Anderson Dam Seismic Retrofit Project – Frequently Asked Questions – January 2022

Q: What is Anderson Dam and Reservoir?

A: Anderson Dam creates Santa Clara County's largest surface water reservoir—Anderson Reservoir—that stores local rainfall-runoff and imported water from the Central Valley Project. With a capacity of nearly 90,000 acre-feet, enough water to supply almost a million people for a year, the reservoir is a critical part of the region's water supply system. The reservoir provides water to drinking water treatment plants and for groundwater recharge. Anderson Dam, located in Morgan Hill, was built in 1950 to the seismic and dam safety standards of the day. Studies have shown a large earthquake could damage the dam, causing an uncontrolled release of water that could inundate cities and rural areas from San Francisco Bay south to Monterey Bay, including much of Silicon Valley.

Q: What is the Anderson Dam Seismic Retrofit Project?

A: The Anderson Dam Seismic Retrofit Project looks to rebuild the dam in compliance with today's seismic safety standards and regulations. The project will increase the dam's spillway and outlet capacities to allow a rapid, controlled drawdown in an emergency and enhance flood protection. Valley Water initiated the project in 2012 following a seismic stability evaluation. Then in 2016, additional studies revealed previously unidentified fault lines, extending the length of time to complete the work. In February 2020, the Federal Energy Regulatory Commission (FERC) directed Valley Water to immediately reduce water levels in Anderson Reservoir with the goal to speed up work to replace the dam. Anderson Reservoir is currently limited to 3% capacity.

Q: When did project construction begin?

A: Valley Water began the first of two stages of construction in 2021, a 1,700-foot-long diversion tunnel with a low-level outlet.

Q: How long will construction take?

A: Construction for the tunnel project is estimated to be completed by mid-2024. The outlet will allow Valley Water to reliably and quickly draw down the reservoir, providing greater control over the water levels while increasing public safety.

Construction on the second stage, which consists of building new outlet pipes and removing and reconstructing the spillway and the dam embankment, will begin after the first stage is completed and the required permits are received. Stage two construction is estimated to take seven to eight years and is dependent on the permit requirements and field conditions.

A critical part of the project schedule depends on the acquisition of environmental permits from state and federal agencies, such as the National Marine Fisheries Service (NMFS), U.S. Army Corps of

Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW) and the California State Water Resources Control Board.

Q: What is the cost of the project?

A: As of 2021, the total cost of the Anderson Dam Project has increased by $588 million to approximately $1.2 billion. This is the current combined cost of the FERC ordered Compliance Project (FOCP) which includes Anderson Dam Tunnel Project (ADTP), Cross Valley Pipeline Extension (CVPE), Coyote Percolation Dam Replacement (CPDR), Coyote Flood Management Measures (CFMM), Chillers Installation (CI) and the embankment replacement for the Anderson Dam Seismic Retrofit Project (ADSRP).

Q: Why did the cost increase so dramatically?

A: Several developments over the last 10 years have greatly expanded the scope of the Anderson Dam project and extended the project schedule.

Initially, the dam was planned to be seismically stabilized by adding additional material. However, investigations during the design phase found active faulting under the dam's foundation which meant that the existing dam embankment could liquify and fail during a large earthquake. This led to a change in the design. The project evolved into the complete removal of the existing dam and its replacement with a new dam. This change was approved by dam regulators FERC, the Division of Safety of Dams (DSOD), and by the FERC mandated body of experts, the Board of Consultants (BOC).

Additionally, the dam spillway was originally set to undergo spot repairs as opposed to a full replacement. However, after the nation's tallest dam, Oroville Dam, partially failed in 2017 and forced downstream evacuations, environmental damage, and costly emergency repairs, the DSOD imposed stricter standards for spillway design. This revision requires removing and replacing the existing spillway.

Given all this, design documents prepared in 2018 planned for a 5-year construction period for the Seismic Retrofit Project starting in 2022. The total project cost was estimated at $576 million. However, subsequently, FERC ordered Valley Water to build the outlet tunnel and complete other related projects within the next three years and then begin construction of the embankment replacement. This resulted in extending the construction duration to 10 years. Although Valley Water's initial discussions with FERC centered around addressing the potential impacts resulting from the reconstruction of the dam, the National Marine Fisheries Service (NMFS) has requested that potential impacts related to post-construction dam operations, including areas above Anderson Reservoir, also be considered.

As a result, the five subprojects mentioned above were added to the scope of the Anderson Dam Seismic Retrofit Project. Work is progressing on completing the designs for the Seismic Retrofit Project so that construction can start in mid-2024.

Q: What makes this project so expensive?

A: FERC requiring that the project be split into two parts, new FERC and environmental regulatory requirements, and inflation and worker shortages are driving the project costs up.

Q: Will my water bill increase? If so, when and by how much?

A: We project that in the fiscal year 2023, preliminary water rates to help pay for the $1.2 billion Anderson Dam Seismic Retrofit Project will go up by less than $1 per month for the average Santa Clara County household. Though Valley Water is the countywide wholesaler, it relies on local water retailers to deliver water directly to homes and businesses, in addition to determining their own billing rates. This projection does not account for potential increases due to drought impacts, other projects costs or external factors. Valley Water is rigorously pursuing state and federal grants to help subsidize this project and reduce the impact on ratepayers.

Q: Will the last parcel tax help pay for this increased price tag?

A: Yes, this project was voter-approved as part of the Safe, Clean Water, and Natural Flood Protection Program. The total funding available for the Anderson Dam Seismic Retrofit Project is $54.1 million.

Q: How will water supplies be impacted by this project?

A: Valley Water will supplement its water supplies through additional imported water purchases and conservation to ensure adequate supplies for groundwater recharge and water treatment plants.

Q: What is Valley Water doing to reduce public safety risks until the new dam is constructed?

A: Valley Water continues to work closely with state and federal regulators to maximize public safety. Anderson Reservoir has been operating at levels required by regulators so that if the dam were to slump during an earthquake, the top of the dam would still remain higher than the water levels behind the dam. Valley Water's priority is to construct a low-level outlet that would allow quick reservoir drawdown, providing greater control over the water levels and increased public safety.