

D-SULL Duplicate of I-SULL

Terrie C. Sullivan
 2 Maynard Street, Apt. 1
 San Francisco, CA 94112
 terrie.sullivan@gmail.com

September 26, 2013

Ms. Katrina Chow, Project Manager
 Bureau of Reclamation
 2800 Cottage Way, MP-720
 Sacramento, CA 95825-1893

BUREAU OF RECLAMATION OFFICIAL FILE COPY RECEIVED		
NOV 07 2013		
DATE	ACTION	BY
13 Nov 13		K. Duncan
TO: K. Chow		

Re: Comments on the Shasta Reservoir

After reviewing the Shasta Lake Water Resources Investigation (SLWRI) Draft Feasibility Report (DFR) and considering the multiple unanswered environmental and water resource management issues, I hereby submit this letter in opposition to the plan to raise the Shasta Reservoir.

The plan to raise the Shasta Reservoir from 6.5 feet to 18.5 purports to be a viable method of increasing anadromous fish populations, and increasing water supply and water reliability for agricultural, municipal, industrial and environmental purposes. The Bureau of Land Reclamation (BLM), however, fails to adequately address deficiencies in the plan for meeting the stated goals, and provides no recourse for mitigating adverse impacts and undue hardship to the Winnemem Wintu Tribe in the Shasta Lake area.

Previous damming of the Shasta Reservoir has damaged spawning and habitat areas for the Chinook salmon, which are listed as endangered species under the federal Endangered Species Act. The 1992 Central Valley Project Improvement Act required a doubling of anadromous fish populations, such as the Chinook salmon, by the year 2002, bringing the population to some 990,000 naturally spawning salmon. To this day, the fish population has yet to reach double the 1992 population, in part due to the fact that the existing Shasta Reservoir compromises their natural habitat. The BLM does not address any plans to mitigate further damage to salmon spawning areas, nor does the bureau discuss how raising the Reservoir could have anything but further negative impacts to the salmon population. No consideration has been given to alternatives that could improve the Shasta watershed while preserving the salmon habitat and keeping the Reservoir at current levels. If the BLM has not shown that they can comply with the requirements of the 1992 CVPI Act, how can the public exercise faith that the bureau will act in good faith to provide for the protection of endangered species after raising the Shasta Reservoir?

The plan to raise the Shasta Reservoir allegedly intends to provide increased water supply and reliability to the Central Valley as well as Southern California. However, the Bureau of Land Reclamation admits that raising the reservoir will not be sufficient to supply water for both regions. In addition, the BLM has not provided reasonable justification for assuming that the Shasta Reservoir's watershed would be capable of filling the increased Reservoir in years of drought. The apparent purpose of raising the Shasta Reservoir is to increase water availability to the Central Valley and to Southern California, and to protect California from water crisis in dry years; yet, even tripling the size of the Reservoir will be inadequate for meeting all of

SCANNED

Classification	ENV-6.00
Project	214

California's vast water needs. The BLM has not addressed the real problem in California's water sharing plans—the mismanagement of existing water resources. As more and more water is diverted from Northern California to heavily subsidized agribusinesses in the Central Valley and ever-increasing suburban sprawl in Southern California, it stands to reason that the state's water supply is being stretched far too thin. Any long-term solution to California's water problems must fully address the need for a more equitable, less wasteful, and economically sound distribution of water throughout the state.

The primary beneficiaries in raising the Reservoir will be agricultural service water contractors in the Central Valley, who will bear none of the burden.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Terrie C. Sullivan', with a stylized flourish at the end.

Terrie C. Sullivan

D-SVOB Duplicate of I-SVOB



Fwd: Svoboda Public comments on Shasta DEIS

↑ message

KATRINA CHOW <kchow@usbr.gov>
To: KATHLEEN DUNCAN <kduncan@usbr.gov>

Wed, Oct 23, 2013 at 1:12 PM

Sent from my iPhone

Begin forwarded message:

From: Tendai Chitewere <tendai@sfsu.edu>
Date: September 30, 2013, 9:49:55 PM PDT
To: "kchow@usbr.gov" <kchow@usbr.gov>
Cc: "BOR-MPR-SLWRI@usbr.gov" <BOR-MPR-SLWRI@usbr.gov>
Subject: Svoboda Public comments on Shasta DEIS

Dear Ms. Chow,

Please find attached a letter from Deborah Svoboda for the public comment on the DEIS.

The original letter was put in the mail last week, but I wanted to make sure the letter met the midnight deadline.

Regards,

Tendai Chitewere

Shasta Lake Water Resources Investigation
Duplicate DEIS Public Comments Appendix

Deborah Svoboda
PO Box 99411
Emeryville, California 94662
Deborah.svo@gmail.com

September 27, 2013

Ms. Katrina Chow, Project Manager
Bureau of Reclamation
2800 Cottage Way, MP-720
Sacramento, CA 95825-1893

Re: The Shasta Dam Raise EIS Draft

Dear Ms. Chow,

I am writing to express my grave concern over the prospect of the proposed Shasta Dam raise, taking place. I believe the raise would be detrimental to everyone except the agri-businesses of the Central Valley. The expense to taxpayers, the cost to the environment and the loss of homes and businesses along the lakeside are but a few of my worries.

I find it extremely disconcerting that this project is being presented to the public in such a way as to make one believe that if this raise of the Shasta dam happens, California will have more water. I believe this is excellent marketing but not true at all. California will simply have more capacity to hold water, which a great percent of the time will not make any difference if we do not get enough rain and snow. According to the Environmental Justice Coalition on Water, on average the Shasta reservoir only reaches full capacity approximately 3 years out of 20.

I am also deeply troubled by the loss of over 40 sacred sites to the Winnemem Wintu native tribe, who have lived in between the rivers north of Redding for over 6,000 years, according to Caleen Sisk, their chief and spiritual leader. Lori Harrington prepared an Archeological evaluation, which placed the Winnemem Wintu in the area for at least the last 1,500 years. Destroying their sacred sites is nothing short of cultural genocide and completely unacceptable to be contemplating, in order to supply large industry agriculture with more water during the drier years. The California Indians that remain deserve to have their land, culture and beliefs held in deepest respect, not drown. They paid the highest price of anyone when the dam was erected 75 years ago. I believe it is a crime to allow them to suffer the consequences of a dam raise for a second time and goes against the spirit of executive order 12898 on Environmental Justice.

Despite the issues I named above, my greatest concern lies in the misconception that a raise of the Shasta dam is what is necessary for the anadromous fish populations that are trying to survive in the Sacramento River.

As stated in chapter 11 of the DEIS, the theory is that with plans CP3, CP4 and CP5, an increase in surface area and cold-water storage area, would allow the temperature control device's (TCD) greater opportunity to release cooler water downstream during critical life stages of anadromous fish populations.

There are many problems with this approach. Firstly, it is focusing solely on changing the temperature of the water. This is because the water found upstream of the dam, where the fish would normally be migrating to, is cooler. And since we have deprived them access to that water, you would like to recreate the cooler water downstream. That seems logical.

However, cooler water is not the only reason the fish migrate there. They return to their spawning grounds because all of the conditions are just right there, including but not limited to the cooler water. Other factors such as the gravel bottom, the riparian systems, the speed of the current and probably many factors we cannot yet begin to know are a part of the reason why anadromous fish return upriver. A comprehensive approach is required, not a single-minded quick-fix focus.

The evidence is apparent if one looks. Since completion of the installation of the TCD's in 1997, according to the National Marine Fisheries *5-Year Review: Summary and Evaluation of Sacramento River Winter-run Chinook Salmon ES*, the Chinook Salmon numbers have continued to decline. Their status has changed from "threatened" on the endangered species list, to "endangered," from 1995 to present day. If the TCD's and providing cooler water below the dam were the answer, then we would see more significant improvement of the numbers of Chinook Salmon in the Sacramento River.

Both the United States Fish and Wildlife Service and the National Marine Fisheries do not support the dam raise and believe it will have negligible effect on anadromous fish populations. I believe their opinions should be held in high esteem.

In addition, this proposed solution could have irreparable impact on the ecosystems of the lake and of those that exist below the dam. I believe that the consequential effects on the riparian system of the Sacramento River could be devastating. We cannot just change whole ecosystems and the way that nature has worked and expect to not have an impact. Even if I believed that this cooler water could help anadromous fish below the dam, I believe the risk to other life outweighs the positive effects.

If we truly want to help the fish of the Sacramento River, a fish ladder or detoured route needs to be installed. Raising the Shasta Dam even higher will all but eliminate this as a potential possibility.

Rather than raise the Shasta Dam, I propose that California is ready to move in a direction that is sustainable rather than depleting. We are capable of taking actions that can ensure our long-term needs, rather than our short-term desires. As our population grows our lifestyles must accommodate and adapt. For water consumption, the government could spend more money on an education campaign, and help the public to understand just how scarce of resource water actually is.

A state law requiring water meters to be installed across the whole state of California by 2025, could be implemented sooner, which would be most certain to contain some water consumers habits. As the United Nations has suggested several times, human beings need to cut back or eliminate their meat and dairy intake, for large amounts of water are required both to raise the animals and to grow their feed. A campaign on educating the public of these facts could have a huge impact on the need for water in the Central Valley. Instead of large-scale agribusinesses, more ecologically sound ways of making a living need to be implemented.

I truly believe that California is a place that can change the very idea of what "growth" means. And grow in a way that is sustainable, rather than destructive to the environment, the native communities and wildlife. I am asking you not to put this burden on the people of California. Please choose the "no action" alternative and put a stop to the idea of raising the Shasta Dam.

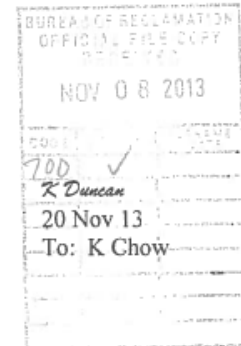
Sincerely,

A handwritten signature in cursive script, appearing to read "Deborah Svoboda".

Deborah Svoboda

D-SWAN Duplicate of I-MOSS1

Katrina Chow - Project Manager
US Bureau of Reclamation
Planning Division,
2800 Cottage Way
Sacramento, CA 95825-1893



September 14, 2013

Dear Bureau of Reclamation,

I am writing to express my concern over the proposal to raise the height of Shasta Dam by 6.5-18.5 feet.

Although your draft feasibility study found such an undertaking would be "technically and environmentally feasible," as well as "economically justified," this project could require more than \$1 billion in taxpayer funds and there is significant evidence that runs contrary to your findings.

Briefly put: raising Shasta Dam would provide a small benefit at a great cost. If plans are approved to raise Shasta Dam by 18.5 feet, which BoR found to be the most economical option, statewide water storage capacity would expand by only 1.5%. The creation of 76,000 acre-feet of firm yield would add less than 0.2% of agricultural and urban water use per year in California.

Dams don't create water – they merely capture rain and snowmelt – and the firm yield reliably produced on an annual basis depends on annual rainfall. The hypothetical firm yield of water produced from the 6.5-foot raise ranges from 20,000 to 72,000 acre-feet. The hypothetical firm yield of the 18.5-foot raise is 71,000-146,000 acre-feet. In comparison, if farmers producing low-value alfalfa were to conserve a mere five percent of the water they consume, it would save nearly one million-acre feet of water. Conservation is a much better alternative.

Another stated objective of raising the dam is to "increase survival of anadromous fish populations in the upper Sacramento River." Ironically, Shasta Dam prevents Chinook salmon from reaching the cold-water streams where these fish naturally breed. Funds would be better spent building a fish ladder around Shasta Dam.

An analysis conducted by Golden Gate Salmon Association and the Natural Resources Defense Council found that the target salmon population put forth by state and federal government is only at 20% of historic populations. Why not invest instead in salmon restoration, an alternative that would provide a long-term solution that doesn't exacerbate the problem it purports to solve?

SCANNED
Classification ENV-6.00

Beyond the negative economic and ecological effects of raising Shasta Dam, please also consider the cultural damage a higher dam would inflict.

The Winnemem Wintu Tribe, the same people who lost much of their traditional homeland and many historic, cultural and sacred sites when Shasta Dam was built in the 1930s and 40s, would see an additional 39 sacred sites flooded, including Puberty Rock, a major ceremonial initiation site. A crucial aspect of the tribe's ability to practice their culture and religion would be lost.

Raising Shasta Dam also violates the McCloud River's designation as a federal Wild & Scenic River. So, not only would many Winnemem sacred sites be flooded and a Wild and Scenic River compromised, a variety of small businesses and families would be displaced.

Who would really benefit from raising the dam? A report by the Environmental Working Group shows that California taxpayers subsidize \$416 million a year in water for agriculture that is conveyed to Central Valley farms and that "the largest 10 percent of the farms got 67 percent of the water." These Central Valley water purveyors, including Westlands Water District, can sell the subsidized water to urban areas in southern California at a profit. The water might also facilitate hydrocarbon fracking in the Monterey Shale region. These are not valid justifications for raising Shasta Dam.

Furthermore, raising Shasta Dam is linked to the controversial proposal by California Governor Jerry Brown to build two large tunnels under the Delta in order to divert large amount of water to corporate agricultural farms to the south, not to the people who are paying for the proposed project.

I urge you to carefully consider these high costs and minimal benefits of raising Shasta Dam, and abandon the proposal to raise the height of the dam.

Respectfully,

Warren F. Swanson
96002

1A02

D-SWIT Duplicate of I-TOSS



MAILING ADDRESS: 201 N. TRAVIS BLVD., SUITE 1000, SACRAMENTO, CA 95811

I oppose raising Shasta Dam and enlarging the reservoir

Joshua Switzky <jswitzky@hotmail.com> Fri, Sep 27, 2013 at 9:38 AM
To: "BOR-MPR-SLWRI@usbr.gov" <bor-mpr-slwri@usbr.gov>

Ms. Katrina Chow
SLWRI Project Manager
Bureau of Reclamation Planning Division
2800 Cottage Way
Sacramento, CA 95825-1893
Fax: (916) 978-5094
Email: BOR-MPR-SLWRI@usbr.gov

Dear Ms. Chow:

Thank you for soliciting public comments in response to the Bureau's proposed raise and enlargement of the Shasta Dam and Reservoir.

I oppose raising the dam and enlarging the reservoir, primarily because the U.S. Fish and Wildlife Service says that the proposal will have "negligible benefits" for threatened and endangered salmon and steelhead in the Sacramento River.

In addition, enlarging the reservoir will harm thousands of acres of public land managed for outdoor recreation and for wildlife habitat. The enlarged reservoir will drown segments of the McCloud and upper Sacramento Rivers identified by the U.S. Forest Service as eligible for National Wild & Scenic Rivers. Further, the enlargement will violate state law requiring the protection of the McCloud's free flowing character and extraordinary wild trout values.

I am also concerned that enlarging the reservoir will further modify flows downstream in the Sacramento River, to the detriment of river's riparian and aquatic habitats and the many threatened and endangered fish and wildlife species that depend on these habitats. These flow modifications will adversely affect a segment of the Sacramento River upstream of Red Bluff identified by the BLM as eligible for Wild & Scenic protection and that has been proposed for National Recreation Area designation in previous sessions of Congress. It will also harm the Sacramento River National Wildlife Refuge and State Wildlife Areas along the river between Red Bluff and Colusa. The dam raise will increase the risk of endangered fish being killed by state and federal water diversions in the Sacramento-San Joaquin Delta.

The expanded reservoir will destroy and degrade habitat for several sensitive, threatened, and endangered plants and animals, including the Shasta salamander. In addition, the dam raise will require the expensive removal or relocation of dozens of bridges, roads, and other structures, and will likely cost taxpayers more than billion dollars. It will also drown the remaining homeland of Winnemen Wintu

Tribe, including traditional cultural sites on the McCloud River still in use today.

To truly benefit fish and other wildlife in and along the Sacramento River, the Bureau should adopt a "no-dam raise" alternative that restores salmon spawning and rearing habitat, improves fish passage, increases minimum flows, screens existing water diversions, and modifies the current operation of the reservoir to increase cold water storage for fisheries, as recommended by the U.S. Fish and Wildlife Service. Of course, this would require the Bureau to modify existing water contracts.

The proposed raise and enlargement of Shasta Dam and Reservoir will benefit water contractors more than it does endangered fish, public trust values, or U.S. taxpayers. Please discontinue this unwise project and take steps immediately to better operate the dam to benefit fish and the public lands and sensitive ecosystems along the Sacramento River.

Thank you.

Sincerely,

*Joshua Switzky
671 4th Avenue
San Francisco, CA 94118*

D-TAAF Duplicate of I-TOSS



DLWRI@USBR.GOV

Shasta Reservoir Expansion

1 message

TAAFFE, MICHAEL GS-11 USAF AFSPC 30 LRS/LGLOR Thu, Sep 26, 2013 at
<michael.taaffe@us.af.mil> 7:50 AM
To: "BOR-MPR-SLWRI@usbr.gov" <BOR-MPR-SLWRI@usbr.gov>

Ms. Katrina Chow
SLWRI Project Manager
Bureau of Reclamation Planning Division
2800 Cottage Way
Sacramento, CA 95825-1893
Fax: (916) 978-5094
Email: BOR-MPR-SLWRI@usbr.gov

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Thank you.

Sincerely,

Michael Taaffe, GS-11
Working Capital Fund Manager
30LRS/LGRMW
805-606-4768
DSN276-4768

D-TAKA Duplicate of I-TOSS



SLWRI BOR MPR <shs-mpr-slwri@usbr.gov>

Proposed raise and enlargement of Shasta Dam and Reservoir

[Link to page](#)

Mark Takaro <mctakaro@gmail.com>
To: BOR-MPR-SLWRI@usbr.gov

Thu, Sep 26, 2013 at 10:33 AM

*Ms. Katrina Chow
SLWRI Project Manager
Bureau of Reclamation Planning Division
2800 Cottage Way
Sacramento, CA 95825-1893
Fax: (916) 978-5094
Email: BOR-MPR-SLWRI@usbr.gov*

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9/26/13

DEPARTMENT OF THE INTERIOR Mail - Proposed raise and enlargement of Shasta Dam and Reservoir

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Thank you.

Sincerely,

Mark Takaro
2036 Stanton St.
Berkeley, CA 94702
mctakaro@gmail.com

D-DTHO Duplicate of I-MOSS1

David Thompson

<david.thompson@urxmobile.com>

To: BOR-MPR-SLWRI@usbr.gov

Wed, Sep 18, 2013 at 11:44
AM

DTHO

Katrina Chow - Project Manager
US Bureau of Reclamation
Planning Division,
2800 Cottage Way
Sacramento, CA 95825-1893

Dear Bureau of Reclamation,

I am writing to ask you to veto the proposal to raise the height of Shasta Dam by 6.5-18.5 feet.

Although your draft feasibility study found such an undertaking would be "technically and environmentally feasible," as well as "economically justified," this project could require more than \$1 billion in taxpayer funds and there is significant evidence that runs contrary to your

<https://mail.google.com/mail/b/3134u07?ui=2&ik=c2ba651c16&view=pt&search=inbox&th=1413247d3ca48699&dsqt=1>

Shasta Lake Water Resources Investigation
Duplicate DEIS Public Comments Appendix

9/20/13

DEPARTMENT OF THE INTERIOR Mail - project to raise the height of Shasta Dam

findings.

Briefly put: raising Shasta Dam would provide a small benefit at a great cost. If plans are approved to raise Shasta Dam by 18.5 feet, the additional water captured would add less than 0.2% of agricultural and urban water use per year in California. In comparison, if farmers producing low-value alfalfa were to conserve a mere five percent of the water they consume, it would save far more. Conservation is a much better alternative.

Another stated objective of raising the dam is to "increase survival of anadromous fish populations in the upper Sacramento River." Ironically, Shasta Dam prevents Chinook salmon from reaching the cold-water streams where these fish naturally breed. Funds would be better spent building a fish ladder around Shasta Dam.

An analysis conducted by Golden Gate Salmon Association and the Natural Resources Defense Council found that the target salmon population put forth by state and federal government is only at 20% of historic populations. Why not invest instead in salmon restoration, an alternative that would provide a long-term solution that doesn't exacerbate the problem it purports to solve?

Beyond the negative economic and ecological effects of raising Shasta Dam, please also consider the cultural damage a higher dam would inflict.

The Winnemem Wintu Tribe, the same people who lost much of their traditional homeland and many historic, cultural and sacred sites when Shasta Dam was built in the 1930s and 40s, would see an additional 39 sacred sites flooded, including Puberty Rock, a major ceremonial initiation site. A crucial aspect of the tribe's ability to practice their culture and religion would be lost.

Raising Shasta Dam also violates the McCloud River's designation as a federal Wild & Scenic River. So, not only would many Winnemem sacred sites be flooded and a Wild and Scenic River compromised, a variety of small businesses and families would be displaced.

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Furthermore, raising Shasta Dam is linked to the controversial proposal by California Governor Jerry Brown to build two large tunnels under the Delta in order to divert large amount of water to corporate agricultural farms to the south, not to the people who are paying for the proposed project.

I urge you to carefully consider these high costs and minimal benefits of raising Shasta Dam, and abandon the proposal to raise the height of the dam.

Respectfully,

David Thompson

D-THOMPS Duplicate of I-TOSS



SLWRI, BOR MPR <sha-mp-rslwri@usbr.gov>

proposed raise and enlargement of the Shasta Dam and Reservoir

1 message

Jon Thompson <robajon@mcn.org>
To: BOR-MPR-SLWRI@usbr.gov

Mon, Sep 30, 2013 at 11:38 AM

*Ms. Katrina Chow
SLWRI Project Manager
Bureau of Reclamation Planning Division
2800 Cottage Way
Sacramento, CA 95825-1893
Fax: (916) 978-5094
Email: BOR-MPR-SLWRI@usbr.gov*

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10/18/13

DEPARTMENT OF THE INTERIOR Mail - proposed raise and enlargement of the Shasta Dam and Reservoir

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The proposed raise and enlargement of Shasta Dam and Reservoir will benefit water contractors more than it does endangered fish, public trust values, or U.S. taxpayers. Please discontinue this unwise project and take steps immediately to better operate the dam to benefit fish and the public lands and sensitive ecosystems along the Sacramento River.

Thank you.

*Sincerely,
Jon Thompson
P.O. Box 1554
Gualala, CA 95445*

D-THOMP Duplicate of I-MOSS1



SLWRI, BOR MPR <sha-mpr-slwri@usbr.gov>

Please VETO Raising the Height of Shasta Dam

1 message

Sarah Glenn Thompson
<sarahthompson92@gmail.com>
To: BOR-MPR-SLWRI@usbr.gov

Thu, Sep 19, 2013 at 6:24
PM

Katrina Chow - Project Manager
US Bureau of Reclamation
Planning Division,
2800 Cottage Way
Sacramento, CA 95825-1893

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I am writing to ask you to veto the proposal to raise the height of Shasta Dam by 6.5-18.5 feet.

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Briefly put: raising Shasta Dam would provide a small benefit at a great cost. If plans are approved to raise Shasta Dam by 18.5 feet, the additional water captured would add less than 0.2% of agricultural and urban water use per year in California. In comparison, if farmers producing low-value alfalfa were to conserve a mere five percent of the water they consume, it would save far more. Conservation is a much better alternative.

Another stated objective of raising the dam is to "increase survival of anadromous fish populations in the upper Sacramento River." Ironically, Shasta Dam prevents Chinook salmon from reaching the cold-water streams where these fish naturally breed. Funds would be better spent building a fish ladder around Shasta Dam.

An analysis conducted by Golden Gate Salmon Association and the Natural Resources Defense Council found that the target salmon population put forth by state and federal government is only at 20% of historic populations. Why not invest instead in salmon restoration, an alternative that would provide a long-term solution that doesn't exacerbate the problem it purports to solve?

Beyond the negative economic and ecological effects of raising Shasta Dam, please also consider the cultural damage a higher dam would inflict.

The Winnemem Wintu Tribe, the same people who lost much of their traditional homeland and

Shasta Lake Water Resources Investigation
Duplicate DEIS Public Comments Appendix

9/20/13

DEPARTMENT OF THE INTERIOR Mail - Please VETO Raising the Height of Shasta Dam

many historic, cultural and sacred sites when Shasta Dam was built in the 1930s and 40s, would see an additional 39 sacred sites flooded, including Puberty Rock, a major ceremonial initiation site. A crucial aspect of the tribe's ability to practice their culture and religion would be lost.

Raising Shasta Dam also violates the McCloud River's designation as a federal Wild & Scenic River. So, not only would many Winnemem sacred sites be flooded and a Wild and Scenic River compromised, a variety of small businesses and families would be displaced.

Who would really benefit from raising the dam? A report by the Environmental Working Group shows that California taxpayers subsidize \$416 million a year in water for agriculture that is conveyed to Central Valley farms and that "the largest 10 percent of the farms got 67 percent of the water." These Central Valley water purveyors, including Westlands Water District, can sell the subsidized water to urban areas in southern California at a profit. The water might also facilitate hydrocarbon fracking in the Monterey Shale region. These are not valid justifications for raising Shasta Dam.

Furthermore, raising Shasta Dam is linked to the controversial proposal by California Governor Jerry Brown to build two large tunnels under the Delta in order to divert large amount of water to corporate agricultural farms to the south, not to the people who are paying for the proposed project.

I urge you to carefully consider these high costs and minimal benefits of raising Shasta Dam, and abandon the proposal to raise the height of the dam.

Respectfully,

Sarah Thompson

D-THRA Duplicate of I-TOSS



COMMENTS ON PROPOSED SHASTA DAM RAISE

diannamt@c-zone.net <diannamt@c-zone.net> Sun, Sep 29, 2013 at 3:33 PM
Reply-To: diannamt@c-zone.net
To: BOR-MPR-SLWRI@usbr.gov

Ms. Katrina Chow
SLWRI Project Manager
Bureau of Reclamation Planning Division
2800 Cottage Way
Sacramento, CA 95825-1893
Fax: (916) 978-5094
Email: BOR-MPR-SLWRI@usbr.gov

Dear Ms. Chow:

Thank you for soliciting public comments in response to the Bureau's proposed raise and enlargement of the Shasta Dam and Reservoir. I am a concerned citizen from Redding, CA, in Shasta County.

I oppose raising the dam and enlarging the reservoir, primarily because the U.S. Fish and Wildlife Service says that the proposal will have "negligible benefits" for threatened and endangered salmon and steelhead in the Sacramento River.

In addition, enlarging the reservoir will harm thousands of acres of public land managed for outdoor recreation and for wildlife habitat. The enlarged reservoir will drown segments of the McCloud and upper Sacramento Rivers identified by the U.S. Forest Service as eligible for National Wild & Scenic Rivers. Further, the enlargement will violate state law requiring the protection of the McCloud's free flowing character and extraordinary wild trout values.

I am also concerned that enlarging the reservoir will further modify flows downstream in the Sacramento River, to the detriment of river's riparian

10/24/13

DEPARTMENT OF THE INTERIOR Mail - COMMENTS ON PROPOSED SHASTA DAM RAISE

and aquatic habitats and the many threatened and endangered fish and wildlife species that depend on these habitats. These flow modifications will adversely affect a segment of the Sacramento River upstream of Red Bluff identified by the BLM as eligible for Wild & Scenic protection and that has been proposed for National Recreation Area designation in previous sessions of Congress. It will also harm the Sacramento River National Wildlife Refuge and State Wildlife Areas along the river between Red Bluff and Colusa. The dam raise will increase the risk of endangered fish being killed by state and federal water diversions in the Sacramento-San Joaquin Delta.

The expanded reservoir will destroy and degrade habitat for several sensitive, threatened, and endangered plants and animals, including the Shasta salamander. In addition, the dam raise will require the expensive removal or relocation of dozens of bridges, roads, and other structures, and will likely cost taxpayers more than billion dollars. It will also drown the remaining homeland of Winnemen Wintu Tribe, including traditional cultural sites on the McCloud River still in use today.

I also question the raise when most years the reservoir is not filled and by the end of the summer season is very low in volume. This is especially relevant, since climate change will impact snowpack levels, which means that there will be less water coming into the rivers and creeks that fill the reservoir.

To truly benefit fish and other wildlife in and along the Sacramento River, the Bureau should adopt a "no-dam raise" alternative that restores salmon spawning and rearing habitat, improves fish passage, increases minimum flows, screens existing water diversions, and modifies the current operation of the reservoir to increase cold water storage for fisheries, as recommended by the U.S. Fish and Wildlife Service. Of course, this would require the Bureau to modify existing water contracts.

The proposed raise and enlargement of Shasta Dam and Reservoir will benefit water contractors more than it does endangered fish, public trust values, or U.S. taxpayers. Please discontinue this unwise project and take steps immediately to better operate the dam to benefit fish and the public lands and sensitive ecosystems along the Sacramento River.

In closing, I want to voice my concern for my children and grandchildren's future if conservation and other water saving measures are not instituted.

Thank you.

Sincerely,

Dianna Thrasher
3497 Old Lantern Dr.
Redding, CA 96003

D-TOLL Duplicate of I-TOLL

10/23/13

DEPARTMENT OF THE INTERIOR Mail - Fwd: Public comments on Shasta DEIS



DUNCAN, KATHLEEN <kduncan@usbr.gov>

Fwd: Public comments on Shasta DEIS

1 message

KATRINA CHOW <kchow@usbr.gov>
To: KATHLEEN DUNCAN <kduncan@usbr.gov>

Wed, Oct 23, 2013 at 1:11 PM

Sent from my iPhone

Begin forwarded message:

From: Tendai Chitewere <tendai@sfsu.edu>
Date: September 30, 2013, 9:10:28 PM PDT
To: "kchow@usbr.gov" <kchow@usbr.gov>
Cc: "BOR-MPR-SLWRI@usbr.gov" <BOR-MPR-SLWRI@usbr.gov>
Subject: Public comments on Shasta DEIS

Dear Ms. Chow,

Please find attached a letter from Alden Tollgaard for the public comment on the DEIS.
The original letter was put in the mail last week, but I wanted to make sure the letter met the midnight deadline.

Regards,
Tendai Chitewere

Tollgaard Shasta DEIS Letter.pdf
724K

Alden S. Tollgaard

220 Buckingham Way, San Francisco CA
94132 building 220 apt #302
Tel: (619) 517 2033
atollgaard@gmail.com

Ms. Katrina Chow, Project Manager
Bureau of Reclamation
2800 Cottage Way, MP-720
Sacramento, CA 95825

9/27/2013

For Public Comment in regards to the Shasta Dam Draft Feasibility Report

Dear Ms. Chow,

I. Introduction

Prior to the creation of the Shasta Dam, built to meet the growing water consumption needs of Southern California and for big agriculture producers of the Central Valley, Chinook salmon used to make massive runs twice a year up the McCloud River in the hundreds of thousands. The healthy McCloud River supported the Winnemem Wintu Tribes, who inhabited the land nearest the river to harvest the bountiful fish. Understandably, the tribes many ceremonies and ultimately their culture molded itself around the fish, whose amazing pre-dam numbers must have mystified those who got to appreciate it. Since the dam's construction in 1945, the migrating salmon numbers north of the river have disappeared. The fish face extinction, and the way of the Winnemem Wintu will die with them. Ninety percent of their land has already been inundated by the filling of the Shasta Lake reservoir, and the proposed raising of the dam will take the rest of their precious sites, and their culture with it.

II. Significance

The Chinook salmon plays an integral role in the ecological processes along the river, into the surrounding forests, and even out into the oceans. Large migrating fish of any species provide not only a food source to the large predators of the river and creeks, but they also manage population numbers of smaller fishes and organisms in the water. Bears, mountain lions, and large birds of prey all benefit from the enormous quantities of fish, some of which perish on the journey up stream. We know that large predators like bears and mountain lions help to maintain populations of grazing animals, whose numbers can quickly grow out of control, and wreak havoc on the surrounding environment, just as the deer populations in Yellowstone proved after the removal of

the wolves. The dead salmon are brought into the surrounding bush, where often times their large numbers allow the feeding animals to choose to consume only the richest parts of the fish, and leave quite a bit of the carcass intact on the forest floor. Here it's broken down by yet another array of decomposers and small scavenging organisms, which returns the nutrients of the fish into the soil of the forest. This dependence between the migrating salmon, the prey, predators, scavengers, and ultimately the forest itself has been in action for thousands of years. Each niche has been delicately filled by a specific species, and removing any one of them can be hazardous, let alone the salmon, which start the process.

However, the Chinook salmon fill a role much greater than just being a river fish, as they are one of only a hand full of fish that can tolerate living in both fresh and salt water environments. After birth and a few years of growth up stream, the salmon return to the ocean to feed and grow. They school in large numbers, and provide a similar role out in the ocean, preying on smaller fish, and as a food source for larger fishes, sharks, whales, and other marine mammals.

The ecological importance of migrating animals of any kind cannot be stressed enough. Thousands of years of coevolution with its native species has created a web of life within the McCloud river area and beyond, where each organism is dependent upon the other.

III. Cultural Significance

Following the theme of coevolution and dependency of native organisms, the Winnemem Wintu tribe has too become connected to the migrating Chinook salmon, so much in fact, that their very name translates into the "middle river people". Upon visiting the displaced tribe, now many miles away from their flooded homeland, I gained a greater understanding of the role of the fish to this community. I heard tribal leaders speak of the bounty and fulfilling spiritual life the tribe had once experienced before the creation of the dam. Their respect for the fish proved how long their lives had been intertwined. Man had clearly entered that natural flow of nature, as they too preyed upon the fish, but always made sure to leave enough to keep the river healthy, and the population numbers of the salmon thriving.

The migrations fit into the spirituality of the Winnemem tribe, and one of their core beliefs is the devout protection of the salmon. Since its loss, the tribe has spoken out many times, and done all they can to bring awareness, and ultimately their fish back home.

IV. Proposal

In Reference to the draft provided by the bureau, there appears to be no alternatives considered that involved the possibility of the Chinook returning to their native habitat up stream of the dam, into the McCloud river area. The current method

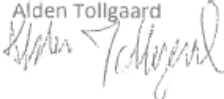
of utilizing the fish hatcheries is not returning the numbers of salmon that are needed to maintain a stable population. This endangered fish must have the ability to travel back up into the rivers and creeks in a method that doesn't involve massive, impenetrable blockades. Having them spawn out of their Shasta creeks changes the ecology greatly, and the fish are clearly not benefitting. And certainly the Winnemem Wintu are not benefitting, as they haven't seen a Chinook salmon up in the McCloud for several decades.

One proposal introduced by the tribe includes the importing of their once native Chinook salmon from New Zealand, where it was introduced with great success many decades ago. A corridor would be built from below the dam, where the salmon have made it during migration attempts before, and connected via a corridor to above the dam and reservoir. Attempts by the Bureau of Reclamation to help the endangered fish have gone quite poorly. Their attempts to cool the warm reservoir water through controlling the release of lower columns of water downstream have not been very successful. Very recently, several hundred salmon were killed below the dam, as they tried to enter channels that had no connection upstream. The fish reached a dead end, and perished.

V. Urgency

The Chinook salmon are in grave circumstances. They appear to be overlooked as water needs and agricultural interests are clearly taking precedent. The fish is on the endangered species list, and yet their condition is still declining. Without intervention, the current population will undoubtedly face extinction. Regardless of whether the raising of Shasta Dam takes place or not, the fish must have a channel to traverse the dam. If the proposal for the raising of the dam does pass without any option considering the fish's ability to make it up stream unburdened, the salmon will not stand a chance, and the vow to protect the Chinook salmon by the Winnemem Wintu will go unanswered.

Sincerely,

Alden Tollgaard


References

- Bacher, D. (2013, July 30). Half of This Year's Endangered Winter Chinooks May Have Died. Message posted to <http://www.indybay.org/newsitems/2013/07/30/18740627.php>
- *Bureau of Reclamation Mid-Pacific Region : NEPA*. (n.d.). Retrieved from http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=1915
- Wikipedia (2013) Shasta Dam. Wikipedia http://en.wikipedia.org/wiki/Shasta_Dam

D-BSW Duplicate of I-MOSS1

Katrina Chow - Project Manager
US Bureau of Reclamation
Planning Division,
2800 Cottage Way
Sacramento, CA 95825-1893

NOV 20 2013	
CODE	
700	<i>R. Duncan</i>
20 Nov 13	
To:	K Chow

September 14, 2013

Dear Bureau of Reclamation,

I am writing to express my concern over the proposal to raise the height of Shasta Dam by 6.5-18.5 feet.

Although your draft feasibility study found such an undertaking would be "technically and environmentally feasible," as well as "economically justified," this project could require more than \$1 billion in taxpayer funds and there is significant evidence that runs contrary to your findings.

Briefly put: raising Shasta Dam would provide a small benefit at a great cost. If plans are approved to raise Shasta Dam by 18.5 feet, which BoR found to be the most economical option, statewide water storage capacity would expand by only 1.5%. The creation of 76,000 acre-feet of firm yield would add less than 0.2% of agricultural and urban water use per year in California.

Dams don't create water – they merely capture rain and snowmelt – and the firm yield reliably produced on an annual basis depends on annual rainfall. The hypothetical firm yield of water produced from the 6.5-foot raise ranges from 20,000 to 72,000 acre-feet. The hypothetical firm yield of the 18.5-foot raise is 71,000-146,000 acre-feet. In comparison, if farmers producing low-value alfalfa were to conserve a mere five percent of the water they consume, it would save nearly one million-acre feet of water. Conservation is a much better alternative.

Another stated objective of raising the dam is to "increase survival of anadromous fish populations in the upper Sacramento River." Ironically, Shasta Dam prevents Chinook salmon from reaching the cold-water streams where these fish naturally breed. Funds would be better spent building a fish ladder around Shasta Dam.

An analysis conducted by Golden Gate Salmon Association and the Natural Resources Defense Council found that the target salmon population put forth by state and federal government is only at 20% of historic populations. Why not invest instead in salmon restoration, an alternative that would provide a long-term solution that doesn't exacerbate the problem it purports to solve?

SCANNED	
Classification	ENV-6.00
Project	214

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The Winnemem Wintu Tribe, the same people who lost much of their traditional homeland and many historic, cultural and sacred sites when Shasta Dam was built in the 1930s and 40s, would see an additional 39 sacred sites flooded, including Puberty Rock, a major ceremonial initiation site. A crucial aspect of the tribe's ability to practice their culture and religion would be lost.

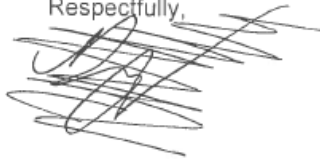
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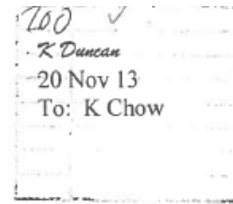
Respectfully,

A handwritten signature in black ink, appearing to be "D. J. ...", written over a grid of lines.A handwritten signature in black ink, appearing to be "D. J. ...", written over a grid of lines.

02/11/14

D-PAL Duplicate of I-MOSS1

Katrina Chow - Project Manager
US Bureau of Reclamation
Planning Division,
2800 Cottage Way
Sacramento, CA 95825-1893



September 14, 2013

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SCANNED

Classification	ENV-6.00
Project	214
Control No.	13049223
Folder I.D.	1230427
Date Input & Initials	11-20-13 RM

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Respectfully,



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D-MIUS Duplicate of I-MOSS1

Katrina Chow - Project Manager
US Bureau of Reclamation
Planning Division,
2800 Cottage Way
Sacramento, CA 95825-1893

NOV 08 2013	
CODE	700
NAME	K Duncan
DATE	20 Nov 13
TO	To: K Chow

September 14, 2013

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SCANNED

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Respectfully,

Muse Mearl

D-JIM Duplicate of I-MOSS1

Katrina Chow - Project Manager
US Bureau of Reclamation
Planning Division,
2800 Cottage Way
Sacramento, CA 95825-1893

RECEIVED	
NOV 08 2013	
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700 K Dufresne	
20 Nov 13	
To: K Chow	

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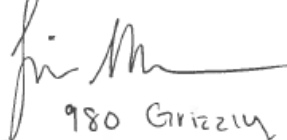
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Respectfully,



980 Grizzly Peak Blvd.
Berkeley, CA
94708

03/11/2014

D-VANR Duplicate of I-TOSS

Shasta Dam

↑ message

vantilton@comcast.net <vantilton@comcast.net> Thu, Sep 26, 2013 at 7:19 AM
To: BOR-MPR-SLWRI@usbr.gov

Ms. Katrina Chow

SLWRI Project Manager

Bureau of Reclamation Planning Division

2800 Cottage Way

Sacramento, CA 95825-1893

Fax: (916) 978-5094

Email: BOR-MPR-SLWRI@usbr.gov

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I oppose raising the dam and enlarging the reservoir, primarily because the U.S. Fish and Wildlife Service says that the proposal will have "negligible benefits" for threatened and endangered salmon and steelhead in the Sacramento River.

In addition, enlarging the reservoir will harm thousands of acres of public land managed for outdoor recreation and for wildlife habitat. The enlarged reservoir will drown segments of the McCloud and upper Sacramento Rivers identified by the U.S. Forest Service as eligible for National Wild & Scenic Rivers. Further, the enlargement will violate state law requiring the

I am also concerned that enlarging the reservoir will further modify flows downstream in the Sacramento River, to the detriment of river's riparian and aquatic habitats and the many threatened and endangered fish and wildlife species that depend on these habitats. These flow modifications will adversely affect a segment of the Sacramento River upstream of Red Bluff identified by the BLM as eligible for Wild & Scenic protection and that has been proposed for National Recreation Area designation in previous sessions of Congress. It will also harm the Sacramento River National Wildlife Refuge and State Wildlife Areas along the river between Red Bluff and Colusa. The dam raise will increase the risk of endangered fish being killed by state and federal water diversions in the Sacramento-San Joaquin Delta.

The expanded reservoir will destroy and degrade habitat for several sensitive, threatened, and endangered plants and animals, including the Shasta salamander. In addition, the dam raise will require the expensive removal or relocation of dozens of bridges, roads, and other structures, and will likely cost taxpayers more than billion dollars. It will also drown the remaining homeland of Winnemen Wintu Tribe, including traditional cultural sites on the McCloud River still in use today.

To truly benefit fish and other wildlife in and along the Sacramento River, the Bureau should adopt a "no-dam raise" alternative that restores salmon spawning and rearing habitat, improves fish passage, increases minimum flows, screens existing water diversions, and modifies the current operation of the reservoir to increase cold water storage for fisheries, as recommended by the U.S. Fish and Wildlife Service. Of course, this would require the Bureau to modify existing water contracts.

The proposed raise and enlargement of Shasta Dam and Reservoir will benefit water contractors more than it does endangered fish, public trust values, or U.S. taxpayers. Please discontinue this unwise project and take steps immediately to better operate the dam to benefit fish and the public lands and sensitive ecosystems along the Sacramento River.

Thank you.

Sincerely,

Diana Van Ry

Allan Tilton

Diana Van Ry

2573 Greenvale Lane

Santa Rosa, CA 95401

707-541-6670

vantilton@comcast.net

D-VAND Duplicate of I-VAND



Public Comment Card

During the 90-day public review and comment period for the Shasta Lake Water Resources Investigation (SLWRI) Draft Environmental Impact Statement (EIS), Reclamation provides several methods for the receipt of written comments. This public comment card is one method for interested persons to submit written comments, which will be included and addressed in the Final EIS and retained in the SLWRI Record. Please write clearly. You may leave this card at today's meeting or mail at your convenience. Written comments may also be sent by email to bor-mpr-slwri@usbr.gov or provided in-person at related workshops and/or public hearings. All written comments must be sent/postmarked on or before midnight on September 30, 2013.

Name: Jason Vandrack Organization: _____

Address: 5810 Fickett Ln _____

Email: Jason.vandrack7@yahoo.com _____

Comment it will bring lots of jobs that will help out the economy

D-VEAL Duplicate of I-VEAL



SLWRI, BOR MPR <sha-mpr-slwri@usbr.gov>

The "blue line"

1 message

Chris Veal <chrisveal@shasta.com>

Fri, Jul 19, 2013 at 3:08 PM

To: kchow@usbr.gov

Cc: bor-mpr-slwri@usbr.gov

Katrina,

Here are the references to the infamous "blue line" that we discussed Tuesday evening.

As you can see, the preliminary draft and the current draft are identical, except that the prelim referred to the area as "Relocation Areas," whereas now they are referred to as "Alternative Areas of Potential Activity" (sounds like spin). This, combined with the 300 foot property evaluations in the real estate section, lead me to wonder if there's not some sub rosa agenda here. As in:

- The Forest Service called for a 300 foot setback in the preliminary plan.
- It has been determined that they had no authority to do so.
- The text referring to that setback has been removed, but the "blue line" remains under another name.

So, are you folks trying to sneak this 300 foot setback in under the radar? If not, then you should remove it completely from all of the maps in the plan.

The examples I sent you are pages 19-31 and 19-32, but this applies to all maps in Chapter 19 (and probably elsewhere).

Regards,

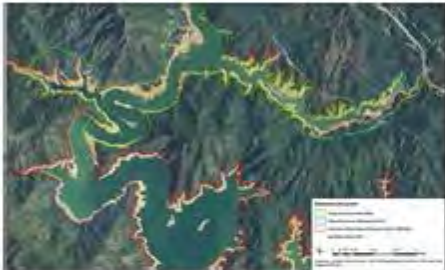
Chris

Chris Veal
Lakehead, CA
530.238.2011

4 attachments



DraftCharlieCreekNorth.jpg
734K



DraftSugarloafArea.jpg
666K



PrelimDraftCharlieCreekNorth.jpg
211K



PrelimDraftSugarloafArea.jpg
195K

D-WINN Duplicate of I-WINN



SLWRI BOR MPR <sha-mp-slwri@usbr.gov>

**Winnemem Wintue Tribe Comments on Lake Shasta Water
Resources Investigation Draft Environmental Impact
Statement**

11/11/2013

Stephan C. Volker <svolker@volkerlaw.com>
To: BOR-MPR-SLWRI@usbr.gov

Thu, Sep 26, 2013 at 6:00 PM

Ms. Katrina Chow, Project Manager

Bureau of Reclamation

2800 Cottage Way, MP-720

Sacramento, CA 95825-1893

Dear Ms. Chow:

Attached please find the Winnemem Wintu Tribe's comment letter on the Lake Shasta Water Resources Investigation Draft Environmental Impact Statement. The letter is provided in both Word and PDF formats.

Please make the Winnemem Wintu Tribe's comment letter part of the public record in this matter.

Should you encounter difficulty opening either attachment, please contact our office

9/27/13 DEPARTMENT OF THE INTERIOR Mail - Winnemem Wintu Tribe Comments on Lake Shasta Water Resources Investigation Draft Environmental Impact...

immediately.

Stephan C. Volker

Attorney for the Winnemem Wintu Tribe

Law Offices of Stephan C. Volker

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Tel: (510) 496-0600


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svolker@volkerlaw.com

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2 attachments

 **Winnemem Wintu Tribe comments on Shasta Lake Water Resources Investigation DEIS to Bureau of Reclamation locked.doc**
10182K

 **Winnemem Wintu Tribe comments on Shasta Lake Water Resources Investigation DEIS to Bureau of Reclamation.pdf**
1236K

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11.145.01

September 26, 2013

Ms. Katrina Chow, Project Manager
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2800 Cottage Way, MP-720
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e mail: kchow@usbr.gov
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**Re: Comments of Winnemem Wintu Tribe on Shasta Lake Water
Resources Investigation Draft Environmental Impact Statement**

I. INTRODUCTION

On behalf of the Winnemem Wintu Tribe, we submit the following comments regarding the Shasta Lake Water Resources Investigation Draft Environmental Impact Statement (“DEIS”). We request that the Bureau of Reclamation (“Reclamation”) more fully consider the cultural and environmental costs of raising Shasta Dam (“Project”), that it evaluate a more comprehensive range of alternative methods for improving anadromous fish survival and increasing water supply reliability in the Central Valley including investigation of potential fishways around Shasta Dam,¹ and that Reclamation more fully involve the Winnemem Wintu Tribe in its decisionmaking process.

The Winnemem Wintu Tribe is an historic non-gaming Native California Tribe. The Winnemem’s traditional territory included the east side of the upper Sacramento River watershed, the McCloud River and Squaw Creek watersheds, and approximately 20 miles of the Pit River from the confluence of the McCloud River, Squaw Creek and Pit River up to Big Bend. Salmon, which have been extirpated upstream of Shasta Dam since its completion in 1944, are an essential component of Winnemem Wintu culture, and were once a staple food. Although 90 percent of the Tribe’s traditional lands are now submerged under the McCloud Reservoir and Shasta Reservoir, and salmon no longer breed upstream of Shasta Dam, the Tribe has continuously maintained its spiritual, cultural, and traditional connection to its remaining accessible native lands and waters.

¹ These potential fishways include, for example, utilizing Cow Creek, Little Cow Creek and Dry Creek coupled with a 2500-foot tunnel to Shasta Reservoir at Jones Valley Marina.

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For the Winnemem Wintu, the proposed raising of Shasta Dam does not pose merely a water allocation issue between farmers in the Central Valley and commercial and sports fishermen. Nor is it simply a power struggle between private development and public agencies charged with protecting public trust resources including fish, wildlife and recreation. Instead, the raising of Shasta Dam is a threat to the very existence of the Winnemem Wintu people and the way of life that the creator gave to the Tribe. It is about the ongoing destruction of what was once a diverse, balanced and productive natural world, blessed with abundant salmon, clean water and healthy forests, meadows, wetlands and riparian areas. The raising of Shasta Dam would be the end of the world as the Winnemem know it.

The Draft Environmental Impact Statement ("DEIS") is based upon and, unfortunately, exacerbates, the Draft Feasibility Report's ("DFR's") inadequate analysis of cultural impacts. Consequently, it fails to fully and fairly address this Project's profound and irreparable impacts on the Winnemem. The DEIS ignores the Winnemem's long-standing but never resolved claims to ownership of the lands that would be flooded. It overlooks their vital, historic cultural ties to the salmon runs that Shasta Dam destroyed. It ignores the Winnemem's dependence on a healthy, balanced and sustainable ecosystem.

The DEIS' treatment of environmental impacts likewise gives short shrift to sound science. It overlooks fundamental principles of hydrology and biology that pose compelling reasons why Reclamation's proposal to raise Shasta Dam should be rejected. First, it ignores the fact that raising the dam's height makes construction of a viable fishway for salmon *less*, not more, feasible. Second, it overlooks the fact that raising the dam's height would destroy more spawning habitat by inundating rivers that flow into the reservoir. Third, it ignores the fact that raising the dam's height would increase the reservoir's surface area, exposing more water to evaporation, and thus *increase* rather than decrease net water loss.

Because the DEIS fails to adequately discuss how raising the dam's height would destroy the Winnemem people's natural and cultural heritage, and harm water quality, water quantity, fish and wildlife habitat, and public recreational use of Shasta Reservoir, and because it ignores the alternative of restoring historic salmon runs above the reservoir through construction of a fishway around Shasta Dam, it should be withdrawn and its profound errors and omissions rectified.

II. HISTORICAL BACKGROUND

In 1851, the federal government and representatives from the Winnemem and other Wintu bands signed the Treaty at Cottonwood Creek, ceding vast tribal lands to the federal government in exchange for reservation land, food, and clothing. Though this treaty was never ratified by the United States Congress, the federal government nonetheless deemed the land ceded, and began giving land, mineral, and resource rights to private parties in the Winnemem's historical homeland with no compensation to the Winnemem. Eventually, some of the Winnemem Wintu received Indian allotments which allowed them to remain on the McCloud

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River and other traditional sites. However, the majority of habitable allotments were flooded when Reclamation constructed Shasta Dam.

In 1941, Congress passed 55 Stat. 612, which gave the United States the right to take title to all tribal lands needed for the Central Valley Project and related infrastructure. The Act also promised that the Indians would be paid “just and equitable compensation” for the land taken, and that the sites of any “relocated cemeteries shall be held in trust by the United States for the appropriate tribe, or family.” 55 Stat. 612 §§ 2, 4.

The Winnemem Wintu people were never provided “just and equitable compensation” for the United States government’s massive appropriation of land for Shasta Reservoir. Even the Winnemem Wintu’s sacred gravesites were violated. Reclamation moved approximately 183 Winnemem Wintu graves from Shasta Dam’s impact area to a new site, styled the “Shasta Reservoir Indian Cemetery,” and violated 55 Stat. 612 by failing to hold this site in trust for the Winnemem Wintu. Since the Winnemem Wintu were never compensated for their land allotments that were taken by the government and flooded by Shasta Dam, the Winnemem are still the rightful owners of that land. Reclamation cannot proceed with any plans that would enlarge Shasta Reservoir without first settling the Winnemem Wintu’s claims to ownership of the land already flooded.

Due in large part to Reclamation’s repeated violation of 55 Stat. 612, the Department of the Interior failed to include the Winnemem Wintu when the Department published the first list of “federally recognized” tribes. In 2008, the California Legislature passed Assembly Joint Resolution 39, which urges Congress to restore federal recognition to the Winnemem Wintu, but Congress has failed to act on this request. Reclamation has failed to accord the Winnemem Wintu full participation in Reclamation’s decisionmaking process, despite the fact that its proposal to raise Shasta Dam will have a disproportionate, and profoundly adverse, effect on the Winnemem Wintu.

The federal government’s repeated uncompensated takings of Winnemem Wintu lands and destruction of their primary staple – the McCloud River’s salmon – has incalculably harmed the Tribe.

III. ENVIRONMENTAL JUSTICE ISSUES

The DEIS acknowledges that the Winnemem Wintu “live within the Shasta Lake area, where they continue to actively practice many aspects of their traditional culture,” DEIS 14-9, and that the Winnemem “have strong traditional and contemporary connections with the land, and their ongoing use of many archaeological and religious sites is *fundamental to the well-being of their culture*, particularly the education of their youth.” DEIS 14-11 (emphasis added). Raising Shasta Dam would cause significant and unmitigable impacts to the Winnemem Wintu’s cultural resources. DEIS 14-20 through 14-31.

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Near the McCloud Bridge Campground, for example, a network of important cultural sites would be lost with a 20.5 foot increase in water elevation.² These include the ceremonial grounds, Balas Son (Puberty Rock) and Ilawi Son (Children's Rock) that are already inundated much of the year. See Figures 1-3. Near these spots, the Woman's Blessing Place would also be inundated. See Figure 4. Suckerfish Pool, located north of the McCloud Bridge, would also be flooded. See Figure 5.



Figure 1: As seen from the McCloud River Bridge, 9-19-2013

² The proposed 18.5-foot increase in the dam height would result in a 20.5-foot increase in the maximum water level, due to a 2-foot reduction in the freeboard height.

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Figure 2: Children's Rock with the McCloud River Arm of Shasta Reservoir behind it, 9-19-2013



Figure 3: Puberty Rock emerging from the McCloud River arm of Shasta Reservoir, 9-19-2013

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Figure 4: Woman's Blessing Place, 9-19-2013



Figure 5: Suckerfish Pool, 9-19-2013

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The Winnemem Wintu *must* have continued access to their traditional communal sites for cultural and spiritual practices because their culture is inextricably tied to the land; sites cannot simply be relocated or replaced.³ Indeed, the DEIS recognizes that adverse impacts to many culturally important places “cannot be mitigated” because their significance is “inextricably tied to physical location,” rendering relocation infeasible. DEIS 14-23, 14-25, 14-26, 14-28, 14-30.

The DEIS mentions potential impacts to cultural resources, but Reclamation does not actually place much importance on protecting the Winnemem Wintu culture. This is clear from the primary and secondary “planning objectives,” which address such diverse issues as anadromous fish populations, water supply, ecosystem resources, flooding, hydropower, recreation, and water quality, *but make no mention of cultural resources*. DEIS ES-6. This contemplated sacrifice of the Winnemem’s culture for the benefits claimed for others is shocking in its disdain for the Winnemem community. The Winnemem have a human right to sustainable traditional food sources and a right to practice their culture in their traditional territory. Reclamation must rectify its failure to address the potential destruction of most of the Winnemem Wintu’s remaining cultural sites. As a first step, Reclamation must address what would be lost, and alternatives and mitigations that would prevent such losses, in its DEIS.

A. The DEIS Impermissibly Defers Compliance with National Historic Preservation Act Section 106

Section 106 of the National Historic Preservation Act (“NHPA”) (16 U.S.C. § 470 et seq.) requires Reclamation to consider whether the alternatives addressed in the DEIS will affect properties of religious and cultural significance to the Winnemem Wintu Tribe, and to consult with the Tribe and the State Historic Preservation Officer to attempt to minimize the adverse effects of its undertaking. 16 U.S.C. § 470(f).

Reclamation took the important step of inviting the Winnemem Wintu to participate in the Section 106 process “as an invited consulting party.” DEIS ES-34. In addition, Reclamation acknowledges not only the legal but also the practical necessity of such consultation when it notes that “it is important to acknowledge the special expertise of Indian tribes when assessing the eligibility of properties to which they attach ceremonial and cultural significance.” DEIS 14-13. However, such acknowledgement and a formal invitation mean little unless they are accompanied by action.

Reclamation continues to drag its feet. For example, the DEIS states that a “detailed discussion of cultural resources” is contained in two Technical Reports: *Cultural Resources Alternatives Assessment for the Shasta Lake Water Resources Investigation*, and *Native American Tribal Coordination, Shasta Lake Water Resources Investigation*. DEIS 14-1. However, both of these reports were published in 2008, based on just three meetings with the

³ Declaration of Indigenous Rights art. 25 recognizes the right of indigenous peoples “to maintain and strengthen their distinctive spiritual relationship” with their traditional territories.

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Winnemem Wintu in 2007 and 2008. DEIS 14-18. Neither contains vital current information such as that which the Winnemem provided Reclamation during a meeting on October 8, 2012.

Reclamation's belated consultation with the Winnemem Wintu remains incomplete, and the DEIS' analysis of impacts on cultural resources is therefore necessarily deficient. It is unclear why Reclamation would assert that "Native American groups are unwilling to provide sufficiently detailed information" so that the agency can "identify and formally document Traditional Cultural Properties." DEIS 14-18. The Winnemem Wintu have repeatedly expressed interest in being part of the decision making process, and have taken representatives from Reclamation to see many sacred sites. Additional consultation, a completed Memorandum of Agreement, and updated versions of the 2008 Technical Reports are needed to comply with Section 106, 36 C.F.R. § 800.6, and NEPA, to ensure protection of the Winnemem's cultural resources. See DEIS Plan Formulation Appendix 5-21.

Reclamation will not be able to "take into account the effects of [its] undertaking(s)" (36 C.F.R. § 800.1(a)) on the Tribe's Traditional Cultural Properties ("TCPs") until it *completes* the consultation process. Reclamation's failure to adequately identify and minimize potential adverse impacts to the Tribe's TCPs violates both the spirit and the letter of the NHPA.

Despite performing an initial consultation with the Tribe, Reclamation has not followed through on its commitments, and has ignored its duty to perform consultation and analysis *early* in the planning process. 36 C.F.R. § 800.2(c)(2)(ii); 36 C.F.R. § 800.3(b). Instead, it states that:

[A]gencies may conduct nondestructive planning activities *without* completing Section 106, provided that the actions do not prohibit subsequent consideration of alternatives to avoid, minimize, or mitigate the undertaking's adverse effects on historic properties. This [DEIS] is in support of a feasibility study. . . . Reclamation will not have a specific undertaking until such time as Congress makes a decision regarding whether to authorize a project that would involve raising the dam and appropriates funding for this purpose.

DEIS 14-13 through 14-15 (internal citation omitted; emphasis added).

In other words, Reclamation intends to choose an alternative now, receive a commitment of resources from Congress, and *then* attend to its NHPA duties later, *after* Congress has already funded Reclamation's proposal. This is impermissible. It trivializes section 106 consultation, rendering it a meaningless afterthought. It violates both the NHPA and NEPA. Reclamation has a duty to perform its section 106 compliance *concurrently with its NEPA review*. 36 C.F.R. § 800.3(b). The law could not be more explicit on this point: "The agency official must complete the section 106 process *prior to* the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license.' . . . The agency official shall ensure that the section 106 process is initiated early in the undertaking's planning, *so that a broad range of alternatives may be considered during the planning process* for the undertaking." 36 C.F.R. §

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800.1(c), quoting 16 U.S.C. 470f, emphasis added. Congress cannot make an informed decision on *whether* to “authorize a project that would involve raising the dam” unless the Project’s impact statements first provide an analysis of its impact on cultural resources. Such an analysis is impossible without more input from the Winnemem, as would be provided during the Section 106 process.

Reclamation may not delay consultation in such a way that it would preclude “subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking’s adverse effects on historic properties.” 36 C.F.R. § 800.1(c). Instead, Reclamation must complete the section 106 process *prior to* recommending a final alternative in the FEIS and presenting the ROD to Congress for its consideration and approval.

B. Reclamation Must Comply With the 1941 Indian Lands Acquisition Act

As discussed above, in 1941 Congress passed an “Act for the acquisition of Indian lands for the Central Valley project, and for other purposes.” This Act gave the United States right and title to all tribal land “within the area embraced by the Central Valley project,” and mandated that the “appropriate tribe” be paid “just and equitable” compensation for the lands taken. 55 Stat. 612 § 2. The Act also allowed the government to relocate Indian cemeteries, and required that the new sites be “held in trust by the United States for the appropriate tribe, or family.” 55 Stat. 612 § 4. Reclamation continues to fail to comply with the 1941 Act. Raising the Shasta Dam would only exacerbate the existing injustices by taking more land from the Winnemem Wintu when the tribe still has not been compensated for the lands flooded by the original dam.

First, the Winnemem Wintu were never compensated for the United States government’s massive appropriation of their land for Shasta Reservoir. Ninety percent of the Winnemem’s traditional territory, and the majority of the habitable allotments that they were given after the Treaty at Cottonwood Creek, are now submerged beneath the Shasta and McCloud Reservoirs. Since the Winnemem Wintu were never compensated for their land allotments that were taken by the government and flooded by Shasta Dam, the Winnemem are still the rightful owners of that land. Reclamation cannot proceed with any plans that would enlarge the Shasta Reservoir without first settling the ownership of the land already flooded.

Second, Reclamation moved approximately 183 Winnemem Wintu graves from Shasta Dam’s impact area to a new site, styled the “Shasta Reservoir Indian Cemetery,” and violated 55 Stat. 612 by failing to hold this site in trust for the Winnemem Wintu. Today, a number of different tribes use the cemetery for burials, and Reclamation insists that “burial is not based on tribal affiliation nor is the cemetery dedicated to a specific tribe.” Personal communication from Pete Lucero to Marc Dadigan. However, the 1941 Act is quite clear – and Reclamation admits – that the 1941 Act “requires the cemetery [] to be held in trust *for the appropriate tribe or family.*” *Id.* (emphasis added). Therefore, burial *should* be based on tribal affiliation, and the cemetery *should* be dedicated to the Winnemem Wintu. Since the 183 graves that Reclamation moved were Winnemem Wintu graves, the Winnemem Wintu is the “appropriate tribe” for which the cemetery must be held in trust.

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 Bureau of Reclamation
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When recently asked whether Reclamation had investigated finding replacement lands to compensate the Winnemem Wintu as required by the 1941 Act, Reclamation's representative deflected the question, claiming that the "key person on this question is not available." Personal communication from Pete Lucero to Marc Dadigan, September 2013. No one has since provided any follow up information on this issue. With respect to the 1941 Act itself, Mr. Lucero simply stated that Reclamation's "position is that [the 1941 Act] is federal law and we comply." *Id.* Reclamation is correct that the 1941 Act is federal law, but the claim that the agency has complied with this law is refuted by the record. Reclamation must address its continuing violation of the 1941 Act before appropriating still more of the Winnemem Wintu's remaining territory.

C. The DEIS Fails to Adequately Address Executive Order 12898

Executive Order 12898 (February 11, 1994) requires that federal agencies "make achieving environmental justice part of [their] mission[s] by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of [their] programs, policies, and activities on minority populations." In addition, it directs that "[e]ach Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment" such that they "do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin."

Reclamation must adhere to Executive Order 12898 as part of its NEPA analysis. 40 C.F.R. section 1502.25(a) directs agencies to "prepare draft environmental impact statements concurrently with and *integrated with* . . . other environmental review laws and executive orders." (Emphasis added.) *See also NEPA Law and Litigation*, 2nd ed., Thompson Reuters/West 2012, 2-109 ("[a]gencies are to incorporate the principles and approaches suggested in the [EPA's Guidance to implement NEPA in accordance with EO 12898] into new or revised regulations, policies, and guidances").

Raising the height of Shasta Dam would permanently inundate sites of cultural and spiritual significance to the Winnemem Wintu, and would therefore have a disproportionate adverse impact on the Tribe. According to the Stanford University Center for Comparative Studies in Race and Ethnicity, raising the dam by 18.5 feet, as proposed in Comprehensive Plan 4 ("CP4"),⁴ would inundate 26 *Winnemem Wintu ethnic sites*. Additionally, at least seven ethnic sites of the Winnemem Wintu would be indirectly affected by CP4, since they are only used in

⁴ The DFR and the DEIS Engineering Summary Appendix identifies Comprehensive Plan 4 ("CP4") as providing the greatest net economic benefits. DFR ES-23; DEIS Engineering Summary Appendix 5-1, 6-1. If implemented, CP4 will raise the height of the dam by 18.5 feet and the maximum elevation of the lake by 20.5 feet, and has the potential to increase water storage by 634,000 acre feet. DFR ES-18; DEIS 2-16.

Shasta Lake Water Resources Investigation
Duplicate DEIS Public Comments Appendix

Ms. Katrina Chow, Project Manager
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conjunction with sacred sites that would be inundated. It is also possible that nine other ethnic sites would be destroyed due to staging, construction and campground relocation.⁵

The proposal to raise Shasta Dam would harm non-tribal use of the area as well. For example, the Dekkas Rock Forest Service campground, which currently provides parking, campfire rings, barbecues, and can accommodate up to 60 people at a time, would be submerged under the expanded reservoir. In light of the fact that the Shasta Dam raise is being touted for increasing recreation opportunities (DEIS 2-37, 2-38, 2-43, 2-47, 2-62), such facilities would likely have to be relocated. However, the DEIS does not disclose their possible new locations. This lack of information is troubling to the Winnemem Wintu, whose remaining cultural sites may be proposed for relocation of the flooded recreation sites. The Winnemem Wintu use the next flat area directly up the hill from Dekkas Rock as an important sacred campground and doctoring site. Reclamation has failed to address the likelihood that the Forest Service will simply move the public campground onto this sacred site. Additionally, the increased pool elevation will expose important cultural sites, such as Eagle Rock and Guardian Rock, to vastly increased risks of vandalism and litter. See Figures 6-7.



Figure 6: Guardian Rock, 9-19-2013

⁵ Based upon the maps included in the DFR, 16 additional cultural sites, including Samwell Cave and Guardian Rock (see Figure 6), appear to lie within the flood-zone.

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 Bureau of Reclamation
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Figure 7: Eagle Rock, 9-19-2013

Raising Shasta Dam would irreparably harm the Winnemem Wintu people while bestowing immense wealth on Westlands Water District; the Winnemem would bear all the burdens of the Project but not share in any of the benefits. This is antithetical to the concept of environmental justice, and to the intent and letter of EO 12898. Reclamation's complete disregard for the environmental justice implications of its actions is yet another instance of its unlawful conduct.

The DEIS also fails to adequately address of the requirements of the Native American Graves Protection and Repatriation Act ("NAGPRA") and the Archaeological Resources Protection Act of 1979 ("ARPA"). These statutes provide special protections for Native American graves, cultural or sacred items, and other archaeological resources on public lands. In particular, NAGPRA specifies the ownership and control of any cultural items discovered on federal or tribal lands. 25 U.S.C. 3002(a). ARPA establishes a permitting process for any excavation of archaeological resources, prohibits any other excavation, removal, or damage of such resources, and establishes penalties for violation of the Act. 16 U.S.C. 470cc, 470ee, 470ff. While Reclamation describes each statute in a short paragraph, it fails to discuss the implications of the statutes for the Project or how it will comply with either statute's requirements. DEIS 14-12. Reclamation must fully discuss and address, and demonstrate its compliance with, these statutes when considering any potential project around Shasta Reservoir.

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D. Health Must be Considered as an Environmental Justice Issue

Native American communities, including the Winnemem Wintu, have disproportionately high rates of obesity, type 2 diabetes, and cardiovascular disease. Studies cite the loss of traditional cultural practices and food sources as a contributing cause of these health issues. For the last 70 years, the Winnemem have lacked access to salmon due to construction of Shasta Dam and extirpation of the historic salmon runs above the dam. Salmon was a traditional staple food for the Winnemem, with both spiritual and practical significance. Restoring breeding populations of salmon to the McCloud River and other tributaries of the Shasta Reservoir is essential to recovery of the Winnemem's historic utilization of this key source of physical and spiritual nourishment, and a vital step toward improving the Tribe's health. As discussed further below, Reclamation fails to consider any alternative – such as the Cow Creek/Little Cow Creek/Dry Creek fishway – that would restore salmon runs to the McCloud River.

E. United Nations Declaration on the Rights of Indigenous Peoples

The United Nations Declaration on the Rights of Indigenous Peoples (“Declaration of Indigenous Rights”) affirms that indigenous communities have the right to participate in the development or use of their traditional territories and resources.⁶ Although the Declaration of Indigenous Rights is not binding on Reclamation, since it was nearly unanimously endorsed, it represents broad international agreement on the principles of according cultural rights and privileges to indigenous people. It mandates that Reclamation and other government agencies cooperate in good faith with the Winnemem Wintu and other First Peoples. Since the original construction of Shasta Dam, when Reclamation took Winnemem lands without compensation and in violation of 55 Stat. 612, Reclamation has failed to comply with this mandate. The Declaration of Indigenous Rights further states that all indigenous peoples have a right to self-determination (art. 3), a right to their lands and natural resources (art. 26), a right to the conservation and protection of their environment (art. 29), and the right to maintain, develop, and participate in decisions regarding development on their lands (arts. 20, 23). It also mandates that countries obtain the “free and informed consent” of indigenous communities prior to approving any project that will affect that community's territory or resources. Declaration of Indigenous Rights, art. 32. The Winnemem Wintu Tribe strongly encourages Reclamation to consider these factors in its decisionmaking process.

⁶ See generally U.N. Declaration on the Rights of Indigenous Peoples, G.A. Res. 61/295, art. 3, U.N. GAOR, 61st Sess., 107th plen. mtg., U.N. Doc. A/RES/61/295 (Sept. 13, 2007). Although the United States voted no, all but four of the U.N. member states voted in 2007 to support the Declaration of Indigenous Rights. In 2010, the State Department belatedly announced “support” for the Declaration of Indigenous Rights, but that support was qualified, as the United States proposed a different definition of “free, prior informed consent” than that laid out in the Declaration. See Announcement of U.S. Support for the United Nations Declaration of the Rights of Indigenous Peoples, available at <http://www.state.gov/documents/organization/153223.pdf>.

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IV. THE DEIS VIOLATES NEPA

NEPA requires that an EIS take a “hard look” at the environmental impacts of proposed major federal actions and provide a “full and fair discussion” of those impacts. 40 C.F.R. § 1502.1; *see also National Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001). The EIS must “rigorously explore and objectively evaluate all reasonable alternatives,” and “[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.” 42 U.S.C. § 4332(2)(C)(iii); 40 C.F.R. § 1502.14. Here, however, as explained below, the DEIS defines the Project’s purpose and objectives too narrowly, fails to discuss a reasonable range of alternatives, and its analysis of many environmental impacts is absent or inadequate. Therefore, the DEIS violates NEPA.

A. The DEIS Defines the Project’s Purpose and Objectives Too Narrowly

An EIS must “specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R. §1502.13. The purpose and need statement necessarily informs the range of alternatives considered “because when ‘the purpose is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved.’” *National Parks & Conservation Ass’n v. Bureau of Land Management*, 606 F.3d 1058, 1071 (9th Cir. 2009) (“*NPCA v. BLM*”) (quoting *City of Angoon v. Hodel*, 803 F.2d 1016, 1021 (9th Cir. 1986)). It is thus axiomatic that “[a]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” *NPCA v. BLM*, 606 F.3d at 1070, quoting *Friends of Southeast’s Future v. Morrison*, 153 F.3d 1059, 1066 (9th Cir. 1998).

Here, instead of framing the goal of the Project in terms of increasing anadromous fish survival and improving water supply and reliability, Reclamation preempts the NEPA-mandated consideration of alternatives by engrafting the raising of Shasta Dam onto the Project’s purpose and objectives. The “project purpose” is to “improve operational flexibility of the Delta Watershed system *through modifying the existing Shasta Dam and Reservoir*.” DEIS ES-5, emphasis added. The “primary project objectives”⁷ are “increas[ing] the survival of anadromous fish populations in the Sacramento River” and “increas[ing] water supply and water supply reliability . . . *with a focus on enlarging Shasta Dam and Reservoir*.” DEIS ES-6, 1-5, 2-5, emphasis added. The DEIS reveals that Reclamation has assumed all along that it would raise Shasta Dam. Rather than studying whether raising the dam was the best way to address anadromous fish decline and water supply reliability, Reclamation decided to raise the dam, and then conducted a study only to determine *how much to raise it*. This framing of the Project’s

⁷ The DEIS uses the terms “project objectives” and “planning objectives” interchangeably. DEIS ES-5.

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purpose and objectives ensures that only alternatives that include Reclamation's favored plan—raising the dam—will be retained.

As discussed further below, Reclamation's selective framing of the Project objectives resulted in an unduly narrow set of action alternatives *all* of which include raising Shasta Dam. Only one alternative—the required no-action alternative—would not involve raising the dam, and it is not given serious analysis or consideration.

B. The DEIS Fails to Analyze a Reasonable Range of Alternatives

NEPA requires that an EIS “[r]igorously explore and objectively evaluate all reasonable alternatives” so that “reviewers may evaluate their comparative merits.” 42 U.S.C. § 4332(2)(C)(iii); 40 C.F.R. § 1502.14. Furthermore, “[a]n agency may not define the objectives of its action in terms so unreasonably narrow that the only one alternative among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” *NPCA v. BLM*, 606 F.3d at 1070. “The [EIS] need not consider an infinite range of alternatives, only reasonable or feasible ones.” *Carmel–By–The–Sea v. U.S. Dep’t of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1977). However, “the existence of a viable but unexamined alternative renders an environmental impact statement inadequate.” *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1038 (9th Cir. 2008).

The Fish and Wildlife Service agrees that Reclamation should have considered non-raise alternatives, and compared them to raise alternatives. Fish and Wildlife Coordination Act Report (“FWCA Report”) App. C at 23. Agencies have an obligation “to consider every possible alternative to a proposed action.” *Seattle Audubon Society v. Moseley*, 80 F.3d 1401, 1404 (9th Cir. 1996); see *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813 (9th Cir. 1999). Agencies must also explain their rejection of alternatives, 40 C.F.R. § 1502.14(a); those explanations cannot be arbitrary. See *‘Ilio ‘Ulaokalani Coalition v. Rumsfeld*, 464 F.3d 1083, 1099-1101 (9th Cir. 2006) (invalid explanation for rejection of alternatives rendered EIS invalid); *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988) (“[i]nformed and meaningful consideration of alternatives—including the no action alternative—is thus an integral part of the statutory scheme”).

But instead of evaluating non-raise alternatives, Reclamation only considered alternatives that would raise the dam. Indeed, five of the six alternatives differ only in *how* high they would raise the dam. The only non-raise alternative—the required no-action alternative—is not given serious consideration. This violates NEPA. See *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990) (no-action alternative must receive discussion and evaluation). Reclamation devotes lengthy discussion to its five dam-raise alternatives, including detailed cost-benefit analyses and project descriptions, but fails to include any comparable discussion of the no-action alternative. DEIS 5-4, 5-9, 5-12, 5-13, 5-28 through 5-30, 5-40. In addition, Reclamation fails to include the no-action alternative alongside the comprehensive plan comparisons of the five dam-raise alternatives in the Plan Formulation, betraying its

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impermissible premise that the no-action alternative is separate from and not a viable alternative to the five dam-raise alternatives.

Moreover, Reclamation cursorily rejects – without providing adequate reasoning or explanation – 36 feasible management measures that do not involve raising the dam. DEIS 2-3 through 2-5; 2-8 through 2-11; 2-29 through 2-31. First, Reclamation rejects five no-raise alternatives because they are “not as efficient as increasing storage” or considered “not an alternative to new storage.” DEIS 2-29 through 2-45. Reclamation fails to provide any justification or cite to any data upon which it relied, leaving the public no basis upon which to evaluate its decision. Reclamation’s statement that *not raising a dam* is not a good alternative to *raising a dam* ends its inquiry before it begins, violating NEPA’s requirement that the agency consider a range of alternatives – “the heart of the environmental impact statement.” 40 C.F.R. § 1502.14.

Second, Reclamation rejects eight management measures for being too costly. DEIS 2-3 through 2-5, 2-14, 2-16, 2-29 through 2-31, 2-33 through 2-45. However, the DEIS fails to provide any evidence showing that the costs of implementing these options would render them economically infeasible. This omission violates NEPA. *Southwest Alaska Conservation Council v. Federal Highway Administration*, 649 F.3d 1050, 1059 (9th Cir. 2010) (agency must provide “reasoned support” for rejection of alternative); *cf. Valley Citizens for a Safe Environment v. Aldridge*, 886 F.2d 458, 461-62 (1st Cir. 1989) (upholding rejection of alternatives on cost and other grounds because EIS contained specific cost estimates and a comparison of costs between alternatives).

Third, Reclamation rejects seven measures that address improving anadromous fish populations because the options “would not directly contribute to improved ecological conditions along mainstream Sacramento River” and are “independent of hydraulic/hydrologic conditions in the upper Sacramento River.” DEIS 2-3 through 2-5, 2-8 through 2-14. Reclamation seems to assume that fish can survive – and must remain – in fragmented, non-integrated ecosystems, and can only benefit from improvements in their immediate area. This is incorrect. Fish and wildlife do not inhabit only those areas that Reclamation has deemed important enough to protect and restore. Rather, fish require complex, integrated ecosystems with a variety of habitat types for their various life stages, and cannot survive if their habitat is hopelessly fragmented. The Fish and Wildlife Service points out this flaw in Reclamation’s analysis when it calls for Reclamation to expand the scope of its NEPA review to include “lower reaches of the tributaries to the Sacramento River between Keswick Dam and RBDD” due to this area’s “importance for providing rearing habitat for salmonids.” FWCA Report at ii, 11. Reclamation’s decisions on management measures reveal a myopic focus on raising Shasta Dam, at the expense of restoring and protecting anadromous fish and their habitat. This is directly contrary to Congress’ direction. Failing to consider viable but unexamined alternatives violates NEPA. *Friends of Yosemite Valley*, 520 F.3d at 1038.

Reclamation also dismissed management measures that were specifically identified by the National Marine Fisheries Service (“NMFS”) to be beneficial, and in some cases crucial, to

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restoring and maintaining anadromous fish populations. For example, NMFS's analysis under the Endangered Species Act ("ESA") of reasonable and prudent alternatives ("RPAs") to the Central Valley Project/State Water Project ("CVP/SWP") operations concluded that establishing an anadromous fish passage program at Keswick and Shasta dams in order to "partially restore winter-run [salmon] to their historical cold water habitat" was an action that "Reclamation must take" to ensure the continued existence of winter-run populations.⁸ NMFS, 2011 amendments to 2009 Reasonable and Prudent Alternatives, p. 17. Nevertheless, Reclamation refused to develop a method for fish passage at Shasta Dam without offering any in-depth discussion of why this option was purportedly found to be too costly and to have a "low potential" for success. DEIS 2-5.

In particular, Reclamation fails to examine the alternative of utilizing the potential fishway that currently exists in Cow Creek, Little Cow Creek and Dry Creek, which together provide a natural means of providing passage for salmon from the Sacramento River near Anderson north to the headwaters of Dry Creek just 2500 feet from Jones Valley Marina on Shasta Reservoir. Installation of a tunnel from Dry Creek to Jones Valley Marina could provide access from the Dry Creek watershed to Shasta Reservoir. Installation of a floating water intake directing water into the tunnel to Dry Creek could provide a means of providing a year-round salmon fishway between the Sacramento River and the upper Sacramento, McCloud and Pit Rivers that bypasses Shasta and Keswick dams. Such tunnels have been constructed elsewhere, such as the one-mile Potter Valley Project built in 1908 that diverts water from the mainstem of the Eel River into the East Fork of the Russian River. Assuming for illustrative purposes only that a continuous flow of 100 cfs would be sufficient to provide fish passage between Shasta Reservoir and Dry Creek, approximately 72,000 acre feet annually would be required. This volume is less than one-eighth of the additional water that would be theoretically provided should the proposed dam raise be approved. While the Winnemem oppose the dam raise because of its severe cultural and environmental impacts as discussed above, in the event the dam is raised nonetheless, this alternative could mitigate the adverse impacts of the dam raise while potentially restoring salmon runs from the Sacramento River to its upper watersheds above the dam. The approximate location of this potential fishway is shown in Figure 8 below:

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Figure 8

Reclamation also ignores alternatives that would reduce downstream demand for Shasta Reservoir’s waters, such as retiring selenium-contaminated farmland in the Central Valley, including Westlands’ three water districts.

It is disingenuous for Reclamation to claim that increasing survival of anadromous fish populations is a primary planning objective (DEIS 1-4 through 1-7, 2-3) when only *one* of its five alternatives would result in any benefit to anadromous fish. See FWCA Report at v, 128, 132, 135, 171, 176, 181 (“All five of the SLWRI alternatives provided benefits for increased Water Supply Reliability, but only one alternative (CP4) achieved measurable benefits to Anadromous Fish Survival”). Reclamation should have incorporated management actions that benefit anadromous fish populations into more of its considered alternatives.

Likewise, it is misleading for Reclamation to imply that storing and releasing more cold water will solve the problems facing anadromous fish populations, and that raising Shasta Dam is the only way to do so. In order to reverse the decline of these fish populations it is critical to establish sustainable populations in the Little Sacramento and McCloud Rivers *above* Shasta

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Dam and to provide these fish access to their traditional spawning and rearing grounds. Yet virtually all of the analysis in the DEIS and DFR involves controlling dam releases to provide cold water *below* Shasta Dam. *See, e.g.*, DFR 2-3 through 2-4; *see also* DEIS 2-8 through 2-11 (retaining management measures for cold releases in Sacramento River but not most other beneficial management measures).

Reclamation must address and rectify these deficiencies. It must examine alternatives to raising the dam because one of the “primary factors” contributing to the decline of the winter-run and spring-run Chinook salmon is Shasta Dam’s “blockage of historical habitat.” NMFS, 2009 *Public Draft Recovery Report* (“NMFS Recovery Report”), pp. 19, 23, 24-25, 36. The 2009 Recovery Report recognizes that in order to restore chinook and steelhead populations, dams must be “removed or modified” to allow fish to access their historical spawning habitats. NMFS Recovery Report, pp. 77, 89, 96 (“[w]ith the exception of Battle Creek, passage past Shasta and Keswick dams *will be required* to achieve the representation and redundancy criterion,” emphasis added), 102 (“[r]eintroductions [to the Little Sacramento and McCloud Rivers] would be dependent upon successful passage programs above Keswick and Shasta dams”). As discussed above, the DEIS identifies a number of ecosystem restoration measures, including restoring fish habitat and increasing spawning gravel, that do not require raising Shasta Dam or enlarging the reservoir. *See, e.g.*, DEIS 2-3 through 2-5, 2-29 through 2-31.

C. The DEIS Fails to Adequately Analyze Environmental Impacts

As discussed above, salmon are an integral part of the Winnemem Wintu culture and historically an essential food source for the Winnemem people. In addition, both federal and state environmental laws and policy emphasize the importance of protecting, enhancing, and restoring fish and wildlife populations, their habitats, and the varied ecosystems of which they are a part. For example, in 1992 the Central Valley Project Improvement Act (“CVPIA”) fundamentally redirected management of the Central Valley Project (“CVP”) to establish the priority and importance of protecting fish, wildlife, and their habitats. Title 34, P.L. 102-575; DEIS 1-2. Specifically, the CVPIA established that “fish and wildlife mitigation, protection, and restoration” is a priority equal to water supply, and that “fish and wildlife enhancement” is a priority equal to hydropower generation. DEIS ES-2, 1-2. Thus, Reclamation is tasked with placing equal weight on these conservation priorities in its management of the CVP.

More broadly, the National Water Resources Planning Policy (specified in the Water Resources Development Act (“WRDA”) of 2007, Public Law 110-114, § 2031, 42 U.S.C. § 1962-3) requires that federal investments in water resources should “protect and restore the functions of natural systems and mitigate any unavoidable damage to natural systems.” DFR 3-4. By presuming that Shasta Dam will be raised even before its habitat impacts are evaluated, Reclamation’s DEIS fails to implement this clear congressional mandate.

The federal Endangered Species Act (“ESA”) also establishes a number of protections for endangered and threatened species and their habitats, through its species conservation and agency consultation requirements, prohibitions against takings of listed species and harm to their

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habitats, and civil and criminal penalties. 16 U.S.C. §§ 1536, 1538, 1539, 1540. Loss of habitat, most notably due to construction of Shasta Dam, has contributed to the decline of fish species that were historically abundant in the Sacramento River watershed. Sacramento River winter-run Chinook salmon are now listed as endangered under the ESA. Spring-run Chinook salmon, Central Valley steelhead, and North American green sturgeon, among others, are listed as threatened.⁹ As discussed below, Reclamation has failed to adequately address whether raising Shasta Dam would protect and promote fish habitat and restore these species' populations as required, or instead, push them even closer to extinction.

The California Regional Water Quality Control Board's Basin Plan¹⁰ for the Sacramento and San Joaquin River Basins ("Basin Plan") indicates that cold water spawning habitat for anadromous fish populations is an existing beneficial use of the Sacramento, Pit and McCloud Rivers above Shasta Dam. Basin Plan, 4th Ed., Oct. 2011, II-5.00, II-6.00. "Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning" in California. Basin Plan II-1.00. Reclamation must comply with California's Basin Plan and water quality objectives for these rivers under sections 303, 313 and 401 of the Clean Water Act. 33 U.S.C. §§ 1313, 1323, 1341. Thus, protecting, enhancing, and restoring this habitat must be the central focus of Reclamation's planning process.

1. Reclamation Has Failed to Require Protection and Enhancement of Anadromous Fish Populations and Habitat.

Despite the fact that the CVPIA mandates that "fish and wildlife enhancement" be given a priority equal to hydropower generation (DEIS 1-2) and increasing anadromous fish population survival is one of the primary objectives of the Project (DEIS 2-5), Reclamation dismisses

⁹ Winter run Chinook salmon were initially listed as a federally threatened species in 1990 (55 Fed. Reg. 46515), and then due to continuing population declines, declared endangered in 2005 (70 Fed. Reg. 37160). Their critical habitat in the Sacramento River and its tributaries was designated in 1993. 58 Fed. Reg. 33212. Spring run Chinook salmon were listed as threatened, and their critical habitat designated, in 2005. 70 Fed. Reg. 37160, 52488. Central Valley steelhead were listed as threatened in 1998 (63 Fed. Reg. 13347) and their critical habitat was designated in 2005 (70 Fed. Reg. 52488). The Southern Distinct Population Segment ("DPS") of North American green sturgeon was listed as threatened in 2006 (71 Fed. Reg. 17757) and its critical habitat was designated in 2008 (73 Fed. Reg. 52084).

¹⁰ Basin Plans are required by California Water Code section 13240, and are supported by section 303 of the federal Clean Water Act, which requires states to designate uses and corresponding water quality criteria for navigable waters. Pursuant to the California Water Code, section 13050, Basin Plans establish for the waters in a given area beneficial uses, water quality objectives, and plans to meet those objectives. The beneficial uses and their corresponding water quality objectives qualify as "water quality standards" for purposes of compliance with the Clean Water Act. 33 U.S.C. § 1313. Federal facilities must comply with these standards. 33 U.S.C. § 1323.

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management measures that would have significant benefits to anadromous fish *only because* they would have “significant impacts to hydropower.” DEIS Plan Formulation Appendix 2-49 (dismissing possibility of increasing instream flows on the lower McCloud and Pit Rivers). Reclamation’s narrow focus on hydropower demonstrates that it has *failed* to accord equal importance to fish enhancement as the law requires.

2. *Reclamation Has Failed to Address the Hard Questions Concerning the Likely Adverse Effects of this Proposal on Water Quality, Water Quantity, Fish and Wild Habitat, and Public Recreational Use of Shasta Reservoir.*

The DEIS virtually ignores fundamental principles of hydrology and biology that pose compelling reasons why Reclamation’s proposal to raise Shasta Dam should be rejected. First, raising the dam makes construction of a viable fishway for salmon less feasible. A fish passage allowing fish to navigate around Shasta Dam is necessary to reestablish their access to traditional spawning grounds, and to restore the Winnemem’s access to this important cultural resource and food source. At over 600 feet high, Shasta Dam already presents a challenge to engineers designing a way for fish to move upstream. Increasing the height of Shasta Dam will only reduce the feasibility of a fish passage system, which is crucial for protecting salmon populations. Reclamation *ignores* the ways that this action will hinder and frustrate the other planned projects to restore anadromous fish above Shasta Dam.

Second, raising the dam would destroy more fish spawning habitat by inundating rivers and streams above the reservoir. Reclamation, NMFS, and California agencies have been developing a pilot program to transport salmon and steelhead upstream of Shasta Dam and reestablish the Upper Sacramento and McCloud River populations. If such plans are to be successful, the fish will need suitable spawning habitat – namely, shallow river water with gravel and cobble streambeds – in these rivers and their tributaries. Raising Shasta Dam will further inundate upstream rivers and tributaries, destroying spawning habitat, threatening the success of a potential fish transport program, and further endangering the already imperiled salmon and steelhead populations.

Third, raising the dam would increase the reservoir’s surface area, exposing more water to evaporation, and thus increase rather than decrease net water loss. Water shortages are a serious problem in California, and will become even worse as global warming continues. Therefore, it is critical to employ the most efficient available methods to store, transport, and use limited freshwater supplies. Reservoirs are extraordinarily inefficient storage mechanisms, because they increase the surface area to volume ratio of waterways, and therefore increase the quantity of water lost to evaporation. The DEIS notes that raising Shasta Dam would increase the average surface area of the lake by three to eleven percent. DEIS 2-38, 2-55. However, the DEIS fails to inform the public and decisionmakers that additional water would be lost to evaporation due to Shasta Reservoir’s increased surface area. The modeling appendix mentions that it calculated an evaporation amount by multiplying the monthly evaporation rate of the lake by each alternative’s surface area, but the results of these calculations are not included in the

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DEIS. Modeling Appendix 2-15.¹¹ The DEIS also fails to discuss how the lengthened shoreline and its associated shallow waters will warm the water in those areas and instead focuses on the presumed recreational benefits of a larger lake. DEIS 2-37, 2-38, 2-43, 2-47, 2-62. *See also* DEIS 11-51 (discussing effects of increasing surface area, but *not* mentioning increased evaporation or increased Reservoir temperature in shallows).

The DEIS fails to address these compelling reasons why raising the dam's height would harm water quality, water quantity, fish and wildlife habitat, and public recreational use of Shasta Reservoir.

3. *Reclamation Fails to Demonstrate That There Will Be Sufficient Water to Refill an Enlarged Dam in Dry Years.*

The DEIS fails to demonstrate that Shasta Dam's watershed is of sufficient size to refill the 634,000 acre feet of contemplated additional storage in dry and critically dry years when Reclamation claims the additional water storage would be most needed. Indeed, in at least one chapter, the DEIS states that the reservoir would exceed current full pool only in "wetter-than-normal years." DEIS 10-30 (CP1), 10-35(CP2), 10-38(CP3), 10-42(CP4), 10-44 to 10-45 (CP5). If one of the 18.5 ft alternatives were implemented, a denuded and barren lakebed much larger than that which already exists would result. See Figures 9-10.

¹¹ According to data from the California Department of Water Resources Data Exchange Center, the mean monthly evaporation rate for the Shasta Reservoir from May 1984 to August 2013 is already approximately 7,779.5 acre feet; and the Reservoir lost an average of 138.8 cubic feet per second between August 23 and September 22, 2013. *See* <http://cdec.water.ca.gov/>; http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=SHA

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Figure 9: "Bathtub Ring" from Shasta Dam, 9-20-2013



Figure 10: Panorama at Forest Service Dekkas Campground, 9-19-2013

Climate change will dramatically decrease precipitation and snowfall in dry years, thus reducing the quantity of water this watershed can yield during droughts. Thus, implementing a dam raise will cause immense harm by destroying the Winnemem Wintu's cultural resources and approximately 4,875 acres of forest land (10-17) without necessarily providing any benefits when additional water is most needed.

Reclamation also fails to demonstrate that the contemplated beneficiaries of the additional storage have water rights under California law to use it. Without these required rights, the claimed additional supply could not be used by the anticipated beneficiaries. In view of the many competing demands for this water, it is unlikely that those parties that assume they will receive this additional water will be able to use all, or even most, of it.

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4. *Reclamation Cannot Accurately Evaluate the Project's Impacts on Endangered Fish Populations Until It Has Lawful Biological Opinions*

In 2008 and 2009, the United States Fish and Wildlife Service (USFWS) and NMFS, respectively, issued biological opinions (BOs) finding that the CVP and SWP would jeopardize the continued existence of the spring and winter run Sacramento River chinook salmon, Central Valley steelhead, green sturgeon, and other imperiled fishes. In 2010 the federal district court heard a suit challenging the 2008 USFWS BO, found it to be unlawful, and remanded it to USFWS. In 2011, the court issued a similar ruling rejecting the NMFS 2009 BO. USFWS is now required to prepare a final BO by November 1, 2013, and together with Reclamation, a final NEPA document by December 1, 2013. *See* DFR 2-43. NMFS must also prepare a draft revised BO by October 1, 2014, and Reclamation a DEIS by April 1, 2015. The Court ordered that Reclamation issue its FEIS, and NMFS complete ESA consultation and issue its final BO, by February 1, 2016, and that Reclamation issue a ROD by April 29, 2016. *See* DEIS 11-35. In both cases, the parties have requested extensions of the deadlines for preparation of BOs. DEIS 11-35.

Given the number and complexity of factors affecting the fish populations in the Shasta Reservoir and Sacramento River areas, Reclamation cannot accurately analyze the proposed Project's effects on sensitive fish species until USFWS and NMFS have conducted the in-depth analysis required by the ESA. In addition, the new BOs, like the previous remanded versions, must include "reasonable and prudent alternatives" that are necessary to mitigate the CVP and SWP's effects on sensitive fish species. These will change the future environmental conditions of the area and necessitate a new analysis of the dam-raising Project's potential effects. Therefore the DEIS is incomplete and premature.

V. WILD AND SCENIC RIVER PROTECTIONS FOR McCLOUD RIVER

Both state and federal laws provide protections for rivers that are considered "wild and scenic." The California Wild and Scenic Rivers Act ("CWSRA") states that "the McCloud River possesses extraordinary resources in that it supports one of the finest wild trout fisheries in the state," and that "[t]he continued management of river resources in their existing natural condition represents the best way to protect the unique fishery of the McCloud River." Public Resources Code ("PRC") § 5093.542(c). For that reason, the CWSRA forbids any state agency other than the Department of Water Resources from assisting with or cooperating in the "planning or construction of any dam, reservoir, diversion, or other water impoundment facility that could have an adverse effect on the free-flowing condition of the McCloud River, or on its wild trout fishery." PRC § 5093.542(c).

In the federal arena, the United States Forest Service ("USFS") determined that the McCloud River is eligible for listing as a wild and scenic river because it is "free-flowing" and exhibits "outstandingly remarkable values" ("ORVs") including cultural, fisheries, and geologic values. DEIS 25-6. However, it was decided that the river would be managed under a

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Coordinated Resource Management Plan (“CRMP”) instead. DEIS 25-3. Under the CRMP, the Plan’s signatories agree to “protect the values that make [the McCloud River] eligible for Federal designation as wild and scenic.” DEIS 25-3. If the CRMP expires, or fails to protect the values that make McCloud River eligible for wild and scenic designation, the USFS has reserved the right to pursue such designation for the McCloud River. DEIS 25-7.

The DEIS admits that any raise of the dam would have a significant impact upon the ORVs that make the McCloud River eligible for designation as a wild and scenic river. DEIS 25-26. If Shasta Dam were raised, a section of the McCloud River would no longer be eligible for Federal designation as a wild and scenic river because it would lose its “free-flowing” character and its exceptional water quality. DEIS 25-26 through 25-27, 25-32 through 25-33, 25-36 through 25-37. In addition, a raise of Shasta Dam would have adverse effects on the McCloud River basin’s cultural resources, its fisheries,¹² and its scenic values. DEIS 25-27 through 25-29, 25-33, 25-36, 25-37. However, the DEIS casually dismisses these disastrous effects simply because they would be in an area outside the National Forest and therefore are not governed by the CRMP. DEIS 25-30, 25-33, 25-38. As discussed above, fish require interconnected ecosystems, and this piecemeal approach to analyzing their habitat ignores fundamental principles of biology. In addition, the Winnemem Wintu Tribe’s cultural resources are not more valuable when they happen to fall within the bounds of the CRMP. Rather, they *must* be protected no matter where some later-drawn political boundaries place them.

The DEIS also admits that raising the dam would have potentially significant and unmitigable impacts upon the McCloud River fishery and its free-flowing condition as protected under the California Wild and Scenic Rivers Act. DEIS 25-30, 25-34, 25-38 through 25-39.

Despite these significant adverse effects of *any* raise of Shasta Dam, Reclamation proposes *no* specific mitigation measures for the McCloud River. DEIS 25-39. The numerous protections afforded this important river under the CRMP and California Wild and Scenic Rivers Act will mean nothing if Reclamation can simply ignore the effects of its Project and inundate an even greater stretch of the McCloud, wreaking further havoc upon its fisheries, stunning scenery, and irreplaceable cultural resources.

VI. IDENTIFICATION OF A NON-FEDERAL SPONSOR

The DFR notes that “[i]f authorized for construction, the proposed plan would likely require a portion of its costs to be reimbursed by a non-Federal sponsor(s).” DFR ES-30. The DEIS lists “willingness of the non-Federal sponsor to fund its share of the project costs” as one

¹² Raising Shasta Dam would inundate an estimated 1,400-3,500 lineal feet (depending on the size of the dam enlargement) of the protected section of the McCloud River, having a potentially devastating effect on its trout fishery. The CALFED Final Programmatic EIS/EIR Program Plan states that “[t]he most significant environmental impact [of enlarging Shasta Reservoir] appears to be inundation of a few hundred yards of the McCloud River.” DFR 1-20 through 1-21.

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factor affecting its “consider[ation] for inclusion in the President’s budget.” DEIS ES-36. The DEIS appendix on Plan Formation notes that Federal interest in any of the plans depends on (1) their economic feasibility and (2) the identification of a non-Federal sponsor that is “capable and willing” to share the costs of such a Project; and indicates that actions that have high environmental benefit but low cost would probably not have much support. Plan Formation App. 4-32. Westlands Water District has indicated its willingness to negotiate with Reclamation regarding sharing the costs of raising Shasta Dam. DFR 5-25. However, Westlands still has substantial outstanding reimbursement obligations for the CVP, and should not be allowed to reap further benefits for itself of new water infrastructure projects while incurring additional debts at *taxpayer* expense.

VII. THE DEIS IS INSUFFICIENT AS A CEQA DOCUMENT

Reclamation states that it has considered the requirements of the California Environmental Quality Act, Public Resources Code section 21000, et seq. (“CEQA”) while preparing the DEIS. DEIS ES-1, ES-5 (citing the law as “2010 Association of Environmental Professionals *CEQA Statute and Guidelines*”), *see also* DEIS 1-5. However, the DEIS is insufficient as a CEQA document, as it fails to properly describe the Project, study a reasonable range of alternatives, address the impacts of the proposed alternatives, or adequately mitigate significant impacts.

Under CEQA, the environmental impact report (“EIR”) for the Shasta Dam Raise Project must include a clearly written statement of the Project’s objectives. As the California Supreme Court has explained, “[a] clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings . . . The statement of objectives should include the *underlying purpose* of the project.” *In re Bay-Delta Environmental Impact Report Coordinated Proceedings*, 43 Cal.4th 1143, 1163 (2008) (emphasis as quoted, internal quotes omitted). Because the DEIS objectives set the focus of the Project *on raising the dam*, rather than protecting anadromous fish and increasing water supply reliability, they do not satisfy CEQA’s informational purpose.

CEQA requires that an EIR evaluate alternatives that would *reduce* the Project’s impacts on the environment. “An EIR for any project subject to CEQA review must consider a reasonable range of alternatives to the project, or to the location of the project, which: (1) *offer substantial environmental advantages over the project proposal* ([PRC] § 21002); and, (2) may be ‘feasibly accomplished in a successful manner’ considering the economic, environmental, social and technological factors involved.” *Habitat and Watershed Caretakers v. City of Santa Cruz* (2013) 213 Cal.App.4th 1277, 1302-1303 (“*Habitat*”) (emphasis in original) (quoting *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 566. “The EIR *is* required to make an in-depth discussion of those alternatives identified as at least potentially feasible.” *Habitat*, 213 Cal.App.4th at 1303 (quoting *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1505 fn. 5. As discussed above, the DEIS fails to seriously consider a non-raise alternative, and fails to adequately establish the infeasibility of such an alternative. Therefore it does not satisfy these CEQA requirements.

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As shown, raising Shasta Dam would irretrievably destroy the Winnemem Wintu Tribe's cultural resources, historic properties, vital environmental resources and processes, and interdependent customs and traditions. Yet the DEIS ignores this irreversible impact (*see* DEIS Chapter 26-4)—let alone assess its scope and magnitude—and fails to address whether there is any potential mitigation for these impacts. These omissions violate CEQA. *See* Guidelines §§ 15126, 15126.2.

Under CEQA, the approving agency must mitigate or avoid the project's significant effects on the environment whenever it is feasible to do so. PRC § 21002.1(b). If an agency finds such mitigation infeasible, it must make specific findings to explain its reasons for moving forward with a project despite its significant impacts. PRC § 21081. As discussed above, the DEIS rejects measures to mitigate the Project's potentially significant impacts for reasons such as "a general lack of interest from the public" without an adequate discussion. *See, e.g.*, DEIS Plan Formulation Appendix 2-3. This contravenes CEQA's informational purposes.

In addition, although the DEIS admits that increasing the capacity of Shasta Dam has the potential to induce growth, it impermissibly assumes that local agencies in the counties receiving the water will later implement some as-yet-undetermined form of mitigation. DEIS 26-5 through 26-10. CEQA does not allow the deferral of mitigation. In the rare instances "where practical considerations prohibit devising [feasible mitigation] measures early in the planning process," the lead agency should commit itself to meeting "specific performance criteria" in devising mitigation measures after project approval. *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1394. Here, Reclamation has not only impermissibly deferred and delegated mitigation, it has failed to assume any role in mitigation for itself or any future identified state lead-agency. For example, Reclamation may be able to mitigate the growth-inducing impacts of additional CVP water by contract terms, but does not discuss whether this is possible.

VIII. CONCLUSION

For each of the foregoing reasons, the DEIS violates applicable law and must be corrected and recirculated for comment.

Respectfully submitted,

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**Re: Comments of Winnemem Wintu Tribe on Shasta Lake Water
Resources Investigation Draft Environmental Impact Statement**

I. INTRODUCTION

On behalf of the Winnemem Wintu Tribe, we submit the following comments regarding the Shasta Lake Water Resources Investigation Draft Environmental Impact Statement (“DEIS”). We request that the Bureau of Reclamation (“Reclamation”) more fully consider the cultural and environmental costs of raising Shasta Dam (“Project”), that it evaluate a more comprehensive range of alternative methods for improving anadromous fish survival and increasing water supply reliability in the Central Valley including investigation of potential fishways around Shasta Dam,¹ and that Reclamation more fully involve the Winnemem Wintu Tribe in its decisionmaking process.

The Winnemem Wintu Tribe is an historic non-gaming Native California Tribe. The Winnemem’s traditional territory included the east side of the upper Sacramento River watershed, the McCloud River and Squaw Creek watersheds, and approximately 20 miles of the Pit River from the confluence of the McCloud River, Squaw Creek and Pit River up to Big Bend. Salmon, which have been extirpated upstream of Shasta Dam since its completion in 1944, are an essential component of Winnemem Wintu culture, and were once a staple food. Although 90 percent of the Tribe’s traditional lands are now submerged under the McCloud Reservoir and Shasta Reservoir, and salmon no longer breed upstream of Shasta Dam, the Tribe has continuously maintained its spiritual, cultural, and traditional connection to its remaining accessible native lands and waters.

¹ These potential fishways include, for example, utilizing Cow Creek, Little Cow Creek and Dry Creek coupled with a 2500-foot tunnel to Shasta Reservoir at Jones Valley Marina.

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For the Winnemem Wintu, the proposed raising of Shasta Dam does not pose merely a water allocation issue between farmers in the Central Valley and commercial and sports fishermen. Nor is it simply a power struggle between private development and public agencies charged with protecting public trust resources including fish, wildlife and recreation. Instead, the raising of Shasta Dam is a threat to the very existence of the Winnemem Wintu people and the way of life that the creator gave to the Tribe. It is about the ongoing destruction of what was once a diverse, balanced and productive natural world, blessed with abundant salmon, clean water and healthy forests, meadows, wetlands and riparian areas. The raising of Shasta Dam would be the end of the world as the Winnemem know it.

The Draft Environmental Impact Statement (“DEIS”) is based upon and, unfortunately, exacerbates, the Draft Feasibility Report’s (“DFR’s”) inadequate analysis of cultural impacts. Consequently, it fails to fully and fairly address this Project’s profound and irreparable impacts on the Winnemem. The DEIS ignores the Winnemem’s long-standing but never resolved claims to ownership of the lands that would be flooded. It overlooks their vital, historic cultural ties to the salmon runs that Shasta Dam destroyed. It ignores the Winnemem’s dependence on a healthy, balanced and sustainable ecosystem.

The DEIS’ treatment of environmental impacts likewise gives short shrift to sound science. It overlooks fundamental principles of hydrology and biology that pose compelling reasons why Reclamation’s proposal to raise Shasta Dam should be rejected. First, it ignores the fact that raising the dam’s height makes construction of a viable fishway for salmon *less*, not more, feasible. Second, it overlooks the fact that raising the dam’s height would destroy more spawning habitat by inundating rivers that flow into the reservoir. Third, it ignores the fact that raising the dam’s height would increase the reservoir’s surface area, exposing more water to evaporation, and thus *increase* rather than decrease net water loss.

Because the DEIS fails to adequately discuss how raising the dam’s height would destroy the Winnemem people’s natural and cultural heritage, and harm water quality, water quantity, fish and wildlife habitat, and public recreational use of Shasta Reservoir, and because it ignores the alternative of restoring historic salmon runs above the reservoir through construction of a fishway around Shasta Dam, it should be withdrawn and its profound errors and omissions rectified.

II. HISTORICAL BACKGROUND

In 1851, the federal government and representatives from the Winnemem and other Wintu bands signed the Treaty at Cottonwood Creek, ceding vast tribal lands to the federal government in exchange for reservation land, food, and clothing. Though this treaty was never ratified by the United States Congress, the federal government nonetheless deemed the land ceded, and began giving land, mineral, and resource rights to private parties in the Winnemem’s historical homeland with no compensation to the Winnemem. Eventually, some of the Winnemem Wintu received Indian allotments which allowed them to remain on the McCloud

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River and other traditional sites. However, the majority of habitable allotments were flooded when Reclamation constructed Shasta Dam.

In 1941, Congress passed 55 Stat. 612, which gave the United States the right to take title to all tribal lands needed for the Central Valley Project and related infrastructure. The Act also promised that the Indians would be paid “just and equitable compensation” for the land taken, and that the sites of any “relocated cemeteries shall be held in trust by the United States for the appropriate tribe, or family.” 55 Stat. 612 §§ 2, 4.

The Winnemem Wintu people were never provided “just and equitable compensation” for the United States government’s massive appropriation of land for Shasta Reservoir. Even the Winnemem Wintu’s sacred gravesites were violated. Reclamation moved approximately 183 Winnemem Wintu graves from Shasta Dam’s impact area to a new site, styled the “Shasta Reservoir Indian Cemetery,” and violated 55 Stat. 612 by failing to hold this site in trust for the Winnemem Wintu. Since the Winnemem Wintu were never compensated for their land allotments that were taken by the government and flooded by Shasta Dam, the Winnemem are still the rightful owners of that land. Reclamation cannot proceed with any plans that would enlarge Shasta Reservoir without first settling the Winnemem Wintu’s claims to ownership of the land already flooded.

Due in large part to Reclamation’s repeated violation of 55 Stat. 612, the Department of the Interior failed to include the Winnemem Wintu when the Department published the first list of “federally recognized” tribes. In 2008, the California Legislature passed Assembly Joint Resolution 39, which urges Congress to restore federal recognition to the Winnemem Wintu, but Congress has failed to act on this request. Reclamation has failed to accord the Winnemem Wintu full participation in Reclamation’s decisionmaking process, despite the fact that its proposal to raise Shasta Dam will have a disproportionate, and profoundly adverse, effect on the Winnemem Wintu.

The federal government’s repeated uncompensated takings of Winnemem Wintu lands and destruction of their primary staple – the McCloud River’s salmon – has incalculably harmed the Tribe.

III. ENVIRONMENTAL JUSTICE ISSUES

The DEIS acknowledges that the Winnemem Wintu “live within the Shasta Lake area, where they continue to actively practice many aspects of their traditional culture,” DEIS 14-9, and that the Winnemem “have strong traditional and contemporary connections with the land, and their ongoing use of many archaeological and religious sites is *fundamental to the well-being of their culture*, particularly the education of their youth.” DEIS 14-11 (emphasis added). Raising Shasta Dam would cause significant and unmitigable impacts to the Winnemem Wintu’s cultural resources. DEIS 14-20 through 14-31.

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Near the McCloud Bridge Campground, for example, a network of important cultural sites would be lost with a 20.5 foot increase in water elevation.² These include the ceremonial grounds, Balas Son (Puberty Rock) and Ilawi Son (Children's Rock) that are already inundated much of the year. See Figures 1-3. Near these spots, the Woman's Blessing Place would also be inundated. See Figure 4. Suckerfish Pool, located north of the McCloud Bridge, would also be flooded. See Figure 5.



Figure 1: As seen from the McCloud River Bridge, 9-19-2013

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Figure 2: Children's Rock with the McCloud River Arm of Shasta Reservoir behind it, 9-19-2013



Figure 3: Puberty Rock emerging from the McCloud River arm of Shasta Reservoir, 9-19-2013

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Figure 4: Woman's Blessing Place, 9-19-2013



Figure 5: Suckerfish Pool, 9-19-2013

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The Winnemem Wintu *must* have continued access to their traditional communal sites for cultural and spiritual practices because their culture is inextricably tied to the land; sites cannot simply be relocated or replaced.³ Indeed, the DEIS recognizes that adverse impacts to many culturally important places “cannot be mitigated” because their significance is “inextricably tied to physical location,” rendering relocation infeasible. DEIS 14-23, 14-25, 14-26, 14-28, 14-30.

The DEIS mentions potential impacts to cultural resources, but Reclamation does not actually place much importance on protecting the Winnemem Wintu culture. This is clear from the primary and secondary “planning objectives,” which address such diverse issues as anadromous fish populations, water supply, ecosystem resources, flooding, hydropower, recreation, and water quality, *but make no mention of cultural resources*. DEIS ES-6. This contemplated sacrifice of the Winnemem’s culture for the benefits claimed for others is shocking in its disdain for the Winnemem community. The Winnemem have a human right to sustainable traditional food sources and a right to practice their culture in their traditional territory. Reclamation must rectify its failure to address the potential destruction of most of the Winnemem Wintu’s remaining cultural sites. As a first step, Reclamation must address what would be lost, and alternatives and mitigations that would prevent such losses, in its DEIS.

A. The DEIS Impermissibly Defers Compliance with National Historic Preservation Act Section 106

Section 106 of the National Historic Preservation Act (“NHPA”) (16 U.S.C. § 470 et seq.) requires Reclamation to consider whether the alternatives addressed in the DEIS will affect properties of religious and cultural significance to the Winnemem Wintu Tribe, and to consult with the Tribe and the State Historic Preservation Officer to attempt to minimize the adverse effects of its undertaking. 16 U.S.C. § 470(f).

Reclamation took the important step of inviting the Winnemem Wintu to participate in the Section 106 process “as an invited consulting party.” DEIS ES-34. In addition, Reclamation acknowledges not only the legal but also the practical necessity of such consultation when it notes that “it is important to acknowledge the special expertise of Indian tribes when assessing the eligibility of properties to which they attach ceremonial and cultural significance.” DEIS 14-13. However, such acknowledgement and a formal invitation mean little unless they are accompanied by action.

Reclamation continues to drag its feet. For example, the DEIS states that a “detailed discussion of cultural resources” is contained in two Technical Reports: *Cultural Resources Alternatives Assessment for the Shasta Lake Water Resources Investigation*, and *Native American Tribal Coordination, Shasta Lake Water Resources Investigation*. DEIS 14-1. However, both of these reports were published in 2008, based on just three meetings with the

³ Declaration of Indigenous Rights art. 25 recognizes the right of indigenous peoples “to maintain and strengthen their distinctive spiritual relationship” with their traditional territories.

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Winnemem Wintu in 2007 and 2008. DEIS 14-18. Neither contains vital current information such as that which the Winnemem provided Reclamation during a meeting on October 8, 2012.

Reclamation's belated consultation with the Winnemem Wintu remains incomplete, and the DEIS' analysis of impacts on cultural resources is therefore necessarily deficient. It is unclear why Reclamation would assert that "Native American groups are unwilling to provide sufficiently detailed information" so that the agency can "identify and formally document Traditional Cultural Properties." DEIS 14-18. The Winnemem Wintu have repeatedly expressed interest in being part of the decision making process, and have taken representatives from Reclamation to see many sacred sites. Additional consultation, a completed Memorandum of Agreement, and updated versions of the 2008 Technical Reports are needed to comply with Section 106, 36 C.F.R. § 800.6, and NEPA, to ensure protection of the Winnemem's cultural resources. See DEIS Plan Formulation Appendix 5-21.

Reclamation will not be able to "take into account the effects of [its] undertaking(s)" (36 C.F.R. § 800.1(a)) on the Tribe's Traditional Cultural Properties ("TCPs") until it *completes* the consultation process. Reclamation's failure to adequately identify and minimize potential adverse impacts to the Tribe's TCPs violates both the spirit and the letter of the NHPA.

Despite performing an initial consultation with the Tribe, Reclamation has not followed through on its commitments, and has ignored its duty to perform consultation and analysis *early* in the planning process. 36 C.F.R. § 800.2(c)(2)(ii); 36 C.F.R. § 800.3(b). Instead, it states that:

[A]gencies may conduct nondestructive planning activities *without* completing Section 106, provided that the actions do not prohibit subsequent consideration of alternatives to avoid, minimize, or mitigate the undertaking's adverse effects on historic properties. This [DEIS] is in support of a feasibility study. . . . Reclamation will not have a specific undertaking until such time as Congress makes a decision regarding whether to authorize a project that would involve raising the dam and appropriates funding for this purpose.

DEIS 14-13 through 14-15 (internal citation omitted; emphasis added).

In other words, Reclamation intends to choose an alternative now, receive a commitment of resources from Congress, and *then* attend to its NHPA duties later, *after* Congress has already funded Reclamation's proposal. This is impermissible. It trivializes section 106 consultation, rendering it a meaningless afterthought. It violates both the NHPA and NEPA. Reclamation has a duty to perform its section 106 compliance *concurrently with its NEPA review*. 36 C.F.R. § 800.3(b). The law could not be more explicit on this point: "The agency official must complete the section 106 process *prior to* the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license." . . . The agency official shall ensure that the section 106 process is initiated early in the undertaking's planning, *so that a broad range of alternatives may be considered during the planning process* for the undertaking." 36 C.F.R. §

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800.1(c), quoting 16 U.S.C. 470f, emphasis added. Congress cannot make an informed decision on *whether* to “authorize a project that would involve raising the dam” unless the Project’s impact statements first provide an analysis of its impact on cultural resources. Such an analysis is impossible without more input from the Winnemem, as would be provided during the Section 106 process.

Reclamation may not delay consultation in such a way that it would preclude “subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking’s adverse effects on historic properties.” 36 C.F.R. § 800.1(c). Instead, Reclamation must complete the section 106 process *prior to* recommending a final alternative in the FEIS and presenting the ROD to Congress for its consideration and approval.

B. Reclamation Must Comply With the 1941 Indian Lands Acquisition Act

As discussed above, in 1941 Congress passed an “Act for the acquisition of Indian lands for the Central Valley project, and for other purposes.” This Act gave the United States right and title to all tribal land “within the area embraced by the Central Valley project,” and mandated that the “appropriate tribe” be paid “just and equitable” compensation for the lands taken. 55 Stat. 612 § 2. The Act also allowed the government to relocate Indian cemeteries, and required that the new sites be “held in trust by the United States for the appropriate tribe, or family.” 55 Stat. 612 § 4. Reclamation continues to fail to comply with the 1941 Act. Raising the Shasta Dam would only exacerbate the existing injustices by taking more land from the Winnemem Wintu when the tribe still has not been compensated for the lands flooded by the original dam.

First, the Winnemem Wintu were never compensated for the United States government’s massive appropriation of their land for Shasta Reservoir. Ninety percent of the Winnemem’s traditional territory, and the majority of the habitable allotments that they were given after the Treaty at Cottonwood Creek, are now submerged beneath the Shasta and McCloud Reservoirs. Since the Winnemem Wintu were never compensated for their land allotments that were taken by the government and flooded by Shasta Dam, the Winnemem are still the rightful owners of that land. Reclamation cannot proceed with any plans that would enlarge the Shasta Reservoir without first settling the ownership of the land already flooded.

Second, Reclamation moved approximately 183 Winnemem Wintu graves from Shasta Dam’s impact area to a new site, styled the “Shasta Reservoir Indian Cemetery,” and violated 55 Stat. 612 by failing to hold this site in trust for the Winnemem Wintu. Today, a number of different tribes use the cemetery for burials, and Reclamation insists that “burial is not based on tribal affiliation nor is the cemetery dedicated to a specific tribe.” Personal communication from Pete Lucero to Marc Dadigan. However, the 1941 Act is quite clear – and Reclamation admits – that the 1941 Act “requires the cemetery [] to be held in trust *for the appropriate tribe or family.*” *Id.* (emphasis added). Therefore, burial *should* be based on tribal affiliation, and the cemetery *should* be dedicated to the Winnemem Wintu. Since the 183 graves that Reclamation moved were Winnemem Wintu graves, the Winnemem Wintu is the “appropriate tribe” for which the cemetery must be held in trust.

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When recently asked whether Reclamation had investigated finding replacement lands to compensate the Winnemem Wintu as required by the 1941 Act, Reclamation's representative deflected the question, claiming that the "key person on this question is not available." Personal communication from Pete Lucero to Marc Dadigan, September 2013. No one has since provided any follow up information on this issue. With respect to the 1941 Act itself, Mr. Lucero simply stated that Reclamation's "position is that [the 1941 Act] is federal law and we comply." *Id.* Reclamation is correct that the 1941 Act is federal law, but the claim that the agency has complied with this law is refuted by the record. Reclamation must address its continuing violation of the 1941 Act before appropriating still more of the Winnemem Wintu's remaining territory.

C. The DEIS Fails to Adequately Address Executive Order 12898

Executive Order 12898 (February 11, 1994) requires that federal agencies "make achieving environmental justice part of [their] mission[s] by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of [their] programs, policies, and activities on minority populations." In addition, it directs that "[e]ach Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment" such that they "do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin."

Reclamation must adhere to Executive Order 12898 as part of its NEPA analysis. 40 C.F.R. section 1502.25(a) directs agencies to "prepare draft environmental impact statements concurrently with and *integrated with* . . . other environmental review laws and executive orders." (Emphasis added.) *See also NEPA Law and Litigation*, 2nd ed., Thompson Reuters/West 2012, 2-109 ("[a]gencies are to incorporate the principles and approaches suggested in the [EPA's Guidance to implement NEPA in accordance with EO 12898] into new or revised regulations, policies, and guidances").

Raising the height of Shasta Dam would permanently inundate sites of cultural and spiritual significance to the Winnemem Wintu, and would therefore have a disproportionate adverse impact on the Tribe. According to the Stanford University Center for Comparative Studies in Race and Ethnicity, raising the dam by 18.5 feet, as proposed in Comprehensive Plan 4 ("CP4"),⁴ would inundate 26 *Winnemem Wintu ethnic sites*. Additionally, at least seven ethnic sites of the Winnemem Wintu would be indirectly affected by CP4, since they are only used in

⁴ The DFR and the DEIS Engineering Summary Appendix identifies Comprehensive Plan 4 ("CP4") as providing the greatest net economic benefits. DFR ES-23; DEIS Engineering Summary Appendix 5-1, 6-1. If implemented, CP4 will raise the height of the dam by 18.5 feet and the maximum elevation of the lake by 20.5 feet, and has the potential to increase water storage by 634,000 acre feet. DFR ES-18; DEIS 2-16.

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conjunction with sacred sites that would be inundated. It is also possible that nine other ethnic sites would be destroyed due to staging, construction and campground relocation.⁵

The proposal to raise Shasta Dam would harm non-tribal use of the area as well. For example, the Dekkas Rock Forest Service campground, which currently provides parking, campfire rings, barbecues, and can accommodate up to 60 people at a time, would be submerged under the expanded reservoir. In light of the fact that the Shasta Dam raise is being touted for increasing recreation opportunities (DEIS 2-37, 2-38, 2-43, 2-47, 2-62), such facilities would likely have to be relocated. However, the DEIS does not disclose their possible new locations. This lack of information is troubling to the Winnemem Wintu, whose remaining cultural sites may be proposed for relocation of the flooded recreation sites. The Winnemem Wintu use the next flat area directly up the hill from Dekkas Rock as an important sacred campground and doctoring site. Reclamation has failed to address the likelihood that the Forest Service will simply move the public campground onto this sacred site. Additionally, the increased pool elevation will expose important cultural sites, such as Eagle Rock and Guardian Rock, to vastly increased risks of vandalism and litter. See Figures 6-7.



Figure 6: Guardian Rock, 9-19-2013

⁵ Based upon the maps included in the DFR, 16 additional cultural sites, including Samwell Cave and Guardian Rock (see Figure 6), appear to lie within the flood-zone.

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Figure 7: Eagle Rock, 9-19-2013

Raising Shasta Dam would irreparably harm the Winnemem Wintu people while bestowing immense wealth on Westlands Water District; the Winnemem would bear all the burdens of the Project but not share in any of the benefits. This is antithetical to the concept of environmental justice, and to the intent and letter of EO 12898. Reclamation's complete disregard for the environmental justice implications of its actions is yet another instance of its unlawful conduct.

The DEIS also fails to adequately address of the requirements of the Native American Graves Protection and Repatriation Act ("NAGPRA") and the Archaeological Resources Protection Act of 1979 ("ARPA"). These statutes provide special protections for Native American graves, cultural or sacred items, and other archaeological resources on public lands. In particular, NAGPRA specifies the ownership and control of any cultural items discovered on federal or tribal lands. 25 U.S.C. 3002(a). ARPA establishes a permitting process for any excavation of archaeological resources, prohibits any other excavation, removal, or damage of such resources, and establishes penalties for violation of the Act. 16 U.S.C. 470cc, 470ee, 470ff. While Reclamation describes each statute in a short paragraph, it fails to discuss the implications of the statutes for the Project or how it will comply with either statute's requirements. DEIS 14-12. Reclamation must fully discuss and address, and demonstrate its compliance with, these statutes when considering any potential project around Shasta Reservoir.

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D. Health Must be Considered as an Environmental Justice Issue

Native American communities, including the Winnemem Wintu, have disproportionately high rates of obesity, type 2 diabetes, and cardiovascular disease. Studies cite the loss of traditional cultural practices and food sources as a contributing cause of these health issues. For the last 70 years, the Winnemem have lacked access to salmon due to construction of Shasta Dam and extirpation of the historic salmon runs above the dam. Salmon was a traditional staple food for the Winnemem, with both spiritual and practical significance. Restoring breeding populations of salmon to the McCloud River and other tributaries of the Shasta Reservoir is essential to recovery of the Winnemem's historic utilization of this key source of physical and spiritual nourishment, and a vital step toward improving the Tribe's health. As discussed further below, Reclamation fails to consider any alternative – such as the Cow Creek/Little Cow Creek/Dry Creek fishway – that would restore salmon runs to the McCloud River.

E. United Nations Declaration on the Rights of Indigenous Peoples

The United Nations Declaration on the Rights of Indigenous Peoples (“Declaration of Indigenous Rights”) affirms that indigenous communities have the right to participate in the development or use of their traditional territories and resources.⁶ Although the Declaration of Indigenous Rights is not binding on Reclamation, since it was nearly unanimously endorsed, it represents broad international agreement on the principles of according cultural rights and privileges to indigenous people. It mandates that Reclamation and other government agencies cooperate in good faith with the Winnemem Wintu and other First Peoples. Since the original construction of Shasta Dam, when Reclamation took Winnemem lands without compensation and in violation of 55 Stat. 612, Reclamation has failed to comply with this mandate. The Declaration of Indigenous Rights further states that all indigenous peoples have a right to self-determination (art. 3), a right to their lands and natural resources (art. 26), a right to the conservation and protection of their environment (art. 29), and the right to maintain, develop, and participate in decisions regarding development on their lands (arts. 20, 23). It also mandates that countries obtain the “free and informed consent” of indigenous communities prior to approving any project that will affect that community's territory or resources. Declaration of Indigenous Rights, art. 32. The Winnemem Wintu Tribe strongly encourages Reclamation to consider these factors in its decisionmaking process.

⁶ See generally U.N. Declaration on the Rights of Indigenous Peoples, G.A. Res. 61/295, art. 3, U.N. GAOR, 61st Sess., 107th plen. mtg., U.N. Doc. A/RES/61/295 (Sept. 13, 2007). Although the United States voted no, all but four of the U.N. member states voted in 2007 to support the Declaration of Indigenous Rights. In 2010, the State Department belatedly announced “support” for the Declaration of Indigenous Rights, but that support was qualified, as the United States proposed a different definition of “free, prior informed consent” than that laid out in the Declaration. See Announcement of U.S. Support for the United Nations Declaration of the Rights of Indigenous Peoples, available at <http://www.state.gov/documents/organization/153223.pdf>.

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IV. THE DEIS VIOLATES NEPA

NEPA requires that an EIS take a “hard look” at the environmental impacts of proposed major federal actions and provide a “full and fair discussion” of those impacts. 40 C.F.R. § 1502.1; *see also National Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001). The EIS must “rigorously explore and objectively evaluate all reasonable alternatives,” and “[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.” 42 U.S.C. § 4332(2)(C)(iii); 40 C.F.R. § 1502.14. Here, however, as explained below, the DEIS defines the Project’s purpose and objectives too narrowly, fails to discuss a reasonable range of alternatives, and its analysis of many environmental impacts is absent or inadequate. Therefore, the DEIS violates NEPA.

A. The DEIS Defines the Project’s Purpose and Objectives Too Narrowly

An EIS must “specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R. §1502.13. The purpose and need statement necessarily informs the range of alternatives considered “because when ‘the purpose is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved.’” *National Parks & Conservation Ass’n v. Bureau of Land Management*, 606 F.3d 1058, 1071 (9th Cir. 2009) (“*NPCA v. BLM*”) (quoting *City of Angoon v. Hodel*, 803 F.2d 1016, 1021 (9th Cir. 1986)). It is thus axiomatic that “[a]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” *NPCA v. BLM*, 606 F.3d at 1070, quoting *Friends of Southeast’s Future v. Morrison*, 153 F.3d 1059, 1066 (9th Cir. 1998).

Here, instead of framing the goal of the Project in terms of increasing anadromous fish survival and improving water supply and reliability, Reclamation preempts the NEPA-mandated consideration of alternatives by engrafting the raising of Shasta Dam onto the Project’s purpose and objectives. The “project purpose” is to “improve operational flexibility of the Delta Watershed system *through modifying the existing Shasta Dam and Reservoir.*” DEIS ES-5, emphasis added. The “primary project objectives”⁷ are “increas[ing] the survival of anadromous fish populations in the Sacramento River” and “increas[ing] water supply and water supply reliability . . . with a focus on enlarging Shasta Dam and Reservoir.” DEIS ES-6, 1-5, 2-5, emphasis added. The DEIS reveals that Reclamation has assumed all along that it would raise Shasta Dam. Rather than studying whether raising the dam was the best way to address anadromous fish decline and water supply reliability, Reclamation decided to raise the dam, and then conducted a study only to determine *how much to raise it*. This framing of the Project’s

⁷ The DEIS uses the terms “project objectives” and “planning objectives” interchangeably. DEIS ES-5.

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purpose and objectives ensures that only alternatives that include Reclamation's favored plan—raising the dam—will be retained.

As discussed further below, Reclamation's selective framing of the Project objectives resulted in an unduly narrow set of action alternatives *all* of which include raising Shasta Dam. Only one alternative—the required no-action alternative—would not involve raising the dam, and it is not given serious analysis or consideration.

B. The DEIS Fails to Analyze a Reasonable Range of Alternatives

NEPA requires that an EIS “[r]igorously explore and objectively evaluate all reasonable alternatives” so that “reviewers may evaluate their comparative merits.” 42 U.S.C. § 4332(2)(C)(iii); 40 C.F.R. § 1502.14. Furthermore, “[a]n agency may not define the objectives of its action in terms so unreasonably narrow that the only one alternative among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” *NPCA v. BLM*, 606 F.3d at 1070. “The [EIS] need not consider an infinite range of alternatives, only reasonable or feasible ones.” *Carmel–By–The–Sea v. U.S. Dep’t of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1977). However, “the existence of a viable but unexamined alternative renders an environmental impact statement inadequate.” *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1038 (9th Cir. 2008).

The Fish and Wildlife Service agrees that Reclamation should have considered non-raise alternatives, and compared them to raise alternatives. Fish and Wildlife Coordination Act Report (“FWCA Report”) App. C at 23. Agencies have an obligation “to consider every possible alternative to a proposed action.” *Seattle Audubon Society v. Moseley*, 80 F.3d 1401, 1404 (9th Cir. 1996); see *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813 (9th Cir. 1999). Agencies must also explain their rejection of alternatives, 40 C.F.R. § 1502.14(a); those explanations cannot be arbitrary. See *Ilio ‘Ulaokalani Coalition v. Rumsfeld*, 464 F.3d 1083, 1099–1101 (9th Cir. 2006) (invalid explanation for rejection of alternatives rendered EIS invalid); *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988) (“[i]nformed and meaningful consideration of alternatives—including the no action alternative—is thus an integral part of the statutory scheme”).

But instead of evaluating non-raise alternatives, Reclamation only considered alternatives that would raise the dam. Indeed, five of the six alternatives differ only in *how* high they would raise the dam. The only non-raise alternative—the required no-action alternative—is not given serious consideration. This violates NEPA. See *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990) (no-action alternative must receive discussion and evaluation). Reclamation devotes lengthy discussion to its five dam-raise alternatives, including detailed cost-benefit analyses and project descriptions, but fails to include any comparable discussion of the no-action alternative. DEIS 5-4, 5-9, 5-12, 5-13, 5-28 through 5-30, 5-40. In addition, Reclamation fails to include the no-action alternative alongside the comprehensive plan comparisons of the five dam-raise alternatives in the Plan Formulation, betraying its

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impermissible premise that the no-action alternative is separate from and not a viable alternative to the five dam-raise alternatives.

Moreover, Reclamation cursorily rejects – without providing adequate reasoning or explanation – 36 feasible management measures that do not involve raising the dam. DEIS 2-3 through 2-5; 2-8 through 2-11; 2-29 through 2-31. First, Reclamation rejects five no-raise alternatives because they are “not as efficient as increasing storage” or considered “not an alternative to new storage.” DEIS 2-29 through 2-45. Reclamation fails to provide any justification or cite to any data upon which it relied, leaving the public no basis upon which to evaluate its decision. Reclamation’s statement that *not raising a dam* is not a good alternative to *raising a dam* ends its inquiry before it begins, violating NEPA’s requirement that the agency consider a range of alternatives – “the heart of the environmental impact statement.” 40 C.F.R. § 1502.14.

Second, Reclamation rejects eight management measures for being too costly. DEIS 2-3 through 2-5, 2-14, 2-16, 2-29 through 2-31, 2-33 through 2-45. However, the DEIS fails to provide any evidence showing that the costs of implementing these options would render them economically infeasible. This omission violates NEPA. *Southwest Alaska Conservation Council v. Federal Highway Administration*, 649 F.3d 1050, 1059 (9th Cir. 2010) (agency must provide “reasoned support” for rejection of alternative); *cf. Valley Citizens for a Safe Environment v. Aldridge*, 886 F.2d 458, 461-62 (1st Cir. 1989) (upholding rejection of alternatives on cost and other grounds because EIS contained specific cost estimates and a comparison of costs between alternatives).

Third, Reclamation rejects seven measures that address improving anadromous fish populations because the options “would not directly contribute to improved ecological conditions along mainstream Sacramento River” and are “independent of hydraulic/hydrologic conditions in the upper Sacramento River.” DEIS 2-3 through 2-5, 2-8 through 2-14. Reclamation seems to assume that fish can survive – and must remain – in fragmented, non-integrated ecosystems, and can only benefit from improvements in their immediate area. This is incorrect. Fish and wildlife do not inhabit only those areas that Reclamation has deemed important enough to protect and restore. Rather, fish require complex, integrated ecosystems with a variety of habitat types for their various life stages, and cannot survive if their habitat is hopelessly fragmented. The Fish and Wildlife Service points out this flaw in Reclamation’s analysis when it calls for Reclamation to expand the scope of its NEPA review to include “lower reaches of the tributaries to the Sacramento River between Keswick Dam and RBDD” due to this area’s “importance for providing rearing habitat for salmonids.” FWCA Report at ii, 11. Reclamation’s decisions on management measures reveal a myopic focus on raising Shasta Dam, at the expense of restoring and protecting anadromous fish and their habitat. This is directly contrary to Congress’ direction. Failing to consider viable but unexamined alternatives violates NEPA. *Friends of Yosemite Valley*, 520 F.3d at 1038.

Reclamation also dismissed management measures that were specifically identified by the National Marine Fisheries Service (“NMFS”) to be beneficial, and in some cases crucial, to

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restoring and maintaining anadromous fish populations. For example, NMFS's analysis under the Endangered Species Act ("ESA") of reasonable and prudent alternatives ("RPAs") to the Central Valley Project/State Water Project ("CVP/SWP") operations concluded that establishing an anadromous fish passage program at Keswick and Shasta dams in order to "partially restore winter-run [salmon] to their historical cold water habitat" was an action that "Reclamation must take" to ensure the continued existence of winter-run populations.⁸ NMFS, 2011 amendments to 2009 Reasonable and Prudent Alternatives, p. 17. Nevertheless, Reclamation refused to develop a method for fish passage at Shasta Dam without offering any in-depth discussion of why this option was purportedly found to be too costly and to have a "low potential" for success. DEIS 2-5.

In particular, Reclamation fails to examine the alternative of utilizing the potential fishway that currently exists in Cow Creek, Little Cow Creek and Dry Creek, which together provide a natural means of providing passage for salmon from the Sacramento River near Anderson north to the headwaters of Dry Creek just 2500 feet from Jones Valley Marina on Shasta Reservoir. Installation of a tunnel from Dry Creek to Jones Valley Marina could provide access from the Dry Creek watershed to Shasta Reservoir. Installation of a floating water intake directing water into the tunnel to Dry Creek could provide a means of providing a year-round salmon fishway between the Sacramento River and the upper Sacramento, McCloud and Pit Rivers that bypasses Shasta and Keswick dams. Such tunnels have been constructed elsewhere, such as the one-mile Potter Valley Project built in 1908 that diverts water from the mainstem of the Eel River into the East Fork of the Russian River. Assuming for illustrative purposes only that a continuous flow of 100 cfs would be sufficient to provide fish passage between Shasta Reservoir and Dry Creek, approximately 72,000 acre feet annually would be required. This volume is less than one-eighth of the additional water that would be theoretically provided should the proposed dam raise be approved. While the Winnemem oppose the dam raise because of its severe cultural and environmental impacts as discussed above, in the event the dam is raised nonetheless, this alternative could mitigate the adverse impacts of the dam raise while potentially restoring salmon runs from the Sacramento River to its upper watersheds above the dam. The approximate location of this potential fishway is shown in Figure 8 below:

⁸ The 2011 amendments to the 2009 RPAs are available here:
http://swr.nmfs.noaa.gov/ocap/040711_OCAP_opinion_2011_amendments.pdf.

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Figure 8

Reclamation also ignores alternatives that would reduce downstream demand for Shasta Reservoir's waters, such as retiring selenium-contaminated farmland in the Central Valley, including Westlands' three water districts.

It is disingenuous for Reclamation to claim that increasing survival of anadromous fish populations is a primary planning objective (DEIS 1-4 through 1-7, 2-3) when only *one* of its five alternatives would result in any benefit to anadromous fish. See FWCA Report at v, 128, 132, 135, 171, 176, 181 ("All five of the SLWRI alternatives provided benefits for increased Water Supply Reliability, but only one alternative (CP4) achieved measurable benefits to Anadromous Fish Survival"). Reclamation should have incorporated management actions that benefit anadromous fish populations into more of its considered alternatives.

Likewise, it is misleading for Reclamation to imply that storing and releasing more cold water will solve the problems facing anadromous fish populations, and that raising Shasta Dam is the only way to do so. In order to reverse the decline of these fish populations it is critical to establish sustainable populations in the Little Sacramento and McCloud Rivers *above* Shasta

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Dam and to provide these fish access to their traditional spawning and rearing grounds. Yet virtually all of the analysis in the DEIS and DFR involves controlling dam releases to provide cold water *below* Shasta Dam. *See, e.g.*, DFR 2-3 through 2-4; *see also* DEIS 2-8 through 2-11 (retaining management measures for cold releases in Sacramento River but not most other beneficial management measures).

Reclamation must address and rectify these deficiencies. It must examine alternatives to raising the dam because one of the “primary factors” contributing to the decline of the winter-run and spring-run Chinook salmon is Shasta Dam’s “blockage of historical habitat.” NMFS, 2009 *Public Draft Recovery Report* (“NMFS Recovery Report”), pp. 19, 23, 24-25, 36. The 2009 Recovery Report recognizes that in order to restore chinook and steelhead populations, dams must be “removed or modified” to allow fish to access their historical spawning habitats. NMFS Recovery Report, pp. 77, 89, 96 (“[w]ith the exception of Battle Creek, passage past Shasta and Keswick dams *will be required* to achieve the representation and redundancy criterion,” emphasis added), 102 (“[r]eintroductions [to the Little Sacramento and McCloud Rivers] would be dependent upon successful passage programs above Keswick and Shasta dams”). As discussed above, the DEIS identifies a number of ecosystem restoration measures, including restoring fish habitat and increasing spawning gravel, that do not require raising Shasta Dam or enlarging the reservoir. *See, e.g.*, DEIS 2-3 through 2-5, 2-29 through 2-31.

C. The DEIS Fails to Adequately Analyze Environmental Impacts

As discussed above, salmon are an integral part of the Winnemem Wintu culture and historically an essential food source for the Winnemem people. In addition, both federal and state environmental laws and policy emphasize the importance of protecting, enhancing, and restoring fish and wildlife populations, their habitats, and the varied ecosystems of which they are a part. For example, in 1992 the Central Valley Project Improvement Act (“CVPIA”) fundamentally redirected management of the Central Valley Project (“CVP”) to establish the priority and importance of protecting fish, wildlife, and their habitats. Title 34, P.L. 102-575; DEIS 1-2. Specifically, the CVPIA established that “fish and wildlife mitigation, protection, and restoration” is a priority equal to water supply, and that “fish and wildlife enhancement” is a priority equal to hydropower generation. DEIS ES-2, 1-2. Thus, Reclamation is tasked with placing equal weight on these conservation priorities in its management of the CVP.

More broadly, the National Water Resources Planning Policy (specified in the Water Resources Development Act (“WRDA”) of 2007, Public Law 110-114, § 2031, 42 U.S.C. § 1962-3) requires that federal investments in water resources should “protect and restore the functions of natural systems and mitigate any unavoidable damage to natural systems.” DFR 3-4. By presuming that Shasta Dam will be raised even before its habitat impacts are evaluated, Reclamation’s DEIS fails to implement this clear congressional mandate.

The federal Endangered Species Act (“ESA”) also establishes a number of protections for endangered and threatened species and their habitats, through its species conservation and agency consultation requirements, prohibitions against takings of listed species and harm to their

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habitats, and civil and criminal penalties. 16 U.S.C. §§ 1536, 1538, 1539, 1540. Loss of habitat, most notably due to construction of Shasta Dam, has contributed to the decline of fish species that were historically abundant in the Sacramento River watershed. Sacramento River winter-run Chinook salmon are now listed as endangered under the ESA. Spring-run Chinook salmon, Central Valley steelhead, and North American green sturgeon, among others, are listed as threatened.⁹ As discussed below, Reclamation has failed to adequately address whether raising Shasta Dam would protect and promote fish habitat and restore these species' populations as required, or instead, push them even closer to extinction.

The California Regional Water Quality Control Board's Basin Plan¹⁰ for the Sacramento and San Joaquin River Basins ("Basin Plan") indicates that cold water spawning habitat for anadromous fish populations is an existing beneficial use of the Sacramento, Pit and McCloud Rivers above Shasta Dam. Basin Plan, 4th Ed., Oct. 2011, II-5.00, II-6.00. "Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning" in California. Basin Plan II-1.00. Reclamation must comply with California's Basin Plan and water quality objectives for these rivers under sections 303, 313 and 401 of the Clean Water Act. 33 U.S.C. §§ 1313, 1323, 1341. Thus, protecting, enhancing, and restoring this habitat must be the central focus of Reclamation's planning process.

1. *Reclamation Has Failed to Require Protection and Enhancement of Anadromous Fish Populations and Habitat.*

Despite the fact that the CVPIA mandates that "fish and wildlife enhancement" be given a priority equal to hydropower generation (DEIS 1-2) and increasing anadromous fish population survival is one of the primary objectives of the Project (DEIS 2-5), Reclamation dismisses

⁹ Winter run Chinook salmon were initially listed as a federally threatened species in 1990 (55 Fed. Reg. 46515), and then due to continuing population declines, declared endangered in 2005 (70 Fed. Reg. 37160). Their critical habitat in the Sacramento River and its tributaries was designated in 1993. 58 Fed. Reg. 33212. Spring run Chinook salmon were listed as threatened, and their critical habitat designated, in 2005. 70 Fed. Reg. 37160, 52488. Central Valley steelhead were listed as threatened in 1998 (63 Fed. Reg. 13347) and their critical habitat was designated in 2005 (70 Fed. Reg. 52488). The Southern Distinct Population Segment ("DPS") of North American green sturgeon was listed as threatened in 2006 (71 Fed. Reg. 17757) and its critical habitat was designated in 2008 (73 Fed. Reg. 52084).

¹⁰ Basin Plans are required by California Water Code section 13240, and are supported by section 303 of the federal Clean Water Act, which requires states to designate uses and corresponding water quality criteria for navigable waters. Pursuant to the California Water Code, section 13050, Basin Plans establish for the waters in a given area beneficial uses, water quality objectives, and plans to meet those objectives. The beneficial uses and their corresponding water quality objectives qualify as "water quality standards" for purposes of compliance with the Clean Water Act. 33 U.S.C. § 1313. Federal facilities must comply with these standards. 33 U.S.C. § 1323.

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management measures that would have significant benefits to anadromous fish *only because* they would have “significant impacts to hydropower.” DEIS Plan Formulation Appendix 2-49 (dismissing possibility of increasing instream flows on the lower McCloud and Pit Rivers). Reclamation’s narrow focus on hydropower demonstrates that it has *failed* to accord equal importance to fish enhancement as the law requires.

2. *Reclamation Has Failed to Address the Hard Questions Concerning the Likely Adverse Effects of this Proposal on Water Quality, Water Quantity, Fish and Wild Habitat, and Public Recreational Use of Shasta Reservoir.*

The DEIS virtually ignores fundamental principles of hydrology and biology that pose compelling reasons why Reclamation’s proposal to raise Shasta Dam should be rejected. First, raising the dam makes construction of a viable fishway for salmon less feasible. A fish passage allowing fish to navigate around Shasta Dam is necessary to reestablish their access to traditional spawning grounds, and to restore the Winnemem’s access to this important cultural resource and food source. At over 600 feet high, Shasta Dam already presents a challenge to engineers designing a way for fish to move upstream. Increasing the height of Shasta Dam will only reduce the feasibility of a fish passage system, which is crucial for protecting salmon populations. Reclamation *ignores* the ways that this action will hinder and frustrate the other planned projects to restore anadromous fish above Shasta Dam.

Second, raising the dam would destroy more fish spawning habitat by inundating rivers and streams above the reservoir. Reclamation, NMFS, and California agencies have been developing a pilot program to transport salmon and steelhead upstream of Shasta Dam and reestablish the Upper Sacramento and McCloud River populations. If such plans are to be successful, the fish will need suitable spawning habitat – namely, shallow river water with gravel and cobble streambeds – in these rivers and their tributaries. Raising Shasta Dam will further inundate upstream rivers and tributaries, destroying spawning habitat, threatening the success of a potential fish transport program, and further endangering the already imperiled salmon and steelhead populations.

Third, raising the dam would increase the reservoir’s surface area, exposing more water to evaporation, and thus increase rather than decrease net water loss. Water shortages are a serious problem in California, and will become even worse as global warming continues. Therefore, it is critical to employ the most efficient available methods to store, transport, and use limited freshwater supplies. Reservoirs are extraordinarily inefficient storage mechanisms, because they increase the surface area to volume ratio of waterways, and therefore increase the quantity of water lost to evaporation. The DEIS notes that raising Shasta Dam would increase the average surface area of the lake by three to eleven percent. DEIS 2-38, 2-55. However, the DEIS fails to inform the public and decisionmakers that additional water would be lost to evaporation due to Shasta Reservoir’s increased surface area. The modeling appendix mentions that it calculated an evaporation amount by multiplying the monthly evaporation rate of the lake by each alternative’s surface area, but the results of these calculations are not included in the

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DEIS. Modeling Appendix 2-15.¹¹ The DEIS also fails to discuss how the lengthened shoreline and its associated shallow waters will warm the water in those areas and instead focuses on the presumed recreational benefits of a larger lake. DEIS 2-37, 2-38, 2-43, 2-47, 2-62. *See also* DEIS 11-51 (discussing effects of increasing surface area, but *not* mentioning increased evaporation or increased Reservoir temperature in shallows).

The DEIS fails to address these compelling reasons why raising the dam's height would harm water quality, water quantity, fish and wildlife habitat, and public recreational use of Shasta Reservoir.

3. *Reclamation Fails to Demonstrate That There Will Be Sufficient Water to Refill an Enlarged Dam in Dry Years.*

The DEIS fails to demonstrate that Shasta Dam's watershed is of sufficient size to refill the 634,000 acre feet of contemplated additional storage in dry and critically dry years when Reclamation claims the additional water storage would be most needed. Indeed, in at least one chapter, the DEIS states that the reservoir would exceed current full pool only in "wetter-than-normal years." DEIS 10-30 (CP1), 10-35(CP2), 10-38(CP3), 10-42(CP4), 10-44 to 10-45 (CP5). If one of the 18.5 ft alternatives were implemented, a denuded and barren lakebed much larger than that which already exists would result. See Figures 9-10.

¹¹ According to data from the California Department of Water Resources Data Exchange Center, the mean monthly evaporation rate for the Shasta Reservoir from May 1984 to August 2013 is already approximately 7,779.5 acre feet; and the Reservoir lost an average of 138.8 cubic feet per second between August 23 and September 22, 2013. *See* <http://cdec.water.ca.gov/>; http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=SHA

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Figure 9: "Bathtub Ring" from Shasta Dam, 9-20-2013



Figure 10: Panorama at Forest Service Dekkas Campground, 9-19-2013

Climate change will dramatically decrease precipitation and snowfall in dry years, thus reducing the quantity of water this watershed can yield during droughts. Thus, implementing a dam raise will cause immense harm by destroying the Winnemem Wintu's cultural resources and approximately 4,875 acres of forest land (10-17) without necessarily providing any benefits when additional water is most needed.

Reclamation also fails to demonstrate that the contemplated beneficiaries of the additional storage have water rights under California law to use it. Without these required rights, the claimed additional supply could not be used by the anticipated beneficiaries. In view of the many competing demands for this water, it is unlikely that those parties that assume they will receive this additional water will be able to use all, or even most, of it.

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4. *Reclamation Cannot Accurately Evaluate the Project's Impacts on Endangered Fish Populations Until It Has Lawful Biological Opinions*

In 2008 and 2009, the United States Fish and Wildlife Service (USFWS) and NMFS, respectively, issued biological opinions (BOs) finding that the CVP and SWP would jeopardize the continued existence of the spring and winter run Sacramento River chinook salmon, Central Valley steelhead, green sturgeon, and other imperiled fishes. In 2010 the federal district court heard a suit challenging the 2008 USFWS BO, found it to be unlawful, and remanded it to USFWS. In 2011, the court issued a similar ruling rejecting the NMFS 2009 BO. USFWS is now required to prepare a final BO by November 1, 2013, and together with Reclamation, a final NEPA document by December 1, 2013. *See* DFR 2-43. NMFS must also prepare a draft revised BO by October 1, 2014, and Reclamation a DEIS by April 1, 2015. The Court ordered that Reclamation issue its FEIS, and NMFS complete ESA consultation and issue its final BO, by February 1, 2016, and that Reclamation issue a ROD by April 29, 2016. *See* DEIS 11-35. In both cases, the parties have requested extensions of the deadlines for preparation of BOs. DEIS 11-35.

Given the number and complexity of factors affecting the fish populations in the Shasta Reservoir and Sacramento River areas, Reclamation cannot accurately analyze the proposed Project's effects on sensitive fish species until USFWS and NMFS have conducted the in-depth analysis required by the ESA. In addition, the new BOs, like the previous remanded versions, must include "reasonable and prudent alternatives" that are necessary to mitigate the CVP and SWP's effects on sensitive fish species. These will change the future environmental conditions of the area and necessitate a new analysis of the dam-raising Project's potential effects. Therefore the DEIS is incomplete and premature.

**V. WILD AND SCENIC RIVER PROTECTIONS FOR
McCLOUD RIVER**

Both state and federal laws provide protections for rivers that are considered "wild and scenic." The California Wild and Scenic Rivers Act ("CWSRA") states that "the McCloud River possesses extraordinary resources in that it supports one of the finest wild trout fisheries in the state," and that "[t]he continued management of river resources in their existing natural condition represents the best way to protect the unique fishery of the McCloud River." Public Resources Code ("PRC") § 5093.542(c). For that reason, the CWSRA forbids any state agency other than the Department of Water Resources from assisting with or cooperating in the "planning or construction of any dam, reservoir, diversion, or other water impoundment facility that could have an adverse effect on the free-flowing condition of the McCloud River, or on its wild trout fishery." PRC § 5093.542(c).

In the federal arena, the United States Forest Service ("USFS") determined that the McCloud River is eligible for listing as a wild and scenic river because it is "free-flowing" and exhibits "outstandingly remarkable values" ("ORVs") including cultural, fisheries, and geologic values. DEIS 25-6. However, it was decided that the river would be managed under a

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Coordinated Resource Management Plan (“CRMP”) instead. DEIS 25-3. Under the CRMP, the Plan’s signatories agree to “protect the values that make [the McCloud River] eligible for Federal designation as wild and scenic.” DEIS 25-3. If the CRMP expires, or fails to protect the values that make McCloud River eligible for wild and scenic designation, the USFS has reserved the right to pursue such designation for the McCloud River. DEIS 25-7.

The DEIS admits that any raise of the dam would have a significant impact upon the ORVs that make the McCloud River eligible for designation as a wild and scenic river. DEIS 25-26. If Shasta Dam were raised, a section of the McCloud River would no longer be eligible for Federal designation as a wild and scenic river because it would lose its “free-flowing” character and its exceptional water quality. DEIS 25-26 through 25-27, 25-32 through 25-33, 25-36 through 25-37. In addition, a raise of Shasta Dam would have adverse effects on the McCloud River basin’s cultural resources, its fisheries,¹² and its scenic values. DEIS 25-27 through 25-29, 25-33, 25-36, 25-37. However, the DEIS casually dismisses these disastrous effects simply because they would be in an area outside the National Forest and therefore are not governed by the CRMP. DEIS 25-30, 25-33, 25-38. As discussed above, fish require interconnected ecosystems, and this piecemeal approach to analyzing their habitat ignores fundamental principles of biology. In addition, the Winnemem Wintu Tribe’s cultural resources are not more valuable when they happen to fall within the bounds of the CRMP. Rather, they *must* be protected no matter where some later-drawn political boundaries place them.

The DEIS also admits that raising the dam would have potentially significant and unmitigable impacts upon the McCloud River fishery and its free-flowing condition as protected under the California Wild and Scenic Rivers Act. DEIS 25-30, 25-34, 25-38 through 25-39.

Despite these significant adverse effects of *any* raise of Shasta Dam, Reclamation proposes *no* specific mitigation measures for the McCloud River. DEIS 25-39. The numerous protections afforded this important river under the CRMP and California Wild and Scenic Rivers Act will mean nothing if Reclamation can simply ignore the effects of its Project and inundate an even greater stretch of the McCloud, wreaking further havoc upon its fisheries, stunning scenery, and irreplaceable cultural resources.

VI. IDENTIFICATION OF A NON-FEDERAL SPONSOR

The DFR notes that “[i]f authorized for construction, the proposed plan would likely require a portion of its costs to be reimbursed by a non-Federal sponsor(s).” DFR ES-30. The DEIS lists “willingness of the non-Federal sponsor to fund its share of the project costs” as one

¹² Raising Shasta Dam would inundate an estimated 1,400-3,500 lineal feet (depending on the size of the dam enlargement) of the protected section of the McCloud River, having a potentially devastating effect on its trout fishery. The CALFED Final Programmatic EIS/EIR Program Plan states that “[t]he most significant environmental impact [of enlarging Shasta Reservoir] appears to be inundation of a few hundred yards of the McCloud River.” DFR 1-20 through 1-21.

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Bureau of Reclamation
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factor affecting its “consider[ation] for inclusion in the President’s budget.” DEIS ES-36. The DEIS appendix on Plan Formation notes that Federal interest in any of the plans depends on (1) their economic feasibility and (2) the identification of a non-Federal sponsor that is “capable and willing” to share the costs of such a Project; and indicates that actions that have high environmental benefit but low cost would probably not have much support. Plan Formation App. 4-32. Westlands Water District has indicated its willingness to negotiate with Reclamation regarding sharing the costs of raising Shasta Dam. DFR 5-25. However, Westlands still has substantial outstanding reimbursement obligations for the CVP, and should not be allowed to reap further benefits for itself of new water infrastructure projects while incurring additional debts at *taxpayer* expense.

VII. THE DEIS IS INSUFFICIENT AS A CEQA DOCUMENT

Reclamation states that it has considered the requirements of the California Environmental Quality Act, Public Resources Code section 21000, et seq. (“CEQA”) while preparing the DEIS. DEIS ES-1, ES-5 (citing the law as “2010 Association of Environmental Professionals *CEQA Statute and Guidelines*”), *see also* DEIS 1-5. However, the DEIS is insufficient as a CEQA document, as it fails to properly describe the Project, study a reasonable range of alternatives, address the impacts of the proposed alternatives, or adequately mitigate significant impacts.

Under CEQA, the environmental impact report (“EIR”) for the Shasta Dam Raise Project must include a clearly written statement of the Project’s objectives. As the California Supreme Court has explained, “[a] clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings . . . The statement of objectives should include the *underlying purpose* of the project.” *In re Bay-Delta Environmental Impact Report Coordinated Proceedings*, 43 Cal.4th 1143, 1163 (2008) (emphasis as quoted, internal quotes omitted). Because the DEIS objectives set the focus of the Project *on raising the dam*, rather than protecting anadromous fish and increasing water supply reliability, they do not satisfy CEQA’s informational purpose.

CEQA requires that an EIR evaluate alternatives that would *reduce* the Project’s impacts on the environment. “An EIR for any project subject to CEQA review must consider a reasonable range of alternatives to the project, or to the location of the project, which: (1) *offer substantial environmental advantages over the project proposal* ([PRC] § 21002); and, (2) may be ‘feasibly accomplished in a successful manner’ considering the economic, environmental, social and technological factors involved.” *Habitat and Watershed Caretakers v. City of Santa Cruz* (2013) 213 Cal.App.4th 1277, 1302-1303 (“*Habitat*”) (emphasis in original) (quoting *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 566. “The EIR “*is* required to make an in-depth discussion of those alternatives identified as at least potentially feasible.” *Habitat*, 213 Cal.App.4th at 1303 (quoting *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1505 fn. 5. As discussed above, the DEIS fails to seriously consider a non-raise alternative, and fails to adequately establish the infeasibility of such an alternative. Therefore it does not satisfy these CEQA requirements.

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As shown, raising Shasta Dam would irretrievably destroy the Winnemem Wintu Tribe's cultural resources, historic properties, vital environmental resources and processes, and interdependent customs and traditions. Yet the DEIS ignores this irreversible impact (*see* DEIS Chapter 26-4)—let alone assess its scope and magnitude—and fails to address whether there is any potential mitigation for these impacts. These omissions violate CEQA. *See* Guidelines §§ 15126, 15126.2.

Under CEQA, the approving agency must mitigate or avoid the project's significant effects on the environment whenever it is feasible to do so. PRC § 21002.1(b). If an agency finds such mitigation infeasible, it must make specific findings to explain its reasons for moving forward with a project despite its significant impacts. PRC § 21081. As discussed above, the DEIS rejects measures to mitigate the Project's potentially significant impacts for reasons such as "a general lack of interest from the public" without an adequate discussion. *See, e.g.*, DEIS Plan Formulation Appendix 2-3. This contravenes CEQA's informational purposes.

In addition, although the DEIS admits that increasing the capacity of Shasta Dam has the potential to induce growth, it impermissibly assumes that local agencies in the counties receiving the water will later implement some as-yet-undetermined form of mitigation. DEIS 26-5 through 26-10. CEQA does not allow the deferral of mitigation. In the rare instances "where practical considerations prohibit devising [feasible mitigation] measures early in the planning process," the lead agency should commit itself to meeting "specific performance criteria" in devising mitigation measures after project approval. *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1394. Here, Reclamation has not only impermissibly deferred and delegated mitigation, it has failed to assume any role in mitigation for itself or any future identified state lead-agency. For example, Reclamation may be able to mitigate the growth-inducing impacts of additional CVP water by contract terms, but does not discuss whether this is possible.

VIII. CONCLUSION

For each of the foregoing reasons, the DEIS violates applicable law and must be corrected and recirculated for comment.

Respectfully submitted,

s/ Stephan C. Volker
Stephan C. Volker
Attorney for the Winnemem Wintu Tribe

D-VOOR Duplicate of I-VOOR



Fwd: Public comments on Shasta DEIS

1 message

KATRINA CHOW <kchow@usbr.gov>
To: KATHLEEN DUNCAN <kduncan@usbr.gov>

Wed, Oct 23, 2013 at 1:12 PM

Sent from my iPhone

Begin forwarded message:

From: Tendai Chitewere <tendai@sfsu.edu>
Date: September 30, 2013, 9:41:02 PM PDT
To: "kchow@usbr.gov" <kchow@usbr.gov>
Cc: "BOR-MPR-SLWRI@usbr.gov" <BOR-MPR-SLWRI@usbr.gov>
Subject: Public comments on Shasta DEIS

Dear Ms. Chow,

Please find attached a letter from Julie Voorhees for the public comment on the DEIS.

The original letter was put in the mail last week, but I wanted to make sure the letter met the midnight deadline.

Regards,

Tendai Chitewere

Voorhees Shasta DEIS Letter.pdf

720K

Julia Catherine Voorhees
804 Vincente Ave.
Berkeley, CA 94707

Ms. Katrina Chow, Project Manager
Bureau of Reclamation
2800 Cottage Way, MP-720
Sacramento, CA. 95825

Dear Ms. Chow,

I am writing you as in regards to my strong opposition to the proposal to raise the Shasta Dam and enlarge the water reservoir. My primary concerns revolve around the ecological health and integrity of the surrounding environment specifically the threatened endemic wildlife in the region. Additionally, I feel that the validity of the dam raise proposal is questionable and a "Take No Action" alternative should be implemented until more information is included in the DEIS, including the relocation and ongoing survival rates of endangered and threatened species in question.

DEIS – Shasta Lake Water Resources Investigation (SLWRI) - Chp. 13, Wildlife

The new Shasta Dam construction will negatively impact the survival of the Shasta Salamander, which was federally relisted as a threatened species in 1994. The Shasta Salamander is endemic to the Shasta Lake region of northern California and 38 rare *genetically distinct* populations have been identified by Reclamation in the Shasta lake region. The salamander was surveyed in both limestone and non-limestone habitats and were primarily found within three of four limestone belts: the Kennett Formation, McCloud Limestone and Hosselkus Limestone. According to Chapter 13, Wildlife of the DEIS: Direct mortality of Shasta salamanders would occur in areas of suitable habitat. New construction activities in the proposed areas would directly result in a loss of 35 acres of limestone habitat and 2,870 acres of non-limestone habitat, critical habitat for the Shasta Salamander. This impact would be significant and unavoidable and the "Take No Action" has been recommended for their mitigation of their risk of extinction due to Shasta Dam related construction.

To further compound the issue of construction, there is a major absence of information within the DEIS with regards to new potential habitat range for the Shasta Salamander post construction. There was no attempt to incorporate this information and assimilate the adverse impacts on a yearly basis, or more importantly for recovery and species extinction risk. No attempts were made to use a Multiple Life Cycle quantitative model. This concern also applies to the andromodous fish population, many of which are federally listed as threatened or endangered, and are of great concern to me as well.

ANDROMODOUS FISH

I am quite upset with the proposed notion that raising the dam has absolutely anything to do with the efforts to ensure the survival of the local anadromous fish populations. Specific studies to the Shasta Dam region have been conducted, on tax payer dollars, to prove the validity of the project on this pretense and results were contradictory.

I want to return attention to the National Oceanic and Atmospheric Administrations' (NOAA) biological opinion and reiterate their final opinion on the Shasta Dam raise. The NMFS's final Opinion concludes that based on the best available scientific and commercial information, the California State Water Project-Central Valley Project (CVPISWP) operations are likely to jeopardize the continued existence of the following federally listed species:

- Endangered Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*).
- Threatened Central Valley spring-run Chinook salmon (*O. tshawytscha*).
- Threatened Central Valley steelhead (*O. mykiss*).
- Threatened Southern Distinct Population Segment (DPS) of North American green sturgeon (*Acipenser medirostris*), and
- Southern Resident killer whales (*Orcinus orca*).

The National Marine Fisheries Service NMFS also concludes that the proposed action is likely to destroy or adversely modify the designated critical habitats of:

- Sacramento River winter-run Chinook salmon (Endangered).
- Central Valley spring-run Chinook salmon, and
- Central Valley steelhead, and
- Proposed critical habitat for the Southern DPS of North American green sturgeon.

Additionally, the Bureau of Reclamation Fish and Wildlife Coordination Act Report – June 2013 specifically states that the current dam proposal will have serious negative effects on the anadromous fish population and that the “Only one alternative (CP4) provides any measurable benefit to anadromous fish survival, and even under that alternative, in the vast majority of years the enlarged cold water pool results in either *negligible* or slightly negative impacts to Chinook salmon survival. In about 90 percent of the years, there would be no benefit to anadromous fish survival. Even in CP4, the benefits of an enlarged cold water pool for each of the four runs of Chinook salmon are limited to a few critical and dry water years representing 6 – 16 percent of the water years, based on the 1922 – 2002.”

To truly benefit andromodous fish and other wildlife in the Sacramento River, the SLWRI should consider a "no-dam raise" alternative that restores salmon spawning and rearing habitat, improves fish passage, increases minimum flows, screens existing water diversions, and modifies the current operation of the reservoir to increase cold water storage for fisheries, as recommended by the U.S. Fish and Wildlife Service.

The thought of the proposed dam raise and its effects on the endemic wildlife of the region has caused me a great deal of ongoing emotional distress and angst which has directly impacted my professional and personal life. I find the validity and overall honesty of proposal to be disingenuous. As a perhaps naïve, soon to be University graduate. I find the ongoing debate to raise or not to raise, discouraging and frankly depressing. The fate of numerous threatened and endangered animal and plant species are dependent on the decision to modify an inanimate structure which was the cause of their demise in the first place. Spending hundreds of millions of dollars of tax payer's dollars on the dam raise in order to fulfill water contracts benefiting the top 10% of big agriculture who are notorious for mismanaging water use and irrigation is not a valid reason to ravage the Shasta region of its biological health and diversity. I am not sure when it became ethically acceptable to give credibility to those who, in my opinion, have intentionally misguided the public for private interests.

California is often referred to as a role model to the global environmental consciousness movement and as citizens of the state of California, it is our responsibility to uphold that honor. We should *all* be held accountable to ensure the maintenance of environmental health. To be environmentally and ethically responsible a take no action route should be taken for the time being until better irrigation management practices are in place so that we are capable of using water efficiently and responsibly.

Sincerely,

A handwritten signature in cursive script, appearing to read "Julia Catherine Voorhees". The signature is written in dark ink and is positioned below the word "Sincerely,".

Julia Catherine Voorhees
San Francisco State University, San Francisco, CA.
College of Natural Resource Management and Conservation