

California Water Commission

Rancho California Water District Vail Dam Hazard Mitigation Project

Rancho California Water District (RCWD/District) is a local Special District who provides water and wastewater service to approximately 150,000 people in southwest Riverside County. RCWD owns and operates Vail Lake which provides local water storage and groundwater replenishment water.

Vail Dam has a maximum storage capacity of 42,680 acre-feet, a surface area of 1,030 acres and the dam forms Vail Lake along the Temecula Creek. RCWD acquired Vail Dam in 1978 for water supply purposes and enhancement of RCWD's groundwater recharge and recovery program. RCWD utilizes Vail Dam for water reliability purposes by providing an annual operating quantity for water supply, drought storage capacity for recharge to the downstream groundwater basin, and an emergency water supply to RCWD during a short-term catastrophic event. Vail Dam also provides downstream flood control protection for the City of Temecula and the United States Marine Corps Base Camp Pendleton.

The California Department of Water Resources Division of Safety of Dams (DSOD) has determined that Vail Dam is deficient based on seismic stability and hydrologic analyses performed. Upon review and confirmation of the analyses performed, RCWD has determined that replacing the existing concrete dam between the existing concrete abutments will sufficiently mitigate the seismic and hydrologic deficiencies. Due to the findings by DSOD, RCWD is currently restricted to only store 30,000 acre feet in the Lake.

Currently, RCWD is seeking funding from the Bureau of Reclamation through the Water Infrastructure Improvements for the Nation Act (WIIN) Section 4007. In order to be eligible for this funding under the federal legislation, the California Water Commission needs to deem the project consistent with Proposition 1.

The Vail Dam Hazard Mitigation project is consistent with the following major benefits required in Prop 1 Chapters 7 and 8.

1. Chapter 5

a. Sec 79721

i. Part A (Reduce contaminants in drinking water supplies regardless of the source of the water or the contamination)

1. The total dissolved solids (TDS) content for water entering the lake is estimated at 180 mg/l, significantly lower than existing groundwater or other available supplies, providing the opportunity to improve our groundwater quality and reduce TDS levels sent to our customers.

ii. Part H (Ensure access to clean, safe, reliable, and affordable drinking water for California's communities)

1. Vail Lake is utilized for groundwater recharge and recovery (conjunctive use) providing RCWD's customers a locally based, sustainable, and low cost water supply.

2. Chapter 7

a. Sec 79743,

i. Part C (Local surface water storage)

1. Vail Lake is utilized to recharge the groundwater aquifer

ii. Part E (Improve water supply reliability)

1. The ability to store water in Vail Lake and use it as groundwater recharge improves water supply reliability for the region

iii. Part F – (Storm water resource management)

1. Vail Lake provides storm water management by capturing upstream run-off thereby protecting the downstream City of Temecula and United States Marine Corps Base at Camp Pendleton

- iv. Part G - (Conjunctive use of surface and groundwater storage facilities)
 - 1. Vail Lake is a surface water storage reservoir utilized to recharge the downstream groundwater basin for future extraction by existing groundwater wells.

3. Chapter 8

a. Sec 79750

- i. Part B- for public benefits associated with water storage projects that improve the operation of the state water system, are cost effective, and provide a net improvement in ecosystem and water quality conditions
 - 1. Vail Lake provides a public benefit, helping recharge the groundwater basin which provides high quality water at a low cost. In addition, Vail Lake provides a significant habitat for local wildlife.

b. Sec 79751

- i. Part B- groundwater storage projects and groundwater contamination prevention or remediation projects that provide water storage benefits
 - 1. Vail Lake provides water for our groundwater recharge and storage
- ii. Part C- Conjunctive use and reservoir reoperation projects
 - 1. Vail Lake is a significant piece of Rancho California Water District's conjunctive use program
- iii. Part D- Local and regional surface storage projects that improve the operation of water systems in the state and provide public benefits
 - 1. Vail Lake provides a significant public benefit by providing water storage and groundwater recharge water, which is the lowest cost and highest quality water available in our area

- c. Sec 79752- provides improvements to the Delta ecosystem or to the tributaries to the Delta
 - i. Full utilization of local supply reduces dependence on import water
- d. Sec 79753
 - i. Part A - is a water storage project with the following public benefits
 - 1. Subpart 1 – Ecosystem improvement – contributes to aquatic ecosystem and native fish/wildlife
 - a. Vail Lake provides an aquatic ecosystem for many fish and wildlife.
 - 2. Subpart 2 – Provides restoration of groundwater resources
 - a. TDS from natural flows into the lake are estimated at 180 mg/l providing a significant water quality benefit
 - 3. Subpart 3 – Flood control benefit
 - a. Flood control benefit from the increased height in the reservoir allowing for safe routing of DSOD's defined probable maximum flood. Provides flood control for the City of Temecula and the United States Marine Corps Camp Pendleton
 - 4. Subpart 4 – Provides emergency water supply for community
 - a. Key emergency supply (was heavily utilized for water supply during the most recent statewide drought). Provides RCWD the ability to supply water from Vail Lake through its groundwater recharge and recovery facility during an imported water supply outage

5. Subpart 5 – Provides recreational community benefit

- a. Historical use includes fishing, boating, and other on-lake recreation. Significant regional, local, and economic benefits

4. Chapter 10

- a. The project provides groundwater recharge with surface water storage as part of RCWD conjunctive use operation. It is a local storage option which accommodates hydrologic and regulatory variability in the state's water delivery system. The project overall enhances local water supply reliability and optimizes groundwater supplies.

Rancho California Water District requests that the California Water Commission deem the Vail Dam Hazard Mitigation project consistent with Proposition 1. The Bureau of Reclamation staff expressed that due to funding and review processes, Rancho California Water District would need to submit the project this year, most likely in May, to be eligible. Max Millstein, Planning Program Lead for Policy and Administration for the Bureau of Reclamation provided the following, "The WIIN Act Section 4007 has a deadline of January 1, 2021 for the Secretary of the Interior to make a determination of feasibility, and the project must be under construction by December 2021. Given those deadlines, there is only about a year remaining at most before Reclamation would need to review the project documentation for eligibility and then start working it's way up through the Department. We are still finalizing some of our review process with Reclamation leadership and will likely have better information available in a few weeks." Additionally it is expected that due to funding restraints this will be the last year and last cycle for funding considerations.

Staff is happy to answer any questions from the Commission.