

US EPA ARCHIVE DOCUMENT



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

November 11, 2011

John Suazo
U.S. Army Corps of Engineers
Sacramento District, 10th Floor
1325 J Street, (CESPK-PD-R)
Sacramento, CA 95814

Subject: Draft Environmental Impact Statement for Phase 3 of the proposed Reclamation District 17
100-Year Levee Seepage Area Project, San Joaquin County, California, (CEQ #20110301).

Dear Mr. Suazo:

The U.S. Environmental Protection Agency (EPA) is providing comments on the Draft Environmental Impact Statement (DEIS) for Phase 3 of the proposed Reclamation District 17 100-Year Levee Seepage Area Project (Project). Our review, pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. These comments were also prepared under the authority of, and in accordance with, the provisions of the Federal Guidelines promulgated at 40 CFR 230 under Section 404(b)(1) of the Clean Water Act (CWA).

The San Joaquin River, one of California's major rivers, is essential to the health of the San Francisco Bay-Delta watershed. Depleted flows, agricultural runoff/return flows, and intensive use of ground and surface water supplies in the watershed contribute to poor water quality that adversely affects aquatic life, wildlife, recreation, and other beneficial uses. While EPA strongly supports a durable flood protection system for populations and property adjacent to the project area, based on our review, of the DEIS we have rated the project as Environmental Concerns – Insufficient Information (EC-2, see enclosed "*Summary of Rating Definitions*"). Our concerns are based on impacts to flood risk, farmland, water quality, waters of the United States, tribal artifacts, species of concern and environmental justice communities adjacent to the project area.

EPA suggests an evaluation of the river for the entire extent of RD 17-levee system. The evaluation could further identify space and suitable conditions for a range of river flows and functions, including reestablishment of floodplains and conveying water to wetlands. Cooperation across programs and among stakeholders will be important to achieve continuity along the RD 17-levee system and to resolve issues at the interface between the River and adjacent lands. For example, we support continued outreach to partnering organizations, landowners and other stakeholders in developing programs on seepage response, habitat conservation on adjacent lands, and appropriate mitigation of impacts.

Should the project proponent and or the Corps foresee other phases of the Reclamation District 17, (e.g. Phase 4,5,6...), EPA recommends that the Final Environmental Impact Statement (FEIS) fully describe the location, timing, and extent of additional phases in the context of the specific impacts anticipated during Phase 3.

EPA appreciates the opportunity to review the DEIS. When the FEIS is released, please send one hard copy and four electronic copies to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3521, or contact James Munson, the lead reviewer for this project. James can be reached at (415) 972-3800 or munson.james@epa.gov.

Sincerely,

/s/ Connell Dunning for

Kathleen Martyn Goforth, Manager
Environmental Review Office

Enclosures: Summary of EPA Rating System
EPA's Detailed Comments

Cc via email:

Federico Barajas, U.S. Bureau of Reclamation
Steve Culberson, U.S. Fish and Wildlife Service
Phil Isenberg, Delta Stewardship Council
Michael Jewell, U.S. Army Corps of Engineers – Sacramento District
Les Grober, State Water Resources Control Board
Luana Kiger, U.S. Department of Agriculture – Natural Resources Conservation Service
Steve Mayo, San Joaquin County Council of Governments
Molly Penberth, California Department of Conservation
Maria Rea, National Marine Fisheries Service (NOAA Fisheries Service)
Stephanie Spaar, California Department of Water Resources
Carl Wilcox, California Department of Fish and Game

CC:

Jim Edwards, Chairman, Berry Creek Rancheria
Virgil Moose, Chairperson, Big Pine Paiute Shoshone Tribe
Elizabeth Kipp, Chairperson, Big Sandy Rancheria
William Vega, Chairman, Bishop Tribal Council
John Glazier, Chairperson, Bridgeport Paiute Tribe
Rhonda Morningstar Pope, Chairperson, Buena Vista Rancheria
Silva Burley, Chairperson, California Valley Miwok Tribe
Lloyd Mathiesen, Chairperson, Chicken Ranch Rancheria
Robert Marquez, Chairperson, Cold Springs Rancheria
Daniel Gomez, Chairman, Colusa Indian Community
Glenda Nelson, Chairperson, Enterprise Rancheria of Maidu
Israel Naylor, Chairperson, Fort Independence Reservation
Ronald Kirk, Chairman, Grindstone Indian Rancheria
Yvonne Miller, Chairperson, Ione Band of Miwok Indians
Irvin Bo Marks, Chairman, Jackson Rancheria
Melvin R. Joseph, Chairperson, Lone Pine Community
Dennis Ramirez, Chairperson, Mechoopda Tribal Council
Gary Archuleta, Chairman, Mooretown Rancheria
Judy Fink, Chairperson, North Fork Rancheria

Monty Bengochia, Chairperson, Owens Valley Indian Commission
Andrew Freeman, Chairman, Paskenta Tribal Council
Reggie Lewis, Chairperson, Picayune Rancheria
Ruben Barrios, Chairperson, Santa Rosa Rancheria
Nick Fonseca, Chairperson, Shingle Springs Tribal Council
Leanne Walker-Grant, Chairperson, Table Mountain Rancheria
Joe Kennedy, Chairperson, Timbisha Shoshone Tribe
Ryan Garfield, Chairman, Tule River Indian Tribe
Billie Saulque, Chairperson, U Tu Utu Gwaitu Tribal Council
Jessica Tavares, Chairperson, United Auburn Indian Community
Mary Tarango, Chairperson, Wilton Miwuk Rancheria
Marshall McKay, Chairman, Yocha Dehe Wintun Nation
Duane Brown, Environmental Coordinator, Berry Creek Rancheria
Sally Manning, Environmental Director, Big Pine Paiute Shoshone Tribe
Gavin Begaye, Environmental Director, Big Sandy Rancheria
Justin Nalder, Environmental Coordinator, Bridgeport Paiute Tribe
Roselyn Lwenya, Environmental Director, Buena Vista Rancheria
Debra Grimes, Cultural Preservation Specialist, California Valley Miwok Tribe
Terry Williams, Environmental Director, Cold Springs Rancheria
Oscar Serrano, P.E., Senior Engineer, Colusa Indian Community
Cindy Smith, EPA Planner, Enterprise Rancheria of Maidu
Dennis Mattinson, Environmental Director, Fort Independence Reservation
Christa Stewart, Environmental Director, Greenville Rancheria
Rudy Inong, Environmental Director, Grindstone Indian Rancheria
Sarah Norris, Environmental Planner, Ione Band of Miwok Indians
Michael Fallon, Environmental Director, Jackson Rancheria
Mel O. Joseph, Environmental Coordinator, Lone Pine Community
Mike Despain, Environmental Director, Mechoopda Tribal Council
Guy Taylor, Tribal EPA Director, Mooretown Rancheria
Brett Matzke, Environmental Director, North Fork Rancheria
Teri Red Owl, Executive Director, Owens Valley Indian Commission
Leslie Loshe, Environmental Director, Paskenta Tribal Council
Samuel Elizondo, Environmental Director, Picayune Rancheria
Allen Berna, Environmental Director, Santa Rosa Rancheria
Rhonda Dickerson, Tribal EPA Director, Shingle Springs Tribal Council
Cliff Raley, Environmental Compliance, Table Mountain Rancheria
Don Forehope, EPA Director, Timbisha Shoshone Tribe
Kerri Vera, Environmental Director, Tule River Indian Tribe
Stephanie Suess, Environmental Manager, Tuolumne Me-Wuk Tribal Council
Juanita Watterson, Environmental Director, U Tu Utu Gwaitu Tribal Council
David Sawyer, Environmental Contact, United Auburn Indian Community
Emily Reeves, Environmental Coordinator, Yocha Dehe Wintun Nation
Dante Nomellini, Sr., Nomellini, Grilli & McDaniel

EPA'S DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR PHASE 3 OF THE PROPOSED RECLAMATION DISTRICT 17 100-YEAR LEVEE SEEPAGE AREA PROJECT, SAN JOAQUIN COUNTY, CALIFORNIA, NOVEMBER 21, 2011

Purpose and Need

The purpose for the action stated in the DEIS on page 1-7 is levee improvements. Of broader interest is the restoration of the San Joaquin River. This is demonstrated by the San Joaquin River Restoration Settlement Act, part of the Omnibus Public Land Management Act of 2009, Public Law 111-11. This legislation created the San Joaquin River Restoration Program. The program intends to restore flows to the San Joaquin River from Friant Dam to the confluence of Merced River and restore a self-sustaining Chinook salmon fishery in the river while reducing or avoiding adverse water supply impacts from restoration flows. The restoration effort is lead by the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service, the California Department of Water Resources (DWR), and the California Department of Fish and Game (CDFG). The Corps and EPA have also participated in this restoration program.

These agencies are also heavily involved in numerous efforts underway to secure and upgrade water supply infrastructure in the Sacramento-San Joaquin Delta, and restore aquatic habitats necessary for the recovery of special status species. Among these efforts are proceedings about water quality and beneficial uses administered by the State Water Resources Control Board, and regional planning processes spearheaded by the Delta Stewardship Council (DSC). The mandate of the DSC is to advance the "co-equal goals" of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The study area for the proposed Phase 3 project encompasses an environmentally strategic region at the junction of the lower San Joaquin River and the South Delta where new infrastructure and habitat restoration will be melded to achieve the co-equal goals.

Given the public/private partnerships aimed at restoring the San Joaquin River and the Delta, this NEPA process presents the Corps with a unique opportunity to simultaneously advance improved flood protection, the conservation of agricultural lands, and the restoration of aquatic resources. However, the DEIS proposes to "lock-in" levees that were previously constructed in the floodplain and are serving to channelize the eastern bank of the River and fragment the floodplain. This will increase the protection from flooding, and could induce the development of farmlands and open space in the region. EPA recommends that this project be utilized to relocate and upgrade the levee network consistent with the larger restoration efforts underway on the San Joaquin River and within the Delta.

The DEIS recognizes flood protection, but could go further to assist in the river restoration. The purpose and need assessment addresses the need for renovation of the San Joaquin River (River) levees, but could provide more details on the general health of the river environment in the overall RD 17 levee system. Furthermore, the DEIS does not adequately identify protection of agricultural lands as part of the purpose and need.

Recommendation:

EPA recommends that the Purpose and Need for this project be expanded to include: restoring aquatic habitats, reconnecting the San Joaquin River to its historic floodplain, and managing floodwaters in the lower San Joaquin River watershed by increasing the areal extent of floodplain dedicated to floodwater storage and groundwater recharge.

Alternatives

The DEIS provides a limited set of alternatives which include two action alternatives and a no action. Alternative 1 represents the minimum disturbance and Alternative 2 represents maximum disturbance

scenario. The DEIS lacks an evaluation of the river for the entire extent of RD 17-levee system. Such an evaluation could further identify space and suitable conditions for a range of river flows and functions, including reestablishment of floodplains and conveying water to wetlands. We note that cooperation across programs and among stakeholders will be important to achieve continuity along the RD 17-levee system and to resolve issues at the interface between the River and adjacent lands. For example, we support continued outreach to partnering organizations, landowners and other stakeholders in developing programs on seepage response, habitat conservation on adjacent lands, and appropriate mitigation of impacts.

Recommendations:

Include in the FEIS the following modifications to both alternatives:

- 1) Include measures for both restoration of the river as well as flood protection (e.g. levee improvements/setbacks and reconnecting the floodplain to the river); and
- 2) Include provisions for an easement on farmland adjacent to the levee, with a description of possible easement opportunities to ensure protection of the farmland in perpetuity.
- 3) If there will be additional phases of the proposed project (Phase 4, 5, 6...), fully describe the location, timing, and extent of additional phases in the context of the specific impacts anticipated during Phase 3. Include a description of the type and timing for additional National Environmental Policy Act (NEPA) documentation that may accompany future phases.

Regarding practicability of the proposed project, the FEIS should examine the cost of catastrophic flooding as a result of hydrostatic pressure confined by a non-setback levee system as proposed in Alternative 1 described on pages 1-16 of the DEIS. Page ES-3 of the DEIS states “potential structural and content value of property damages for a levee breach within the area protected by the RD 17 levee system is estimated to be greater than \$900 million.”

Flood Plain Restoration and Management

Per Flood Insurance Rate Maps (FIRM), portions of the project footprint may be in a Zone AE (100 year) with base flood elevations determined (EL 9' - EL 25')¹. Executive Order 11988 Floodplain Management requires federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of flood plains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

The project aims to increase the levees' resistance to underseepage and/or through-seepage (p. 3) for up to 100-year flood events by modifying levee slope and crown widths, constructing seepage berms and setback levees with seepage berms, and installing slurry cutoff walls and toe and chimney drains.

Recommendations:

¹ See FIRMs:

1. 06077C0605F SAN JOAQUIN UNINC&INC AREAS 10/16/2009
2. 06077C0465F SAN JOAQUIN UNINC&INC AREAS 10/16/2009
3. **06077C0620F SAN JOAQUIN UNINC&INC AREAS 10/16/2009**

EPA encourages expanding the carrying-capacity for floodwaters with levee setbacks that reconnect the historic floodplain throughout the portion of the River watershed in the project area.

The FEIS should include a plan for a systematic approach to protect public safety and existing infrastructure, conserving agricultural lands and remnant habitats, and advancing the recovery of floodplain functions and ecosystem processes. The systematic approach should the following six elements:

1. Where the footprint of existing infrastructure constrains the design flexibility for strengthening and upgrading the existing levees, then conventional engineering approaches should be used on these levee segments/river corridors.
2. Where the levee network is bounded on one or both sides by agricultural lands and open space, aggressive measures should be taken to work with the farming community to relocate/set-back levees to restore floodplain function and to increase the local carrying capacity for floodwaters.
3. In the case of element #2 above, for the strips of land removed from agricultural production and returned to floodplain function, the government should compensate landowners for any lost agricultural revenue or property access via conservation easements funded by one or more of the programs referenced above.
4. The recovered floodplains should be re-vegetated with locally native plants and trees as a means to recover the riparian forest. By restoring riparian forest on the waterside of the levees, vegetation on the levees themselves can be removed according to the wishes of the Corps and RD-17, and adverse effects on the recovering riparian corridor could be avoided. This has the beneficial programmatic effect of rendering moot the Corps' controversial levee vegetation policy - Engineering Technical Letter (ETL) 1110-2-571.
5. Restoration of floodplains and waterbodies on the lower San Joaquin River should be linked with efforts by agencies and NGOs elsewhere in the San Joaquin River basin to establish floodplain bypasses, restore riparian corridors, reconnect remnant habitats, and conserve working landscapes, including:
 - a. San Joaquin River Restoration program: <http://www.restoresjr.net/>
 - b. South Delta Flood Bypass:
<http://www.ens-newswire.com/ens/apr2008/2008-04-08-091.html>
 - c. San Joaquin River Partnership:
<http://www.sanjoaquinriverpartnership.org/>
6. The change (increase) in flood carrying capacity afforded by the levee setbacks should be documented and counted as a benefit of the project.

Protection of Farmland

The purpose and need includes protection of agricultural lands (p. 1-8). San Joaquin County has experienced substantial population growth in areas such as Tracy, Manteca and Modesto. Given the location of this project, much of the area to be protected by levees is at risk of conversion from farmland to residential communities. The DEIS does not, however, acknowledge that the proposed project may induce conversion of agricultural lands and open space into residential, commercial, or industrial development.

Across the entire 6,345 acre envelope of agricultural land that is "subject to flooding" (p. ES-3), resource and regulatory agencies should make every effort to purchase conservation easements to conserve vital agricultural soils and remnant habitats, and to prevent development that might be induced by the proposed project. The public cost of these easements would be a fraction of the cost to human life, property, and emergency services if the area is developed and then flooded by a reasonably foreseeable storm event.

Recommendations:

The FEIS should acknowledge that the proposed project is likely to induce the conversion of agricultural lands and open space into residential, commercial, or industrial development as described in Chapter 4.

Include in the FEIS a commitment by the Corps and Reclamation District No. 17 for more rigorous review and approval procedures for applications to convert agricultural land in flood prone areas to residential, commercial, or industrial development. These more rigorous procedures should apply not just to RD-17, but across the geographic region covered by the Central Valley Flood Protection Plan (see page 5, Figure 3 in the *Central Valley Flood Protection Plan*: <http://www.water.ca.gov/cvfmp/docs/CVFPP-ProgressReport-201101.pdf>).

EPA recommends that the Corps and Reclamation District No. 17 engage with the Natural Resources Conservation Service, the California Department of Conservation, San Joaquin County Council of Governments, California Department of Fish and Game, Department of Water Resources, Fish and Wildlife Service, and non-governmental organizations to discuss purchasing conservation and flood easements across the “6,345 acres of agricultural lands that are subject to flooding” (p. 1-8). The agencies could initiate direct talks with the farming communities in the area to encourage the sale of easements, and farmers could be compensated for lost agricultural production wherever levees are relocated (setback) so historic floodplains and sub-watersheds can be reconnected to water bodies in the study area (i.e., French Camp Slough, Walthall Slough, and the San Joaquin River proper).

Potential sources of easement funding include:

- a. NRCS Landscape Planning Program
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape>
- b. NRCS Bay Delta Initiative
<http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/farmland/initiatives/?&cid=stelprdb1041880>
- c. NRCS Buffer Initiative – California
<http://www.ca.nrcs.usda.gov/programs/buffer.html>
- d. San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
http://www.sjcog.org/programs-projects/Habitat_files/Habitat-Main-page.htm
- e. DOC California Farmland Conservancy Program
<http://www.conservation.ca.gov/dlrp/cfcp/Pages/Index.aspx>
- f. DFG-WCB: Riparian Habitat Conservation Program and Ecosystem Restoration on Agricultural Lands (ERAL)
<http://www.wcb.ca.gov/Programs/>

Water Quality

The project would impact river water quality if petroleum products or other construction-related wastes, such as cement, solvents, and/or disturbed and eroded soil, are discharged into storm water runoff and/or groundwater during project construction and operation. As a result, the proposed project could cause loss or degradation of fish and other aquatic, woodlands, and shaded riverine habitats.

The upper River is listed as impaired under Clean Water Act Section 303(d) and has Total Maximum Daily Loads for organophosphorus pesticides, salinity and boron, selenium, total dissolved solids, and mercury in Delta channels; the Stockton Deepwater Ship Channel downstream of the Phase 3 project is being addressed for dissolved oxygen.

Recommendations:

The FEIS should provide more information on how to mitigate the project's potentially significant impact on receiving water quality from storm water runoff and erosion and should commit to mitigation measures to minimize chemical introduction into the river system. We suggest soil sampling be completed preconstruction to ascertain what type of chemicals would potentially enter the river during hydrological events (e.g. storms, runoff and flooding) and or construction of the project.

Include a map identifying specific locations where runoff is expected and where specific design features for storm water management will be placed (revegetation, erosion control measures, etc.).

Include storm water performance standards for both construction site sediment control and post-construction project design standards in the FEIS.

FEIS should include an estimate of potential increases in storm water runoff locations and volume, and locations for specific design features to minimize discharges and dissipate energy.

Employ BMPs as described in Tables ES-2 and 4-3, to maintain or reduce the peak runoff discharge rates, to the maximum extent practicable, as compared to the pre-project conditions.

Waters of the United States

As part of the public review process, the Corps is required to determine whether a project complies with the Section 404(b)(1) Guidelines (40 CFR Part 230). The Section 404(b)(1) Guidelines prohibit the discharge of dredged or fill materials to waters of the United States if there is a "practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences" (40 CFR §230.10a). An alternative is "practicable" if it is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes" (40 CFR §230.10(a)(2)).

Section 5.4 of the Draft EIS/EIR notes that a second supplemental jurisdictional wetland delineation was being prepared to account for adjustments in the Phase 3 footprint, (p. 50-3). Comments provided in this letter reflect the information provided in the Draft EIS/EIR, and supplemental comments may be provided once the second supplemental jurisdictional wetland delineation is completed.

Recommendations:

To demonstrate compliance with CWA Guidelines, the FEIS should identify and quantify measures and modifications to avoid and minimize impacts to water resources for the preferred alternative. The FEIS should report these numbers in map and table form for each impacted water and wetland feature.

The FEIS should include updated or revised information regarding a change to the extent of impacts to jurisdictional waters to EPA when completed.

Consultation with Tribal Governments

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal

officials in the development of federal policies that have tribal implications, and to strengthen the United States' government-to-government relationships with Indian tribes. As stated in Appendix B, the "absence of specific information in the sacred lands file does not indicate the absence of cultural resources", (Letter Native American Heritage Commission dated May 24 2010). However, the location and nature of the Project highly increases the risk of disturbance tribal artifacts and sensitive sites. EPA understands that there are over thirty tribes with possible historic connections to the project area.

Recommendations:

The FEIS should describe the process and outcome of government-to-government consultation between the Corps and each of the tribal governments affected by the project, issues that were raised (if any), and how those issues were addressed in relation to the proposed action and selection of a preferred alternative. President Obama directed all federal agencies to develop an action plan to implement this Executive Order by February 3, 2010. For more information refer to: <http://www.whitehouse.gov/the-press-office/memorandum-tribal-consultation-signed-president>.

The FEIS should comply with the Corps Tribal Consultation guidance developed under Executive Order 13175. For more information go to: http://www.usace.army.mil/CECW/TribalIssues/Documents/poa_usace_07jan10.pdf

National Historic Preservation Act and Executive Order 13007

The DEIS cultural resources section 3.7 does a very good job of describing the history of the Project area. The Project includes disturbance of previously undisturbed lands. Four example types of disturbance could include grading, filling, vegetation clearing, and increased vehicle traffic. There is a "possibility that significant cultural resources would be damaged" (p. 3.7-18). EPA understands that these possible significant impacts could include cultural sensitive areas and or tribal artifacts.

Consultation for tribal cultural resources is required under Section 106 of the National Historic Preservation Act (NHPA). Historic properties, under the NHPA, are properties that are included in the National Register of Historic Places (NRHP) or that meet the criteria for the National Register. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, to consult with the appropriate SHPO/THPO.

Executive Order 13007, Indian Sacred Sites (May 24, 1996), requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian Religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site.

Recommendations:

The FEIS should include a summary of a comprehensive Archaeological survey. This survey should list and quantify the findings of test pit analysis performed in the Project area.

Species of Concern

The proposed project could significantly impact species of concern and their habitats. Page 3.6-18 states that "Four of these species are Federally listed or State-listed as threatened or endangered: valley elderberry longhorn beetle, Swainson's hawk, California tiger salamander, and riparian brush rabbit."

However page 5-4 indicates that adverse impacts could also occur to Central Valley steelhead and Southern distinct population segment (DPS) of North American green sturgeon. The Draft EIR/EIS proposes to mitigate for impacts to species in the project area. It does not fully quantify what direct and indirect impacts will occur to habitats adjacent to the project area.

Recommendation:

The FEIS should include the results of the Section 7 consultation with the United States Fish and Wildlife Service and the National Marine Fisheries Service, if appropriate. Where possible, we recommend that mitigation measures be identified for all special status species adversely affected by direct and indirect impacts of the project.

The DEIS indicates that comprehensive mitigation as well as compensatory mitigation plans for special status species would be implemented. The FEIS should include additional information on the proposed mitigation measures these plans would contain so that their effectiveness can be assessed and disclosed.

Environmental Justice

The DEIS identifies the project as having impacts to environmental justice communities in the contexts of tribes and the possible significant disturbance of Native American artifacts. However; the document fails to adequately address the impacts of the project on low income environmental justice communities adjacent to the project areas that could possibly be impacted by construction emissions geographic modifications, limited recreation opportunities and flood risk both during construction activities and as a final result of the project.

Recommendations:

The FEIS should identify all potential environmental justice communities in the project area.

The FEIS should identify the types of short- and long-term impacts likely to occur as a result of the project. We recommend quantifying impacts to all communities adjacent to the project areas that could be adversely impacted by the project.