




# STAFF REPORT

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**Meeting Type:** Operations Committee/Board of Directors  
**Title:** Spillway Capacity and Sub-Surface Condition Assessment  
**From:** Alex Anaya, Director of Engineering  
**Through:** Ben Horenstein, General Manager  
**Meeting Date:** February 16, 2024



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**TYPE OF ACTION:**                      Action                      Information                      X                      Review and Refer

**RECOMMENDATION:** Review and refer to a future regularly scheduled Board meeting for award of professional services agreement for the Spillway Capacity and Sub Surface Condition Assessment

**SUMMARY:** On January 6<sup>th</sup> 2024, staff issued a Request for Proposals (RFP) titled *Spillway Capacity and Sub-Surface Condition Assessment Services*. The request is aimed at evaluating the relationship between existing dam infrastructure and various rainfall scenarios with an emphasis on a changing climate and the increased potential for atmospheric river storm events using hydrologic and hydraulic methods. The District solicited proposals from engineering consulting firms specializing in dam safety and analysis, with proposals due February 13<sup>th</sup>. Staff will be returning to a future, regularly scheduled Board of Directors meeting with the recommendation to the Board to authorize the General Manager to execute a contract with a qualified consultant to perform a spillway hydraulic capacity assessment on all District spillways and a sub-surface condition assessment of Bon Tempe spillway along with a staff requested contingency.

**DISCUSSION:** On June 27<sup>th</sup> 2023, the Marin County Civil Grand Jury published a report titled *Dam and Reservoir Safety – Water May Save Us – Water May Drown Us*. The underlying premise of the report identifies concerns with climate change, and the impact of atmospheric river events on dam safety. As a follow-up, the District issued a Request for Proposals (RFP) titled *Spillway Capacity and Sub-Surface Condition Assessment Services*. The proposal aims at evaluating the relationship between existing dam infrastructure and changing climactic conditions including the potential of increased frequency of atmospheric rivers. Analysis will include both hydrologic analysis to identify reservoir behavior in response to a variety of storm events, as well as hydraulic evaluations of each spillways' ability to safely convey excess runoff via the spillways.

The District is also including a sub-surface condition assessment of the Bon Tempe's Spillway. While conducting routine inspection of the Bon Tempe Spillway in 2023, staff identified minor damage in the form of cracks, spalls, shallow holes, and leaks on the spillway. Since original construction in 1949, Bon

Tempe Dam's concrete spillway has had various minor repairs. Based on the number of spillway defects identified and repaired, staff is recommending a complete condition assessment of the Bon Tempe Spillway similar to what the District is currently doing to its larger spillways on Kent, Nicasio and Soulajule.

On January 9, 2024, the District solicited engineering consultant firms specializing in dam safety and assessment through a RFP. The closing date for consultants to submit proposals is February 13, 2024. Staff will be reviewing all proposals and will be returning to a future, regularly scheduled Board of Directors meeting with the recommendation to the Board to authorize the General Manager to execute a contract with the qualified consultant team to perform the Spillway Hydraulic Capacity Assessment on all seven of the Districts dam spillways and Sub-Surface condition Assessment of Bon Tempe Spillway. Funding for this work has been budgeted within the engineering division's operating budget.

**ENVIRONMENTAL REVIEW:** Not Applicable.

**FISCAL IMPACT:** Funding is included in the FY24 and FY25 Engineering division's operating budget.

**ATTACHMENT(S):** None.