



We Advocate Thorough Environmental Review

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Shasta Dam Raise Project
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1/13/19

Re: Shasta Dam Notice of Preparation

To Whom It May Concern:

We Advocate Thorough Environmental Review (W.A.T.E.R.) is a California 501(c)(3) non-profit corporation which was incorporated to promote quality local and regional planning, land use and development, as well as to preserve a healthy human and natural environment within Siskiyou County and Northern California.

Questions and Concerns for the Scoping Process.

We have reviewed the Notice of Preparation for the Shasta dam project and submit the following concerns for inclusion in the CEQA analysis. Please expand the scope of the Environmental Impact Report to include these issues and clearly, lawfully and scientifically address the issues outlined below.

1) This project is set up for water delivery for corporate interests paid for with taxpayer funds! It is estimated that the \$1.3 billion that the dam raise will cost will only increase water deliveries by an estimated 51,300 acre-feet. That is less than 1/10th of 1 percent of California's annual water budget. **(See SLWRI Feasibility Report, pp. 4-87, 6-9, 6-10 table 6-1. But see SLWRI Feasibility Report pp. 8-5-6 for discussion of the Bureau's desire to cost-share fish & wildlife benefits in this project.)** And The Bureau of Reclamation (BOR) admits that there are "significant uncertainties" whether this project will yield even this estimated amount of water.

a) The DEIR must evaluate Alternatives that explore ways of fulfilling Central Valley and Southern California water needs without raising the dam.

2) The US. Fish and Wildlife Service declared in their "Revised Fish and Wildlife Coordination Act Report for the Shasta Lake Water Resources Investigation Project," dated Nov. 15th, 2014 (which the BOR tried to suppress) that the dam raise would have "minimal benefits if any for salmon." **(Reference: <https://drive.google.com/file/d/0BxpLit7HV7CrZGZSUUVOTFRmd1U/view>)**

a) Why should taxpayers foot half the cost of a dam raise for a project whose proposed objective of "benefitting salmon" is clearly disputed by the U.S. Fish and Wildlife Service?

3) The Shasta Dam was originally supposed to have a fish ladder to allow salmon access to their historic spawning habitat. The NOP cites “fish and wildlife mitigation, protection and restoration as a priority equal to water supply, and fish and wildlife enhancement as a priority equal to hydropower generation.”

- a) Why doesn't this project consider or address the NOAA 2009 “Biological Opinion” which mandates the restoration of listed wild salmon above Shasta Dam to the upper reaches of the Sacramento, McCloud and Pit Rivers?
- b) Wouldn't an increase in the height of the dam greatly complicate attempts to restore historic salmon runs?
- c) Please address the economic feasibility of returning salmon to the McCloud River to provide food, fishing and tourism.
- d) Provide the economic factors of supplying a limited number of large farms with the additional water.
- e) What are the economic benefits to several large farms/ranches, versus a sustained economy in Northern California, above the dam?
- f) Please compare the environmental benefits/impacts of providing water for Central Valley farmers versus restoring the salmon ecology to the Upper Sacramento River?

4) How can Westlands Water District, the quasi-governmental agency that receives millions of dollars every year in federal subsidies be the main beneficiary of this proposed project, and be allowed to direct the EIR process? This truly is a case of conflict of interest, with the “fox guarding the henhouse” and it should not be allowed.

- a) What laws allow this? Please state them specifically.

5) Most of the water from the proposed raise would be sold to corporate farms south of the Delta, most likely within the Westlands Water District (WWD).

- a) How can WWD possibly be impartial when analyzing the project? This project must be handed over to a proper governmental agency to handle the CEQA process.

6) WWD also owns land on the McCloud River so they can have junior water rights.

- a) How can a California State ‘agency’ be a landowner? This is a conflict of interest and must be addressed.

7) The NOP states that the Central Valley Project delivers water to the San Luis Reservoir for delivery to the Westlands Water District. Presumably the increased water that might be available would be designated for the WWD.

- a) Who is going to receive the rights to the supposed “increased” amount of water?
- b) Would the District be allowed to sell the water that they do not use to third parties?

8) The proposal wants to move water in the summer time, which obviously is not the best scenario for the fish. It is well known that moving water in spring is the best time for the health of the fish, and that would happen naturally if the dam were not present on the river. Since the dam is to stay in place, pulsing the water is best for the fish and the associated gravel beds.

- a) How can the plans insure that the majority of water will be moved in spring to decrease the impact on the fish/fisheries?

9) Endemic Species: The area surrounding Shasta Lake is rich in biodiversity and is home to the Shasta salamander, Shasta snow-wreath and the Shasta Chaparral snail. A native shrub, the Shasta snow-wreath is “rare and known only to exist near the shores and canyons around Shasta Lake, and many of the populations were lost when the Shasta dam was originally constructed.” As you know,

lawsuits have been filed by NGO's and if positive findings are made by the US Fish and Wildlife Service than the salamanders would gain protection and the Bureau of Reclamation would have to avoid raising the dam without harming them. **(Reference: <http://www.wildcalifornia.org/blog/action-alert-shasta-dam-raise-would-destroy-imperiled-salamander-habitat-and-sacred-sites/>)**

a) How will all proposed plans put these three species at no further risk? Please outline specific plans.

10) The original plan for Shasta Dam was that it be built at the height it is now.

a) Was the Shasta Dam originally engineered to accommodate the additional strains that will be imposed by the increased volume of water constrained behind the heightened dam?

b) Is the soil in which the dam is built of a quality that can support the increased pressure?

c) What testing is being done to review quality of the cement and structural soundness of the existing dam?

d) What is the history of the maintenance and certification of the existing dam?

11) Please discuss the increase in the amount of dust that will be exposed as the water levels rise and fall. When the water level lowers, we can already see a strip of exposed bare earth and when the wind blows it picks up dust particles and puts it up into the air, affecting people and other animals in unstudied ways. We know there is currently mercury from former mines in the lake. If the dam was to be raised this strip of exposed land would significantly increase posing environmental and health risks from dust. An example of this is the Salton Sea and the increase of respiratory illnesses in the area.

(Reference: <https://www.audubon.org/news/the-fate-salton-sea-our-hands>)

a) What type of substances are in the dust at the proposed site?

b) Does it contain mercury?

c) Please provide studies of the increase in air particulate matter and the impacts to air quality and health risks from the exposed shoreline area dust.

12) Please give us a detailed outline for responses to dam failure. We know that the Oroville Dam spillway had extremely serious issues and even produced its own series of earthquakes. **(Reference: <https://www.sfchronicle.com/news/article/What-caused-nearly-20-000-quakes-at-Oroville-Dam-13473254.php?fbclid=IwAR0lg6-6jOh2R3qsgLNqCElpp1Eid5lJbz-nOOna7KJGuaxujV8Nezmy--Q>)**

a) What plans are in place for responding to a catastrophic collapse and its resulting environmental devastation?

13) If and when this dam needs to be removed, who is going to pay for it?

14) Please provide examples of "like projects" to compare to so we can review and become aware of those mitigations.

15) There are a significant number of older reports and studies that you have mentioned in Chapter 3, References. When doing the Draft EIR, do not just reference those reports but share the material inside the DEIR. There is no way for the public to find, read and digest 15 reports that are up to 35 years old. In many cases new studies will likely need to be done to account for changing environmental circumstances, e.g., recent new predictions regarding climate change.

16) How has the building of the Shasta Dam already damaged the historical/traditional salmon runs (particularly the winter run Chinook Salmon) and other native fish in the Sacramento, McCloud and Pit Rivers?

17) How has the "The Central Valley Project Improvement Act (CVPIA), from 1992, actually worked to improve fish mitigation, protection and restoration of the winter run Chinook Salmon?

18) The SLWRI is 18 years old (from 2000) and thus cannot be relied upon for valid information. New analyses will be required for this EIR.

19) "WWD has federal contracts to provide water to 700 family-owned farms that average 875 acres in size." Averages are not helpful in fully understanding to whom the water is contracted to.

a) Please itemize each of the farms, the exact size of each farm, and what crops are grown.

20) Exactly how will WWD "evaluate and monitor" the two Primary Objectives:

a) Increase the survival of anadromous fish populations in the Sacramento River, primarily upstream from the RBPP

b) Increase water supply and water supply reliability for agricultural, M&I, and environmental purposes to help meet current and future water demands

21) All predictions from Climate Change models show a decrease in precipitation for the Watershed Recharge areas that would supposedly "fill" Shasta Dam.

a) Please provide your models for increased water supply during years of substantially less snow-melt.

b) Please include current climatic data including future predictions.

22) The increased evaporation from an enlarged lake would actually reduce the total amount of water available in the long run. In drought periods when the water levels in the lake are greatly lowered year after year as we have seen lately, there is no additional water available for "increasing irrigation and M&I deliveries." And in critical years (whatever that means) even smaller proportions of water are allocated for increasing M&I deliveries and instead prioritize irrigation to the "700" farms.

a) Please include studies, model predictions etc. that address the loss of lake water due to evaporation including projected future droughts and increased average air temperatures.

b) Name and outline the alternative plans to bring water to these WWD clients if impounded water is lost to evaporation and during drought.

23) Under "Secondary Objectives," how does "Reduce flood damage along the Sacramento River" actually benefit the River ecosystems?

24) For thousands of years, rivers have needed periodic high water events to flush gravel downstream.

a) How is capturing and slowing down high water events going to improve the winter run Chinook Salmon and other fish in the Sacramento River when we know that these events are needed to flush gravel beds in the River?

The US Fish & Wildlife Service reports that if side channels fill in, fish are negatively affected.

a) How will capturing more water behind the dam allow flushing to happen downstream of the dam?

b) What mitigations will be in place to take care of this vital issue?

25) "Reduce demand" – All action alternatives would include a water conservation program to augment current water use efficiency practices."

a) What plans if any, are there to reduce the amount of water-requiring farms down south in the desert lands?

b) If increased water from this project is supplied to Southern California agriculture, what is to prevent the planting of even more water intensive export crops?

c) Crops formerly grown in the Westlands Water District, like cotton - an already thirsty crop, have been replaced by crops such as almonds, which require up to **40% more water** for irrigation. The choice to not irrigate an almond orchard during a drought is not feasible. How is

this consistent with the objective of reducing the demand for water? Will there be a mandate for farmers to switch to growing naturally drought tolerant annual crops?

26) “Maintain or improve water quality” – All action alternatives would maintain and potentially improve water quality by increasing Delta outflow during drought years and reducing salinity during critical periods, and may also provide additional operational flexibility for responses to Delta emergencies. “

a) If it is already known that water quality is an issue for the river and the fish that live in it, why would this project merely maintain the status quo (and only “potentially” improve water quality)? If one of the “Primary Objectives” is to “Increase the survival of anadromous fish populations in the Sacramento River, primarily upstream from the RBPP,” then maintaining the status quo of water quality is a non-starter for the very first objective.

Additionally, it is known that the fish in Lake Shasta have high levels of mercury contamination largely from abandoned mines in the area.

- a) Wouldn't further flooding of the land around Lake Shasta increase the amounts of contaminants leaching into the water by flooding even more old abandoned mines?
- b) The high amount of sedimentation inside of the Shasta Dam means an increase in the Mercury accumulation. The sediment should be removed, thereby increasing the volume of clean water storage. This would allow for a “no-project” alternative.

27) There is also the issue of polluting discharges into the lake by houseboats. Enlarging the lake would allow for a likely increase in the numbers of houseboats on the lake exacerbating this problem and reducing water quality further.

28) Under CP1 and all other “action alternatives,” an objective is to improve “Reclamation’s ability to release cold water from Shasta Dam and regulate seasonal water temperatures for fish in the upper Sacramento River during critical periods.” If less snowpack is an effect of climate change, then rainwater is what will be filling Shasta Dam. Therefore, the water going in will automatically be warmer than snowmelt and therefore the objective cannot be met.

a) What will be done to meet the objective?

29) Alternative CP5 (and all other action alternative plans) calling for the “raising Shasta Dam 18.5 feet; implementing the set of eight common management measures described above; constructing additional resident fish habitat in Shasta Reservoir and along the lower reaches of its tributaries (the Sacramento River, the McCloud River, and Squaw Creek); constructing shoreline fish habitat around Shasta Lake;” The dam raise would flood portions of the McCloud River that are protected by the state’s The Wild and Scenic Rivers Act.

How does the additional construction in any way, provide for enough mitigation for the loss of Winnemem Wintu ceremonial sites and the losses to the untouched, state-protected wild and scenic Wild and Scenic River status of the McCloud River?

30) Chapter 2: The environmental check lists rely heavily on the 2014 SLWRI Final EIS, and give little rationale for why topics were deemed significant or not. Because of this, the DEIR for this project MUST revisit and justify every instance where an impact is deemed “less than significant”, “no impact”, as well as “less than significant with mitigation incorporated” and “potentially significant”.

31) Under Chapter 2: Environmental Evaluation, the “Land Designation” in no way discusses that the ‘Primary Study Area’ includes land uses of the Winnemem Wintu, a California Historic Tribe. This area is the tribe’s Traditional Cultural territory. The Tribal members still practice their Traditional Culture along the McCloud River, its access points at the lake and village sites.

a) With the Indian Land Acquisition Act of 1941, Congress gave the government the right to take traditional Indian lands for the purpose of constructing the original dam. The Act also required the government to provide compensation for lands and other acquisitions. However, the promises of Act have still not been fulfilled. Thus the DEIR must address the need for appropriate compensation required by the Indian Land Acquisition Act of 1941 before even considering changes to the dam.

b) Moreover, not naming the Winnemem Wintu Tribe in this section is misleading to the public and agencies reviewing the project. This section must be amended to include the Winnemem Wintu Tribe and the NOP resubmitted for public comment.

Geology and Soils

32) The additional water impounded by the dam raise is destined to be used for irrigation in the Westlands Water District, an area known for the excess of selenium and boron in its soil which caused the Kesterson National Wildlife Refuge fiasco in the 1980's.

a) How will this increased irrigation affect the soils in the district in the long run, and how will additional runoff affect the San Joaquin River?

33) Aesthetics Checklist Form: item 2.2-1a

To say that there is a "less than significant impact" to 'Substantially damage scenic resources, including but not limited to, trees, rock outcroppings and historic buildings...' ignores the Tribal Cultural Resources (TCRs) in the area of the Winnemem Wintu Tribe.

a) These TCRs must be considered and flooding these areas would obviously result in a "Potentially Significant Impact" designation.

34) Table 2.2-4b. Impacts from 2014 SLWRI Final EIS Corresponding to CEQA Guidelines Questions for Biological Resources Impact Aqua-5: Effects on Special-Status Fish Species

a) To check off a "Less Than Significant Impact" is in complete error. This project will all but insure that there will never be gravel flushing events on the Sacramento River, below the Shasta Dam.

35) Impact Aqua-12: A less than significant impact is still an impact that the Salmon & Steelhead cannot afford, as they are teetering on the brink of extinction.

a) This must be mitigated to a "no impact" status or the "no project" alternative must be chosen.

36) Impact Aqua-16 must also be mitigated to a "no impact" status to allow for "Ecologically Important Geomorphic Processes to continue with planned "Reduced Frequency and magnitude of Intermediate to High Flows."

a) Outline how the proposed "Less than Significant" impacts are achieved with "mitigations." What mitigations will accomplish this?

b) Specifically, what impacts will be seen if the "Less than Significant" impacts still happen?

37) Chapters 12 & 13, "Botanical Resources and Wetlands" Section 12.3, "Environmental Consequences and Mitigation Measures" and "Wildlife Resources"

a) If the project cannot mitigate each and every impact here, the "no project" alternative must be chosen.

38) 2.2.5 Cultural Resources

a) AB 52 Consultation must be completed with all relevant State and Federally recognized Tribes and Traditional Cultural resources must be protected. Cumulative impacts must include the impacts dating back prior to the original dam project, since the conditions of the Indian Land Acquisition Act of 1941 have never been fulfilled. It should be noted that the Bureau of Reclamation did not complete Tribal consultation for its EIS, "Shasta Lake Water Resource Investigation". Thus the BOR study cannot be substituted for a thorough and completed AB52

process for this EIR.

39) Table 2.2-13a. Population and Housing Section

a) This section must be fully outlined or how can we comment on it?

40) If the Westlands Water District is allowed to transfer (sell) its water rights to third parties (e.g., Kern Water Bank), will this allow the development of Mountain Village at Tejon Ranch, Grapevine at Tejon Ranch and Centennial at Tejon Ranch to be built by the Tejon Ranch Company? **(Reference: <http://tejonranch.com/our-communities/>)**

41) Each "Alternative" is listed but each one includes the raising of Shasta Dam. There needs to be other viable alternatives that lie between "no project" and "raising the dam." This is not addressed at all in the NOP, as if there are no other options to raising the dam that could still achieve the same goals.

a) The DEIR must thoroughly explore other viable alternatives that achieve the project goals without raising the Shasta Dam.

42) The 1978 Religious Freedom Act that President Carter signed was strengthened with Clinton's 1996 Executive Order 13007 for preservation of sacred sites. "In managing federal lands, each executive branch agency with statutory or administrative responsibility for the management of Federal lands shall ... avoid adversely affecting the physical integrity of such sacred sites."

a) Please explain any laws that usurp these two standing Federal laws that protect the Winnemem Wintu sacred sites.

In Conclusion:

There are many more cost effective ways to invest in increasing water supply such as desalination, groundwater restoration, water reclamation, fixing leaky infrastructure and conservation. The DEIR must consider that growing food in a desert area is not a good plan for the sustainable future, particularly when we are considering the predicted, and already present, issues of climate change.

With the proposed further raising of the Shasta Dam, Winnemem Wintu Tribal Cultural Territory is once again under attack. Previous marginalization of this culture does not justify or allow for further acceptance of the past abhorrent practices during the construction of the dam.

The building of Shasta Dam, beginning in 1938, caused the forcible removal of the Winnemem Wintu Tribe from their homes along the McCloud River without recompense. And it caused the loss of the salmon migration into the McCloud River.

The Winnemem Wintu Tribe has inhabited this area for millennia. In the last few hundred years they have faced genocide through bounty hunting, boarding schools and other attempts at forced assimilation. After many years of generational trauma, the Tribe is still here, practicing their way of life. Now with this proposed raising of Shasta Dam, their Tribal Cultural Territory and practices are once again under attack.

Over thousands of years of living in the McCloud River Basin, it has naturally become an integral part of the Tribe's spiritual, cultural/social and medicinal practices and way of life. While many Tribal sacred sites were flooded when the Shasta Dam was built, there are sacred sites that, thankfully, remain unflooded. This proposed dam raise would wipe out those remaining sites. Sites that would be flooded include Children's Rock and Puberty Rock, which are vital for the Winnemem Wintu's empowerment ceremonies for young women. It is unconscionable that they should have to undergo more forced change and a removal of what is left of their traditional way of life. They must be allowed to live and practice the ways they and their ancestors have done for millennia.

And finally, to help restore the Chinook salmon, NOAA presented a “Biological Opinion” in 2009, with a mandate to increase survivability of endangered salmon from climate change, they should be restored to their original territory above the Shasta Dam. Therefore, a “swim around” for the salmon to return to their traditional territory should be included in the Shasta Dam Raise Project.

Because the Winnemem Wintu Tribe and Chinook salmon are both intricately woven together over millennia, the “no project” alternative at this time remains in the public's best interest. A “swim around” should be seriously considered to allow the Winnemem Wintu Tribe and Chinook salmon to continue their traditional way of life and provide both their best chance to survive the proposed Shasta Dam Raise Project as well as climate change.

We request a notification of release and a copy of the Draft EIR be sent directly to: mountshastawater@gmail.com and also to flyraven@sbcglobal.net.

We also request that a Draft EIR copy for public viewing be delivered to the Mt. Shasta Library at 515 East Alma Street, Mt. Shasta, CA and the McCloud Library at 300 E. Colombero Dr. McCloud, CA 96057.

Respectfully Submitted,

A handwritten signature in black ink that reads "Raven Stevens". The signature is written in a cursive, flowing style.

Raven Stevens
Board of Directors
We Advocate Thorough Environmental Review