

Temperance Flat and Sites Reservoirs

Frequently Asked Questions *June 2007*

Department of Water Resources

California's water management system depends on surface storage, not only for water supply, but flood control, hydropower generation, and recreation. Existing surface storage is used to maintain water quality in the Delta, is operated in conjunction with groundwater storage to leverage enhanced water supply reliability, and provides an ability to respond to a variety of disasters. As California's population grows and the effects of climate change continue, new storage facilities must be built.

Governor Schwarzenegger has proposed to invest \$4.5 billion for two new reservoirs that will increase our water supply, improve flood protection, and give more flexibility in dealing with climate change.

Where will these reservoirs be located and why?

Sites Reservoir will be built on the west side of the Sacramento Valley, and Temperance Flat will be built on the San Joaquin River east of Fresno. These locations were chosen from 52 potential projects investigated by state and federal agencies beginning in the late 1990s. Sites and Temperance Flat Reservoirs would provide the most storage and broadest benefits of any of the other potential locations. In addition, Sites and Temperance Flat Reservoirs have significant local and regional support.

How much water would these reservoirs provide, for what use and at what cost?

The Sites Reservoir could store 1.8 million acre-feet of water and supply 400,000 acre feet of water per year for urban, agricultural and environmental uses. A single acre-foot supplies enough water for one to two families per year at a cost of \$340 per acre-foot. Water supply from the Sites Reservoir would also improve Delta water quality, and provide flood control in the Central Valley.

The Temperance Flat Reservoir could store 1.3 million acre-feet of water and supply 183,000 acre-feet of water per year that would enhance restoration and water quality of the San Joaquin River, increase



Proposed Temperance Flat Reservoir

certainty of water supply allocations for water contractors, reduce impacts from groundwater overdraft, and improve urban water quality through an exchange program between the Friant Water Users Authority and the Metropolitan Water District of Southern California. Temperance Flat Reservoir would

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also provide increased control of flood flows at Friant Dam, improve hydropower generation, and provide recreation. Water could be supplied from Temperance Flat at an annual cost of \$350 per acre-foot.

Together, these additional surface storage reservoirs will provide flexibility to the state's water management system, which can be operated to improve the long-term health of the Delta ecosystem, maintain water quality and supply reliability and prevent or plan for catastrophic failure of the Delta levee system.



Proposed Sites Reservoir

What is the impact to the environment?

Sites is an offstream reservoir that will fill grassland currently used for cattle grazing. Water for the reservoir will be diverted from the Sacramento River. This could affect anadromous fish species as well as the current flow of the Sacramento River. The Department of Water Resources and Bureau of Reclamation are in consultation with the Fish and Wildlife Service, National Marine Fisheries Service,

and California Department of Fish and Game to mitigate the impacts the Sites Reservoir would pose to any state and federal threatened or endangered species. In addition, the proposed project contains fisheries enhancements, modifications to intakes, and a new diversion as initial plans to mitigate negative impacts to river flow and fish.

A National Environmental Policy Act/California Environmental Quality Act process is already underway to identify potential environmental impacts and mitigation measures of the Temperance Flat Reservoir project. A draft Environmental Impact Report/Statement is expected by July 2008, and the final report should be completed by July 2009. As with the Sites Reservoir, all significant adverse impacts will be avoided or mitigated wherever possible.

Do dams contribute to global warming or solve the problems caused by climate change?

The years of equipment use required to construct Sites and Temperance Flat Reservoirs are equivalent to several days of Los Angeles commuter traffic. The yearly expenditure of electricity used to operate the reservoirs would produce CO₂ emissions equivalent to a couple days of commuter traffic, and annual CO₂ emissions from both reservoirs would be equivalent to less than one day of Los Angeles commuter traffic.

Though current climate change models vary in their predictions of increased or decreased precipitation, most models predict that warmer temperatures will cause higher snow elevations meaning more of precipitation that occurs will fall as rain rather than snow. Precipitation that falls as rain could be captured with reservoirs in order to make up for this snowpack loss.

How long will it take to build the reservoirs?

Both reservoirs could be completed and operating by 2019.

<http://www.publicaffairs.water.ca.gov/storage/>