

Los Vaqueros Reservoir Expansion Phase 2

Frequently Asked Questions

1. What is the history behind Los Vaqueros Reservoir and the expansion project?

In November 1988, Contra Costa Water District (CCWD) voters approved a measure authorizing CCWD to issue bonds for the development of a new 100,000 acre-foot Los Vaqueros Reservoir as a solution to water quality and emergency storage challenges. The project was constructed and operational within nine years from the date it was approved, and delivered for less than the \$450 million budget.

CCWD, the owner and operator of the existing reservoir, funded the construction contract to expand the reservoir from 100,000 acre-feet to 160,000 acre-feet. The total project cost was \$109 million and the dam raise was completed in 2012. The Final Environmental Impact Statement/Environmental Impact Report for that work included further expansion up to 275,000 acre-feet. This project will enhance the Delta environment and improve water supply reliability and water quality for San Francisco Bay Area water users while protecting Delta fisheries and providing refuge water supply benefits. The reservoir is located 17 miles south of Antioch and 24 miles from Livermore in Contra Costa County, California.

2. When would the proposed Phase 2 expanded reservoir be brought on line?

Additional studies, negotiations and permitting are still needed. The project would require the entire reservoir to be drained, since the dam would need to be worked on at the reservoir side. Trails in the 20,000-acre watershed would need to be rerouted and the boat marina relocated. A 9-mile long pipeline from the Transfer Facility near Los Vaqueros Reservoir would be built to connect to the California Aqueduct at Bethany Reservoir, so water could be put into the South Bay Aqueduct and delivered to wildlife refuges and local agency partners further south. Construction is planned to begin as early as 2021. The current scheduled is for a 6-year construction period with the expanded Los Vaqueros Reservoir in operation by 2027.

3. How much would it cost to build the Phase 2 expanded reservoir and who is funding the project?

CCWD, the owner and operator of the existing reservoir, is aligned with state and federal objectives and the project has the potential to receive both state and federal funds for project implementation. Any local agencies participating in the expansion would also be responsible for cost share in proportion the benefits received. The total project cost is estimated at \$800 million. The Bureau of Reclamation is funding the reservoir expansion studies through the CALFED Bay-Delta Program surface storage studies.

4. What are the identified benefits of a Los Vaqueros Reservoir Phase 2 expansion?

Los Vaqueros Reservoir will add flexibility to the region's current water management system and can provide unique benefits which include:

- Improved regional water supply reliability by increasing water deliveries to Local Agency Partners
- Emergency water storage to protect local agency water users against Delta levee failures, regulatory restrictions, or other water supply disruptions
- Improved water quality to reduce salinity, total organic carbon and taste and odor compounds
- Improve regional water operations by integrating with other water systems
- Increase flexibility of diversions from the Delta, which will allow better adaptive management to benefit water quality
- Improved ability to capture higher, shorter-duration flows if California's snowpack is reduced in the future
- Enhanced recreation opportunities at the Los Vaqueros Watershed
- Provide ecosystem improvements by delivering additional water supply to the Refuge Water Supply Program to meet Refuge water needs

5. Is Los Vaqueros Reservoir a good location for surface storage?

The location of the Los Vaqueros Reservoir near the south Delta makes it uniquely positioned to provide water quality, water supply reliability, and water operations benefits for the Delta, CCWD, and potentially other local agency water users.

The CALFED Bay-Delta Program Programmatic Record of Decision (ROD), signed in August 2000, identified potential opportunities to restore the Bay-Delta ecosystem and improve water quality and reliability. Water storage projects were listed as one component of this strategy. Los Vaqueros Reservoir is one of five sites identified as potential locations for expanding surface water storage. The other potential projects are enlarging Shasta dam, new north of Delta storage, new In-Delta storage on Delta islands, and new or expanded storage on the San Joaquin River. Each of the storage projects has unique purposes and they are being evaluated independently. Los Vaqueros Expansion is the first project to move forward into construction with the first raise in 2012.

6. Do we need additional water storage if the state plans to reduce water use through conservation and recycling?

California needs to implement a full array of different water management actions. Each contributes in different ways to the overall reliability of the water management system. Water conservation, water recycling, watershed management, conveyance, desalination, water transfers, groundwater storage, and surface storage are all needed in a diversified management portfolio.

An expanded Los Vaqueros Reservoir will help to address several important aspects of water supply management that cannot be addressed by other actions alone. Water storage is an important component to protect against droughts and provide emergency water supplies. Without

storage, water conserved in one year cannot be saved for a future dry year. An expansion would also improve the quality of water delivered from the Delta, which is an important consideration for the agencies like CCWD that rely on Delta water for drinking water supplies. Therefore, CCWD and other local water agencies utilize a mix of strategies, including water conservation, recycling, and storage to improve water quality and reliability.

7. What is the estimated yield of the project?

The Los Vaqueros Reservoir Phase 2 expansion would store up to 275,000 acre-feet of water (one acre-foot is approximately 326,000 gallons – or enough water to serve 2 average households for one-year).

Not all of this water could be used each year; some water must remain in the reservoir for emergencies or use in subsequent years. The reservoir would not make “new” water available to serve new growth; rather, it will reduce the current risks associated with drought and emergencies, in addition to assuring adequate delivered water quality. The expanded reservoir would provide flexible locations and timing for drawing water from the Delta for CCWD and any future local agency partners to improve water quality and water supply reliability.

8. How were the impacts on the environment evaluated?

CCWD and Reclamation prepared the Draft Supplement to the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR), which was released to the public on June 30, 2017 for a 60-day comment period that will end at 5:00 p.m. on Tuesday, September 5, 2017. Six public hearings have been scheduled for the month of July to allow interested parties to comment on the project alternatives and environmental review; written comments are also being accepted. All significant issues raised as part of comments will be evaluated and all comments will be fully addressed in the Final Supplement to the Final EIS/EIR.

The Draft Supplement to the Final EIS/EIR examined how a Phase 2 expanded reservoir could affect wildlife, wildlife corridors, and habitat in the Los Vaqueros Watershed. The Final Supplement to the Final EIS/EIR will fully evaluate direct and indirect impacts from expanding the reservoir. As part of the permit approval process for the project, state and federal natural resource agencies will have to specify the required "mitigation" for these impacts. Such habitat restoration enhancements will accomplish the following:

- Improve habitat quality
- Increase acreage of suitable habitat for wildlife and plant life
- Increase species population sizes, use, and range
- Expand and link regional habitat areas

9. How would water for a Phase 2 expanded Los Vaqueros Reservoir be taken from the Delta?

No new intakes are required for the 275,000 acre-foot expansion project. A Phase 2 expanded reservoir would divert surplus water only when fish impacts are low and water quality is high. The existing Los Vaqueros Reservoir pumping facilities and the Rock Slough Intake to the

Contra Costa Canal incorporate positive-barrier fish screens to provide additional operational flexibility and fish protection, which are monitored extensively. Use of this type of screen has resulted in substantial fishery protection at these CCWD intakes.

10. How would operations of the Los Vaqueros Reservoir Phase 2 expansion be coordinated with operations of Reclamation's Central Valley Project in the Delta?

CCWD and Reclamation will need to enter into a new Operations Agreement to establish a coordination procedure by which CCWD and Reclamation will forecast their likely operations and review them to identify potential conflicts, including those related to required fishery protection actions or other operational constraints on the projects. Once identified through this process, any potentially conflicting operations will be managed to avoid impacts to either project.

11. Would construction or operation of the Reservoir contribute to global warming?

Previous reports from the Public Policy Institute of California and other sources suggest that an expanded reservoir at this location in the Delta could help the region protect against climate change. The project location allows for the capture and storage of early runoff and Delta surplus and is not in danger of spilling due to upstream flows. The expansion project fits in very well with most projections of climate change in California. The Draft Supplement to the Final EIS/EIR fully evaluated this and found only minimal impacts from construction equipment on greenhouse gas emissions. CCWD is also evaluating the potential for energy recovery as part of reservoir operations.

12. Will it be possible to expand the reservoir further in the future?

A 500,000 acre-foot expansion project was previously evaluated but not carried forward as an alternative in the Draft Supplement to the Final EIS/EIR. Due to the need to remove and rebuild the existing dam this alternative was eliminated due to the high cost of this project.