures result in conformity.

Additional air quality control measures should be committed to in the FEIS that would reduce daily emissions of NOx, volatile organic compounds (VOC), particulate matter less that 10 microns (PM10), and particulate matter less than 2.5 microns (PM2.5). According to the air quality analysis in the SDEIS, all Orange County action alternatives will result in daily emissions of NOx, VOC, PM10 and PM2.5 that exceed SCAQMD regional thresholds. To further reduce emissions and avoid exceeding SCAQMD daily significance thresholds, the FEIS should commit to implementing additional air quality control measures.

> *Recommendation:* EPA recommends the Corps work with the SCAQMD to identify additional air quality control measures for construction of the SARI, that reduce daily emissions of NOx, VOC, PM10 and PM2.5 below SCAQMD regional thresholds. The FEIS should demonstrate how additional measures result in meeting SCAQMD regional

thresholds. At a minimum, the FEIS should include the following additional mitigation measures to reduce construction emissions:

Fugitive Dust Control Measures

- Install wind fencing and phase grading operations where appropriate.
- 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 Control

- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels 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. Engine certification data can be found at the EPA Engine Certification Data web page: http://www.epa.gov/OMS/certdata.htm.
- Utilize EPA-registered particulate traps and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site.

Administrative controls

- Identify all commitments to reduce construction emissions and update the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.
- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.) Utilize cleanest available fuel engines in construction equipment and identify opportunities for electrification. Use ultra low sulfur fuel (diesel with 15 parts per million or less) in engines where alternative fuels such as biodiesel and natural gas are not possible.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.

Hazardous Waste

Potential hazardous waste impacts should be further evaluated in the FEIS. Hazardous waste investigations are described in the SDEIS and include several potential sources including Resource Conservation and Recovery Act (RCRA) hazardous waste generators, five contaminated drinking water wells, and twelve Leaking Underground Storage Tank (LUST) sites in the project area (p. 5-143). One of the RCRA sites was recorded as having a past oil and hazardous substance release and one of the LUST sites is currently being investigated for a leak.

Specific locations of these various facilities are not provided in the SDEIS or evaluated for potential contamination of groundwater in or near the project area. EPA is concerned that the SDEIS has not adequately assessed whether potential sources of groundwater contamination could result in discharges of hazardous substances to the Santa Ana River. This is particularly important due to the proposed discharge of several million gallons of groundwater per day to the river as part of the Orange County alternatives.

> *Recommendation:* EPA recommends the Corps provide a map in the FEIS that shows the locations of the sites identified in the hazardous materials source investigation. In addition, the FEIS should assess whether any of these locations could contaminate groundwater that would be discharged to the Santa Ana River during construction of the Orange County alternatives. The FEIS should include appropriate avoidance and mitigation measures.

Environmental Consequences and Mitigation Measures

Potential impacts and mitigation measures should be evaluated to address the abandoned pipeline. The SDEIS states that the existing SARI would be abandoned or collapsed in place and describes steps to reduce future risks during flooding but does not address whether there are potential indirect effects from leaving the pipeline in place. EPA is concerned that channel erosion and migration could eventually expose portions of the abandoned SARI, which could result in changes in the grade of the channel bed where the pipeline crosses the channel, exacerbated channel bank erosion if the pipeline is exposed, and discharges of remnant pollutants if they remain in the pipeline. The FEIS should describe potential indirect impacts that could result from the abandoned SARI and provide appropriate mitigation measures, like monitoring after high flows and appropriate channel maintenance measures.

> *Recommendation:* EPA recommends the Corps evaluate the potential indirect impacts to the Santa Ana River from abandoning the existing SARI and describe appropriate mitigation measures in the FEIS.

The FEIS should include success criteria for Arundo donax (giant reed) removal as mitigation for permanent impacts to native riparian vegetation. The Corps has proposed removal of Arundo and other non-native species from riparian areas as a mitigation measure for permanent impacts to riparian habitat (p. 5-24). EPA supports the removal of Arundo and other non-native invasive species and encourages the Corps to include a commitment to adequate success criteria in the FEIS. The Corps should consider ongoing monitoring of removal sites, repeat treatments of infestations, and revegetation with native vegetation where appropriate.

> *Recommendation:* EPA recommends the Corps commit to adequate success criteria for removal of Arundo and other non-native species and include monitoring, repeat treatments and appropriate revegetation of former infestation sites with native vegetation.

The FEIS should clarify the management of the 5-acre orchard that will be disturbed for staging. A 5-acre staging area is proposed in an existing orange grove, adjacent to cottonwood willow and mulefat scrub habitat, as part of alternative OC 2. The SDEIS states that "it is

assumed that the trees would not be replaced or replanted in-kind... resulting in a permanent rather than temporary impact to the portion of the orchard" (p. 5-22). The Corps and local sponsor should consider active restoration of this area to native vegetation to mitigate for project impacts or as an additional enhancement measure of the SARI project. Based on personal communication between EPA and Corps staff (April 24, 2008), the 5-acre site would be managed for open space and wildlife habitat values following completion of the SARI. The FEIS should clarify how the 5-acre site will be managed. The FEIS should commit to active restoration of the area with native vegetation to provide native habitat values and prevent Arundo infestations or colonization from other invasive species that are adapted to areas of disturbance.

> *Recommendation:* The Corps and local sponsor should clarify how the 5-acre, former orange grove, staging area will be managed and commit to active restoration of the site with native vegetation.

The FEIS should clarify the extent of new access roads and associated impacts for the Orange County alternatives. As described in the SDEIS, access points would include "a dirt road extended approximately 6,500 feet from the club house of the Green River Golf Course" (p. 3-46). Based on personal communication between EPA and Corps staff (April 22, 2008), this is an existing dirt road and that 6,500 feet of new road would not be created as the statement suggests. The FEIS should clarify this.

> *Recommendation:* The FEIS should clarify that 6,500 feet of new dirt road will not be created as part of the project.

The FEIS should clarify that the proposed Alternative RC 3 sheet pile and concrete cap will be buried below grade. According to the SDEIS, Alternative RC 3 Riverside County, Sheet Pile Protection would include a four-to-six foot high concrete cap (p. 5-137). Based on personal communication between EPA and Corps staff (April 24, 2008), the sheet pile wall and four-to-six foot high concrete cap will be buried below grade. The FEIS should clarify this.

> *Recommendation:* The FEIS should clarify that the proposed sheet pile and concrete cap will be buried below grade.