

# SITES RESERVOIR

#### Frequently Asked Questions: Operations

#### Is Sites being built to send more water South?

Sites is being built to provide resiliency, reliability and flexibility to the statewide water supplies for all of California to adapt to the impacts of climate change to the state's water management infrastructure. The new water created by the Project and the added flexibility that comes from being able to store water will improve and enhance water management throughout California.

#### Is this reservoir a stand-alone, or does it work with other regional reservoirs?

Sites Reservoir is uniquely located in relation to other major components of the state and federal water projects like Shasta Lake, Lake Oroville and Folsom Lake. Sites is complementary to these existing crucial elements of statewide water management and could act to extend the functions they serve by creating flexibility to adapt to changing river and Delta management conditions. For example, Sites can be operated in coordination with Shasta Lake to preserve and enhance cold water for endangered salmon in the Sacramento River. Or Sites could contribute to the increased fresh-water flow into the Delta during drier periods to assist with salinity management of this critical estuary. Sites would not compete for the water resources stored in these state and federal facilities but would increase the total amount of managed water in storage. With the uncertainty California water managers face in the next century, having the Sites Reservoir is a necessity for statewide water management.

#### Does Sites Reservoir need new Delta conveyance?

No. The project is not dependent on the construction of Delta tunnels. Sites Reservoir will function independently, with or without a new Delta conveyance system. The Draft Environmental Impact Report/Statement evaluates Sites Reservoir as a standalone project.

#### Since Sites only receives water when there is "surplus" flow in the Sacramento River, how long is it projected now before the reservoir is full under "normal" precipitation patterns?

In California water there is no "normal" water year. Based on 82 years of past hydrology analyzed using standard models and methods, it would take, on average, approximately five to seven years for the reservoir to fill completely on first fill. In contrast, in a single water year like 2016-2017 it would have been possible to fill the reservoir in one year. Similarly, if a string of dry years was to occur, it would take longer to fill, maybe as much 10 years. Surprisingly, there tends to be "surplus" flow in the river in all years. Even in dry and critically dry years, there would be filling opportunities, albeit fairly limited.

The original construction of Los Vaqueros Reservoir in Contra Costa County provides a real-life example of the possible variability in fill rates. The first fill of the 100,000 acre-foot reservoir was expected to take five to seven years. However, the first year of operation was 1997-1998, a fairly wet year of high-quality water being available at the intakes, which allowed the reservoir first fill to be completed in just two years.

## How much above the statistical normal for rainfall in the region does rainfall have to be for Sites to receive "surplus" water from the Sacramento River?

Sites is designed to divert water through existing state-of-the-art fish screens only when actual flows on the Sacramento River exceed that needed by more senior water right holders, the Delta is in "excess" conditions, and based on stringent criteria to protect aquatic resources. Sites primarily diverts flows into the Sacramento River from streams and creeks downstream of Shasta/Keswick Dams. The exception is that Sites could pick up water that gets released from these dams under flood control conditions. The operations modeling typically conducted for water projects does not rely on rainfall statistics. Instead, model simulations (CalSim) calibrated to actual flow conditions for an 82-year period covering 1921-2003 are overlayed with current permit and operating constraints to evaluate with project conditions.





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### How much above the statistical normal for rainfall in the region does rainfall have to be for Sites to receive "surplus" water from the Sacramento River? *(continued)*

The beneficial thing about this approach is that you can simulate future with climate change conditions which has been done for the Sites Project. The results of these with climate change simulations demonstrate that the performance of the project actually improves 5 to 10 percent with climate change. This is good for all of the project partners including the state and federal governments which are approximately 25 percent shareholders for environmental purposes.

# How will this project utilize and capitalize on existing infrastructure and what does that mean for the project footprint?

Extending the performance of existing infrastructure is good public policy, good business practice and makes for a more sustainable footprint by reducing the environmental impact of the constructed work. The Project will utilize existing facilities and infrastructure to a great extent and the existing topography of the reservoir site itself is a natural bowl perfectly situated to accommodate a water reservoir. A significant portion of the 100+ miles of conveyance (canals and pipelines) involved in the Project will be existing facilities. The only new conveyance envisioned is the inlet/outlet works for the reservoir and the four miles of 10-foot diameter pipeline to convey water back to the Sacramento River between the Tehama-Colusa Canal and the Colusa Basin Drain.

