



United States Department of the Interior

BUREAU OF RECLAMATION
Lower Colorado Region
Southern California Area Office
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Temecula, CA 92590

IN REPLY REFER TO:

SCAO-1000
1.31.11

FEB 24 2020

Ms. Fiona Sanchez
Director of Water Resources
Irvine Ranch Water District
P.O. Box 57000
Irvine, CA 92019-7000

Subject: WIIN Act Section 4007 – Kern Fan Groundwater Storage Project Request for Additional Information

Dear Ms. Sanchez:

The Bureau of Reclamation (Reclamation) received a copy of the Kern Fan Groundwater Storage Project documentation for review under the Water Infrastructure Improvements for the Nation (WIIN) Act section 4007 storage program. After reviewing the project proposal documents, the Policy and Programs Directorate Review Team noted the following points below that will need to be addressed before project documentation can be considered complete and meet the requirements of the WIIN Act Section 4007 storage project program. This information will be necessary to allow Reclamation to make a recommendation for the Secretary of the Interior regarding the feasibility of the Kern Fan Groundwater Storage Project.

1. WIIN vs. Water Storage Investment Program (WSIP): For the purposes of clarification, the Feasibility Report should better align with language in WIIN Section 4007. The Feasibility Report routinely discusses “public benefits,” which is a term used as part of the WSIP application provided to the California Water Commission (CWC). WIIN Sec. 4007 requires that in return for Federal funding, a proportionate amount of benefits must be “federal benefits.” All referenced supporting documentation and materials must be included with the feasibility report.

2. Cost Estimate and Technical Feasibility: The review team determined that the Feasibility Report and drawings do not have adequate design details to be considered Feasibility Level. To determine a project technical feasibility, a feasibility-level cost estimate, as outlined in Reclamation Manual (RM) Directive and Standard (D&S), Cost Estimating, (FAC 09-01) (<https://www.usbr.gov/recman/fac/fac09-01.pdf>) is needed. Project estimates are to be at an Association for the Advancement of Cost Engineering International (AACEi) Level 3 and must “provide sufficient information to permit the preparation of preliminary layouts and designs from which approximate quantities for each kind, type, or class of material, equipment, or labor may

be obtained. These estimates are to be used to assist in the selection of a preferred plan, to determine the economic feasibility of a project, and to support seeking construction authorization from Congress” (FAC 09-01 Paragraph C.1.c.). The submitted project documents are currently at a level 4. This project has not undergone an Independent Design, Estimating and Construction (DEC) Review, per RM Policy FAC P10 (<https://www.usbr.gov/recman/fac/fac10-01.pdf>). Please also see the DEC Review information sheet enclosed. Uncertainty in the technical and a cost estimates are significantly increased without an independent DEC review.

3. Federal Benefits: The review team requests any independent or peer reviews that have been conducted on the economic benefit analysis to estimate Federal benefits (Appendix F). Additionally, the review team seeks explanation of public benefits paid for by WSIP funds in order to distinguish cost share responsibilities between the State and others. While completion of funding agreements with the CWC are still pending, it should be clear in the report that State funding will not increase the Federal cost share, and in fact may decrease the Federal cost share should any overlap be identified.

a. The Feasibility Report indicates that WIIN funds will be used for Ecosystem Benefit to Salmon (\$1.5M). Are there any alternate estimates available to substantiate the WSIP valuation of \$100k per fish? Hanemann’s analysis was conducted for the San Joaquin River in 2005, prior to restoration activities, and it is unclear that this estimate can be transferred to the Feather River. Please provide evidence for why it is appropriate to transfer the analysis to the Feather River.

b. The Feasibility Report also indicates that WIIN funds will be used for Incidental Ecosystem Benefit to Wetlands (\$48.5M). It is not clear why wetland habitat benefits are incidental benefits. Are there any alternate estimates available to substantiate this benefit estimation?

4. Cost Allocation: The assumption that the costs of Single Purpose Alternatives (SPAs) are greater than benefits needs to be supported by analysis, as this has not been universally observed in other projects. Moreover, specific costs need to be computed.

5. Financial Feasibility and Cost Sharing: Of the \$197.2M estimated construction cost for the project, the review team understands that it will be funded with 25% (\$49.3M)¹ Federal cost share, and 34% (\$67.5M) from the State’s WSIP funding. The report notes that a Joint Powers Authority (JPA) will be created but has not yet been secured. Without a JPA, the ability of the non-Federal sponsor to come up with upfront funding for the remaining 41% (\$80.4M) is unclear. A financial plan is needed to assess and determine a project financially feasible.

6. Reliability of Article 21 Water: From 2000 to 2017, 29 State Water Project contracts had an interest in Article 21 water. Deliveries of State Water Project (SWP) Article 21 water is

¹ A quick calculation shows 25% is \$49.3M, not \$50M as shown in the report - should totals not sum due to rounding, the report must so state.

highly variable in the last two decades. In eight of those years there were no deliveries of Article 21 water at all. The Feasibility Report should clearly address the likelihood of securing Article 21 water for the project when available, especially in competition with other State Water Project contractors. The Feasibility Report should document an operations plan or an agreement with SWP for this water.

7. Interest During Construction (IDC): No IDC should be incurred or included in the cost allocation. There is no recovery of Federal costs in this project (since Reclamation is funding nonreimbursable ecosystem enhancement benefits), the non-Federal sponsors are providing upfront funding for the non-Federal portion of the project.

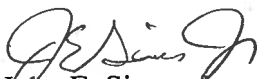
8. Water Rights Changes: The Feasibility Report should clearly state any additional or changes to existing water rights and the likelihood of obtaining those rights/changes. Specifically, is a change in the point of delivery(ies) needed for the storage of Article 21 water?

9. Construction Schedule: Certain tasks need to be completed prior to the WIIN construction deadline of December 2021 (including establishing the JPA, development of a financial plan, environmental compliance, etc.), which increases the risk to project implementation.

10. Environmental Feasibility and Compliance: National Environmental Policy Act compliance documents have not been completed and are needed to determine a project is environmentally feasible. If these documents are not going to be completed with the feasibility report, please provide a schedule for completing the NEPA documents.

Please submit your response to me, at jsimes@usbr.gov at your earliest convenience. Upon receipt, Reclamation will review your response to ensure the review team's comments were adequately addressed. After completion of the review, we will notify you as to whether Reclamation has determined that the project documentation is complete and meets the requirements of the WIIN Act Section 4007 storage project program. If you have any questions or need clarification, contact me, at (951) 695-5310.

Sincerely,


John E. Simes, Jr.
Acting Area Manager

Enclosure

Design, Estimating, and Construction (DEC) Oversight Program Overview

Contacts

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Further information for the
DEC Oversight Program
can be found at:
www.usbr.gov/dso-dec/dec/

More Information on
Reclamation Policy and
Directives and
Standards:

FAC P10 - Independent
Oversight of Design, Cost
Estimating, and
Construction

FAC 10-01 - Identifying
Design, Cost Estimating,
and Construction Projects
for Which Independent
Oversight Review is
Required, and Performing
Those Reviews

FAC 09-01 - Cost
Estimating

The DEC Oversight Process

The DEC oversight review process provides a Bureau level review that ensures products are technically sound and provide a credible basis for decision-making. This fact sheet presents an overview of the program's purpose, requirements, and process.

Goals and Objectives

- Project is technically sound and in accordance with Reclamation Policy and Directives and Standards (D&S).
- Project provides a credible basis for senior-level decision-making.
- Cost estimates are appropriate for the project's intended purpose.
- Potential fatal flaws in the designs or estimates are identified.
- All risk and uncertainties have been fully addressed in the estimates.
- All policy, legal, partner/stakeholder, and/or public issues, impacts, and/or ramifications of a corporate nature are identified from a broad corporate perspective.

DEC Process

When is the best time for a DEC Review?

- Before the project report is going to be publicly released or provided to Congress,
- Before a politically sensitive or controversial decision,
- Before it is used by project proponents to seek Congressional authorizations or appropriations,
- Typically performed at draft Feasibility
- When the scope of the Project is not going to have any substantial changes

What are DEC Reviews looking for and evaluating?

- Design meets the planning objectives and can be built within the cost estimate
- Products are in compliance with Reclamation Policy and D&S
- Scope of work is captured either in the cost items or in the allowances
- Major risks are captured in design and estimates
- Consistency throughout project documentation
- Is this a feasibility level of effort? Are designs up to feasibility level?
- Major items are priced, and not a part of design contingencies
- Detailed breakdowns of cost drivers, and not large lump sum items
- Check quantities for missing items and duplicate items
- Non-contract costs are included in the estimate
- Environmental and cultural resource impacts, permitting and mitigation are included in costs and schedule

DEC Reviews are not a substitute for conducting technical or peer reviews.



Design, Estimating, and Construction (DEC) Oversight Scope & Lessons Learned

Findings & Recommendations (F&Rs)

Programmatic

- Ensure consistency within project documents including coordination with regulatory agencies and all other entities affected by the project
- Include non-contract costs (i.e. land acquisition, environmental mitigation, cultural resource impacts, design costs, construction management, etc.) in the cost estimate with documented backup justifications, as appropriate

Construction

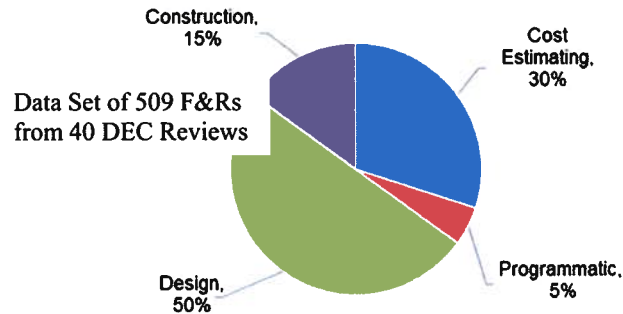
- Prepare a comprehensive schedule (planning, design, procurement, land acquisition, permitting, construction, etc.) showing all work packages and possibly loaded with costs

Cost Estimating

- Allowances: reevaluate non-contract costs, design & construction contingencies, allowance for procurement strategies, escalation
- Cost Items: break out lump sum cost items, include missing cost items, reevaluate underestimated unit prices, develop more detailed breakdown of cost items for Feasibility level, check that there is not duplication of cost items
- Estimates: ensure estimating methodology is at Feasibility level, reprice the estimate instead of indexing, peer review estimates produced by various entities to ensure consistency, ensure all estimates are at the same price level

Design

- Designs are at Appraisal level, not at Feasibility level
- Perform the appropriate testing, study, investigation, and/or plan (i.e. subsurface exploration, risk analysis, 3-D modeling, etc.)
- Consolidate reports to one summary report to address all project specific items related to engineering & design



Reclamation Definitions

Appraisal

The level of analysis and data collection needed to initially determine the nature of water and related resource problems and needs in particular area, formulate and assess preliminary alternatives, determine Reclamation interest, and recommend subsequent actions.

- General authorization and funding
- Investigate a range of potential options using basic, preliminary investigations and existing data
- Formulate at least one viable alternative and justify or recommend proceeding to feasibility
- TSC Design Data Collection Guidelines (2007): 3 pages
- General, environment & social evaluations with summarized impacts, engineering & cost estimates, recommendations

Feasibility

The level of analysis and data collection needed to prepare a recommendation to Congress regarding the implementation of a project or plan and, unless no action is recommended, the estimated total cost of implementation.

- Specific authorization and funding
- Investigate range of feasible alternatives using detailed investigations and acquiring primary data
- Develop preferred plan with essential features of project alternatives and justify or recommend proceeding to construction
- TSC Design Data Collection Guidelines (2007): 135 pages, average 8-14 pages for specific features (i.e. facilities, dams, canals, etc.)
- Risk & uncertainties, benefits & costs, engineering & design, hydrology & hydraulics, surveying & mapping, geotechnical investigations, haz-mat & toxic waste study, construction materials & procedures, cost estimate & schedule, real estate, technical & legal review, etc.
- Detailed environmental analyses: integrate with environmental compliance, comply with State, Tribal, and local environmental and cultural resource laws and ordinances

