



The Facts About Raising Shasta Dam

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Shasta Dam is the seventh highest dam in California and its 4.5 million acre foot reservoir is the largest in the state. The dam captures water from three rivers (the upper Sacramento, McCloud, and Pit). Constructed and operated by the U.S. Bureau of Reclamation, the Shasta Dam and Reservoir is the cornerstone of the giant Central Valley Project, which provides irrigation and drinking water for much of California's Central Valley and parts of, and valleys just south of, the San Francisco Bay Area.

The Bureau of Reclamation is proposing an 18.5-foot raise of Shasta Dam, which would theoretically increase water storage behind the dam by about 13%. The proposed project is intended to improve conditions in the Sacramento River for threatened and endangered salmon and steelhead and increase the state's overall water supply reliability. The Bureau released a final feasibility and environmental impact report and is seeking congressional authorization for the project. The information in this fact sheet comes from the Bureau's Shasta Lake Water Resources Investigation (SLWRI) Final Feasibility Report and Final Environmental Impact Statement (FEIS), which can be reviewed at www.usbr.gov/mp/slwri/index.html.

Significant & Unavoidable Impacts

The Bureau's FEIS admits to many significant and unavoidable environmental impacts that cannot be mitigated. In addition, there are serious concerns about the validity of many of the Bureau's assumptions. Significant impacts and concerns include:

Threatened & Endangered Salmon and Steelhead – Even though the dam raise is proposed by the Bureau to supposedly improve conditions in the Sacramento River for threatened and endangered salmon and steelhead, the U.S. Fish and Wildlife Service (USFWS) believes that the dam raise will provide “negligible” benefits for salmon. According to the USFWS, the dam raise will not benefit salmon 90% of the time and will adversely impact salmon in some years. The USFWS also noted that improving the dam's existing temperature control device, restoring downstream spawning gravel and rearing habitat, improving fish passage, increasing minimum flows, and screening water diversions all increase salmon survival more than the dam raise.

Native American Cultural Heritage – The Bureau admits that the dam raise and reservoir expansion will have “disproportionally high” impacts on Native Americans, specifically the Winnemem Wintu Tribe. The Tribe lost most of their traditional homeland under the existing reservoir. Raising the dam will drown cultural and sacred sites still used by the Winnemem to this day.

National Forest Lands & Infrastructure – Raising Shasta Dam and enlarging its reservoir will drown more than 5,000 acres of the Shasta-Trinity National Recreation Area, which is managed by the U.S. Forest Service for public recreation and wildlife. The dam raise will also require the relocation of more than six miles of public roads, the relocation or modification of five bridges, dozens of recreation facilities (marinas, campgrounds, etc), and utilities and wastewater systems.

Wild & Scenic Rivers – Expanding Shasta Reservoir will flood upstream rivers and streams, including 1.5 miles of the McCloud River, which is protected under the California Wild & Scenic Rivers Act. The Bureau's response to this violation of state law is to simply propose changing the law. The expanded reservoir would also flood segments of the McCloud and upper Sacramento Rivers identified by the Forest Service as eligible for protection in the National Wild & Scenic Rivers System. Not only would

the dam raise flood these important river segments, it would harm the rivers' outstandingly remarkable scenic, recreational, wild trout, and Native American cultural values. The dam raise would also modify flows in a segment of the Sacramento River below the dam identified by the Bureau of Land Management for potential National Wild & Scenic River protection.

Wildlife – The enlarged reservoir footprint will cause permanent loss of habitat for numerous sensitive wildlife species, including Pacific fisher, northern spotted owl, northern goshawk, Cooper's hawk, purple martin, foothill yellow-legged frog, Shasta salamander, and several special status bat and mollusk species. The project will also result in the flooding of several rare plant populations and their habitat (including fully or partially inundating 11 of the 24 known sites where the Shasta snow-wreath, a rare flowering shrub found nowhere else on earth, is found). Critical deer fawning areas and winter habitat will also drown beneath the expanded reservoir.

Sacramento River National Wildlife Refuge – The dam raise/reservoir expansion will modify flows through the Sacramento River National Wildlife Refuge, with potentially significant impacts on the river's riparian ecosystem and protected wildlife species that depend on that ecosystem (including the threatened yellow-billed cuckoo and bank swallow). The Bureau proposes a so-called Adaptive Management Plan to mitigate these impacts but provides little information on how the Plan will be implemented, how the needs of water contracts will be weighed against ecosystem flow needs, and what guarantees will be provided to ensure that these significant impacts are truly mitigated to less than significant levels.

Delta – The effects of the dam raise/reservoir expansion will be felt all the way downstream to the Sacramento-San Joaquin Delta. Storing more water behind the expanded dam and reservoir will reduce fresh water flows into the Delta during critical periods, with potentially significant increases in mortality for endangered Delta fish due to continued and increased reverse flows in the south Delta.

Cost and Benefits – Raising Shasta Dam by 18.5 feet will cost nearly \$1.3 billion dollars. The Bureau allocates nearly 50% of the dam raise cost to providing salmon benefits, which means that nearly 50% of the dam costs would be paid by American taxpayers and not the few water contractors who directly benefit from the dam raise. The USFWS strongly questioned the Bureau's claim that raising the dam will benefit salmon.

Water Yield – The 18.5-foot raise will increase the existing reservoir capacity by 634,000 acre-feet or about 13%. But the average annual water yield provided by the enlarged reservoir is only 51,300 acre-feet (or about 1/10th of 1% of the state's annual water budget). California's chronic drought cycles and future climate change will determine how much water the enlarged reservoir will actually produce. In fact, the Bureau admits that hydrology, climate change, water system operations, water supply reliability and water demand are all "significant uncertainties" in regard to the project's actual yield of water. To put this in perspective, California's urban water users saved in three months this summer more than 8 times the amount of the dam raise's reliable annual water yield.

Water Contracts – There are no identified beneficiaries of the project, but the Bureau speaks of selling the additional supply to CVP contractors and even to State Water Project contractors, an eye opener to CVP contractors. Regardless, despite alleged environmental benefits, most of the supply is expected to be sold to water contractors south of the Delta. This directly ties the Shasta Dam raise to the Delta tunnels project proposed by Governor Brown as the so-called "Water Fix." The Bureau's previous study of the Shasta Dam raise was shelved when voters rejected the proposed Peripheral Canal in 1982. The viability of the dam raise increased with the resurrection of the canal as the Delta tunnels.

For more information concerning this project, please contact Steve Evans, Wild Rivers Project Consultant for Friends of the River, phone: (916) 708-3155, sevans@friendsoftheriver.org; or Ronald Stork, Friends of the River, (916) 442-3155 x 220, rstork@friendsoftheriver.org.