



The Sites Reservoir: An Archaic “Solution” to Water

The most recent proposed addition to California’s water storage system, which includes nearly 1,400 dams and reservoirs, is known as the Sites Reservoir—an offstream water storage facility that could store up to 1.5 million acre-feet of water diverted from the Sacramento River.¹ Through the construction of several large dams and two expansive tunnels, the Sites Reservoir would flood 13,200 acres of valuable woodland and wetland habitat.² The project, touted by state officials as a crucial addition in the fight against drought, is, in reality, an exorbitant piece of gray infrastructure that fails to meaningfully expand water supplies during drought years while hastening the extinction of endangered fish species throughout the Sacramento River and its tributaries.



A Threat to Endangered Fish

Numerous endangered fish species, including the Chinook Salmon, Longfin Smelt, and Steelhead Trout, inhabit the Sacramento River and downstream water bodies.³ These fish species are integral parts of both Sacramento river ecosystems and local fishing economies. Moreover, they are already critically endangered due to years of decreased flows and increased water temperatures from over-pumping; salmon counts in the Sacramento River have been recorded as far below average for the past six years.⁴

During the worst of the 2020-2022 drought, water temperatures in the river grew so high that they became

deadly for salmon eggs, killing 97.4% of salmon eggs before hatching.⁵ The risk of salmon extinction is not only troubling for the overall well-being of the greater Sacramento ecosystem, but also for California’s fishing industry and the cultural heritage of Indigenous communities along the Sacramento River.⁶

These problems are only going to get worse for imperiled fish populations with the construction of the Sites Reservoir. Many studies have observed a strong relationship between water flow and survival of salmonids in the Sacramento River, with salmon populations dropping drastically to a 19% survival rate when flows go below 10,700 cubic-feet-per-second (cfs).⁷ Environmental advocates and fish scientists have long advocated for a 15,000 cfs threshold to ensure the survival of these critically endangered species.⁸ Instead, the Sites Joint Power Authority (“the Authority”), the agency in charge of planning the reservoir, has only committed to a bare minimum flow of 10,700 cfs, revealing their eagerness to divert as much water as possible with little regard for fish casualties.⁹ This is despite the fact that the Sacramento River is over-allocated by 151%,¹⁰ meaning “that there are more rights to divert water out of the river than the river can provide in an average water year.”

Even more alarming, project proponents have fast-tracked the Sites Reservoir through a hastened environmental review process, failing to adequately mitigate impacts to fish species in the Supplemental Draft Environmental Impact Statement/Revised Draft Environmental Impact Report (SDEIS/RDEIR).¹¹

The Cost of Sites Reservoir, For Your Wallet and the Climate

In its most recent approximations, the Authority estimates that Sites Reservoir will cost \$4.4 billion, or \$1300

per acre-feet of water. This heavy cost burden will be carried by taxpayers via a bond meant to fund sustainable water storage improvements and by ratepayers up and down the state who simply want access to clean, sustainable, fairly-priced water.¹² Instead, the Sites Reservoir minimally expands the State's water resources while skirting environmental review. Notably, the project adds less than 1% to California's total capacity during wet years while sitting dry during longer dry spells.¹³

Unfortunately, Sites Reservoir has many other costs associated with it, primarily for the climate. A Friends of the River analysis estimated that the project will emit approximately 362,000 metric tons of CO₂E annually, equivalent to the annual emissions of 80,000 gas-powered cars.¹⁴ Additionally, the 13,200-acre site that the Authority plans to flood with water is currently home to 24 different endangered species whose habitat would be destroyed should Sites be approved and constructed. For these reasons, a broad coalition of environmental justice groups currently oppose Sites Reservoir, including Save California Salmon, Restore the Delta, the California Sportfishing Protection Alliance, and San Francisco Baykeeper.



Sustainable Project Alternatives

There are many unexplored water infrastructure alternatives that could be funded with \$4.4 billion of taxpayer dollars, all while prioritizing ecological health and furthering California's water storage goals. In the City of Los Angeles, urban water recycling has proven to be a sustainable alternative to new dams and reservoirs. The City, along with Metropolitan Water District, is currently investing in a facility known as Pure Water Southern California that will recycle wastewater into clean drinking water for half a million homes, during both wet years and drought years, without diverting any new water away from fish.¹⁵ Groundwater recharge is a natural means of water storage that is incredibly promising, with the possibility of meeting both storage and aquifer recharge goals.¹⁶

Improving water management and efficiency in California's agricultural sector through reducing the farming of water-intensive crops, investing in new systems for water data collection, and implementing water-saving irrigation techniques could save 5.6 to 6.6 million acre-feet of water annually.¹⁷ Through grants and rebates, state water agencies can incentivize smarter water usage across the agricultural industry.

In conclusion, there are a myriad of sustainable water storage alternatives to the Sites Reservoir that could be pursued by state and local decision makers to ensure a safe drinking supply for Californians, without compromising some of our state's most important ecosystems.

¹ ['Sites Reservoir' by the Water Education Foundation](#)

² ['California Water Commission Advances Two Environmentally Destructive Water Projects' by Sierra Club California](#)

³ ['Why NRDC Opposes the Proposed Sites Reservoir' by the Doug Obegi](#)

⁴ ['Chinook Salmon Abundance' by the California Office of Health Hazard Assessment](#)

⁵ ['Salmon populations are struggling, bringing economic woes for California's fishing fleet' by Ian James, the LA Times](#)

⁶ ['Opposition to Sites Reservoir's SB 149 Application – Infrastructure Streamlining' by Defenders of Wildlife, et. al](#)

⁷ ['Why NRDC Opposes the Proposed Sites Reservoir' by the Doug Obegi](#)

⁸ ['Sites Reservoir: Criteria for an Environmentally Responsible Project' by NRDC](#)

⁹ ['Sites Reservoir: Protecting Fisheries' by the Sites Joint Powers Authority](#)

¹⁰ ['Sacramento Threats: Sites' by Friends of the River](#)

¹¹ ['Friends of the River, Sierra Club, California Sportfishing Protection Alliance Condemn Today's Hastened Approval of Sites Reservoir's Environmental Impact Report' by Sierra Club California](#)

¹² ['Sites Reservoir Project Overview: May 2024' by the Sites Joint Powers Authority](#)

¹³ ['Friends of the River, Sierra Club, California Sportfishing Protection Alliance Condemn Today's Hastened Approval of Sites Reservoir's Environmental Impact Report' by Sierra Club California](#)

¹⁴ ['Estimate of Greenhouse Gas Emissions for the Proposed Sites Reservoir Project using the All-Res Modeling Tool' by Friends of the River](#)

¹⁵ ['Water recycling gets a boost in Southern California with new federal funding' by Ian James, LA Times](#)

¹⁶ ['Groundwater Recharge in California' Alvar Escriba-Bou, Gokce Sencan, and Ellen Hanak, PPIC](#)

¹⁷ ['Sacramento Threats: Sites' by Friends of the River](#)

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