Staff Report

TO: Board of Directors

FROM: Gabe Aronow, P.E. Director of Engineering

DATE: November 12, 2025

SUBJECT: **Scotts Flat Spillway Upper Plunge Pool Design and FERC/DSOD Coordination (Project #2094)**

ENGINEERING

RECOMMENDATION:

Approve Task Order No. 7 with HDR to perform the Scotts Flat Spillway Upper Plunge Pool Hydraulic Analysis, Design, and respond to FERC and DSOD Review Comments, and facilitate a FERC mandated design PFMA (Potential Failure Mode Analysis) workshop, and authorize the General Manager to execute the necessary documents,

BACKGROUND:

Since its construction in the 1940s, the Scotts Flat Spillway has experienced repetitive spalling damage on the chute slabs. In early 2017 severe concrete spalling damage, including ripping of some of the steel rebar mats, was found during spilling caused by winter storms. The District repaired the damage.

2019, California Division of Safety of Dams (DSOD) downgraded their condition assessment of Scotts Flat Dam and Reservoir from “satisfactory” to “fair” because of the major deficiencies associated with the spillway. Later that year, the Board of Directors (Board) approved a contract HDR to perform the Scotts Flat Spillway Upgrade Alternatives Development and Design to address physical chute and underdrain repairs. That work found that the existing spillway chute and the lower plunge pool are deficient to handle the probable maximum flood (PMF) and the Federal Energy Regulatory Commission (FERC) and DSOD required a physical model to be built to change the geometry of the spillway.

In 2020, the Board approved HDR to perform a physical hydraulic model for Scotts Flat Spillway. As the analysis continued with input from the physical model and DSOD, it was determined that the original scope of performing repairs to the existing chute was not feasible and that the spillway chute would need to be replaced.

Replacement of the spillway chute resulted in a new scope of design services, including design of the complete spillway replacement; analysis to support design including geotechnical analysis, structural and stability analyses, hydraulic analyses; development of a Basis of Design Report; development of multiple construction drawings and specification submittals; and supplemental survey. Based on the significant change of scope, staff requested that HDR submit a revised scope of work, and unused balances from previous contracts were unencumbered and returned to District reserves.

Staff received a revised design scope from HDR, as described above, for $1,470,000. Due to the magnitude of the new scope, staff issued an RFP and received 8 new proposals for the new design services. HDR was unanimously selected, with their winning proposal reflecting their institutional knowledge of the spillway obtained through previous work. The Board approved the HDR scope in 2023.

Work on the current design for the lower chute and lower plunge pool is greater than 90% complete at this time. However, also received this year is the new DSOD requirement that the District also replace the entire upper plunge pool and underdrain system, and significant FERC comments on the 60% design submittal added significant design detail and review and approval processes to the design effort. The HDR scope to support these design changes and facilitate the FERC process require a new Task Order for $582,650.

To date, there have been six (6) Task orders issued to HDR totaling $2,281,148 Of that, $2,137,505 has been paid with a remaining balance of $92,994 (Unused balances from previous task orders totaling $50,649 were unencumbered)

APPROVED TASK ORDERS – Amounts and Remaining Balances:

Task Order	Amount	Remaining	Reason
TO#1	$193,481	Closed with unused balance of $12,079	Project Management and Phase 1 of the original proposal – alternative analysis and conceptual design
TO#1/CO#1	$18,925	$0	Downstream tailwater analysis and DSOD stability analysis
TO#2	$26,484	Closed, with unused balance of $1,058	Development of Hydraulic Physical Modeling Plan and addressing regulatory comments
TO#3	$374,540	$0	Physical Hydraulic Modeling
TO#4	$65,283	Closed with unused balance of $37,513	Additional Physical Modeling – Evaluation of revised spillway chute and construction cost estimate

TO#5	$1,470,000	$91,679	Design of Lower Chute and Plunge Pool
TO#5/CO1	$66,835	$0	Modify the Upper Plunge Pool Design
TO#5/CO2	$0	N/A	Time Extension
TO#6	$65,600	$1,315	CFD Modeling
Subtotal	$2,281,148	$92,994	

Staff recommends that the Board approve Task Order No. 7 in the amount of $582,650 and a contingency of $58,265, for a total of $640,915.

BUDGETARY IMPACT:

The FY2025 capital budget for this project has an unencumbered balance of $283,500. The scope of the task order is anticipated to be completed in 2026. A budget amendment for the FY2026 capital budget may be needed.

Attachments: (none)