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

SEP 09 2014

Ms. Anne Baker
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814-2922

Subject: West Sacramento Project Draft Environmental Impact Statement / Environmental Impact Report, Yolo County, California [CEQ# 20140193]

Dear Ms. Baker:

The Environmental Protection Agency has reviewed the Draft Environmental Impact Statement for the above project. Our review and comments are 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.

EPA acknowledges the need for reliable flood protection in the West Sacramento area and the need to address levee deficiencies as part of the West Sacramento Area Flood Control Agency and the State of California's Central Valley Flood Protection Board's overall flood risk management strategy. We further note that the purpose of the DEIS is to analyze the federal interest in protecting against a catastrophic failure of the levees that would result in major impacts to residents, infrastructure, and property. The West Sacramento Project DEIS, along with Early Implementation Projects for other levees, have provided an opportunity to consider flood protection holistically in the project area and to consider how levee design and maintenance can improve climate change resiliency.

The Southport Sacramento River Early Implementation Project DEIS released in November 2013 overlaps with part of the current proposed project. EPA submitted comments on that DEIS in January 2014. We were pleased that the Southport DEIS included a proposed setback levee, the use of dredged material from the Sacramento River Deep Water Ship Channel Project as a source of borrow material, and limited vegetation removal on the existing levees. This proposals and its environmental impacts are described briefly in the DEIS for the West Sacramento Project, but the document could benefit from references to the more detailed project description and environmental analysis from the Southport DEIS.

EPA has questions and concerns about impacts to wetlands and waters of the U.S. that could be resolved through clarification or additional information. We recommend that the Final EIS provide additional information as to how the preferred alternative was determined to be the Least Environmentally Damaging Practicable Alternative and how the Corps will avoid impacts to wetlands and waters of the U.S. We further recommend that the FEIS outline the timing for when wetlands delineations will be

conducted and describe a process for updating the impact analysis if the delineation is significantly different from expected.

In light of the above stated concerns, and as further described in the attached detailed comments, we have rated the DEIS action alternatives as *Environmental Concerns – Insufficient Information* (EC-2). Please see the enclosed "Summary of EPA Rating Definitions."

We appreciate the opportunity to review this DEIS. Should you have any questions regarding our comments, please contact me at (415) 972-3521, or contact Jean Prijatel, the lead reviewer for the project. Jean can be reached at (415) 947-4167 or prijatel.jean@epa.gov.

Sincerely,

Connell Dunning

FOR Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosures: Summary of EPA Rating Definitions
EPA Detailed Comments

cc: Marshall McKay, Yoche Dehe Wintun Nation, Chairman
Raymond Hitchcock, Wilton Rancheria, Chairman
David Keyser, United Auburn Indian Community, Chairman
Rhonda Morningstar Pope, Buena Vista Rancheria, Chairperson

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.

"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 analysed 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 analysed in the draft EIS, which should be analysed 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.

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR WEST SACRAMENTO PROJECT GENERAL REEVALUATION REPORT, YOLO COUNTY, SEPTEMBER 9, 2014

Impacts to Waters of the United States

The Avoidance, Minimization, and Mitigation Measures for the Vegetation and Wildlife section of the DEIS (Section 3.6.7) discusses compensation and standard minimization measures for the alternatives, but does not address how impacts to Waters of the United States would be avoided to the maximum extent practicable. The Section 404(b)(1) Water Quality Evaluation in Appendix F and the DEIS identify the preferred alternative as the Least Environmentally Damaging Practicable Alternative, but do not provide sufficient justification for how that determination was made.

> ***Recommendation:*** Clearly explain, in the FEIS, how the Corps would avoid impacts to wetlands and other waters of the U.S. to the maximum extent practicable. We recommend that the FEIS also include a more explicit discussion of how the preferred alternative was determined to be the LEDPA.

The wetland acreages cited in the DEIS are estimates based on aerial imagery, vegetation type, and some field observations (page 106), but no official delineations have yet been completed. EPA's experience is that on-the-ground delineations can be substantially different from estimates based on aerial imagery.

The DEIS lists acres of wetlands impacted for each levee section, but does not provide tables or maps of wetland and riparian impact locations for the alternatives. Page 106 of the DEIS references Figure 3.6-1 as showing land cover types that are, or could be, wetlands or waters of the U.S.; but the Figure is absent from the DEIS. Additionally, the discussion of impacts does not clearly differentiate between permanent loss of acres and temporary impacts from construction.

> ***Recommendations:*** Explain, in the FEIS, when wetlands delineations will be conducted and how the impact analysis could be altered by any significant changes to the estimated quantity of impacted acreage.
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> Provide maps and tables to more clearly communicate impacts to wetlands, waters of the U.S., and other habitat types. Show impact numbers broken out into permanent and temporary impacts. We recommend the inclusion of an additional table illustrating impacts for each alternative by habitat type.

Impacts to Riparian Habitat

The DEIS alternatives and impacts analysis repeatedly mention and rely upon a vegetation variance to be requested by the Sacramento District from the standard vegetation guidelines set forth in the Corps' Engineering Technical Letter (ETL) 1110-2-583. It appears that the variance would apply to the Sacramento River Levee and the Sacramento River South Levee sections of the project, but it is unclear whether both areas would be covered under a single variance or whether there would be multiple requests and evaluations. The range of impacts to riparian habitat would increase from 65 acres to 99 acres if the variance is not granted for the project. It further appears that the determination of the LEPDA relies upon the variance being issued.

> ***Recommendation***: The FEIS should clarify the process for, and timing of, requesting a variance and the likelihood that it will be obtained. Include a commitment to conduct additional impact analysis should the variance not be obtained.

The DEIS discloses that there will be a significant temporal loss to riparian habitat as it will take many years for the newly planted trees and plants to mature for permanent mitigation. The DEIS does not specifically identify any mitigation for the temporal loss of riparian habitat. The document further acknowledges the value of heritage trees as natural assets in the project area and references a mitigation measure to comply with local ordinance requirements for removal permits (page 122) and to protect heritage trees that do not need to be removed.

> ***Recommendations***: The FEIS should describe measures that could mitigate the temporal loss of riparian habitat, and clearly state whether or not such measures would be implemented.
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> Commit to avoid removal of heritage and non-heritage mature trees in riparian habitat to the maximum extent practicable. Include, in the FEIS, details of the local ordinances and requirements for tree removal permits.

The DEIS provides numbers for riparian acres impacted, but it is unclear whether those acres include areas where erosion control rocks will be placed without removal of all trees and vegetation.

> ***Recommendation***: Clearly identify the acreage or linear feet of waterside levee that would be hardscaped with rock, as opposed to those areas that will remain riparian habitat with some erosion control.

Habitat Mitigation

EPA appreciates the Corps' apparent sensitivity to the need to avoid destruction of mature forests, wetlands, and shaded riverine aquatic habitat to the greatest extent possible. Where avoidance is not possible, mitigation is proposed, but discussed in general terms with no specific mitigation locations identified.

> ***Recommendations***: In the FEIS, identify and screen possible onsite and offsite habitat mitigation locations. Potential restoration sites in the vicinity might be found immediately upstream of the project area in and around the confluence of the American and Sacramento rivers and Steelhead Creek (e.g. Yolo County Park, Discovery Park, Camp Pollock).
>
> Commit to implementing mitigation concurrently with the project impacts, and implementing riparian mitigation as early in the project as possible to help compensate for the temporal loss of riparian habitat.
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> EPA would appreciate the opportunity to review and comment on the Corps' draft mitigation and monitoring plan when it becomes available.
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> Given the lifespan of the project, the Corps has an opportunity to safeguard genetic diversity and resiliency in the North Delta ecosystem. EPA encourages the Corps to consider hiring a reputable nursery early in project implementation to collect acorns of the oldest and most vulnerable trees; seedlings could be propagated in the nursery for installation on-site or in mitigation areas while preserving the genetic material of the original mature trees. Frequency and yield of acorns from older trees can be limited, making early planning and implementation of this strategy particularly important. A similar strategy could be employed for native prairie species to secure the ecological value of native prairie habitat and the needs of the Western Burrowing Owl.

The Corps proposes perpetual protection for the establishment of elderberries and VELB habitat, but only short-term stewardship for other types of habitat subject to compensatory mitigation (page 121).

> ***Recommendation***: In keeping with the federal compensatory mitigation rule, the Corps should commit in the FEIS to take measures to ensure that any mitigation sites established as part of this project are permanently protected and managed with appropriate conservation easements, stewardship endowments, and management plans.

Setback Levee

The preferred alternative proposes a setback levee for the Sacramento River South Levee section of the project. This concept was further analyzed in the Southport Sacramento River Early Implementation Project Environmental Impact Statement/Environmental Impact Report, which EPA commented on in January 2014. EPA encourages the use of setback levees, where possible, to provide opportunities for flood protection and floodplain and ecosystem restoration. The DEIS for the current project states that Corps staff relied upon the previous DEIS for analysis, but does not provide references to or summaries of that analysis in the project description and impact analysis. Without such references to the Southport DEIS, it is difficult to understand if the current project is dependent upon implementation of the Southport project or if the setback levee in the West Sacramento Project DEIS would proceed independent of that project.

> ***Recommendations***: EPA recommends that the relationship between the Southport Sacramento River Early Implementation Project at the West Sacramento Project be clarified in the FEIS. Where the project description and environmental analysis relies on the Southport DEIS, the FEIS should provide summaries of and citations to the previous document. Where the description and analysis differ from the Southport project, those differences should be highlighted. The FEIS should also clearly describe the status of the Southport project and potential barriers to its implementation.

Reuse of Dredged Material

The proposed levee measures would use up to 9 million cubic yards of borrow material in their construction. Plate 2-1 provides a map of potential borrow sites, but neither the map nor the DEIS identify which borrow areas are existing dredged material stockpiles. Ongoing Corps projects generate the vast majority of dredged material in the Delta, and past Corps dredging accounts for most of the stockpiles of previously-dredged material around the Delta. This project represents an opportunity to access and reuse stockpiled dredged material.

> ***Recommendation***: The FEIS should commit to maximize the use of already stockpiled dredged material and future maintenance material from the Deep Water Shipping Channel to the greatest extent possible. Early coordination between project managers for this project and the DWSC could further provide easily accessible dredged material for the project, thereby reducing environmental impacts.

Air Quality

The DEIS focuses the air quality analysis on borrow site activity and the construction impacts of the project, which would occur over eighteen years, with most levees under construction for one to three years each. Pollutants of concern are identified as ozone, carbon monoxide, and particulate matter, while the discussion also includes toxic air contaminants. Due to the location of the project area and the potential borrow sites, air quality analyses are included for the Yolo-Solano, Sacramento Metropolitan,

and Bay Area Air Quality Management Districts. The DEIS acknowledges that the air quality management districts' regulations may change over the duration of the project and commits to consulting with the districts prior to construction. The air quality analysis in the DEIS is based on a worst-case scenario for borrow sites and miles driven, as the borrow sites have yet to be confirmed.

> ***Recommendations***: Air quality impacts could vary significantly depending on the location of the borrow sites. To help inform the planning process of borrow site selection throughout the project, the FEIS should include a discussion and summary table detailing the borrow site options and their comparative air quality impacts, and commit to selecting sites that minimize impacts.

Alternatives for Erosion Control

The DEIS includes rock slope protection (also known as riprap) for all of the alternatives. In 2004, the U.S. Fish and Wildlife Service published an updated report *Impacts of Riprapping to Aquatic Organisms and River Functioning, Lower Sacramento River, California*, which documents the negative effects of rock slope protection. Possible alternatives to riprapping are suggested in the FEMA brochure *Engineering with Nature: Alternative Techniques to Riprap Bank Stabilization*. Riprap alternatives include bio-engineering, hydro-seeding, controlled planting, and construction of engineered logjams.

> ***Recommendation***: Explore alternatives to riprap for erosion control. Discuss such alternative methods in the FEIS, including the extent to which each method would be compatible with the West Sacramento Project needs and the Corps' vegetation policy.

Climate Change

The DEIS states that the action alternatives would improve the resiliency of the levee system with respect to the effects of climate change (beginning page 258), which could include changes to temperature and rainfall, increasing the risk of flooding. In light of the President's November 1, 2013 Executive Order 13653 "Preparing the United States for the Impacts of Climate Change," there is an opportunity with the West Sacramento Project to illustrate and maximize the climate-resilient benefits of levee design and floodplain restoration. The DEIS simply states, for each alternative, that the levee enhancements would improve resiliency, but provides few details.

> ***Recommendation:*** We recommend that the FEIS reference Executive Order 13653 in the discussion of the regulatory environment, and include a more detailed discussion about the impacts to climate change resiliency for each of the alternatives. For example, explain how the differences in the alternatives would change the level of resiliency, particularly for the setback levee in the preferred alternative.

Residual Flood Risk

Even with the proposed improvements to the West Sacramento levees, residual flood risk will remain for the properties protected by the levee system. The National Levee Safety Committee[1] recommends communicating residual risk behind levees on a regular basis, and the DEIS mentions that the General Reevaluation Report discusses educating the public about residual flood risk, but no such discussion is included in the DEIS.

> ***Recommendations:*** In the FEIS, explain how the residual risk behind levees will be communicated to the public, and include a commitment to ensure that this occurs. Such communication should clearly convey: the level of protection provided by the levees during and

[1] http://www.leveesafety.org/docs/NCLS-Recommendation-Report_012009_DRAFT.pdf

after construction; the fact that levees may fail or be overtopped; and that the area is a floodplain, with indications of the depth of flooding when the levee fails or is overtopped. We recommend that the Corps also commit, in the FEIS, to commenting on the adequacy of the current City of West Sacramento Emergency Operations Plan to provide insights about the project enhancements and residual risk. Consider seeking a voluntary commitment from the City to require flood insurance for structures protected by levees, as recommended by NLSC.[2]

Consultation and Coordination with Tribal Governments

Executive Order 13175 "Consultation and Coordination with Indian Tribal Governments" (November 6, 2000) directs federal agencies to establish tribal consultation and collaboration processes for the development of federal policies that have tribal implications, and is intended to strengthen the United States government-to-government relationships with Indian tribes. The DEIS mentions that the Corps met with the Yoche Dehe, Wilton Rancheria, United Auburn Indian Community of the Auburn Rancheria, and conferred with the Buena Vista Rancheria via phone, but provides no details or results of those meetings.

Recommendation: The FEIS should include details of the meetings and phone consultations with the tribes affected by the project and discuss the impacts and mitigation measures identified through that consultation. It should also note whether ongoing consultation will continue through the duration of the project. Include the tribes in the distribution list for the FEIS and Record of Decision.

[2] Recommendation #20, Levee Policy Challenges White Paper, 4/2007
http://www.floods.org/PDF/ASFPM_Levee_Policy_Challenges_White_Paper.pdf