Meeting: **Joint Reservoir Committee & Authority Board Agenda Item 2.1** **September 16, 2022**

Subject: **2023-2024 Sites Reservoir Proposed Test Pits, Fault Studies and Quarry Studies Draft Initial Study/Mitigated Negative Declaration**

Requested Action:

Consider authorization of the following activities related to the 2023-2024 Sites Reservoir Test Pits, Fault Studies and Quarry Studies: (1) the release of the draft Initial Study/Mitigated Negative Declaration (IS/MND) pursuant to California Environmental Quality Act (CEQA) including authorizing the Executive Director to file a Notice of Completion with the State Clearinghouse and complete other noticing requirements to initiate the public review process; and (2) the Executive Director to sign and submit the necessary permit applications including associated application fees, if any.

Detailed Description/Background:

Additional field investigations in Glenn, Colusa, and Yolo counties are being proposed to support the ongoing engineering evaluations and design development for the proposed Sites Reservoir and its associated facilities. These field investigations include test pits, fault studies, and quarry studies. Table 1 summarizes the type and number of studies by location. In total, 84 test pits and trenches for 11 fault studies and 7 quarry studies are proposed.

Table 1. Investigation Types, Approximate Numbers and Depths, and Primary Access Routes by Proposed Sites Reservoir Feature

Proposed Sites Reservoir Feature	Approximate Numbers, Investigation Types, and Approximate Depths	Primary Access Route(s)
Sites Reservoir	Up to 76 test pits, 18 to 20 feet below grade Up to 9 fault studies, 10 to 15 feet below grade Up to 7 quarry studies, 15 to 20 feet below grade	Maxwell-Sites Road, Peterson Road, and overland travel
Funks Reservoir	Up to 3 test pits, 18 to 20 feet below grade Up to 2 fault studies, 10 to 15 feet below grade	Tehama Colusa Canal access road immediately off of Maxwell-Sites Road; existing gravel roads west of Funks

Proposed Sites Reservoir Feature	Approximate Numbers, Investigation Types, and Approximate Depths	Primary Access Route(s)
		Reservoir, overland travel.
Terminal Regulating Reservoir and Pipeline	Up to 4 test pits, 18 to 20 feet below grade	Tehama Colusa Canal access road immediately off of Maxwell-Sites Road; existing gravel roads east of Funks Reservoir, overland travel. If needed, PG&E easement road
Dunnigan Pipeline	Up to 1 test pit, 18 to 20 feet below grade	Road 8, Road 90B, overland travel
Total	Up to 84 test pits, 18 to 20 feet below grade Up to 11 fault studies, 10 to 15 feet below grade Up to 7 quarry studies, 15 to 20 feet below grade	N/A

The following provides a brief description of each investigation type:

- Test Pits – Test pits would be used at proposed quarry locations to gather information regarding the quantity and quality of borrow materials proposed for dam and reservoir feature construction fill. In addition, test pits at other locations would provide information regarding pipeline trench stability analysis. Proposed test pit work areas[1], including equipment and vehicle staging areas and any overnight storage areas, would be up to approximately 50 feet wide by 50 feet long. Using an excavator or backhoe, a rectangular hole with an approximate footprint of 18 feet by 18 feet would be excavated within the identified work area and samples would then be collected. Test pits would be approximately 18 to 20 feet deep. Stockpiling of excavated materials would occur adjacent to the hole within the established 50-foot-wide work area. Test pits would be backfilled with the excavated material on the same day as they are excavated with the stockpiled soil placed and compacted in thin, moisture conditioned layers.

[1] For the purposes of this report, work areas are inclusive of equipment and vehicle staging areas along with overnight equipment and vehicle storage areas.

- Fault Studies – Fault trenches would be used to gather information regarding the location and stratigraphy in areas of suspected and known fault traces/zones and to further evaluate the areas for evidence of last movement. Fault trenches have been sited at specific existing and suspected fault line locations in proximity to proposed Sites Reservoir features. Each trench would be approximately 5 feet wide and range from 200 to 600 feet long, and would vary from 10 to 15 feet deep. Work areas for fault trenches would be up to approximately 40 feet wide and range from 100 to 1,000 feet long. The trenches would be excavated using a conventional backhoe and be fitted with temporary shoring to prevent sidewall collapse. This would allow safety-trained geologists to enter the trench and observe exposed subsurface materials to study fault activity and stratigraphy contacts at each location. Stockpiling of excavated materials would occur adjacent to the trench within the established 40-foot-wide work area. Trenches would be temporarily covered with heavy duty plywood sheets (3/4 inch or thicker sheets) at the end of each workday. The ends of the trenches would be sloped and benched, as needed, to provide safe ingress and egress for workers. Once the trenching and mapping are complete, the trenches would be backfilled with excavated materials placed in thin lifts and tamped in place by the backhoe bucket and roller attachments.

- Quarry Studies – Quarry study trenches would be used to gather information regarding the quantity and quality of borrow materials proposed for dam and reservoir feature construction fill and to assess the means and methods needed to remove overburden and rock materials during construction. These investigations would be conducted by trenching in areas of planned quarries for the proposed Sites Reservoir. Each trench would be up to 20 feet wide and range from 300 to 1,500 feet long, would vary from 15 to 20 feet deep, and would be excavated using a bulldozer. Work areas for the quarry studies, which would include equipment and vehicle staging areas, would be approximately 40 feet wide and range from 1,000 to 2,300 feet long. Stockpiling would occur adjacent to each trench within the established 40-foot-wide work area. Investigations at a quarry study site would occur in sections to minimize the length of trench open at any given time. Open portions of the trenches would be backfilled at the end of each day by track-walking excavated materials back into place by the dozer.

All work areas would consist of the smallest footprint necessary to complete the investigations and avoid or minimize impacts to known biological resources, cultural resources, and any other sensitive resources. Upon completion of work, each area would be returned to pre-project or better conditions and the Authority would warranty any future subsidence in the excavated locations, all at the landowner's discretion. The investigations are scheduled to occur

between January 2023 and December 2024. The sequence would depend on site and seasonal conditions, as well as landowner access. All proposed investigations would be conducted during daylight hours and would be limited to the times allowed by the applicable local noise ordinance. Each investigation would take 1-2 days to complete for a test pit, up to 4 days for a quarry study, and up to 25 days for a fault study. The total time period for this work is anticipated to be intermittent between January 2023 and December 2024.

California Environmental Quality Act

The Authority is the CEQA lead agency for the project and the Draft Initial Study has been prepared consistent with the State CEQA Guidelines. The Draft Initial Study will be used to determine whether the Authority adopts a mitigated negative declaration under CEQA[2]. The Authority is not seeking reimbursement from Reclamation for this study effort and thus, there is no federal involvement and no federal nexus for this study effort.

Locations for the proposed studies have been coordinated with the engineering and environmental teams with the intent to avoid impacts to known biological, cultural and tribal resources, including potentially jurisdictional waters. In addition, and similar to prior geotechnical investigation efforts, the Authority will implement standard geotechnical protocols and procedures to further avoid and minimize potential environmental effects. Lastly, mitigation measures have also been incorporated into the Draft Initial Study to ensure that potential impacts to biological resources, cultural resources, tribal cultural resources, and paleontological resources are less-than-significant. Table 2 provides a summary of the proposed mitigation measures, which may change as the Draft Initial Study is finalized. With the focused approach on avoidance and minimization of impacts, no compensatory biological mitigation is expected beyond the Geotech Short Term Eagle Take Permit for which the Authority recently submitted an application to the U.S. Fish and Wildlife Service.

Table 2. Summary of Proposed Mitigation Measures[1]

Resource Area	Summary of Mitigation Measures
General	Conduct pre-investigation siting survey for biological, cultural and Tribal resources; reprioritize or postpone proposed investigations if sensitive resources cannot be avoided

[2] The currently proposed geotechnical investigations constitute a set of preparatory actions to obtain requisite data to inform project design, engineering cost estimates, and permit requirements for the proposed future Sites Reservoir Project. These initial pre-project investigatory actions would not in any way commit the Authority or any other party to any definite course of action or decision regarding the proposed future Sites Reservoir Project, which currently is undergoing a comprehensive CEQA and NEPA review in an Environmental Impact Report/Environmental Impact Statement.

Biological Resources	Conduct mandatory biological resources awareness training; general measures to avoid and minimize to less than significant any effects on sensitive biological resources; measures to avoid and minimize effects on waters of the U.S./State; species-specific measures, including surveys by a qualified biologist, for state and federally listed plant and animal species along with migratory birds and eagles; and decontamination of equipment for aquatic invasive species. Adjust work locations as needed to avoid resource.
Paleontological Resources	Consult with qualified paleontologist if paleontological resources are discovered. Adjust work locations as needed to avoid the resource.
Cultural Resources	Avoid impacts on cultural resources; conduct pre-activity pedestrian survey; prepare a post-review Discovery Plan; conduct archeological sensitivity training; conduct archeological monitoring during all ground disturbance and immediately halt ground-disturbing activities if cultural resources or human remains are found and implement appropriate plans
Tribal Cultural Resources	Avoid or preserve in place; treat resources with culturally appropriate dignity, and implement permanent conservation easements for any resources found

1. Preliminary mitigation measures. These measures may change as staff and legal continue review of the IS.

Permitting Activities

Several investigation locations will trigger the need to obtain additional approvals from other agencies, including the Central Valley Flood Protection Board and the Public Works Departments of Colusa, Glenn, and Yolo Counties. These approvals are described below.

- The Dunnigan Pipeline test pit would require a minor alteration authorization from the Central Valley Flood Protection Board related to encroachment onto/through regulated streams and designated floodways.
- Encroachment permits would be required for investigations within any local jurisdiction rights-of-way and roadways.
- Transportation permits would be required for the transport of heavy or oversized loads on county roads.

Request for Authorization to Release
Staff is completing the final revisions to the Draft IS/MND and expects to have a draft ready for public review at the end of September. Staff is recommending that the Reservoir Committee and Authority Board authorize release of the Draft IS/MND as soon as the document is ready for release, including authorizing the Executive Director to file a Notice of Completion with the State Clearinghouse and complete other noticing requirements to initiate the public review process. There is a 30-day public review period. Should the final mitigation measures materially affect the funding needs for these activities (greater than $100,000) or create currently unanticipated additional impacts in any of the resource areas, the release of the IS/MND will be held back an additional month and the item will be brought back to the Reservoir Committee and Authority Board for approval of the changes.

Staff is also recommending that the Reservoir Committee and Authority Board authorize the Executive Director to submit associated permit applications and pay associated fees for the studies at the same time as the Draft IS/MND is released for public review. Submitting the permit applications at this time will keep the proposed studies on schedule and allow data to be obtained starting in January 2023.

Prior Action:

None

Fiscal Impact/Funding Source:

Actual costs to prepare the Draft IS/MND, permit applications, along with the Authority's components of the 2023-2024 Sites Reservoir Test Pits, Fault Studies and Quarry Studies are within the amounts budgeted in the Amendment 3 Work Plan. At this time, no additional costs are anticipated beyond those budgeted for Amendment 3 to implement the proposed mitigation measures.

Staff Contact:

Ali Forsythe

Attachments:

None