

# Anderson Dam

Anderson Dam Seismic Retrofit Project



May 2020

The Santa Clara Valley Water District (Valley Water) plans to retrofit and strengthen Anderson Dam in Morgan Hill so it can safely withstand a large earthquake. Known as the **Anderson Dam Seismic Retrofit Project**, this effort will ensure public safety and secure a reliable water supply.

## Why this Project?

A large earthquake on the Calaveras Fault or the Coyote Creek Fault could result in significant damage to Anderson Dam, possibly leading to dam failure and uncontrolled water release that could inundate cities and rural areas from San Francisco Bay south to Monterey Bay, including much of Silicon Valley. Additionally, earthquakes could cause faults running under the dam to damage the existing outlet pipe used to release water from the reservoir.

# The Seismic Retrofit Project

Valley Water initiated the **Anderson Dam Seismic Retrofit Project** in 2012 following a seismic stability evaluation. During the design phase, additional studies revealed previously unidentified fault lines, extending the length of time to complete the project. Valley Water is working closely with the Federal Energy Regulatory Commission (FERC) to modernize the dam.

In 2020, Valley Water merged the project with the restoration measures for the Coyote Creek Watershed under the Fish and Aquatic Habitat Collaborative Effort (FAHCE) to best promote a healthy fish population below Anderson Dam. The Anderson Dam Project includes restoration measures downstream because water released from Anderson Reservoir flows into Coyote Creek.

## Project Schedule

Valley Water will first build a tunnel with a low-level outlet. **Valley Water is working closely with FERC and regulatory permitting agencies to begin construction of the tunnel and low-level outlet in 2021. Construction is estimated to take about three years.** The outlet will allow Valley Water to reliably and quickly draw down the reservoir, providing greater control over water levels.

Following construction of the outlet, Valley Water will construct a high-level outlet and remove and reconstruct the spillway and the dam embankment. The work will take up to eight years to complete. The project is dependent on permit requirements and field conditions.

### PROJECT TIMELINE

#### Calendar year

2012 2014 2016 2018 2020 2022 2024 2026 2028 2030



2012: Project Planning Begins



2013—2020 Design



2021—2024 Construction of new outlet tunnel



# Project Scope

- Seismic retrofit of the dam embankment.
- Construction of new higher capacity outlet tunnel and outlet works.
- Replacement of a major section of the concrete spillway and raising the wall height by 9-feet to safely discharge large storm flows.
- Increase the dam crest height by 7-feet to provide more freeboard for larger storm runoff.

## Project Cost & Funding

Current estimates put the project cost at \$576 million. Of that total cost, 15 to 20 percent is for planning, design and the environmental studies and documentation. The remaining amount is for construction and environmental mitigation. Cost estimates may change as the project progresses.

The Safe, Clean Water and Natural Flood Protection Program, which Santa Clara County voters approved in 2012, will contribute about \$65 million to the project. The remaining cost will be funded by water rates. Upon completion of the project, the average household in the area of the county roughly north of Metcalf Road in Coyote Valley can expect to pay an increase of \$6.25 per month in their water rates. Households in the area south of Metcalf Road can expect to see an increase of about \$3.50 per month.

### ANDERSON DAM EXISTING CONFIGURATION

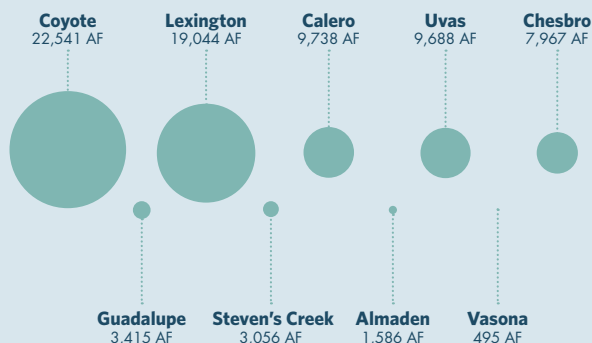


*Did you know?*

# About Anderson Dam & Anderson Reservoir

Anderson Dam was built in 1950 and named after Leroy Anderson, the key founder and first president of the Santa Clara Valley Water District. A long, deep natural gorge located three miles east of U.S. 101 in Morgan Hill provided a suitable dam site.

The 235-feet high earthen dam sits along the Coyote Creek Fault on Coyote Road, east of Morgan Hill. Anderson Reservoir lies parallel to the Calaveras Fault. The reservoir holds approximately 90,000 acre-feet of water when full and is currently the largest of the 10 Valley Water reservoirs. It is large enough to fit all nine reservoirs inside its area.



\*One acre-foot is 325,851 gallons of water, which is enough to serve the needs of two households of five, for one year.

## Existing Anderson Dam *By the Numbers*

1950	192.7	89,278	1,245	7.8	3,320,000	49	10,717
Year it was constructed	Drainage Area (square miles above the dam)	Reservoir capacity (acre feet)	Reservoir surface area when full (acres)	Reservoir Length (miles)	Cubic yards of fill	Outlet pipe diameter (inches)	Average annual yield acre-feet

Si habla español y tiene preguntas sobre el contenido de este mensaje por favor de comunicarse con José Villarreal al JVillarreal@ValleyWater.org o (408) 630-2879.

Nếu bạn nói tiếng Việt và có thắc mắc về nội dung của thông báo này, xin vui lòng liên hệ với Hoan Cutler tại HCutler@ValleyWater.org hoặc (408) 630-3135.

如果你說中文並對上述訊息有疑問, 請聯繫 Julia Tat, 電郵 JTat@valleywater.org, 或者電話:(408) 630-3168.



*Vintage Anderson Dam signage*

## Contact Us

To find out the latest information on Valley Water projects or to submit questions or comments, email **Tony Mercado** at [tmercado@valleywater.org](mailto:tmercado@valleywater.org) or use our **Access Valley Water** customer request system at <https://deliver.com/2yukx>.



## FOLLOW US



scvwd



valleywater



valleywater



Join our mailing list:  
<https://delivr.com/2uz9z>