D-CCWD2 Duplicate of L-CCWD2

CONTRA COSTA WATER DISTRICT

1331 Concord Avenue
P.O. Box H2O
Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122
www.ccwater.com

OCT 25 2013

700 ✓KDuncan

By postal delivery and email to BOR-MPR-SLWRI@usbr.gov

25Oct13

D: K Chow

September 30, 2013

Katrina Chow, Project Manager
Bureau of Reclamation
2800 Cottage Way, MP-700
Sacramento, CA 95825

Subject: Comments on Draft Environmental Impact Statement for Shasta Lake Water Resources Investigation

Dear Ms. Chow:

Contra Costa Water District (CCWD) appreciates this opportunity to provide input on the draft Environmental Impact Statement (EIS) for the Shasta Lake Water Resources Investigation (SLWRI). As a Central Valley Project (CVP) contractor and a stakeholder in the Sacramento-San Joaquin Delta (Delta), CCWD supports developing more water storage in California and is committed to careful planning of these projects. CCWD applauds the efforts of the Reclamation team in producing the SLWRI Draft EIS. Our comments on the draft are below.

Project Benefits and Cost Allocation

As a CVP customer, CCWD supports development and adoption of a cost allocation for water storage projects that is consistent with the distribution of project benefits. If benefits of the project are extended to water users beyond the CVP, those water users should be incorporated into the funding structure for the project. If municipal and industrial (M&I) water supply benefits are not a focus of the selected project alternative, that emphasis should be reflected in the reduced cost allocation to M&I contractors.

CCWD diverts Delta water for delivery to municipal, industrial and agricultural customers. Because of these uses, maintaining good water quality in the Delta is important to CCWD. CCWD staff have reviewed the updated model simulations of the operations and effects of the SLWRI project alternatives provided with the draft EIS. The results specific to CCWD indicate that little or no change to CCWD water supply is anticipated by Reclamation as a result of developing the SLWRI project. Similarly, the Delta water quality estimated in the modeling results provided by Reclamation does not vary substantially at CCWD intake locations among the project alternatives. CCWD notes the minimal estimates of water supply or water quality benefits provided directly to CCWD in the project modeling. It would be useful to have the water supply reliability benefits quantified for the proposed action, when selected.

More discussion should be presented of the potential for reduced deliveries to M&I contractors in the expanded reservoir scenarios. If those effects are artifacts of the model analysis, rather than intended effects of the project, then that should be clearly stated. If those effects are intended, then appropriate mitigation for the impacts to water supply should be developed.

Rock Slough Water Quality Objective

The discussion of the State Water Resources Control Board Decision1641 water quality objectives at Rock Slough should be clarified. There are two water quality objectives at Rock Slough; one is for a water quality threshold of 150 milligrams per liter chloride (mg/L Cl), and one is for a threshold of 250 mg/L Cl. Compliance for the 150 mg/L Cl objective is measured either at CCWD's Pumping Plant 1 on the Contra Costa Canal, which diverts water from Rock Slough, or at the City of Antioch Water Works on the lower San Joaquin River. Compliance for the 250 mg/L Cl objective is measured at CCWD's Pumping Plant 1, West Canal at Clifton Court Forebay, Delta-Mendota Canal at the CVP Jones Pumping Plant, Barker Slough at North Bay Aqueduct Intake, and Cache Slough at the City of Vallejo Intake. While Table 7-13 of the draft EIS presents these details correctly, the discussion of the analysis and the presentation of water quality effects of the project alternatives in the draft EIS (in Tables 7-14, 7-15, 7-45, 7-46, 7-72, 7-73, 7-99, 7-100, 7-128, and 7-129) indicate that water quality at Old River at Rock Slough was evaluated to determine effects of the project alternatives. As a modeling solution to the difficult problem of estimating water quality at Pumping Plant 1, water quality at Old River at Rock Slough is often used, with an appropriate transfer function, to estimate Pumping Plant 1 water quality. This is necessary because water quality is often different at Pumping Plant 1 than measured in Old River, due in part to local effects. We suggest that these details be clarified in the presentation of results, and that the relationship of the water quality analysis presented to the correct compliance location be carefully described.

Furthermore, compliance with the water quality objectives does not appear to be correctly evaluated in the Draft EIS. Compliance with the Rock Slough objectives is not measured by long-term averages of monthly values; it is measured by comparing the total number of days in excess of the given objective. The allowable number days water quality is allowed to exceed 150 mg/L chloride varies with water year type. Water quality in excess of 250 mg/L chloride is never allowable. Evaluation of both components of the objective requires evaluation of the annual total number of days in excess of each threshold value; evaluation of long-term average by month does not suffice for either. We are confident that the expanded reservoir could and would be operated to meet the D-1641 water quality objectives, just as the current Shasta Reservoir is operated to do so. However, the discussion of the objective should be clarified to ensure that the analysis has been done carefully. The suggested analysis is likely possible with the DSM2 runs already performed for the project alternatives.

Also, the values presented in Table 7-14 should be verified as values of less than 1 milligram per liter chloride rarely occur in Old River.

Description of CCWD Facilities and Operations

The table of CalSim II modeling assumptions (Modeling Appendix, Table 2-1) categorizes CCWD demand as "south of the Delta", however, CCWD demands should be categorized as "in-Delta". CCWD operates four intakes located in the Delta independently of the Jones Pumping Plant. CCWD is an in-Delta user of CVP water, and also diverts water under other water rights held by CCWD. Similarly Los Vaqueros Reservoir should not be included as a Delta export. Water diverted into Los Vaqueros Reservoir is later released to offset CCWD's in-Delta diversion of CVP water supply. We recognize that these may seem to be minor semantic points of difference, but we encourage the Reclamation team to help clarify the complicated plumbing in the California Delta through careful presentation of information in the final EIS document. Again, please feel free to call CCWD for more input on this subject.

Thank you for this opportunity to provide input to the scoping process. If you have any questions, please call me at (925) 688-8083, or call Matt Moses at (925) 688-8106.

Sincerely,

Leah Orloff
Water Resources Manager

LO/MM:wec

Organization/Special Interest Group

D-FOTR1 Duplicate of O-FOTR1

----------Forwarded message----------
From: **Bob Center** <bcenter7210@att.net>
Date: Fri, Jul 19, 2013 at 4:11 PM
Subject: RE: Sources of Graphs Shown at Sacramento Public Workshop, July 16
To: Bob Center <bcenter7210@att.net>, kchow@usbr.gov

With attachment.

From: Bob Center [mailto:bcenter7210@att.net]
Sent: Friday, July 19, 2013 3:55 PM
To: 'kchow@usbr.gov'
Subject: Sources of Graphs Shown at Sacramento Public Workshop, July 16

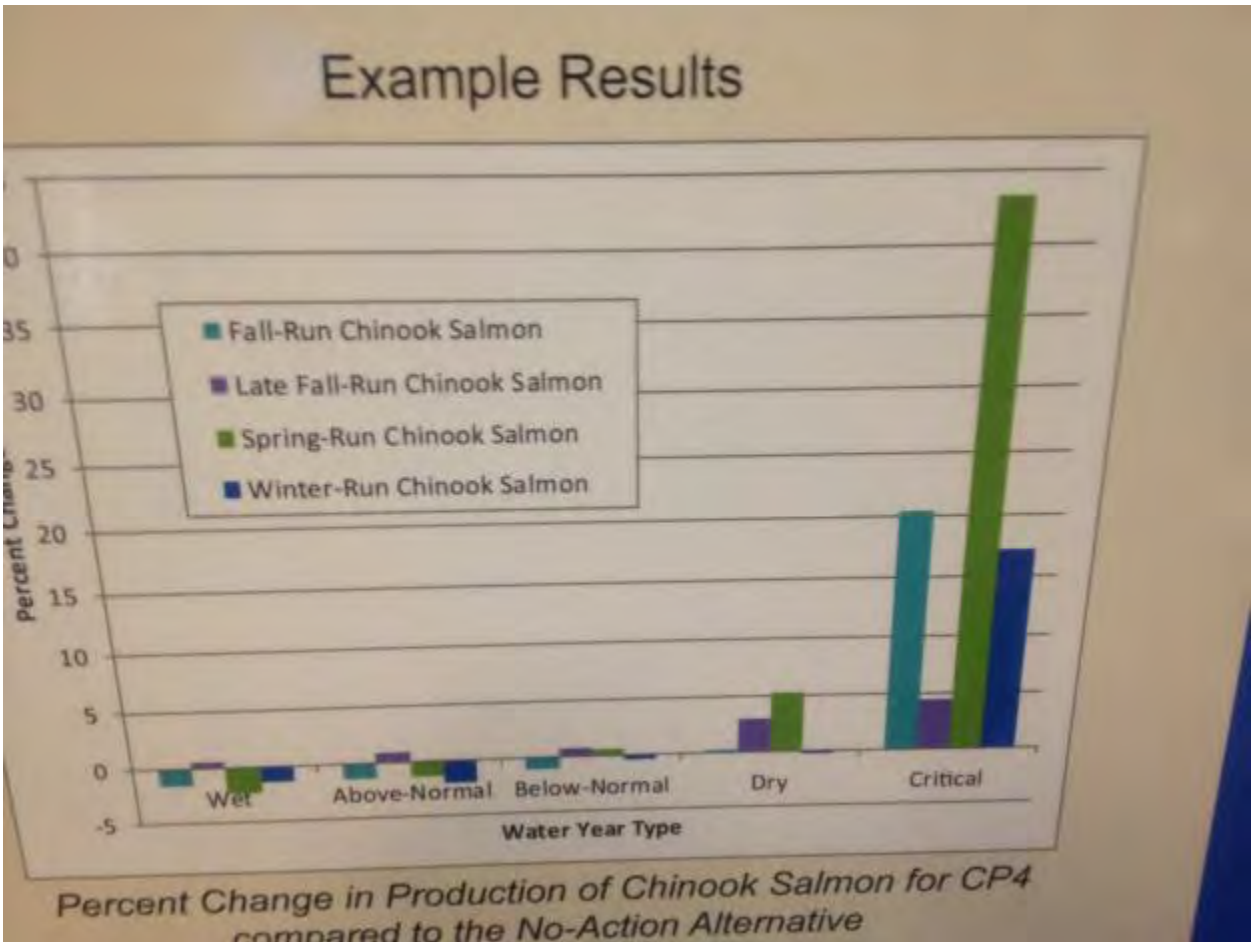
Katrina,

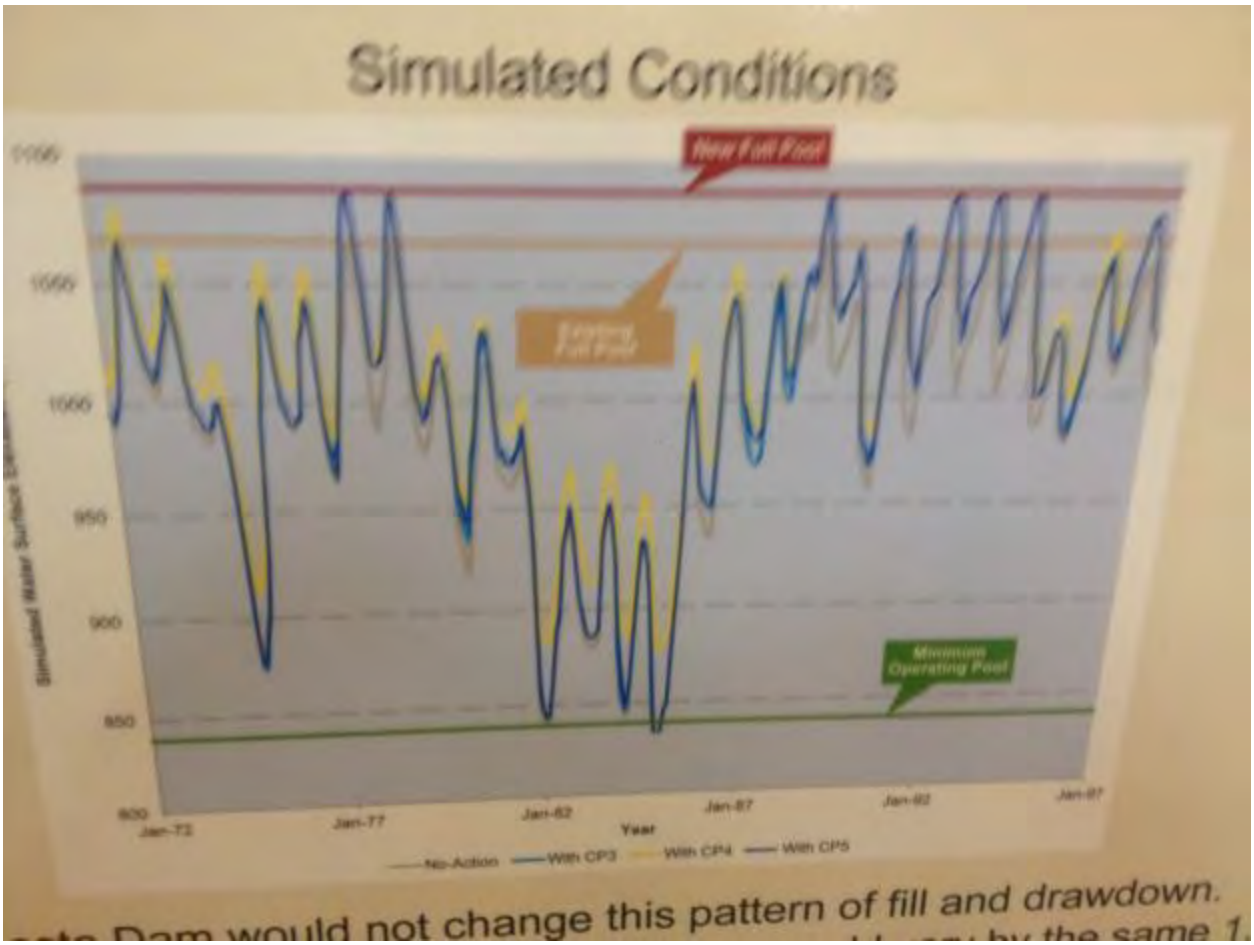
I attended your workshop in Sacramento last Wednesday." Could you tell me where I could find the Power Point presentation, and also the graphics that were displayed on easels in the room?" In particular, could you tell me where I can find the two attached graphics, and the underlying data and calculations that produced the graphics?

There is a great deal of information on your website, but finding these specific graphs is akin to finding a needle in a haystack.

Thanks,

Bob Center


Example Results
Fall-Run Chinook Salmon
Late Fall-Run Chinook Salmon
Spring-Run Chinook Salmon
Winter-Run Chinook Salmon
30
25
20
15
10
5
0
-5
Wet
Above-Normal
Below-Normal
Dry
Critical
Water Year Type
Percent Change in Production of Chinook Salmon for CP4
compared to the No-Action Alternative


Simulated Conditions
New Full Pool
Minimum Operating Pool
1000
950
900
850
800
Jan-72
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Year
No-Action
With CP3
With CP4
With CP5
Dam would not change this pattern of fill and drawdown.

D-PGE4 Duplicate of O-PGE4

Pacific Gas and Electric Company®

Law Department

77 Beale Street, B30A
San Francisco, CA 94105

Mailing Address
P.O. Box 7442
San Francisco, CA 94120

Fax: 415.973.5520

July 8, 2013

Ms. Katrina Chow, Project Manager
Bureau of Reclamation, Planning Division
2800 Cottage Way, MP-700
Sacramento, CA 95825-1893

Re: Draft Environmental Impact Statement for Shasta Lake Water Resources Investigation

Dear Ms. Chow:

We are in receipt of the June 25, 2013 letter to Interested Parties for the Public Review and Comment on the Draft Environmental Impact Statement for Shasta Lake Water Resources Investigation, along with a copy of the DVD. The envelope was addressed to Ms. Madelin Mailander, Senior Legal Assistant and Case Manager at P. O. Box 7442, San Francisco, CA 94120 (copy enclosed).

Would you be so kind and delete Ms. Mailander's name from the list of "Interested Parties" and instead add the following name in place of hers:

Annette Faraglia, Esq.
Law Department
PACIFIC GAS AND ELECTRIC COMPANY
P. O. Box 7442
San Francisco, CA 94120-7442

Thank you.

Very truly yours,

Betsie Diamond

Betsie Diamond, Secretary to
ANNETTE FARAGLIA

BD
Enclosures

cc: Ms. Madelin Mailander, Legal Assistant
Annette Faraglia, Esq.

United States Department of the Interior

COPY

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, CA 95825-1898

IN REPLY REFER TO:
MP-720
ENV-6.00

JUN 25 2013

Interested Parties

Subject: Public Review and Comment on the Draft Environmental Impact Statement for Shasta Lake Water Resources Investigation

Dear Ladies and Gentlemen:

The Bureau of Reclamation is pleased to provide the Draft Environmental Impact Statement (EIS) for the Shasta Lake Water Resources Investigation (SLWRI) for a 90-day public review and comment period. The Draft EIS documents an evaluation of the potential effects of six alternative plans for raising the existing Shasta Dam and Shasta Reservoir located approximately 10 miles northwest of Redding, CA.

The primary objectives of the proposed action are to increase the survival of anadromous fish populations in the upper Sacramento River, and increase water supply and water supply reliability for agricultural, municipal and industrial, and environmental purposes. The Draft EIS documents the potential direct, indirect, and cumulative environmental effects of the alternatives, including a no-action alternative.

The SLWRI is one of four on-going storage investigations included in the CALFED Bay-Delta Program Programmatic Record of Decision, which identified program goals, objectives, and projects primarily to improve California's water supply and the ecological health of the San Francisco Bay/Sacramento-San Joaquin Delta system. It is being conducted under the authority of Public Law (P.L.) 96-375 and reaffirmed in P.L. 108-361, the CALFED Bay-Delta Authorization Act.

In February 2012, Reclamation released a Draft Feasibility Report and Preliminary Draft EIS for the SLWRI to inform the public, stakeholders, and decision makers about the results of the investigation at that time. The Draft Feasibility Report describes the potential technical, environmental, economic, and financial feasibility of alternatives to raise Shasta Dam. The Draft Feasibility Report, Draft EIS, and public comments on the two documents will be used to determine the next steps for the investigation.

Cooperating agencies include the Forest Service, Bureau of Indian Affairs, Colusa Indian Community Council of the Cachil Dehe Band of Wintu Indians, and U.S. Army Corps of Engineers, pursuant to the National Environmental Policy Act. These agencies will likely use

D-PGE6 Duplicate of O-PGE6

BISON CONNECT

PG&E's Comments on BOR's DEIS on the SLWRI . . .

Diamond, Elizabeth <EJDd@pge.com> Thu, Sep 26, 2013 at 7:14 PM
To: "bor-mpr-slwri@usbr.gov" <bor-mpr-slwri@usbr.gov>
Cc: "kchow@usbr.gov" <kchow@usbr.gov>, "Faraglia, Annette (Law)" <ARF3@pge.com>

September 26, 2013

TO WHOM IT MAY CONCERN:

Today PG&E submitted an original and two hard copies of its *Comments on the Bureau of Reclamation's DEIS on the Shasta Lake Water Resources Investigation* to Ms. Katrina Chow, Project Manager. Late this afternoon, we learned that I had made a typographical error on said Comments. On **page 3**, in the **third paragraph**, the **3 & 4th lines down,** "fifty-nine distribution transformers" should read **"fifty-nine distribution poles.** The paragraph should read as follows:

As noted above, PG&E has electric distribution facilities located within the BOR SLWRI study area. Preliminary review of the new water mark based on the model produced by PG&E's Geographic Information Systems Group indicates that PG&E will need to relocate fifty-nine distribution poles ~~transformers~~ and upgrade twenty-nine distribution transformers at an estimated cost of $914,000. These poles are part of the Antler 1101, Stillwater 1101, and Stillwater 1102 12 kV circuits serving small communities such as parts of Lakehead and Mountain Gate. (See Attachment 4 for more detail.)

I have attached a corrected page 3 to PG&E's Comments.

Would BOR like an electronic copy of the complete copy of the Comments with the corrected page, along with attachments, or would BOR prefer to insert the attached corrected page 3?

I apologize for my inadvertent error.

Thank you!
Betsie Diamond
PG&E Law Dept.
77 Beale St., B30A-2482
San Francisco, CA 94105-1814
Telephone: (415) 973-6644
Facsimile: (415) 972-5952
E-Mail: ejdd@pge.com

09-26-13 CORRECTED P. 3 to PG&E's Comments on BOR's DEIS.pdf
358K

The overall DEIS analysis of potential impacts at the Pit 7 Development is woefully insufficient. BOR did not address the majority of concerns PG&E raised in its November 30, 2005 and January 28, 2013 letters. Accordingly, a more comprehensive assessment of all potential impacts is still required.

In an effort to help the BOR, PG&E contracted with Black & Veatch to prepare a Technical Memorandum entitled *Shasta Dam Raise Impacts on PG&E's Pit 7 Development*. A copy of this Technical Memorandum is attached as Attachment 3. It is PG&E's intention that this document will form the foundation for future dialog between BOR and PG&E seeking resolution to the impacts at the Pit 7 Development.

As noted above, PG&E has electric distribution facilities located within the BOR SLWRI study area. Preliminary review of the new water mark based on the model produced by PG&E's Geographic Information Systems Group indicates that PG&E will need to relocate fifty-nine distribution poles and upgrade twenty-nine distribution transformers at an estimated cost of $914,000. These poles are part of the Antler 1101, Stillwater 1101, and Stillwater 1102 12 kV circuits serving small communities such as parts of Lakehead and Mountain Gate. (See Attachment 4 for more detail.)

PG&E also has two high voltage power line facilities located within the SLWRI study area, the Crag View-Cascade 115 kV line, and the Delta-Mountain Gate Junction 60kV line. The two lines roughly parallel each other within the study area with the 115 kV line the more westerly of the two circuits. In addition, the 115 kV line supports a fiber optic communication cable.

Approximately twenty-four PG&E structures will be affected by BOR's proposed project and may require replacement. The replacement of the structures that support electrical conductors that span large bodies of water will require significantly taller structures (approximately 40 to 50 feet taller). The taller structures are needed for the following reasons:

1. The increase in span lengths between structures;
2. The raise in the water level; and
3. Since the original construction of the power lines, the State of California clearance requirements over water has increased by an additional 20 feet.

The projected cost to modify the high voltage power lines, due to BOR's proposed project, is approximately $15 million but costs could be significantly higher. PG&E would

D-PFT1 Duplicate of O-PFT1

Comment on SLWRI draft EIS

Patrick Doherty <pdoherty@pacificforest.org> Mon, Sep 30, 2013 at 4:30 PM
To: "BOR-MPR-SLWRI@usbr.gov" <BOR-MPR-SLWRI@usbr.gov>

Dear Ms. Chow,

Please find attached a signed copy of a letter sent to you today on the draft EIS for the SLWRI. The content of the letter appears below.

Cheers
--
Patrick Doherty
Policy Associate, Pacific Forest Trust
1001A O'Reilly Avenue, San Francisco, CA 94129
(415) 561-0700 Ext. 39
pdoherty@pacificforest.org

Dear Ms. Chow,

The undersigned organizations thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) recently published as part of the Shasta Lake Water Resources Investigation (SLWRI). We are active members of the Shasta Lake watershed community and have a significant interest in the outcomes of the SLWRI.

We are opposed to the proposals outlined in the DEIS to raise the Shasta Dam. Our opposition is centered on the Bureau of Reclamation's failure to address broader watershed conservation in the DEIS. A single-minded focus on raising the height of Shasta Dam without working to conserve and protect the landscape that supplies water to Shasta Lake is short-sighted. The watershed as a whole is the true reservoir – Shasta Lake is only its most visible manifestation. By failing to conserve the broader watershed in any way, the Bureau is endangering the source of the water that it covets.

Thank you again for the opportunity to comment on the DEIS.

Sincerely,

Patrick Doherty
Policy Associate
Pacific Forest Trust
1001-A O'Reilly Ave.
San Francisco, CA 94129
e-mail: pdoherty@pacificforest.org

Carolee Krieger
President and Executive Director
California Water Impact Network
808 Romero Canyon Road
Santa Barbara, CA 93108
e-mail: caroleekrieger7@gmail.com

FINAL multi scanned version.pdf
368K

PACIFIC FOREST TRUST

california water impact network

Katrina Chow, Project Manager
United States Department of the Interior
Bureau of Reclamation, Mid-Pacific Region
2800 Cottage Way, MP-700
Sacramento, CA 95825-1893

Copy sent via email to: BOR-MPR-SLWRI@usbr.gov

September 30th 2013

Dear Ms. Chow,

The undersigned organizations thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) recently published as part of the Shasta Lake Water Resources Investigation (SLWRI). We are active members of the Shasta Lake watershed community and have a significant interest in the outcomes of the SLWRI.

We are opposed to the proposals outlined in the DEIS to raise the Shasta Dam. Our opposition is centered on the Bureau of Reclamation's failure to address broader watershed conservation in the DEIS. A single-minded focus on raising the height of Shasta Dam without working to conserve and protect the landscape that supplies water to Shasta Lake is short-sighted. The watershed as a whole is the true reservoir – Shasta Lake is only its most visible manifestation. By failing to conserve the broader watershed in any way, the Bureau is endangering the source of the water that it covets.

Thank you again for the opportunity to comment on the DEIS.

Sincerely,

Patrick Doherty
Policy Associate
Pacific Forest Trust
1001-A O'Reilly Ave.
San Francisco, CA 94129
e-mail: pdoherty@pacificforest.org

Carolee Krieger
President and Executive Director
California Water Impact Network
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Santa Barbara, CA 93108
e-mail: caroleekrieger7@gmail.com

D-PFT2 Duplicate of O-PFT2

SLWRI Draft EIS

Patrick Doherty <pdoherty@pacificforest.org> Mon, Sep 30, 2013 at 12:29 PM
To: "BOR-MPR-SLWRI@usbr.gov" <BOR-MPR-SLWRI@usbr.gov>

Katrina Chow, Project Manager

United States Department of the Interior

Bureau of Reclamation, Mid-Pacific Region

2800 Cottage Way, MP-700

Sacramento, CA 95825-1893

Copy sent via email to: BOR-MPR-SLWRI@usbr.gov

September 30th 2013

Dear Ms. Chow,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) recently published as part of the Shasta Lake Water Resources Investigation (SLWRI). The Pacific Forest Trust (PFT) holds several large conservation easements in the Shasta region, and is the convener of the Klamath-Cascade Advisory Council – a local group of stakeholders interested in economic development and forest health in the Shasta region. As a result, PFT has interests in the region that are directly affected by the SLWRI and the proposal to raise the Shasta Dam (the proposal).

Overall, PFT believes that all five of the proposal's action options are anachronistic and their analysis wholly inadequate. While the original Shasta Dam may have been an appropriate way to address flood control, water storage and electricity generation, the 21st century introduces new challenges with respect to climate change and water security, and consequently new solutions are required.

The Bureau of Reclamation (the Bureau) should not spend billions of dollars to raise the Shasta Dam, while simultaneously ignoring more cost-effective means of increasing water security and regulating water supply. Modest investments in forest conservation and wet meadow restoration in the upper watersheds of Shasta Lake

would be a more efficient and more flexible investment, especially in the face of uncertain changes to our environment.

PFT opposes the proposal and the five action options considered by the DEIS for implementing it. The reasons for our opposition are:

- The proposal is illegal in its effects by interfering with the free-flowing conditions of the McCloud River.

- The proposal's process is illegal, as it requires collaboration with state agencies that is prohibited by law.

- The rationale for the proposal is hollow as the action options will not reduce expected unfulfilled CVP contractual obligations, making the high cost of the proposal unjustifiable.

- The current full pool of Shasta Lake is rarely reached, which suggests that projections of future full pool levels will be rarely reached as well.

- The DEIS does not consider a preferred alternative encompassing forest conservation and restoration activities.

Further, PFT finds that the DEIS fails to analyze the range of alternatives fully as the DEIS:

- Fails to consider in any form the value of forest conservation and wet meadow restoration projects and their ability to increase water security and supply for Shasta Lake.

- Fails to account for greenhouse gas (GHG) emissions from flooded vegetation, cement manufacture and decay, and foregone sequestration.

- Fails to consider the overall policy landscape for renewable energy in California, and therefore significantly overestimates the GHG emission mitigations that will result from increased hydroelectric power generation.

General Comments

As noted by the SLWRI's Draft Feasibility Report (DFR), the total increase in demand for water in California by 2050 is expected to range between -1.5 to 8 million acre-feet (MAF), depending on the model of population growth used. However, when one looks at those numbers broken down by sector it becomes apparent that none of the increase in

demand by 2050 is expected to come from the agricultural sector. Under all of the growth scenarios cited by the DFR, the agricultural sector is expected to consume less water in 2050 compared to the present day.

The Shasta Dam, as the largest reservoir serving the Central Valley Project (CVP), supplies water mainly to the CVP and its contractors. As you are well aware, the vast majority of CVP water is used by the agricultural sector. According to the Bureau's own record of CVP contractors as at February 22nd 2012, the agricultural sector is allocated 87% of the CVP's water service supplies.

While it may be that current CVP contractual obligations go unfulfilled, it does not follow that raising the Shasta Dam will satisfy those unmet obligations. The DEIS notes that under various projections of the impacts of climate change, the reduction in unmet demand to CVP contractors will be small (DEIS Climate Change Modeling Appendix (CCMA), page 3-114). Given that the annual unmet CVP obligations under various climate models are expected to range from 2.7 to 8.2 MAF per year (CCMA, p. 3-73), the expected reduction in unmet demand for CVP contractors is, literally, a drop in the bucket.

Therefore, an argument to raise the Shasta Dam premised on the need to secure a greater supply of water for CVP contractors is fundamentally flawed. The vast majority of water that the CVP is contracted to supply is owed to a sector that is not projected to require more water in the future than it does today, and the DEIS CCMA makes clear that whatever new storage is created will likely be inconsequential to expected unmet contractual obligations.

Given that the underlying rationale for the project is hollow, any significant cost for the project would be a waste of financing. The DEIS's estimated costs for the proposal to raise the dam are enormous. Each of the five different action options for raising Shasta Dam is expected to cost approximately $1 billion merely for construction. Once ongoing costs are added, the total cost for the action options range from $4.2 billion to $5.4 billion.

It truly stretches credibility to argue that federal taxpayers, state taxpayers, and CVP contractors should be expected to pay these gigantic sums for CVP water storage where there is no projected increase in demand for the agricultural sector, and where any new storage created will likely not affect expected unmet obligations. While there may be some agricultural CVP contractors "at the back of the line" for water distributions that desire to see the dam raised, their particular interests should not be used to justify such enormous expenditures and unavoidable environmental degradation.

Significant and Unavoidable Impacts on the Free-Flowing Conditions of the McCloud River

In general, PFT opposes the proposal to raise the Shasta Dam on the grounds that it will negatively affect the free-flowing conditions of the McCloud River. As noted by the DEIS, the free-flowing conditions of the McCloud River are protected by state law, and these conditions would be negatively impacted by all five of the proposal's action options.

While PFT appreciates that the DEIS is forthright enough to admit to the proposal would violate state law protecting

the free-flowing conditions of the McCloud River, PFT is deeply concerned that despite this acknowledgement, there appears to be no mitigation proposed for these effects on the McCloud River. Rather, they are identified as "significant and unavoidable" impacts on page ES-123 of the DEIS.

It may be stating the obvious, but if the Bureau cannot mitigate or otherwise resolve impacts that make the proposal illegal, then the Bureau should not pursue the proposal. This is because executive agencies are entrusted with enforcing the law of the land. It is a fundamental premise of our system of government that the executive is not allowed to break the law. Therefore, PFT urges the Bureau to cease work on a proposal that it has identified as being plainly illegal in its effects.

Illegality of the Process as it Relates to State Agencies

Of the several unresolved issues noted on pages ES-29 to ES-32 of the DEIS, one of the most striking is the fact that cooperation on the Shasta Dam proposal between state agencies and the Bureau is likely illegal. This is because state law generally prohibits California state agencies from working with federal agencies on proposals that would have an adverse effect on the free-flowing conditions of the McCloud River – which is exactly what the proposal would do.[1]

PFT urges the Bureau to discontinue its efforts to coordinate with state agencies on this proposal. This includes efforts that seek or otherwise result in permits or approvals for the proposal required by applicable law. Should the Bureau continue to attempt to coordinate with state agencies as a part of this process, PFT will urge the Attorney General of the state of California to prevent the Bureau from working with state agencies on the proposal.

Given that the DEIS identifies the likely illegality of working with state agencies on this proposal, PFT is dismayed that the Bureau would continue working through a process – including the preparation of the DEIS itself – that appears to be plainly illegal. It suggests that the Bureau values the desired outcomes of the project more than the law itself, which is a dangerous position for any executive agency entrusted with enforcement of the law to take.

Low Likelihood of Attainment Maximum Water Storage Under Any Option

Each of the five action options for raising Shasta Dam in the DEIS would result in large increases to the total maximum potential water storage (aka "full pool") for Shasta Lake, ranging from 256,000 to 634,000 acre-feet. However, as noted by the DFS, the *current* full pool is rarely reached. The figure on page 2-26 of the DFS suggests that full pool has been reached only once since 1999.

Given that the current full pool of Shasta Lake is only rarely reached, PFT does not believe there is a strong rationale for expanding the potential full pool. Shasta Dam currently fulfills its flood protection duties, and as noted above demand for water from the agricultural sector is expected to decrease by 2050. As a result, there does not appear to be a compelling need to cause widespread environmental harm and incur billions of dollars in costs.

While the DFS argues that increased surface storage is necessary given variability in California's precipitation and water usage patterns (see, eg, page 2-9), this argument fails to account for finite limits on precipitation to be expected in California in the future. In essence, building a bigger dam will not make more rain or snow fall, and as a result the shortage of supply that is highlighted by the DFS and DEIS as a rationale for the proposal will not be truly addressed. Below, we point out that modest investments in the upper watersheds of Shasta Lake can actually increase water security while not requiring an increase in the dam's height.

No Consideration of the Value of Green Infrastructure

While the Bureau insists that increasing the height of the Shasta Dam is essential for flood management and water supply in the face of climate change, the reality is that investments in upper watershed forest conservation and restoration – an example of so-called "green infrastructure" – can provide a more cost-effective means of meeting this goal.

Forest conservation is a practical and cost-effective means of ensuring the security and quality of large watersheds. Conservation reduces fragmentation of forested landscapes and enhances forest cover structure. This not only assists with water security, but it also provides significant co-benefits for wildlife. Forest conservation is also a proven tool in this context. A famous example is the conservation of forestland in New York's Catskill Mountains by New York City, to ensure a high level of water quality and security for the city's public water system. Widespread use of conservation easements on forestland in the Catskills was found to be extremely cost-effective, and saved New York City billions of dollars that would have otherwise been spent on manmade water treatment facilities.

As a complement to forest conservation, restoring wet meadows within forests can increase water storage, reduce winter flood flows, and make more water available later in the year when competing demands are at their peak. Forest restoration projects that reduce over-stocked stands can also increase surface snowpack during the winter and reduce the amount of biological uptake of water.

The absence of such modest investment options from the DEIS is striking. PFT recommends that the Bureau include a preferred option that focuses on green infrastructure investments that will enhance the ability of the forests of the upper watersheds to filter, regulate and increase water supplies to Shasta Lake. These sensible investments can provide proven economic benefits to downstream users of Shasta Lake waters, and they would likely result in greater benefits for a greater number of stakeholders than simply raising the height of the dam.

Accounting of Greenhouse Gas Emissions

Page 5-43 of the DEIS laudably states that careful accounting of GHG emissions from vegetation loss is conducted "to ensure that underestimating would not occur." Unfortunately, the spirit of this pledge is not reflected in the overall GHG accounting provided by the DEIS. Instead, the DEIS ignores significant sources of GHG emissions arising from the proposal's five action options, including:

- GHG emissions from flooded, decomposing vegetation.

- GHG emissions from foregone sequestration.

- GHG emissions from cement manufacture and decay.

Perhaps most striking is the DEIS's statement on page 5-45 that increases in GHG emissions from foregone sequestration and decomposing organic matter are "speculative and infeasible to calculate at this time." This is simply not true, as illustrated below.

For GHG emissions from flooded and decomposing vegetation, it is possible to estimate these – particularly as it pertains to methane in the hydroelectric generation context. As noted by the DEIS, methane is a potent GHG. As noted by PFT in our comments on the DFS, methane emissions are a primary reason why hydroelectric power generation should not be considered GHG beneficial. We repeat our previous comments on the DFS, and remind the Bureau that:

> Hydroelectric facilities are not as green as they first appear, particularly when the release of methane from anaerobically digested plant matter is taken into account. We note that a study publicized last year by researchers at Washington State University found that methane emissions jumped 20-fold when the water level was drawn down at Lacamas Lake in Clark County, Washington after analyzing dissolved gases in the lake. The researchers also sampled bubbles rising from the lake mud and measured a 36-fold increase in methane during a drawdown.

PFT is disappointed that despite bringing the issue of GHG emissions from anaerobic digestion of plant material to the attention of the Bureau in March, this source of GHG emissions is not considered in the DEIS. We repeat our comment that the GHG emissions of the proposal's five action options cannot be considered complete unless such an analysis occurs.

With respect to foregone sequestration benefits from flooded vegetation, the EPA's publicly available Greenhouse Gas Equivalencies Calculator (available at http://www.epa.gov/cleanenergy/energy-resources/calculator.html), clearly refers to a metric for calculating foregone sequestration per acre of converted forestland. It is strange, then, that the DEIS would claim that such a calculation is speculative and infeasible.

Page 10-17 of the DEIS (Table 10-4) estimates that a maximum of 4,675 acres of forestland will be lost as a result of the proposal. Using the EPA's public calculator of forest sequestration potential, this means that a maximum of 5,704 metric tons of potential annual CO_2e sequestration will be eliminated by the proposal.[2]

Over the lifetime of the project (assuming 100 years), this amounts to 570,400 metric tons of lost CO_2e sequestration. Not accounting for such a large source of GHG emissions – and foregone sequestration is a GHG source – demonstrates that the DEIS does not accurately describe the GHG emissions that would result from the proposal. Consequently, the DEIS's finding that the proposal's GHG emissions are "less than significant" is unfounded.

Not accounting for the contribution of cement manufacture and decomposition to the GHG emissions of the proposal also contradicts established mechanisms for GHG accounting. Cement manufacture is well known as a particularly GHG-intensive industry. The California Air Resources Board (ARB) estimated that in 2011 California cement plants emitted 6.14 million metric tons of CO_2e. This is roughly equivalent to the emissions required to provide electricity to over 900,000 average American homes.[3]

Given that such a large contribution to GHG emissions occurs when cement is manufactured, to say nothing of the GHG emitted as concrete decomposes, the DEIS must account for these emissions. The failure to do so is glaring, and must be corrected in order for the DEIS to credibly claim that it accounts for the GHG emissions of the proposal.

With respect to the DEIS's general finding that GHG emissions from the proposal are expected to be "less than significant," this finding appears to be based primarily on the assumption that increased hydroelectric power output will offset GHG emissions from electricity created by fossil fuels. This finding relies on two assumptions that are flawed:

- That there will be increased water supply (until 2030) to power at least 2.7GWh of increased hydroelectric generation.

- That but for the raising of the Shasta Dam, fossil fuel generation of at least 2.7GWh would occur.

As noted by the DEIS, "future conditions" will not be as favorable to increased water supply for hydroelectric power generation. One of the many expected impacts of climate change is a greater variability in precipitation and, consequently, water supply to Shasta Lake. As noted in our comments above concerning green infrastructure, the Bureau is missing an opportunity to secure clean and dependable increases in water supply by failing to include forest and wet meadow restoration in the upper watersheds as part of its proposal for Shasta Dam.

The result of this increased variability is that it is simply not certain that increased water supply – even to 2030 – would be available to generate at least 2.7GWh of increased hydroelectric power. Therefore, the DEIS should not assume that such a large increase in power could be generated annually to 2030.

The second flawed assumption of the DEIS is that but for the raising of the Shasta Dam and the generation of increased hydroelectric power, such power would be sourced from fossil fuels. There is simply no reason to make this assumption.

California law requires that 33% of the state's electricity be generated by renewable sources by 2020. This is known as the renewable portfolio standard (RPS). Between the three largest utilities in California, only about 20% of power is currently sourced from renewable sources.[4] This means that California's three main utilities must increase their supply of renewable power by around 50% over the next seven years to comply with the RPS. This is an ambitious target that means renewable power will be in high demand.

Any new hydroelectric generation that would be provided by the proposal would almost certainly be used by utilities to meet their goal under the RPS, as hydroelectric power qualifies as renewable energy. Simply put, it is infeasible that a California utility would source fossil fuel power to replace foregone hydroelectric power. In order to meet the requirement of the RPS, a utility would need to source that power from another renewable source – such as solar or wind.

Given that the water supply for the additional hydroelectric power is unreliable, and given that the additional hydroelectric power would almost certainly not be alternatively supplied by fossil fuels, the DEIS's finding that the GHG emissions from all five action options are less than significant is incorrect. In light of this, the Bureau should reevaluate the potential GHG emissions of the proposal and grant that the impacts will actually be significant and in need of mitigation.

Conclusion

PFT opposes the proposal and the five action options considered by the DEIS for implementing it. The reasons for our opposition are:

- The proposal is illegal in its effects by interfering with the free-flowing conditions of the McCloud River.

- The proposal's process is illegal, as it requires collaboration with state agencies that is prohibited by law.

- The rationale for the proposal is hollow as the action options will likely not substantially reduce expected unfulfilled CVP contractual obligations, making the high cost of the proposal unjustifiable.

- The current full pool of Shasta Lake is rarely reached, which suggests that projections of future full pool levels will be rarely reached as well.

- The DEIS does not consider a preferred alternative encompassing forest conservation and restoration activities.

Further, PFT finds that the DEIS fails to analyze the range of alternatives fully as the DEIS:

- Fails to consider in any form the value of forest conservation and wet meadow restoration projects and their ability to increase water security and supply for Shasta Lake.

- Fails to account for GHG emissions from flooded vegetation, cement manufacture and decay, and foregone sequestration.

- Fails to consider the overall policy landscape for renewable energy in California, and therefore significantly overestimates the proposal's potential mitigation of GHG emissions.

Due to the DEIS's failure to accurately account for GHG emissions and its overestimate of the benefits of hydroelectric power, the DEIS's finding that the GHG emissions of the proposal are less than significant is incorrect. Failure to address this issue in the final EIS could significantly delay the proposal.

Thank you again for the opportunity to comment on the DEIS. Please contact me if you have any questions about our comments or wish to discuss PFT's concerns in more detail. I can be reached at (415) 561-0700 x39 or by email at pdoherty@pacificforest.org.

Sincerely,

Patrick Doherty
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[1] Our comments on this issue do not relate to the participation of the Department of Water Resources in studies involving the technical and economic feasibility of enlargement of Shasta Dam, which is apparently sanctioned by PRC § 5093.542(c).

[2] This number is probably an underestimate as the EPA's calculator uses an average for forests nationwide – the forests of northern California are very productive and sequester larger amounts of carbon per acre than the national average.

[3] Using the EPA's greenhouse gas equivalency calculator available at: http://www.epa.gov/cleanenergy/energy-resources/calculator.html.

[4] Please see http://www.cpuc.ca.gov/PUC/energy/Renewables/index.htm.

D-SLBOA Duplicate of O-SLBOA

LAKE SHASTA CAVERNS
National Natural Landmark

September 26, 2013

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

Katrina Chow,

This letter is written on behalf of the administration of Lake Shasta Caverns and pertains to the concerns brought forth by the SLWRI, more specifically the Draft Environmental Impact Statement (DEIS) released earlier this year.

Lake Shasta Caverns National Natural Landmark is a recreation/tourism based business that has an average of 55,000 guests annually. The proposed enlargement of Shasta Lake threatens this business in many ways.

First and foremost, there are a number of questions that arise from the lack of clarity within the document. The general concern is that the business will not survive the process of enlarging Shasta Lake.

The DEIS indicates that a portion of the property will be relocated, however there is no definite location to which it will be relocated to. Since the caverns cannot be moved our transition areas for guests are limited to a close proximity of where they currently are. The final decision of these locations will ultimately be made by the Forest Service.

For close to 13 years I have managed the caverns and have maintained a close working relationship with many in the Forest Service. For several years now we have been stalled on several additions to the caverns to increase visitation, simply because the local Forest Service has been overwhelmed with its current duties and obligations. This causes major concern since it will be this district that regulates all of the permit holders within this National Recreation Area. If having a functional relationship is hard now, what will be the outcome once all of the marinas and services are being relocated?

The regulations process for a relocation is not simple and can prove to be rather lengthy. Lake Shasta Caverns has not been approached by the Forest Service in regards to possible locations, environmental impact studies, or any other item that can give us an idea of what we will be faced with. It is reasonable to conclude that our services could be shut down temporarily during this transition process. While being shut down, up to 35 people will have no employment because the company will not have the ability to pay them. It was stated by a contractor hired by the BOR, during the July 16th workshop in Redding,

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LAKE SHASTA CAVERNS
National Natural Landmark

that the current legislation prohibits the compensation of lost business income. Though we are nationally recognized, we are a small business and we will not survive a disruption in business.

Another concern is a paragraph in chapter 18, page 35 of the DEIS. This paragraph describes the consolidation of existing special use facilities on the lake. It is almost impossible to describe the complex network of business relationships and ties that all of the businesses on and near the lake need to survive. If even one business is affected, it will upset the delicate balance and the economy will suffer greatly because of it. Several services marked for abandonment include businesses that support Lake Shasta Caverns through referrals and vice-versa. As it is, most businesses on the lake have been stagnate for years. This project would surely be economically devastating to the area.

Although I do understand the demand for more water in California, the SLWRI is still very unclear as to how it intends to provide this water without destroying the recreation industry within the area. The DEIS states multiple times that recreation is a secondary planning objective and that Bureau of Reclamation intends to maintain and or increase the capacity for recreation on the lake. However there is no feasible plan in place to do so. How can we even maintain the capacity if the current plan involves consolidation of facilities? Larger marinas do not necessarily mean better marinas. In this case it is the diversity of the marinas and services that warrant a quality experiences for those who utilize Shasta Lake for recreation.

I adamantly oppose this project until there is more detail provided to Lake Shasta Caverns in regards to truly being made whole after the enlargement of Shasta Lake. Recreation should also be observed as a primary purpose of the SLWRI and not a secondary planning objective.

Respectfully,

Matthew W. Doyle
General Manager
Lake Shasta Caverns

CC: Governor Edmund G Brown
Congressman Doug LaMalfa
Senator Jim Nielsen
Senator Dianne Feinstein

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LAKE SHASTA CAVERNS
National Natural Landmark

Assemblyman Brian Dahle
Shasta County Board of Supervisors
Patrick Minturn, Shasta County Public Works
Brian Person, Area Manager/Bureau of Reclamation
Redding City Council
Redding Chamber of Commerce
City of Shasta Lake City Council
City of Shasta Lake Chamber of Commerce
Shasta Cascade Wonderland Association
Redding Convention and Visitors Bureau
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D-FOTR1 Duplicate of O-FOTR1

(no subject)

Steve Evans <SEvans@friendsoftheriver.org> Mon, Sep 30, 2013 at 11:43 AM
To: "BOR-MPR-SLWRI@usbr.gov" <BOR-MPR-SLWRI@usbr.gov>

Below and attached.

Thank you.

Comments of

Friends of the River

California Wilderness Coalition

Shasta Lake Water Resources Investigation

Draft Environmental Impact Statement

September 30, 2013

Ms. Katrina Chow

SLWRI Project Manager

Bureau of Reclamation Planning Division

2800 Cottage Way

Sacramento, CA 95825-1893

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Email: BOR-MPR-SLWRI@usbr.gov

Dear Ms. Chow:

Thank you for soliciting public comments in response to the Shasta Lake Water Resources Investigation (SLWRI) Draft Environmental Impact Report (DEIS). Below are the joint comments of Friends of the River and the California Wilderness Coalition. Friends of the River's Executive Director, Bob Center, will be submitting separate comments before the deadline. In addition, Friends of the River contributed to and hereby incorporate by reference the joint comments to be submitted by the California Environmental Water Caucus. We also hereby incorporate by reference the joint comments of Friends of the River and the California Wilderness Coalition to the SLWRI Draft Feasibility Study and Preliminary DEIS, dated January 28, 2013. We also hereby incorporate by reference verbal comments made for Friends of the River by Steven Evans at the public hearings held in Redding and Sacramento on September 10 and 11, 2013.

1. Unavailability Of Hard Copies Of The DEIS Made Public Review Of This Massive And Complicated Document Difficult.

Friends of the River must protest the failure of the Bureau of Reclamation to provide hard copies of the SLWRI DEIS to the interested public. It is almost impossible to thoroughly review such a massive document online or via disc. Failing to provide printed copies of this document to those interested in conducting a thorough public review is a "penny wise, but pound foolish" approach to NEPA. We believe that a revised DEIS will be necessary and hereby request a hard copy of any future SLWRI documents.

2. The DEIS Fails To Admit The Connection Between The SLWRI And The Bay Delta Conservation Plan.

The SLWRI draft Feasibility Report clearly documents that every additional drop of water stored by a raised dam and expanded reservoir will be sold to federal water contractors. This not only refutes the Bureau's claim that the primary benefit of the dam raise is improved fisheries, it also underscores a direction connection to the SLWRI with the Bay-Delta Conservation Plan (BDCP). The current version of the BDCP proposes construction of two giant tunnels beneath the Delta to facilitate export of Sacramento River water south. The DEIS's and Feasibility Study's summary of benefits from the dam raise clearly show that 77% of the water stored behind a raised Shasta Dam will be sold to water contractors south of the Delta (the remainder will be sold to north of Delta contractors). The DEIS fails to document this important connection and is violation of the public disclosure mandate of the National Environmental Policy Act.

A revised DEIS must clearly document the connection between the SLWRI and BDCP and

fully disclose the role this connection plays in the cost-benefits of the SLWRI.

3. Raising Shasta Dam Will Not Significantly Increase Anadromous Fish Survival As Claimed In The DEIS.

The DEIS predicts that the dam raise alternatives will increase juvenile anadromous fish survival by 61,000 to 813,000 fish annually. (DEIS Table S-2, pg. ES-26) This is a misleading way to present the alleged benefits of the proposed dam raise. Although increasing juvenile salmon survival by up to 813,000 fish sounds significant, the less than 1% return rate of juveniles as adults three years later means that this billion dollar or more project may produce fewer than 813 additional adult salmon in any one year, and in most years, considerably less than that number.

It is questionable as to whether the Bureau will operate the raised dam and expanded reservoir in a way that guarantees that the cold water pool will be available during the dry and critically dry years when water temperatures are a major factor in juvenile salmon survival. Sadly, there are no hard or firm standards that the Bureau is apparently required to follow. When the Bureau finds it inconvenient to meet temperature standards for juvenile salmon survival, it simply "coordinates" (a polite way of saying it pressures) state and federal regulatory agencies to agree to move the temperature control point on the Sacramento River to a spot more convenient for the Bureau's dam and reservoir operations. The Sacramento Basin Water Quality Control Plan unequivocally sets the salmon temperature control point at Red Bluff. Over the years, the Bureau has found it convenient to move this control point further upstream to Bend, Balls Ferry, and in 2013, even further upstream to a point near Anderson.

In its draft Fish and Wildlife Coordination Report (June 2013), the U.S. Fish and Wildlife Service (USFWS) found the dam raise/expanded reservoir benefits of the dam raise to be "negligible". According to the USFWS, in 90% of the years, the dam raise/expanded reservoir will provide no benefits for juvenile salmon. In addition, the USFWS found that most of the fish benefits identified in the SLWRI are from spawning gravel augmentation and side channel rearing habitat restoration –

mitigation measures that are not dependent on the dam raise/reservoir expansion and that can be implemented regardless whether the dam is raised.

It is important to recognize that the existing dam and reservoir can be operated to maintain an abundant population of endangered winter-run Chinook salmon. The completion of Shasta Dam in 1945 should have doomed this fish to quick extinction since access to its primary spawning grounds on the McCloud and upper Sacramento Rivers were permanently

blocked by the dam. But once the reservoir was filled, operations of the dam in its first two decades "provided in-river conditions that sustained the winter-run Chinook population. Abundance estimates for winter-run Chinook in the 1960s ranged form a high of 125,000 in 1962 to a low of 49,000 in 1965." (National Marine Fisheries Service 1997 Proposed Winter-Run Recovery Plan, pg. II-12) Essentially, the winter-run became dependent on cold water releases from Shasta Dam for its survival. But since 1970 to the present, dam operations have consistently failed to provide cold water to the river in order to meet federal water contract commitments in the Sacramento-San Joaquin Delta.

The question is: If the existing dam and reservoir can be operated in a manner that can provide the needed cold water for improved juvenile salmon survival, why is this not an alternative under serious consideration in the SLWRI? The answer is found on DEIS page 2-49, where the Bureau states:

> The adaptive management plan (for the proposed cold water pool created by the raised dam/enlarged reservoir) may include operational changes to the timing and magnitude of releases from Shasta Dam to benefit anadromous fish, as long as there are no conflicts with operational guidelines or adverse impacts on water supply reliability. (Emphasis ours)

This simple statement clearly demonstrates the Bureau's lack of commitment to operate Shasta Dam and Reservoir to benefit endangered salmon regardless of whether the SLWRI is implemented or not. It reveals that the true purpose of the SLWRI is to increase the water supply for water contractors.

4. Key Recovery Actions In The 2009 Central Valley Salmon and Steelhead Recovery Plan Are Not Considered In the SLWRI DEIS.

The National Marine Fisheries Service's (NMFS) 2009 Central Valley Salmon and Steelhead Recovery Plan proposed a number of actions to protect and restore all runs of salmon and steelhead in the Sacramento River and its tributaries. Just a few of these actions include regulating pollution discharges from agricultural and urban sources, setting back and maintaining riparian vegetation on flood control levees, restoring 185 miles of continuous riparian habitat between Red Bluff and Sacramento, screening water diversions that have substantial fishery impacts, curtailing development in flood plains, negotiating additional instream flows or purchasing water rights, remediating acid mine pollution, and restoring the former footprint of Lake Red Bluff to riparian habitat.

The DEIS ignores most of these actions and only obliquely refers to others. For example, it is unclear that adaptive management flows mentioned in the DEIS are the same thing as this specific recovery action proposed by the NMFS:

> Implement a river flow management plan that balances carryover storage needs with instream flow needs for winter-run Chinook salmon based on runoff and storage conditions, including flow fluctuation and ramping criteria (USFWS 2001).

A revised SLWRI DEIS should include sufficient detail and information to make it clear whether adaptive management flows proposed in the DEIS meet the intent of the recovery action proposed in the Recovery Plan.

The Recovery Plan also calls for the restoration of 185 miles of continuous riparian habitat along the Sacramento River between Red Bluff and Sacramento. It is important to note that the USFWS clearly believes that "the reduction in winter flows with the raising of Shasta Dam would result in adverse effects to riparian habitat along the Sacramento River..." (USFWS Coordination Report pg. 176) The SLWRI proposes as a specific restoration measure to restore riparian habitat in the upper and lower Sacramento Rivers (upstream and downstream of Red Bluff respectively) the development and implementation of a Riverine Ecosystem Mitigation and Adaptive Management Plan (REMAMP). The plan will supposedly avoid and compensate for the impact of altered flow regimes on the river's riparian and wetland communities. But little information is provided in regard to the REMAMP, which apparently does not exist even in draft or outline form, nor does it seem to apply to the Delta (as recommended in the Recovery Plan). There is no assurance that the REMAMP will actually meet the riparian habitat restoration objective found in the Recovery Plan.

In addition, some impacts identified in the DEIS imply that conditions for fish populations targeted for recovery may worsen. For example, remediation efforts at Iron Mountain Mine now controls 95% of the mine pollution that formerly flowed into the river. But the USFWS in its coordination report notes that the SLWRI reservoir expansion may exacerbate acid mine pollution by inundating additional abandoned mines and mine tailings that could leach additional metals into the river. The DEIS notes that "In addition to runoff from the historic workings (i.e., adits and portals), a number of large mine tailing deposits are currently leaching various metals into tributaries of Shasta Lake." (DEIS pg. 7-15) The Bureau apparently eliminated reducing acid mine and metal pollution as a recovery objective from the SLWRI "due to numerous implementation issues." It proposes to prepare and implement a site-specific Remediation Plan for historic mine features subject to inundation but its not clear if this will be completed in time to allow for the completion of the dam raise and filling of the enlarged reservoir, nor is it clear whether this mitigation meets the intent of the Recovery Plan.

The Recovery Plan recommends minimum instream flows and ramping rates to benefit salmon. The DEIS notes that the 1993 NMFS Biological Opinion (BO) set minimum flows in the river, but it is unclear whether these are the same minimum flows recommended in the Recovery Plan, nor does the BO address ramping rates. Interestingly, the primary fish recovery goal of SLWRI alternative CP4 is to provide a more "fish-friendly" environment with "reservoir storage dedicated to fish, to either improve flows or water temperatures." (DEIS pg. 11-54, emphasis ours) This is hardly the firm recovery objective outlined in the Recovery Plan. Apparently, the Bureau believes it can either improve flows or temperatures but not both. The primary constraint is the reservation of much of the existing storage, as well as the additional water provided by the raise, to meet water contract commitments.

Another recovery action virtually ignored in the DEIS is the reduction of agricultural and urban pollution into the Sacramento River and Delta. Although there are a number of mitigation measures in the DEIS to reduce pollution from construction and other upland activities into Shasta Reservoir, there is little assessment of the need to reduce agricultural, municipal, and industrial pollution into the Sacramento River downstream of the Dam, in order to reduce adverse impacts on salmon. For example, one of the specific recovery actions outlined by NMFS in its original 1997 winter run recovery plan is to control contaminant input from the Colusa Basin Drain, which visibly degrades the water quality of the Sacramento River. The Drain is the largest source of agricultural pollution to the river and is a major source of pesticides, turbidity, sediments, nutrients, dissolved solids, trace metals, and warm water into the river. Exposure of juvenile salmon to this kind of pollution is suspected to be detrimental. And yet, there is no effort in the SLWRI to consider pollution remediation in the river downstream of Shasta Dam as yet another action that could be taken to improve juvenile salmon survival.

In addition, the Recovery Plan proposes to restore key populations to former habitat that has become inaccessible due to dams, including Shasta Dam. The DEIS pays short shrift to this proposal, which is particularly inexcusable given the alleged focus of the SLWRI.

If the Bureau is truly serious about improving salmon survival, a revised SLWRI should incorporate more of the Recovery Actions outlined in the NMFS Recovery Plan. In addition, the SLWRI should seriously consider an alternative that re-operates the existing dam/reservoir in order to fully meet downstream temperature needs and flow requirements (for salmon as well as riparian habitat). A revised DEIS must connect the key objectives and recovery actions in the 2009 Recovery Plan to the mitigation measures proposed in the SLWRI DEIS. Further, the revised DEIS should evaluate and determine the feasibility and role of the Bureau in implementing all recovery actions, particularly in restoring populations upstream of Shasta Dam.

A revised SLWRI should include an alternative that focuses on the salmon improvement measures recommended in the USFWS Coordination Report, including restoration of spawning and rearing habitat, improving fish passage, increasing minimum flows, and screening water diversions. (USFWS Coordination Report pg. v), as well as other specific management measures initially considered in the SLWRI but removed from further analysis (as outlined in the USFWS Report pg. vi).

5. The Project's Impacts On Sensitive, Threatened, And Endangered Species Are Underestimated In The DEIS.

The DEIS admits that there will be significant and unavoidable impacts on a number of sensitive, threatened, and endangered wildlife species and their habitat, including the Shasta salamander, foothill yellow-legged frog, tailed frog, northwestern pond turtle, bald eagle, northern spotted owl, purple martin, willow flycatcher, Vaux's swift, yellow warbler, yellow-breasted chat, long-eared owl, northern goshawk, Cooper's hawk, great blue heron, osprey, red-tailed hawk, red-shouldered hawk, American robin, Anna's hummingbird, Pacific fisher, American marten, ringtails, eight special status bat species, and four special status mollusks.

The DEIS also admits to significant and unavoidable permanent loss of general wildlife habitat and critical deer winter and fawning range. According to the DEIS, impacts associated with the take and loss of the endangered California red-tailed frog are still to be determined. And also according to the DEIS, impacts on riparian associated special status wildlife species may be potentially significant but are supposedly reduced to less than significant by the development and implementation of the previously mentioned but amorphous Riverine Ecosystem Mitigation and Adaptive Management Plan.

Despite the fact these significant and unavoidable impacts on these many sensitive and special status wildlife species are documented in the DEIS, the document fails to adequately reveal the serious nature of these impacts, particularly on the seven rare but not federally listed species endemic (found nowhere else) to the Shasta Reservoir vicinity, including the Shasta salamander, two rare plant species, and three rare snails (mollusks).

Some species are particularly susceptible to inundation by the expanded reservoir. For example, tree snags in the Pit River Arm of Shasta Reservoir appear to support a stable population of 18 breeding pairs of purple martin, a migratory bird that is generally uncommon in California and is considered by the California Department of Fish and Wildlife to be a species of special concern. The Pacific Coast population of purple martin has substantially declined in the last 50 years. Raising Shasta Dam will completely submerge the martin's existing nesting habitat and it would take decades for new nesting snags to become

available to replace the lost habitat.

A revised DEIS should better document significant and unavoidable impacts on endemic and other special status species and more fully consider alternatives that reduce the impacts to insignificant levels.

6. The DEIS Underestimates Impacts Of Modified Flows From A Raised Shasta Dam On The Sacramento River And The Proposed Mitigation Measure Is Too Vague And Incomplete.

The DEIS claims that potentially significant impacts on riparian associated aquatic and terrestrial special status wildlife due to modifications of the existing flow regime caused by the dam raise will be reduced to less than significant levels by the development and implementation of a Riverine Ecosystem Mitigation and Adaptive Management Plan (REMAMP). The DEIS also recognizes that the impacts of flow modification on riparian habitat and ecosystem processes is inconsistent with local and regional plans and goals promoting riparian habitat on the Sacramento River. The DEIS notes that these are potentially significant impacts reduced to less than significant levels by the proposed REMAMP.

The USFWS unequivocally states that reduced winter flows caused by the raising of Shasta Dam will result in adverse effects to riparian habitat along the Sacramento River. So these are real issues but unfortunately, the proposed mitigation (the REMAMP) does not yet exist, so there is no way for the public to understand just how the proposed mitigation will truly reduce these impacts to insignificance.

Flow modification impacts to the Sacramento River's riparian and aquatic ecosystems, and the many sensitive, threatened, and endangered fish and wildlife species that depend on these dynamic ecosystems, are generally given short shrift throughout the DEIS. These impacts were well documented in Sacramento River Ecological Flows Study Final Report (CALFED Ecosystem Restoration Program, March 2008). Just a few of the more pertinent facts from this report include:

· Dam-related alterations of river flow regimes have been identified as one of the three leading causes of declines in imperiled aquatic ecosystems.

· Available data support the hypothesis that the reduced frequency and duration of floodplain inundation in the post-dam era may have contributed to the decline of the winter-run Chinook population.

· The Shasta Dam raise will reduce the "stream power" of the Sac by 16% and reduce the amount of floodplain area reworked by high flows by 8%. Diversions from the river to fill the proposed Sites Offstream Storage Reservoir (another CALFED water storage project under study) will further reduce the river's stream power by up to 15%.

· Fremont cottonwood initiation success, Chinook and steelhead rearing WUA (weighted useable area), and Chinook and steelhead redd scour risk are the indicators most sensitive to flows.

· The altered hydrograph of the Sac River appears to limit cottonwood seedling survival.

· Maintaining natural channel migration and cutoff processes is necessary for providing new patches for seedling recruitment and for periodical resetting of riparian vegetation succession, which are both critical for maintaining the diverse, dynamic, and functional riparian-floodplain ecosystem.

· Reductions in peak flow magnitude will likely reduce bank erosion and thus have potential impacts on spawning gravel availability, and might also affect lateral channel migration, which is essential for creating off-channel habitats important to many Sacramento River species.

· The flow impacts of the Shasta Raise and Sites combined are expected to reduce progressive channel migration by approximately 10%.

· As flows recede below 8,500 cfs, the inlets of secondary channels (which provide crucial habitat for juvenile salmon) become increasingly disconnected from the main stem.

· Removing rip-rap (bank revetment) may mitigate the floodplain impacts of the Shasta Raise (note: this is not a proposed mitigation in the DEIS).

· Revetment removal plus flow management that allows occasional high flows are both necessary and sufficient for habitat creation and persistence.

· The importance of fish passage improvements is strongly suggested by past studies; assessment of benefits only possible through implementation and monitoring.

· The CALSIM II model, which is used in the DEIS to assess the flow impacts of the dam raise, functions at a monthly time-step, which is a recognized shortcoming. Daily flow disaggregations below Red Bluff used in our study are known to be flawed and do not remain consistent with monthly time-step totals. (Note: Development and use of a true daily flow model is also a NMFS recommended recovery action).

These findings clearly underscore the potential severity of flow modification impacts on the Sacramento River ecosystems, the sensitivity of the river to multiple impacts caused by current projects under study (SLWRI and Sites), and the need for a well defined, detailed, and permanent plan that assures true mitigation of these impacts. A revised DEIS should fully assess flow modification impacts on the river, its ecosystems, and fish and wildlife species, and include at least a draft Riverine Ecosystem Mitigation and Adaptive Management Plan for review and comment by the public. In addition, this plan should fulfill the role of the Sacramento River and Delta Riparian Habitat Restoration and Management Plan outlined in the NMFS Recovery Plan and noted as a needed mitigation measure in the USFWS Coordination Report. The Adaptive Management Plan should also fully comply with all local and regional plans to protect and restore riparian habitat along the river.

It is even more important that this Adaptive Management Plan be completed and available for public review in the revised DEIS because it will determine the future health of riparian and aquatic ecosystems on more than 31,000 acres of federal, state, and other public lands that support some of the most important riparian and aquatic habitat on the Sacramento River (including the BLM's Sacramento River Bend Outstanding Natural Area, the USFWS' Sacramento River National Wildlife Refuge, State Wildlife Areas managed by the California Department of Fish and Game, four State Parks and Recreation Areas, and several local parks and recreation areas).

It is unclear whether the adaptive management plan intended to benefit salmon is the same adaptive management plan intended to benefit the downstream riparian and aquatic ecosystems. The term "adaptive management plan" seems to be interchangeable throughout the DEIS. If they are the same plan, then we assume that the Bureau's qualification about the timing and magnitude of releases from Shasta Dam to benefit downstream ecosystems

will be applied – "as long as there are no conflicts with operational guidelines or adverse impacts on water supply reliability." (DEIS pg. 2-49) If this is the case, it is clear that this proposed Adaptive Management Plan will not reduce the flow modification impacts on riparian and aquatic ecosystems to less than significant levels simply because water contracts will always trump well meaning but relatively toothless mitigation measures.

7. Impacts Of Reservoir Enlargement On Potential Wild & Scenic Rivers

Enlarging Shasta Reservoir by raising the dam from 6.5 to 18.5 feet will flood public lands managed by the Forest Service encompassing segments of the upper Sacramento, McCloud, and Pit Rivers, Salt Creek, and several small tributary streams. This flooding, however minor it may seem to the Bureau, triggers several requirements and mandates in the National Wild & Scenic Rivers Act. Although the DEIS attempts to address Wild & Scenic River issues in Chapter 25, it fails to recognize the actual requirements of the Act and the true implications of the reservoir enlargement in regard to previous Forest Service studies and commitments made in the 1994 Shasta-Trinity National Forests Plan. Nor does the DEIS adequately address the impacts of reservoir enlargement and the legal implications of violating the California Public Resources Code.

8. The National Wild & Scenic Rivers Act requires consideration by all federal agencies of federal Wild & Scenic River protection for the McCloud, upper Sacramento, and Pit Rivers, and other reservoir tributaries as an alternative to the federal proposal to raise the dam and expand the reservoir.

Section 5(d)(1) of the National Wild & Scenic Rivers Act states:

> In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic, and recreational river areas, and all river basin and project plan reports submitted to the Congress shall consider and discuss any such potentials. The Secretary of the Interior and the Secretary of Agriculture shall make specific studies and investigations to determine which additional wild, scenic, and recreational river areas within the United States shall be evaluated in planning reports by all Federal agencies as potential alternative uses of the water and related land resources involved.

This section of federal law clearly requires the Bureau of Reclamation to go beyond the simple reporting of past state and federal considerations of Wild & Scenic protection for the

river segments affected by the SLWRI. It specifically requires consideration of Wild & Scenic protection in the context of and as an alternative to the proposed dam raise and reservoir enlargement, not only for the McCloud, but also for the upper Sacramento and Pit Rivers, and all other streams on public lands tributary to Shasta Reservoir. No such comprehensive assessment of Wild & Scenic Rivers is provided in the DEIS.

The Bureau should work with the Forest Service to include in a revised DEIS a comprehensive assessment specifically addressing the impacts of the dam raise and reservoir enlargement on the free flowing character and outstanding values of all rivers and streams tributary to the reservoir and include a range of alternatives that proposes Wild & Scenic protection with and without various reservoir enlargement alternatives.

For example, the Forest Service in the 1994 Shasta-Trinity National Forests Draft Plan found the upper Sacramento River from Box Canyon Dam to the Whiskeytown-Shasta-Trinity National Recreation Area to be eligible for federal protection, but the agency did not recommend it because of land ownership patterns along the river. But the river was also not actively threatened by reservoir expansion at that time. The Wild & Scenic Rivers Act requires the Forest Service and the Bureau to revisit potential Wild & Scenic protection of the upper Sacramento River in the context of the project outlined in the revised DEIS, as well as for other rivers and streams that may be affected by reservoir expansion.

The Bureau of Reclamation has previously recognized the clear mandate of the National Wild & Scenic Rivers Act to consider and evaluate potential Wild & Scenic Rivers as potential alternative uses to water and related land resources in the planning for water development. As part of its planning and study of the Auburn Dam project on the North and Middle Forks of the American River, the Bureau convened a multi-agency interdisciplinary team that determined segments of the river that would be flooded by the dam proposal to be eligible for Wild & Scenic protection in 1993 (letter dated March 17, 1993 from Susan E. Hoffman, Division of Planning and Technical Services Chief, U.S. Bureau of Reclamation Mid-Pacific Region). The study to determine if the eligible segments were suitable for designation was scheduled for Phase II and III of the American River Water Resources Investigation. This part of the study was never completed because soon after the eligibility finding, Congress rejected authorization of the Auburn Dam project.

9. The National Wild & Scenic Rivers Act requires consideration of federal Wild & Scenic River protection for the segments of the lower Sacramento River with significant federal lands downstream of Shasta Dam as an alternative to the federal proposal to raise the dam and expand the reservoir.

The lower Sacramento River between Anderson and Colusa has several segments with substantial federal public lands managed by the Bureau of Land Management (BLM) and the U.S. Fish and Wildlife service (USFWS). In its draft Fish and Wildlife Coordination Report, the USFWS stated "Riparian and floodplain habitat along the Sacramento River and in the Yolo and Sutter Bypasses would be adversely affected by further changes in the timing, duration, and frequency of flood flows due to an enlarged Shasta Dam." (USFWS Draft Coordination Report, pg. viii, June 2013) Even the SLWRI DEIS admits that flow modification from the dam raise may have potentially significant impacts on the river's riparian and aquatic ecosystems and fish and wildlife. These agency findings clearly trigger the section 5(d)(1) requirement that the federal segments of the lower river be studied and considered for potential federal protection as an alternative to the proposed water resources project.

The BLM manages nearly 18,000 acres of federal public lands as the Sacramento River Bend Outstanding Natural Area (SRBONA), which encompasses a 25-mile stretch of the Sacramento River between Balls Ferry and Red Bluff. The BLM found the federal portions of this segment to be eligible for National Wild & Scenic River protection in recognition of its free flowing character and outstandingly remarkable scenic quality, recreation opportunities, cultural/historic values, anadromous and resident trout fisheries, and vegetation. The outstandingly remarkable vegetation value was specifically defined as the river's Great Valley oak riparian forests. (BLM Redding Resource Management Plan and ROD, and BLM Redding RMP FEIS, June 1993 and July 1992 respectively)

In addition to the Wild & Scenic finding, BLM management direction designated the river as an Outstanding Natural Area and requires protection and enhancement of the river's riparian vegetation, wetlands, and anadromous fisheries. BLM management direction for the SRBONA also included the long-term survival of special status species, maintenance and improvement (if feasible) of scenic quality, conserving archeological resources, and providing for semi-primitive recreation opportunities. In addition, general policy and program direction in the BLM Manual and the Redding RMP require the BLM to protect the free flowing character and specific outstandingly remarkable values of all eligible rivers.

Determining the suitability of the eligible Sacramento River segment was deferred by BLM due to budgetary and personnel constraints (BLM Redding RMP pg. 28, June 1993) The BLM Manual specifically states in regard to water resources projects that may affect eligible or suitable Wild & Scenic Rivers:

> The BLM should, within its authority, consider protecting the river values that make the river eligible or suitable through the land use plan and activity-level NEPA analysis. If a river is listed in the Nationwide Rivers Inventory, the Federal agency involved with the proposed action must consult with the land-

management agency in an attempt to avoid or mitigate adverse effects. (BLM Manual 6400-WILD AND SCENIC RIVERS—POLICY AND PROGRAM DIRECTION FOR THE IDENTIFICATION, EVALUATION, PLANNING, AND MANAGEMENT, Sec. 3.8(D), pg. 3-14 7/13/2012)

The SLWRI DEIS mentions BLM management responsibility for public lands along the Sacramento River in several sections. It also mentions the BLM's Wild & Scenic eligibility finding for the Sacramento River between Balls Ferry and Iron Canyon and notes that BLM management direction requires its public lands along the river to be "managed to protect the outstandingly remarkable values and free-flowing character..." However, the documentation of BLM's responsibilities ends there in the SLWRI. There is no connection made between the Sec. 5(d)(1) mandate to consider potential Wild & Scenic protection of the river as an alternative to the SLWRI nor is there any substantive discussion about how the dam raise could modify flows and adversely affect the river's outstandingly remarkable anadromous fisheries and riparian forests, which make the river eligible for Wild & Scenic protection.

The SLWRI DEIS fails to connect the Bureau's proposed alternatives with the BLM's mandate to protect the river's eligible segment. The SLWRI is also inconsistent with the BLM's current management direction for this part of the Sacramento River. As part of a revised DEIS, the Bureau must consult with the BLM and pursuant to Sec. 5(d)(1) of the Act the BLM must initiate a Wild & Scenic River suitability study for the segment of the Sacramento River identified as eligible by the BLM as an alternative to the SLWRI.

10. The DEIS fails to recognize that Sec. 5(d)(1) of the National Wild & Scenic Rivers Act also applies to federal public lands that comprise the Sacramento River National Wildlife Refuge.

The USFWS manages more than 10,300 acres of federal public lands along the Sacramento River between Red Bluff and Colusa as the Sacramento River National Wildlife Refuge. These lands were acquired by the USFWS and incorporated in the Refuge in order to protect and restore riparian and aquatic habitats and the many sensitive, threatened and endangered species that depend on these habitats. As far as we know, none of the Refuge lands along the river have been studied for their Wild & Scenic eligibility or suitability per sec. 5(D)(1) of the Act. Nor does the DEIS make any mention of potential Wild & Scenic eligibility and suitability of these segments.

A revised DEIS, the Bureau must consult with the USFWS and pursuant to Sec. 5(d)(1) of

the Act, the USFWS must initiate a Wild & Scenic River suitability study for the Refuge segments of the Sacramento River as an alternative to the SLWRI.

11. The DEIS admits that all alternatives to raise the Shasta Dam and expand its reservoir will adversely affect the McCloud River's eligibility as a National Wild & Scenic River and will specifically harm the river's free flowing character, water quality, and outstandingly remarkable values.

In Chapter 25, the DEIS documents that raising Shasta Day by 6.5-18.5 feet will flood from 1,470 feet to 3,550 feet of the segment of the McCloud River eligible for National Wild & Scenic River protection. The DEIS also admits that this flooding will adversely affect the McCloud's free flowing character, water quality, and outstandingly remarkable Native American cultural, wild trout fishery, and scenic values.

Conservationists believe that even more of the eligible segment of the McCloud River will be harmed by the dam raise alternatives because the Bureau incorrectly identifies elevation 1,070 feet as the terminus of the McCloud segment identified by the Forest Service. In fact, the terminus of the eligible McCloud segment is simply defined by the Forest Service as "Shasta Lake". (LRMP FEIS, Appendix pgs. E-4, E-13) The Forest Service's map depicting the eligible segment of the McCloud shows that eligible segment ends at the McCloud River Bridge (FEIS Appendix E pg. 3-36). There is no mention of elevation 1,070 as the terminus of the eligible segment and there is no reference in the LRMP to the McCloud's so called "transition reach". Hence, the impact of the dam raise and reservoir expansion is greater than what is documented in the DEIS.

12. Flooding the McCloud River violates the 1995 Shasta-Trinity National Forests Land and Resource Management Plan and Record of Decision in regard to protecting the McCloud River's eligibility as a potential National Wild & Scenic River.

The Forest Service recommended Wild & Scenic River protection for the McCloud River in its 1990 draft of the Shasta-Trinity National Forests Land and Resource Management Plan (LRMP). In response to concerns expressed by river-side landowners, the Forest Service chose to pursue protection of the McCloud River's free flowing character and outstandingly remarkable values through a Coordinated Resource Management Plan (CRMP) developed by the Forest Service and other federal and state agencies and the riverside landowners. This decision is reflected in the 1995 final Shasta-Trinity National Forests LRMP and Record of Decision (ROD), which state:

A Coordinated Resource Management Plan (CRMP) has been adopted for long term management of the Lower and Upper McCloud River and Squaw Valley Creek. This agreement is between private land owners, the Forest Service, Pacific Gas & Electric, Nature Conservancy, CalTrout, and the DFG. This plan will effectively maintain the outstandingly remarkable values of this potential wild and scenic river. If for any reason the terms of the CRMP are not followed and the wild and scenic river eligibility is threatened, the Forest Service will recommend these segments for Federal Wild and Scenic designation. (1995 Final LRMP, page 3-23)

If, after a period of good faith effort at implementation, the CRMP fails to protect the values which render the river suitable for designation then the Forest Service will consider recommendation to the national Wild and Scenic River System. (1995 ROD page 17)

The DEIS admits that raising the dam will periodically flood 1,470 feet of the eligible segment of the McCloud River, which would make the flooded segment ineligible for federal Wild & Scenic protection. (DEIS pg. 25-26) Conservation groups believe that more of the eligible river would be flooded (see discussion below about the actual terminus of the eligible McCloud). Regardless, it is clear that the Bureau's proposal to raise Shasta Dam and expand its reservoir directly violates the intent and constitutes failure of the CRMP, and it also violates the protective management proposed in the LRMP. Therefore, the Forest Service is bound by its own ROD to consider and recommend federal protection for the river. This requirement is not reflected in the DEIS and it should be included in the revised DEIS.

The Bureau is misleading the public when it claims that raising the dam and expanding the reservoir will not conflict with the Shasta-Trinity National Forests LRMP because the portion of the McCloud that would be flooded is private land and not National Forest land. The Forest Service has the authority to study and recommend the river within its reservation boundary, as it did so in the 1990 draft LRMP. It has the authority to determine that reservoir expansion and flooding of the eligible segment of the McCloud reflect a de-facto failure of the CRMP and therefore triggers Forest Service reconsideration of its Wild & Scenic River recommendation for the McCloud. This important protection is a fundamental component of the LRMP, which means that the Bureau's proposal violates the LRMP.

13. All dam raise/reservoir enlargement alternatives violate the California Public Resources Code 5093.542 prohibiting the construction of a reservoir that would harm the McCloud's free flowing condition and extraordinary wild trout fishery upstream of the McCloud River Bridge.

In 1989, the California Legislature passed and the Governor signed legislation declaring that the McCloud River possesses extraordinary resources, including one the of the finest wild trout fisheries in the state, and that continued management of river resources in their existing natural condition represents the best way to protect the unique fishery of the McCloud, and that maintaining the McCloud in its free-flowing condition to protect its fishery is the highest and most beneficial use of the waters of the river.

The legislation specifically prohibited any dam, reservoir, diversion, or other water impoundment on the McCloud River upstream of the McCloud River Bridge. It also prohibited any state agency cooperation, participation, or support for 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. These prohibitions and conditions are now memorialized in the California Public Resources Code (PRC) 5093.542.

The DEIS admits that all dam raise alternatives will have a significant unmitigated impact on the McCloud's free flowing condition and will have a potentially significant impact on the river's wild trout fishery (DEIS pg. 25-40). The DEIS suggests that the wild trout fishery impacts could be mitigated to less than significant levels but these mitigations have yet to be identified. Regardless, all the dam alternatives in the DEIS clearly violate state law. To ensure compliance with PRC 5093.542, the California Legislature and the Governor passed and signed statewide water bond legislation prohibiting use of the bond funds to raise Shasta Dam.

Clearly, the SLWRI's proposal to raise Shasta Dam and expand its reservoir violates state law. So why is the Bureau continuing to study this illegal project? Does the Bureau intend to cite federal preemption over state law in regard to this matter? If so, the DEIS should admit this.

14. The DEIS fails to mention that the Sacramento River between Anderson and Colusa is in the Nationwide Rivers Inventory and is protected by Presidential Directive.

A segment of the Sacramento River from the I-5 bridge crossing in Anderson to Arnold Bend upstream of Colusa was included in the National Park Service's 1982 Nationwide Rivers Inventory (NRI). The NRI was created by a directive from President Carter. The directive requires each federal agency, as part of its normal planning and environmental review process, to take care to avoid or mitigate adverse effects on rivers identified in the NRI. Further, all agencies are required to consult with the National Park Service prior to taking actions which could effectively foreclose wild, scenic or recreational stats for rivers on

the inventory.

The NRI describes this segment of the Sacramento River as a swift moving river isolated from surrounding civilization by a narrow band of dense riparian vegetation that meanders over a wide area with numerous islands and oxbow lakes. It also notes that the river flows through scenic Iron Canyon with a stretch of rapids, supports important anadromous fish populations and the state's most important salmon spawning grounds, includes outstanding riparian habitat for the yellow-billed cuckoo and giant garder snake, provides excellent rafting and boating opportunities, receives intense recreational use with fishing as the most popular activity, and is an important popular recreation resource for nearby urban areas.

There is no mention in the SLWRI of the NRI segment of the Sacramento River, the mandate to avoid or mitigate adverse effects on the NRI segment and its specific outstanding values, or the requirement to consult with the National Park Service. A revised DEIS should substantively address these issues.

15. The DEIS fails to adequately identify potential project effects on protected National Forest roadless areas and the Whiskeytown-Shasta-Trinity National Recreation Area.

A portion of the boundaries of the Backbone and Devil's Rock roadless areas on the Shasta-Trinity National Forests parallel the existing reservoir's high water line. The action alternatives could flood a portion of the roadless areas, which are protected under the Roadless Area Conservation Rule. While the DEIS admits to significant unavoidable impacts on National Forest lands and resources, as well as non-compliance with existing Forest Service management, it fails to describe the adverse impacts on federally protected roadless areas. The revised DEIS should include consideration of these impacts.

The DEIS fails to adequately consider the impacts of the dam raise alternatives on the Whiskeytown-Shasta-Trinity National Recreation Area (WSTNRA). The WSTNRA was established by Congress and President Kennedy in 1963 to:

> ...provide, in a manner coordinated with the other purposes of the Central Valley project, for the public outdoor recreation use and enjoyment of the Whiskeytown, Shasta, Clair Engle, and Lewiston reservoirs and surrounding lands in the State of California by present and future generations and the conservation of scenic, scientific, historic, and other values contributing to public enjoyment of such lands and waters... (16 USC Sec. 460q)

The DEIS documents the impact on recreation facilities, but fails to adequately identify the impacts on scenic, scientific, historic and other public land values the WSTNRA was established to conserve. Further, it is not clear that the impacts on recreation and recreation infrastructure will be fully mitigated. Although owners of private resorts and other recreation facilities will be reimbursed for the fair market values of their property, they will not be reimbursed for the loss of income nor is there any guarantee that these owners will be able to replace their facilities to provide comparable services in the future.

In addition, the DEIS fails to assess the impacts of moving existing facilities elsewhere on undeveloped National Forest lands. A revised DEIS must fully assess the impacts of the proposed dam raise on the all the purposes of the WSTNRA, as well as the actual impacts on private recreation facilities, and the impacts of proposed relocation of public and private facilities.

16. Summary

In summary, there are numerous deficiencies in the SLWRI DEIS. Friends of the River and the California Wilderness Coalition believe that a revised DEIS is required to correct these deficiencies and to allow for full disclosure to the public.

Sincerely,

Steven L. Evans

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Comments of
Friends of the River
California Wilderness Coalition
Shasta Lake Water Resources
Investigation Draft Environmental Impact
Statement

September 30, 2013

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Dear Ms. Chow:

Thank you for soliciting public comments in response to the Shasta Lake Water Resources Investigation (SLWRI) Draft Environmental Impact Report (DEIS). Below are the joint comments of Friends of the River and the California Wilderness Coalition. Friends of the River's Executive Director, Bob Center, will be submitting separate comments before the deadline. In addition, Friends of the River contributed to and hereby incorporate by reference the joint comments to be submitted by the California Environmental Water Caucus. We also hereby incorporate by reference the joint comments of Friends of the River and the California Wilderness Coalition to the SLWRI Draft Feasibility Study and Preliminary DEIS, dated January 28, 2013. We also hereby incorporate by reference verbal comments made for Friends of the River by Steven Evans at the public hearings held in Redding and Sacramento on September 10 and 11, 2013.

1. Unavailability Of Hard Copies Of The DEIS Made Public Review Of This Massive And Complicated Document Difficult.

Friends of the River must protest the failure of the Bureau of Reclamation to provide hard copies of the SLWRI DEIS to the interested public. It is almost impossible to thoroughly review such a massive document online or via disc. Failing to provide printed copies of this document to those interested in conducting a thorough public review is a "penny wise, but pound foolish" approach to NEPA. We believe that a revised DEIS will be necessary and hereby request a hard copy of any future SLWRI documents.

2. The DEIS Fails To Admit The Connection Between The SLWRI And The Bay Delta Conservation Plan.

The SLWRI draft Feasibility Report clearly documents that every additional drop of water stored by a raised dam and expanded reservoir will be sold to federal water contractors. This not only refutes the Bureau's claim that the primary benefit of the dam raise is improved fisheries, it also underscores a direction connection to the SLWRI with the Bay-Delta Conservation Plan (BDCP). The current version of the BDCP proposes construction of two giant tunnels beneath the Delta to facilitate export of Sacramento River water south. The DEIS's and Feasibility Study's summary of benefits from the dam raise clearly show that 77% of the water stored behind a raised Shasta Dam will be sold to water contractors south of the Delta (the remainder will be sold to north of Delta contractors). The DEIS fails to document this important connection and is violation of the public disclosure mandate of the National Environmental Policy Act.

A revised DEIS must clearly document the connection between the SLWRI and BDCP and fully disclose the role this connection plays in the cost-benefits of the SLWRI.

3. Raising Shasta Dam Will Not Significantly Increase Anadromous Fish Survival As Claimed In The DEIS.

The DEIS predicts that the dam raise alternatives will increase juvenile anadromous fish survival by 61,000 to 813,000 fish annually. (DEIS Table S-2, pg. ES-26) This is a misleading way to present the alleged benefits of the proposed dam raise. Although increasing juvenile salmon survival by up to 813,000 fish sounds significant, the less than 1% return rate of juveniles as adults three years later means that this billion dollar or more project may produce fewer than 813 additional adult salmon in any one year, and in most years, considerably less than that number.

It is questionable as to whether the Bureau will operate the raised dam and expanded reservoir in a way that guarantees that the cold water pool will be available during the dry and critically dry years when water temperatures are a major factor in juvenile salmon survival. Sadly, there are no hard or firm standards that the Bureau is apparently required to follow. When the Bureau finds it inconvenient to meet temperature standards for juvenile salmon survival, it simply "coordinates" (a polite way of saying it pressures) state and federal regulatory agencies to agree to move the temperature control point on the Sacramento River to a spot more convenient for the Bureau's dam and reservoir operations. The Sacramento Basin Water Quality Control Plan unequivocally sets the salmon temperature control point at Red Bluff. Over the years, the Bureau has found it convenient to move this control point further upstream to Bend, Balls Ferry, and in 2013, even further upstream to a point near Anderson.

In its draft Fish and Wildlife Coordination Report (June 2013), the U.S. Fish and Wildlife Service (USFWS) found the dam raise/expanded reservoir benefits of the

dam raise to be "negligible". According to the USFWS, in 90% of the years, the dam raise/expanded reservoir will provide no benefits for juvenile salmon. In addition, the USFWS found that most of the fish benefits identified in the SLWRI are from spawning gravel augmentation and side channel rearing habitat restoration – mitigation measures that are not dependent on the dam raise/reservoir expansion and that can be implemented regardless whether the dam is raised.

It is important to recognize that the existing dam and reservoir can be operated to maintain an abundant population of endangered winter-run Chinook salmon. The completion of Shasta Dam in 1945 should have doomed this fish to quick extinction since access to its primary spawning grounds on the McCloud and upper Sacramento Rivers were permanently blocked by the dam. But once the reservoir was filled, operations of the dam in its first two decades "provided in-river conditions that sustained the winter-run Chinook population. Abundance estimates for winter-run Chinook in the 1960s ranged form a high of 125,000 in 1962 to a low of 49,000 in 1965." (National Marine Fisheries Service 1997 Proposed Winter-Run Recovery Plan, pg. II-12) Essentially, the winter-run became dependent on cold water releases from Shasta Dam for its survival. But since 1970 to the present, dam operations have consistently failed to provide cold water to the river in order to meet federal water contract commitments in the Sacramento-San Joaquin Delta.

The question is: If the existing dam and reservoir can be operated in a manner that can provide the needed cold water for improved juvenile salmon survival, why is this not an alternative under serious consideration in the SLWRI? The answer is found on DEIS page 2-49, where the Bureau states:

> The adaptive management plan (for the proposed cold water pool created by the raised dam/enlarged reservoir) *may* include operational changes to the timing and magnitude of releases from Shasta Dam to benefit anadromous fish, *as long as there are no conflicts with operational guidelines or adverse impacts on water supply reliability*. (*Emphasis* ours)

This simple statement clearly demonstrates the Bureau's lack of commitment to operate Shasta Dam and Reservoir to benefit endangered salmon regardless of whether the SLWRI is implemented or not. It reveals that the true purpose of the SLWRI is to increase the water supply for water contractors.

4. Key Recovery Actions In The 2009 Central Valley Salmon and Steelhead Recovery Plan Are Not Considered In the SLWRI DEIS.

The National Marine Fisheries Service's (NMFS) 2009 Central Valley Salmon and Steelhead Recovery Plan proposed a number of actions to protect and restore all runs of salmon and steelhead in the Sacramento River and its tributaries. Just a few of these actions include regulating pollution discharges from agricultural and urban sources, setting back and maintaining riparian vegetation on flood control levees,

restoring 185 miles of continuous riparian habitat between Red Bluff and Sacramento, screening water diversions that have substantial fishery impacts, curtailing development in flood plains, negotiating additional instream flows or purchasing water rights, remediating acid mine pollution, and restoring the former footprint of Lake Red Bluff to riparian habitat.

The DEIS ignores most of these actions and only obliquely refers to others. For example, it is unclear that adaptive management flows mentioned in the DEIS are the same thing as this specific recovery action proposed by the NMFS:

> Implement a river flow management plan that balances carryover storage needs with instream flow needs for winter-run Chinook salmon based on runoff and storage conditions, including flow fluctuation and ramping criteria (USFWS 2001).

A revised SLWRI DEIS should include sufficient detail and information to make it clear whether adaptive management flows proposed in the DEIS meet the intent of the recovery action proposed in the Recovery Plan.

The Recovery Plan also calls for the restoration of 185 miles of continuous riparian habitat along the Sacramento River between Red Bluff and Sacramento. It is important to note that the USFWS clearly believes that "the reduction in winter flows with the raising of Shasta Dam would result in adverse effects to riparian habitat along the Sacramento River..." (USFWS Coordination Report pg. 176) The SLWRI proposes as a specific restoration measure to restore riparian habitat in the upper and lower Sacramento Rivers (upstream and downstream of Red Bluff respectively) the development and implementation of a Riverine Ecosystem Mitigation and Adaptive Management Plan (REMAMP). The plan will supposedly avoid and compensate for the impact of altered flow regimes on the river's riparian and wetland communities. But little information is provided in regard to the REMAMP, which apparently does not exist even in draft or outline form, nor does it seem to apply to the Delta (as recommended in the Recovery Plan). There is no assurance that the REMAMP will actually meet the riparian habitat restoration objective found in the Recovery Plan.

In addition, some impacts identified in the DEIS imply that conditions for fish populations targeted for recovery may worsen. For example, remediation efforts at Iron Mountain Mine now controls 95% of the mine pollution that formerly flowed into the river. But the USFWS in its coordination report notes that the SLWRI reservoir expansion may exacerbate acid mine pollution by inundating additional abandoned mines and mine tailings that could leach additional metals into the river. The DEIS notes that "In addition to runoff from the historic workings (i.e., adits and portals), a number of large mine tailing deposits are currently leaching various metals into tributaries of Shasta Lake." (DEIS pg. 7-15) The Bureau apparently eliminated reducing acid mine and metal pollution as a recovery objective from the SLWRI "due to numerous implementation issues." It proposes to prepare and implement a site-specific Remediation Plan for historic mine features subject to

inundation but its not clear if this will be completed in time to allow for the completion of the dam raise and filling of the enlarged reservoir, nor is it clear whether this mitigation meets the intent of the Recovery Plan.

The Recovery Plan recommends minimum instream flows and ramping rates to benefit salmon. The DEIS notes that the 1993 NMFS Biological Opinion (BO) set minimum flows in the river, but it is unclear whether these are the same minimum flows recommended in the Recovery Plan, nor does the BO address ramping rates. Interestingly, the primary fish recovery goal of SLWRI alternative CP4 is to provide a more "fish-friendly" environment with "reservoir storage dedicated to fish, *to either improve flows or water temperatures.*" (DEIS pg. 11-54, *emphasis* ours) This is hardly the firm recovery objective outlined in the Recovery Plan. Apparently, the Bureau believes it can either improve flows or temperatures but not both. The primary constraint is the reservation of much of the existing storage, as well as the additional water provided by the raise, to meet water contract commitments.

Another recovery action virtually ignored in the DEIS is the reduction of agricultural and urban pollution into the Sacramento River and Delta. Although there are a number of mitigation measures in the DEIS to reduce pollution from construction and other upland activities into Shasta Reservoir, there is little assessment of the need to reduce agricultural, municipal, and industrial pollution into the Sacramento River downstream of the Dam, in order to reduce adverse impacts on salmon. For example, one of the specific recovery actions outlined by NMFS in its original 1997 winter run recovery plan is to control contaminant input from the Colusa Basin Drain, which visibly degrades the water quality of the Sacramento River. The Drain is the largest source of agricultural pollution to the river and is a major source of pesticides, turbidity, sediments, nutrients, dissolved solids, trace metals, and warm water into the river. Exposure of juvenile salmon to this kind of pollution is suspected to be detrimental. And yet, there is no effort in the SLWRI to consider pollution remediation in the river downstream of Shasta Dam as yet another action that could be taken to improve juvenile salmon survival.

In addition, the Recovery Plan proposes to restore key populations to former habitat that has become inaccessible due to dams, including Shasta Dam. The DEIS pays short shrift to this proposal, which is particularly inexcusable given the alleged focus of the SLWRI.

If the Bureau is truly serious about improving salmon survival, a revised SLWRI should incorporate more of the Recovery Actions outlined in the NMFS Recovery Plan. In addition, the SLWRI should seriously consider an alternative that re-operates the existing dam/reservoir in order to fully meet downstream temperature needs and flow requirements (for salmon as well as riparian habitat). A revised DEIS must connect the key objectives and recovery actions in the 2009 Recovery Plan to the mitigation measures proposed in the SLWRI DEIS. Further, the revised DEIS should evaluate and determine the feasibility and role of the Bureau in

implementing all recovery actions, particularly in restoring populations upstream of Shasta Dam.

A revised SLWRI should include an alternative that focuses on the salmon improvement measures recommended in the USFWS Coordination Report, including restoration of spawning and rearing habitat, improving fish passage, increasing minimum flows, and screening water diversions. (USFWS Coordination Report pg. v), as well as other specific management measures initially considered in the SLWRI but removed from further analysis (as outlined in the USFWS Report pg. vi).

5. The Project's Impacts On Sensitive, Threatened, And Endangered Species Are Underestimated In The DEIS.

The DEIS admits that there will be significant and unavoidable impacts on a number of sensitive, threatened, and endangered wildlife species and their habitat, including the Shasta salamander, foothill yellow-legged frog, tailed frog, northwestern pond turtle, bald eagle, northern spotted owl, purple martin, willow flycatcher, Vaux's swift, yellow warbler, yellow-breasted chat, long-eared owl, northern goshawk, Cooper's hawk, great blue heron, osprey, red-tailed hawk, red-shouldered hawk, American robin, Anna's hummingbird, Pacific fisher, American marten, ringtails, eight special status bat species, and four special status mollusks.

The DEIS also admits to significant and unavoidable permanent loss of general wildlife habitat and critical deer winter and fawning range. According to the DEIS, impacts associated with the take and loss of the endangered California red-tailed frog are still to be determined. And also according to the DEIS, impacts on riparian associated special status wildlife species may be potentially significant but are supposedly reduced to less than significant by the development and implementation of the previously mentioned but amorphous Riverine Ecosystem Mitigation and Adaptive Management Plan.

Despite the fact these significant and unavoidable impacts on these many sensitive and special status wildlife species are documented in the DEIS, the document fails to adequately reveal the serious nature of these impacts, particularly on the seven rare but not federally listed species endemic (found nowhere else) to the Shasta Reservoir vicinity, including the Shasta salamander, two rare plant species, and three rare snails (mollusks).

Some species are particularly susceptible to inundation by the expanded reservoir. For example, tree snags in the Pit River Arm of Shasta Reservoir appear to support a stable population of 18 breeding pairs of purple martin, a migratory bird that is generally uncommon in California and is considered by the California Department of Fish and Wildlife to be a species of special concern. The Pacific Coast population of purple martin has substantially declined in the last 50 years. Raising Shasta Dam will completely submerge the martin's existing nesting habitat and it would take decades for new nesting snags to become available to replace the lost habitat.

A revised DEIS should better document significant and unavoidable impacts on endemic and other special status species and more fully consider alternatives that reduce the impacts to insignificant levels.

6. The DEIS Underestimates Impacts Of Modified Flows From A Raised Shasta Dam On The Sacramento River And The Proposed Mitigation Measure Is Too Vague And Incomplete.

The DEIS claims that potentially significant impacts on riparian associated aquatic and terrestrial special status wildlife due to modifications of the existing flow regime caused by the dam raise will be reduced to less than significant levels by the development and implementation of a Riverine Ecosystem Mitigation and Adaptive Management Plan (REMAMP). The DEIS also recognizes that the impacts of flow modification on riparian habitat and ecosystem processes is inconsistent with local and regional plans and goals promoting riparian habitat on the Sacramento River. The DEIS notes that these are potentially significant impacts reduced to less than significant levels by the proposed REMAMP.

The USFWS unequivocally states that reduced winter flows caused by the raising of Shasta Dam will result in adverse effects to riparian habitat along the Sacramento River. So these are real issues but unfortunately, the proposed mitigation (the REMAMP) does not yet exist, so there is no way for the public to understand just how the proposed mitigation will truly reduce these impacts to insignificance.

Flow modification impacts to the Sacramento River's riparian and aquatic ecosystems, and the many sensitive, threatened, and endangered fish and wildlife species that depend on these dynamic ecosystems, are generally given short shrift throughout the DEIS. These impacts were well documented in Sacramento River Ecological Flows Study Final Report (CALFED Ecosystem Restoration Program, March 2008). Just a few of the more pertinent facts from this report include:

- Dam-related alterations of river flow regimes have been identified as one of the three leading causes of declines in imperiled aquatic ecosystems.

- Available data support the hypothesis that the reduced frequency and duration of floodplain inundation in the post-dam era may have contributed to the decline of the winter-run Chinook population.

- The Shasta Dam raise will reduce the "stream power" of the Sac by 16% and reduce the amount of floodplain area reworked by high flows by 8%. Diversions from the river to fill the proposed Sites Offstream Storage Reservoir (another CALFED water storage project under study) will further reduce the river's stream power by up to 15%.

- Fremont cottonwood initiation success, Chinook and steelhead rearing WUA

(weighted useable area), and Chinook and steelhead redd scour risk are the indicators most sensitive to flows.

- The altered hydrograph of the Sac River appears to limit cottonwood seedling survival.

- Maintaining natural channel migration and cutoff processes is necessary for providing new patches for seedling recruitment and for periodical resetting of riparian vegetation succession, which are both critical for maintaining the diverse, dynamic, and functional riparian-floodplain ecosystem.

- Reductions in peak flow magnitude will likely reduce bank erosion and thus have potential impacts on spawning gravel availability, and might also affect lateral channel migration, which is essential for creating off-channel habitats important to many Sacramento River species.

- The flow impacts of the Shasta Raise and Sites combined are expected to reduce progressive channel migration by approximately 10%.

- As flows recede below 8,500 cfs, the inlets of secondary channels (which provide crucial habitat for juvenile salmon) become increasingly disconnected from the main stem.

- Removing rip-rap (bank revetment) may mitigate the floodplain impacts of the Shasta Raise (note: this is not a proposed mitigation in the DEIS).

- Revetment removal plus flow management that allows occasional high flows are both necessary and sufficient for habitat creation and persistence.

- The importance of fish passage improvements is strongly suggested by past studies; assessment of benefits only possible through implementation and monitoring.

- The CALSIM II model, which is used in the DEIS to assess the flow impacts of the dam raise, functions at a monthly time-step, which is a recognized shortcoming. Daily flow disaggregations below Red Bluff used in our study are known to be flawed and do not remain consistent with monthly time-step totals. (Note: Development and use of a true daily flow model is also a NMFS recommended recovery action).

These findings clearly underscore the potential severity of flow modification impacts on the Sacramento River ecosystems, the sensitivity of the river to multiple impacts caused by current projects under study (SLWRI and Sites), and the need for a well defined, detailed, and permanent plan that assures true mitigation of these impacts. A revised DEIS should fully assess flow modification impacts on the river, its ecosystems, and fish and wildlife species, and include at least a draft Riverine

Ecosystem Mitigation and Adaptive Management Plan for review and comment by the public. In addition, this plan should fulfill the role of the Sacramento River and Delta Riparian Habitat Restoration and Management Plan outlined in the NMFS Recovery Plan and noted as a needed mitigation measure in the USFWS Coordination Report. The Adaptive Management Plan should also fully comply with all local and regional plans to protect and restore riparian habitat along the river.

It is even more important that this Adaptive Management Plan be completed and available for public review in the revised DEIS because it will determine the future health of riparian and aquatic ecosystems on more than 31,000 acres of federal, state, and other public lands that support some of the most important riparian and aquatic habitat on the Sacramento River (including the BLM's Sacramento River Bend Outstanding Natural Area, the USFWS' Sacramento River National Wildlife Refuge, State Wildlife Areas managed by the California Department of Fish and Game, four State Parks and Recreation Areas, and several local parks and recreation areas).

It is unclear whether the adaptive management plan intended to benefit salmon is the same adaptive management plan intended to benefit the downstream riparian and aquatic ecosystems. The term "adaptive management plan" seems to be interchangeable throughout the DEIS. If they are the same plan, then we assume that the Bureau's qualification about the timing and magnitude of releases from Shasta Dam to benefit downstream ecosystems will be applied – "*as long as there are no conflicts with operational guidelines or adverse impacts on water supply reliability.*" (DEIS pg. 2-49) If this is the case, it is clear that this proposed Adaptive Management Plan will not reduce the flow modification impacts on riparian and aquatic ecosystems to less than significant levels simply because water contracts will always trump well meaning but relatively toothless mitigation measures.

7. Impacts Of Reservoir Enlargement On Potential Wild & Scenic Rivers

Enlarging Shasta Reservoir by raising the dam from 6.5 to 18.5 feet will flood public lands managed by the Forest Service encompassing segments of the upper Sacramento, McCloud, and Pit Rivers, Salt Creek, and several small tributary streams. This flooding, however minor it may seem to the Bureau, triggers several requirements and mandates in the National Wild & Scenic Rivers Act. Although the DEIS attempts to address Wild & Scenic River issues in Chapter 25, it fails to recognize the actual requirements of the Act and the true implications of the reservoir enlargement in regard to previous Forest Service studies and commitments made in the 1994 Shasta-Trinity National Forests Plan. Nor does the DEIS adequately address the impacts of reservoir enlargement and the legal implications of violating the California Public Resources Code.

8. The National Wild & Scenic Rivers Act requires consideration by all federal agencies of federal Wild & Scenic River protection for the McCloud, upper

Sacramento, and Pit Rivers, and other reservoir tributaries as an alternative to the federal proposal to raise the dam and expand the reservoir.

Section 5(d)(1) of the National Wild & Scenic Rivers Act states:

> In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic, and recreational river areas, and all river basin and project plan reports submitted to the Congress shall consider and discuss any such potentials. The Secretary of the Interior and the Secretary of Agriculture shall make specific studies and investigations to determine which additional wild, scenic, and recreational river areas within the United States shall be evaluated in planning reports by all Federal agencies as potential alternative uses of the water and related land resources involved.

This section of federal law clearly requires the Bureau of Reclamation to go beyond the simple reporting of past state and federal considerations of Wild & Scenic protection for the river segments affected by the SLWRI. It specifically requires consideration of Wild & Scenic protection in the context of and as an alternative to the proposed dam raise and reservoir enlargement, not only for the McCloud, but also for the upper Sacramento and Pit Rivers, and all other streams on public lands tributary to Shasta Reservoir. No such comprehensive assessment of Wild & Scenic Rivers is provided in the DEIS.

The Bureau should work with the Forest Service to include in a revised DEIS a comprehensive assessment specifically addressing the impacts of the dam raise and reservoir enlargement on the free flowing character and outstanding values of all rivers and streams tributary to the reservoir and include a range of alternatives that proposes Wild & Scenic protection with and without various reservoir enlargement alternatives.

For example, the Forest Service in the 1994 Shasta-Trinity National Forests Draft Plan found the upper Sacramento River from Box Canyon Dam to the Whiskeytown-Shasta-Trinity National Recreation Area to be eligible for federal protection, but the agency did not recommend it because of land ownership patterns along the river. But the river was also not actively threatened by reservoir expansion at that time. The Wild & Scenic Rivers Act requires the Forest Service and the Bureau to revisit potential Wild & Scenic protection of the upper Sacramento River in the context of the project outlined in the revised DEIS, as well as for other rivers and streams that may be affected by reservoir expansion.

The Bureau of Reclamation has previously recognized the clear mandate of the National Wild & Scenic Rivers Act to consider and evaluate potential Wild & Scenic Rivers as potential alternative uses to water and related land resources in the planning for water development. As part of its planning and study of the Auburn

Dam project on the North and Middle Forks of the American River, the Bureau convened a multi-agency interdisciplinary team that determined segments of the river that would be flooded by the dam proposal to be eligible for Wild & Scenic protection in 1993 (letter dated March 17, 1993 from Susan E. Hoffman, Division of Planning and Technical Services Chief, U.S. Bureau of Reclamation Mid-Pacific Region). The study to determine if the eligible segments were suitable for designation was scheduled for Phase II and III of the American River Water Resources Investigation. This part of the study was never completed because soon after the eligibility finding, Congress rejected authorization of the Auburn Dam project.

9. The National Wild & Scenic Rivers Act requires consideration of federal Wild & Scenic River protection for the segments of the lower Sacramento River with significant federal lands downstream of Shasta Dam as an alternative to the federal proposal to raise the dam and expand the reservoir.

The lower Sacramento River between Anderson and Colusa has several segments with substantial federal public lands managed by the Bureau of Land Management (BLM) and the U.S. Fish and Wildlife service (USFWS). In its draft Fish and Wildlife Coordination Report, the USFWS stated "Riparian and floodplain habitat along the Sacramento River and in the Yolo and Sutter Bypasses would be adversely affected by further changes in the timing, duration, and frequency of flood flows due to an enlarged Shasta Dam." (USFWS Draft Coordination Report, pg. viii, June 2013) Even the SLWRI DEIS admits that flow modification from the dam raise may have potentially significant impacts on the river's riparian and aquatic ecosystems and fish and wildlife. These agency findings clearly trigger the section 5(d)(1) requirement that the federal segments of the lower river be studied and considered for potential federal protection as an alternative to the proposed water resources project.

The BLM manages nearly 18,000 acres of federal public lands as the Sacramento River Bend Outstanding Natural Area (SRBONA), which encompasses a 25-mile stretch of the Sacramento River between Balls Ferry and Red Bluff. The BLM found the federal portions of this segment to be eligible for National Wild & Scenic River protection in recognition of its free flowing character and outstandingly remarkable scenic quality, recreation opportunities, cultural/historic values, anadromous and resident trout fisheries, and vegetation. The outstandingly remarkable vegetation value was specifically defined as the river's Great Valley oak riparian forests. (BLM Redding Resource Management Plan and ROD, and BLM Redding RMP FEIS, June 1993 and July 1992 respectively)

In addition to the Wild & Scenic finding, BLM management direction designated the river as an Outstanding Natural Area and requires protection and enhancement of the river's riparian vegetation, wetlands, and anadromous fisheries. BLM management direction for the SRBONA also included the long-term survival of special status species, maintenance and improvement (if feasible) of scenic quality,

conserving archeological resources, and providing for semi-primitive recreation opportunities. In addition, general policy and program direction in the BLM Manual and the Redding RMP require the BLM to protect the free flowing character and specific outstandingly remarkable values of all eligible rivers.

Determining the suitability of the eligible Sacramento River segment was deferred by BLM due to budgetary and personnel constraints (BLM Redding RMP pg. 28, June 1993) The BLM Manual specifically states in regard to water resources projects that may affect eligible or suitable Wild & Scenic Rivers:

> The BLM should, within its authority, consider protecting the river values that make the river eligible or suitable through the land use plan and activity-level NEPA analysis. If a river is listed in the Nationwide Rivers Inventory, the Federal agency involved with the proposed action must consult with the land-management agency in an attempt to avoid or mitigate adverse effects. (BLM Manual 6400-WILD AND SCENIC RIVERS—POLICY AND PROGRAM DIRECTION FOR THE IDENTIFICATION, EVALUATION, PLANNING, AND MANAGEMENT, Sec. 3.8(D), pg. 3-14 7/13/2012)

The SLWRI DEIS mentions BLM management responsibility for public lands along the Sacramento River in several sections. It also mentions the BLM's Wild & Scenic eligibility finding for the Sacramento River between Balls Ferry and Iron Canyon and notes that BLM management direction requires its public lands along the river to be "managed to protect the outstandingly remarkable values and free-flowing character..." However, the documentation of BLM's responsibilities ends there in the SLWRI. There is no connection made between the Sec. 5(d)(1) mandate to consider potential Wild & Scenic protection of the river as an alternative to the SLWRI nor is there any substantive discussion about how the dam raise could modify flows and adversely affect the river's outstandingly remarkable anadromous fisheries and riparian forests, which make the river eligible for Wild & Scenic protection.

The SLWRI DEIS fails to connect the Bureau's proposed alternatives with the BLM's mandate to protect the river's eligible segment. The SLWRI is also inconsistent with the BLM's current management direction for this part of the Sacramento River. As part of a revised DEIS, the Bureau must consult with the BLM and pursuant to Sec. 5(d)(1) of the Act the BLM must initiate a Wild & Scenic River suitability study for the segment of the Sacramento River identified as eligible by the BLM as an alternative to the SLWRI.

10. The DEIS fails to recognize that Sec. 5(d)(1) of the National Wild & Scenic Rivers Act also applies to federal public lands that comprise the Sacramento River National Wildlife Refuge.

The USFWS manages more than 10,300 acres of federal public lands along the Sacramento River between Red Bluff and Colusa as the Sacramento River National Wildlife Refuge. These lands were acquired by the USFWS and incorporated in the Refuge in order to protect and restore riparian and aquatic habitats and the many sensitive, threatened and endangered species that depend on these habitats. As far as we know, none of the Refuge lands along the river have been studied for their Wild & Scenic eligibility or suitability per sec. 5(D)(1) of the Act. Nor does the DEIS make any mention of potential Wild & Scenic eligibility and suitability of these segments.

A revised DEIS, the Bureau must consult with the USFWS and pursuant to Sec. 5(d)(1) of the Act, the USFWS must initiate a Wild & Scenic River suitability study for the Refuge segments of the Sacramento River as an alternative to the SLWRI.

11. The DEIS admits that all alternatives to raise the Shasta Dam and expand its reservoir will adversely affect the McCloud River's eligibility as a National Wild & Scenic River and will specifically harm the river's free flowing character, water quality, and outstandingly remarkable values.

In Chapter 25, the DEIS documents that raising Shasta Day by 6.5-18.5 feet will flood from 1,470 feet to 3,550 feet of the segment of the McCloud River eligible for National Wild & Scenic River protection. The DEIS also admits that this flooding will adversely affect the McCloud's free flowing character, water quality, and outstandingly remarkable Native American cultural, wild trout fishery, and scenic values.

Conservationists believe that even more of the eligible segment of the McCloud River will be harmed by the dam raise alternatives because the Bureau incorrectly identifies elevation 1,070 feet as the terminus of the McCloud segment identified by the Forest Service. In fact, the terminus of the eligible McCloud segment is simply defined by the Forest Service as "Shasta Lake". (LRMP FEIS, Appendix pgs. E-4, E-13) The Forest Service's map depicting the eligible segment of the McCloud shows that eligible segment ends at the McCloud River Bridge (FEIS Appendix E pg. 3-36). There is no mention of elevation 1,070 as the terminus of the eligible segment and there is no reference in the LRMP to the McCloud's so called "transition reach". Hence, the impact of the dam raise and reservoir expansion is greater than what is documented in the DEIS.

12. Flooding the McCloud River violates the 1995 Shasta-Trinity National Forests Land and Resource Management Plan and Record of Decision in regard to protecting the McCloud River's eligibility as a potential National Wild & Scenic River.

The Forest Service recommended Wild & Scenic River protection for the McCloud River in its 1990 draft of the Shasta-Trinity National Forests Land and Resource Management Plan (LRMP). In response to concerns expressed by river-side

landowners, the Forest Service chose to pursue protection of the McCloud River's free flowing character and outstandingly remarkable values through a Coordinated Resource Management Plan (CRMP) developed by the Forest Service and other federal and state agencies and the riverside landowners. This decision is reflected in the 1995 final Shasta-Trinity National Forests LRMP and Record of Decision (ROD), which state:

> A Coordinated Resource Management Plan (CRMP) has been adopted for long term management of the Lower and Upper McCloud River and Squaw Valley Creek. This agreement is between private land owners, the Forest Service, Pacific Gas & Electric, Nature Conservancy, CalTrout, and the DFG. This plan will effectively maintain the outstandingly remarkable values of this potential wild and scenic river. If for any reason the terms of the CRMP are not followed and the wild and scenic river eligibility is threatened, the Forest Service will recommend these segments for Federal Wild and Scenic designation. (1995 Final LRMP, page 3-23)
>
> If, after a period of good faith effort at implementation, the CRMP fails to protect the values which render the river suitable for designation then the Forest Service will consider recommendation to the national Wild and Scenic River System. (1995 ROD page 17)

The DEIS admits that raising the dam will periodically flood 1,470 feet of the eligible segment of the McCloud River, which would make the flooded segment ineligible for federal Wild & Scenic protection. (DEIS pg. 25-26) Conservation groups believe that more of the eligible river would be flooded (see discussion below about the actual terminus of the eligible McCloud). Regardless, it is clear that the Bureau's proposal to raise Shasta Dam and expand its reservoir directly violates the intent and constitutes failure of the CRMP, and it also violates the protective management proposed in the LRMP. Therefore, the Forest Service is bound by its own ROD to consider and recommend federal protection for the river. This requirement is not reflected in the DEIS and it should be included in the revised DEIS.

The Bureau is misleading the public when it claims that raising the dam and expanding the reservoir will not conflict with the Shasta-Trinity National Forests LRMP because the portion of the McCloud that would be flooded is private land and not National Forest land. The Forest Service has the authority to study and recommend the river within its reservation boundary, as it did so in the 1990 draft LRMP. It has the authority to determine that reservoir expansion and flooding of the eligible segment of the McCloud reflect a de-facto failure of the CRMP and therefore triggers Forest Service reconsideration of its Wild & Scenic River recommendation for the McCloud. This important protection is a fundamental component of the LRMP, which means that the Bureau's proposal violates the LRMP.

13. All dam raise/reservoir enlargement alternatives violate the California Public Resources Code 5093.542 prohibiting the construction of a reservoir that would harm the McCloud's free flowing condition and extraordinary wild trout fishery upstream of the McCloud River Bridge.

In 1989, the California Legislature passed and the Governor signed legislation declaring that the McCloud River possesses extraordinary resources, including one the of the finest wild trout fisheries in the state, and that continued management of river resources in their existing natural condition represents the best way to protect the unique fishery of the McCloud, and that maintaining the McCloud in its free-flowing condition to protect its fishery is the highest and most beneficial use of the waters of the river.

The legislation specifically prohibited any dam, reservoir, diversion, or other water impoundment on the McCloud River upstream of the McCloud River Bridge. It also prohibited any state agency cooperation, participation, or support for 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. These prohibitions and conditions are now memorialized in the California Public Resources Code (PRC) 5093.542.

The DEIS admits that all dam raise alternatives will have a significant unmitigated impact on the McCloud's free flowing condition and will have a potentially significant impact on the river's wild trout fishery (DEIS pg. 25-40). The DEIS suggests that the wild trout fishery impacts could be mitigated to less than significant levels but these mitigations have yet to be identified. Regardless, all the dam alternatives in the DEIS clearly violate state law. To ensure compliance with PRC 5093.542, the California Legislature and the Governor passed and signed statewide water bond legislation prohibiting use of the bond funds to raise Shasta Dam.

Clearly, the SLWRI's proposal to raise Shasta Dam and expand its reservoir violates state law. So why is the Bureau continuing to study this illegal project? Does the Bureau intend to cite federal preemption over state law in regard to this matter? If so, the DEIS should admit this.

14. The DEIS fails to mention that the Sacramento River between Anderson and Colusa is in the Nationwide Rivers Inventory and is protected by Presidential Directive.

A segment of the Sacramento River from the I-5 bridge crossing in Anderson to Arnold Bend upstream of Colusa was included in the National Park Service's 1982 Nationwide Rivers Inventory (NRI). The NRI was created by a directive from President Carter. The directive requires each federal agency, as part of its normal planning and environmental review process, to take care to avoid or mitigate adverse effects on rivers identified in the NRI. Further, all agencies are required to

consult with the National Park Service prior to taking actions which could effectively foreclose wild, scenic or recreational stats for rivers on the inventory.

The NRI describes this segment of the Sacramento River as a swift moving river isolated from surrounding civilization by a narrow band of dense riparian vegetation that meanders over a wide area with numerous islands and oxbow lakes. It also notes that the river flows through scenic Iron Canyon with a stretch of rapids, supports important anadromous fish populations and the state's most important salmon spawning grounds, includes outstanding riparian habitat for the yellow-billed cuckoo and giant garder snake, provides excellent rafting and boating opportunities, receives intense recreational use with fishing as the most popular activity, and is an important popular recreation resource for nearby urban areas.

There is no mention in the SLWRI of the NRI segment of the Sacramento River, the mandate to avoid or mitigate adverse effects on the NRI segment and its specific outstanding values, or the requirement to consult with the National Park Service. A revised DEIS should substantively address these issues.

15. The DEIS fails to adequately identify potential project effects on protected National Forest roadless areas and the Whiskeytown-Shasta-Trinity National Recreation Area.

A portion of the boundaries of the Backbone and Devil's Rock roadless areas on the Shasta-Trinity National Forests parallel the existing reservoir's high water line. The action alternatives could flood a portion of the roadless areas, which are protected under the Roadless Area Conservation Rule. While the DEIS admits to significant unavoidable impacts on National Forest lands and resources, as well as non-compliance with existing Forest Service management, it fails to describe the adverse impacts on federally protected roadless areas. The revised DEIS should include consideration of these impacts.

The DEIS fails to adequately consider the impacts of the dam raise alternatives on the Whiskeytown-Shasta-Trinity National Recreation Area (WSTNRA). The WSTNRA was established by Congress and President Kennedy in 1963 to:

> ...provide, in a manner coordinated with the other purposes of the Central Valley project, for the public outdoor recreation use and enjoyment of the Whiskeytown, Shasta, Clair Engle, and Lewiston reservoirs and surrounding lands in the State of California by present and future generations and the conservation of scenic, scientific, historic, and other values contributing to public enjoyment of such lands and waters... (16 USC Sec. 460q)

The DEIS documents the impact on recreation facilities, but fails to adequately identify the impacts on scenic, scientific, historic and other public land values the WSTNRA was established to conserve. Further, it is not clear that the impacts on

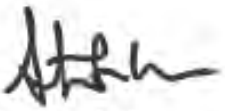
recreation and recreation infrastructure will be fully mitigated. Although owners of private resorts and other recreation facilities will be reimbursed for the fair market values of their property, they will not be reimbursed for the loss of income nor is there any guarantee that these owners will be able to replace their facilities to provide comparable services in the future.

In addition, the DEIS fails to assess the impacts of moving existing facilities elsewhere on undeveloped National Forest lands. A revised DEIS must fully assess the impacts of the proposed dam raise on the all the purposes of the WSTNRA, as well as the actual impacts on private recreation facilities, and the impacts of proposed relocation of public and private facilities.

16. Summary

In summary, there are numerous deficiencies in the SLWRI DEIS. Friends of the River and the California Wilderness Coalition believe that a revised DEIS is required to correct these deficiencies and to allow for full disclosure to the public.

Sincerely,



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D-FLAM Duplicate of O-CFCA1

A friendly feline reminder that Public Comments are due on the raising of Shasta Dam Sep 30, 2013

Rose Flame <mysecretfires@gmail.com> Mon, Sep 23, 2013 at 1:18 PM
To: info@packersbay.com, admin@silverthornresort.com, info@philsprop.com, Donna Smith <managersaltcreekresort@gmail.com>, antlersrvpark@campingshastalake.com, info@bassholebarandgrill.com, Lesa@lakeshasta.com, office@fawndaleoaks.com, info@shastatackle.com, joyce@shastarv.com, houseboats dotcom <admin@houseboats.com>, info@shastacamping.com, info@mt-gatervpark.com, tsasdi2@snowcrest.net, robert@shastalakehb.com, "hswriter@frontiernet.net" <hswriter@frontiernet.net>, "fantompenguin@fantompenguin.com" <FantomPenguin@fantompenguin.com>, "Frank J. Strazzarino, Jr." <info@reddingchamber.com>, news@khsltv.com, news <news@krcrtv.com>, S Young <mahalo3366@yahoo.com>, Charles Alexander <sushibar007@hotmail.com>, Seabrook Leaf <seabrook@frogwood.org>, John Laird <secretary@resources.ca.gov>, Damon Arthur <darthur@redding.com>, organizations@moveon.org, "gomauro ." <mauro@signaloflove.org>, Marily Woodhouse <trees@thebattlecreekalliance.org>, Tom Stokely <tstokely@att.net>, Mark Lathrop <MLathrop@spi-ind.com>, Gracious A Palmer <graciouspalmer2009@yahoo.com>, Peter Griggs <pgriggs@shastacollege.edu>, Gypsy Perry <gypsyperry03@gmail.com>, Carla Thompson <cthompson@cityofshastalake.org>, Carole Ferguson <cferguson@redding.com>, Jeff <jkiser@ci.anderson.ca.us>, Gary Cadd <white.bear@sbcglobal.net>
Cc: BOR-MPR-SLWRI@usbr.gov, Katrina Chow <kchow@usbr.gov>, "Wsloan@mofo.com" <wsloan@mofo.com>, Pete Lucero <plucero@usbr.gov>

Hello Everyone,

Citizens For Clean Air has formally submitted public comments on the proposal to raising Shasta Dam. As you may have guessed, we came out on the side of our friends and neighbors. Thanks to everyone who made the July 16,th and September 10th Bureau of Reclamation meetings a success.

What an an amazing turnout!

We are asking for even more help from our community. Especially ... we need

experts to ask detailed environmental questions on the cumulative impacts of the project.

Written comments on the Draft EIS may be provided before midnight
Monday, September 30, and should be mailed to
Katrina Chow, Project Manager, Reclamation, Planning Division, 2800 Cottage Way, Sacramento, CA 95825-1893, 916-978-506 or
email BOR-MPR-SLWRI@usbr.gov

Personally... I recommend email. It leaves a permanent record. Go ask Enron.

Best Regards,
Celeste Draisner
Citizens For Clean Air
530-223-0197
P.O. Box 1544
Shasta Lake, CA 96019

P.S.
Here is a link showing why emails are really the way to go:
http://yosemite.epa.gov/oa/eab_web_docket.nsf/Filings%20By%20Appeal%20Number/2303451E3FD9594B85257B5500684B63/$File/EAB%20Celeste%20Omer%20email...30.pdf

Bureau of Rec. Sept. 2013 comments .odt
30K

September 22nd, 2013 Page 1

Katrina Chow, Project Manager
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2800 Cottage Way
Sacramento, CA 95825-1893
email: kchow@usbr.gov

Citizens For Clean Air's Public Comments: Shasta Lake Water Resource Investigation, Draft EIS (Shasta Dam Raising Project)

Our community is overwhelmingly opposed to this project.

Citizens For Clean Air formally requests that the public comment period be extended until January 15, 2014.

Shasta County, a federally recognized Environmental Justice (EJ) community is being asked to review an approximately 6000 page document. It is unreasonable to expect average citizens, to meaningful participate as stakeholders in the review process under the Bureau's current time line.

The available evidence demonstrates this project is an attempted water grab by the Westlands and Metropolitan Water Districts. These two water districts are rich and powerful south state water companies, posing as public agencies.

The raising of Shasta Dam is being advocated as a benefit for North State farmers and endangered fish species. Yet nowhere in the massive 6000 page Draft EIS has the Bureau demonstrated any valid scientific evidence to prove such claims.

The raising of Shasta Dam will flood sacred native sites, destroy existing resorts and marinas, dislocate the town of Lakehead and impact our local economy in a negative manner.

If the Westlands and Metropolitan Water Districts want to raise the dam for their personal profits, they (and not the public) should pay for it. By allowing the use of eminent domain for private gain, the Bureau of Reclamation is complicit in activities that are legally indefensible.

Many Winnemem Wintu were left homeless when the government forcibly removed them from their ancestral lands, flooding their villages and sacred sites.

All these years later, the Winnemem Wintu have yet to receive the "like lands" that were promised in the 1941 Indian Lands Acquisition Act, which authorized the stealing and subsequent destruction of their homeland.

"Like lands" for a tribe who lived along the McCloud River for over six thousand years, would be along the McCloud River. This land along the McCloud would still be considered their ancestral land.

The 3,000 acre Bollibokka Fishing Club on the McCloud River was sold to Westlands Water District for nearly $35 million. Why does the nation's largest water district, located in Southern California (Fresno) want this land?

"We did not want to see the use of this land to be changed to impede the potential of raising the dam." Tom Birmingham, general manager, Westlands. ~Record Searchlight 2/19/2007

It is the very property that would protect the Winnemem Wintu's remaining sacred sites. This is the land that Westlands has recently purchased in their efforts to "de-list" the McCloud River and thereby remove a major impediment to the Shasta Dam raising project.

The Bureau of Reclamation knew the Winnemem were entitled to "like land" for their land the federal government removed them from in the late 1930's. Why didn't the Bureau stop the sale of the Bollibokka fishing club to Westlands?

Your agency's duty to honor your legal commitment to the Winnemem is much older and more important than appeasing special interests in Southern California.

In 1851, the Winnemem (represented by the signature of Numterareman), along with other Wintu bands signed the [congressional] Treaty at Cottonwood Creek which ceded to the United States a vast territory.

In 1914, the U.S. government took steps to purchase land from the Winnemem Wintu.

Congress recognized the Winnemem Wintu in the 1941 Indian Lands Acquisition Act.

For decades the Winnemem received scholarships, health care and permits to gather eagle feathers from the federal government. They had federal tribal recognition.

In the 1980's, the Bureau of Indian Affairs reorganized their Agency and established a Federal Recognition List. The Winnemem Wintu were wrongfully (and secretly) left off of that list. The Bureau of Indian Affairs has not corrected it's own error to this day. The tribe's medical care, scholarships and permits were canceled without notification.

However, the most grievous harm by the Bureau of Indian Affairs is the tribe's loss of sovereign status. Without the Winnemem's rightful status, their fight to save ancestral and sacred sites from permanent destruction is severely compromised.

Until the Winnemem receive 'like lands' for the land Congress acknowledges they took and Congress declared they would compensate the Winnemem for, this project is without moral or legal grounds to proceed. The original deal has never been completed.

Is this the reason for the Bureau of Reclamation's formal "no response" to the theft of the Winnemem Wintu's lands?

The Westlands Water District and the Metropolitan Water District are behind legislation to de-list the McCloud River from current protection under the California Wild & Scenic Rivers Act.

It is the policy of the State of California that certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of this state. The Legislature declares that such use of these rivers is the highest and most beneficial use and is a reasonable and beneficial use of water within the meaning of Section 2 of Article X of the California Constitution. - The California Wild & Scenic Rivers Act (Public Resources Code Sec. 5093.50 et seq.)

The upper McCloud River offers spectacular waterfalls, great fishing, and shady camping and picnicking spots under towering pine trees. With easy access from Highway 89, the upper McCloud offers a wide variety of outdoor recreation opportunities. The Forest Service acquired 13 miles of this river in 1989 through a land exchange with the Champion timber company. The 2,600 acre river corridor had long been a Forest Service priority for acquisition because of its exceptional recreational and scenic qualities. This segment of the river is considered eligible by the Forest Service for National Wild & Scenic River status due to its free flowing character and outstanding scenic, geological, and fishery values.

According to Friends of the River, the upper McCloud is perhaps best known for its three spectacular waterfalls. They provide an exhilarating sight for hikers and anglers. A short trail extends upstream and downstream from Fowler Campground and provides easy access to the waterfalls. This segment of the river is also popular with anglers, although upstream of the falls, the river provides habitat for the rare McCloud redband trout in two small tributaries closed to fishing.

Included is the following excerpt from a February 2, 2013 Record Searchlight article:

"McCloud River takes central role in the dam-raising proposal" ~By Damon Arthur Saturday,

The Westlands Water District and Metropolitan Water District, two rich and powerful south state water agencies interested in raising the height of Shasta Dam have the McCloud River in its sights.

The law governing the river's status forbids any state agency from planning for or building anything that would affect the river. The law also specifically says the state can't spend money on proposals to raise Shasta Dam.

A U.S. Bureau of Reclamation draft report released last year said it would be economically feasible to raise the dam, but two issues were unresolved: the McCloud's wild and scenic status and the numerous Winnemem Wintu sacred sites along the river."

The land acquired by Westlands would be sold to the federal government and inundated if officials and lawmakers decided to raise the dam. Will Westlands set the price the federal government, i.e. the people pay for this land? Where are the Environmental Assessments for flooding 3,000 acres of pristine land?

We urge you to visit this amazing wilderness yourself and after it wins your heart, apply for National Wild and Scenic Status protection.

Shasta County was recognized by the federal Environmental Appeals Board, *In Re Knauf Fiber Glass,* as an Environmental Justice community, requiring EJ guidelines to be addressed.

We want to point out that in a Bureau of Reclamation press release dated December 7th, 2012, the Bureau claimed "Reclamation initially released the Draft Feasibility Report in February 2012..." Yet, the first time the Winnemem and Citizens for Clean Air realized the report had been 'released for public comment' was when citizens happened upon your press release on December 9th.

This does not qualify as "Early and sustained involvement with the effected community."

After public outcry, the comment period was extended until January 28. We were never notified of this time extension. Citizens discovered the extension while scrolling through press releases on the Bureau's website.

We attended the September 10, 2013 Bureau meeting held in Redding, CA regarding the SLWRI project. Several times the Bureau's staff mentioned (with humorous groans) that the new Environmental Impact Report was over 1,000 pages. Some people have estimates it to be around 6,000 pages. It is not conveniently numbered. On-line, it is divided into many sections which makes it very time consuming and confusing.

In legal circles, if you want to overwhelm and bog down your opponents, you "blizzard" them with thousands of pages of mostly unnecessary information they have to pick through to find what they need.

"However, for perspective, it relies on the reader being familiar with the massive, 10 year-old EISs for the implementation of the Central Valley Project Improvement Act and the CalFed program. Both documents were about two feet thick; organized for those looking for specific subjects, not overall perspective; and probably hard to find by now. It would be most useful for the revised DEIS, to include an account of the major water problems facing California, each of which is potentially budget-busting in a slow economy. Otherwise EISs for enormous, but still small, billion-dollar parts of the overall picture come across as examples of piece mealing..."

~Sept. 13,2013 Letter to the Editor, Buford Holt, U.S. Bureau of Rec. (retired.)

1,000's of pages of documents (in an unfriendly format) is a highly unreasonable burden to place on an Environmental Justice community. This is a low income community, with lower than average education rates.

Are citizens supposed to read thousands of pages, analyze the information and compose a comprehensive response in three months? In their spare time?!

Citizens For Clean Air has had volunteers skim through the plethora of sections. We did not

find answers regarding the direct and cumulative impacts to this community. These impacts are not being seriously considered.

For example, the Bureau did not appear to think it was appropriate to include new inundation levels for the proposed raising of Shasta Dam. If the dam breaks, I guess we are just out of luck?

The Bureau still claims they do not need to consider the 3M quarry's impact as part of the dam raising project. Isn't a potential "take" site identified in the preliminary EIS the proposed 3M Quarry?

Wouldn't the quarrying of Turtle Bay be considered a related impact on the environment if an EIS was done on the original Shasta Dam project?

Eric Cassano finally received the map he has been requesting for our group, Citizens For Clean Air, on September 15, 2013.

This newly released map is critical for our community's public comments.

Our greatest concern, besides the Winnemem's sacred sites, is the devastation that will come to the residents of Shasta Lake and Shasta County from the proposed 3M Moody Flats Quarry.

The importance of the "Shasta Dam Enlargement Sand and Aggregate Sources" report can not be underestimated. It is only weeks before all public comments are due.

In response to repeated Freedom of Information Act (FOIA) requests, the Bureau claims they have had no communication with the proposed 3M Quarry.

However, it is our understanding that in February of 2012, during a conference call, including Katrina Chow, and community activist Eric Cassano, Ms. Chow informed Mr. Cassano that the Bureau had a geologist who was the contact liaison for the proposed 3M quarry.

At the Bureau's previous July SLWRI workshop in Redding, Bureau representatives told Eric Cassano that the Bureau plans to acquire all the aggregate for the project on site. If that is accurate, then the specific site needs to be identified and the impacts considered in the Draft EIS.

If the Bureau intends to purchase the aggregate from the 3M Quarry, then the Bureau needs to state that now to produce a legally defensible document.

If the 3M Quarry is going to supply aggregate for the project, the City of Shasta Lake is the rightful lead agency. All the impacts of the 3M Quarry must be considered in the Bureau's Draft EIS.

If the Bureau is planning to build a Construction Depot within the City of Shasta Lake borders, then the City of Shasta Lake is the correct lead agency, not Shasta County. Also, the full impact of the Construction Depot must be included in this Draft EIS.

"Pacific Constructors, the main company building Shasta Dam, set up its own camp near the base of the Shasta Dam site, called "Contractor's Camp"

or "Shasta Dam Village". The company built an enormous 2,000-man mess hall, hospital, recreational center and other venues at the dam site. Three other makeshift camps nearby, called "Central Valley", "Project City", and "Summit City", soon filled with men from all over the state hoping to get jobs at the Shasta Dam as drillers, crane operators, mechanics, truck drivers, carpenters, welders, among others." ~ wikipedia.org/wiki/Shasta Dam

The 3M Quarry project includes several acres inside the limits of the City of Shasta Lake.

A road within city limits was identified by the facilitator of the 3M Scoping Meeting as being used by the proposed 3M project to bring in fuel and explosives as part of their planned operation. This is not addressed in the Bureau's Draft EIS.

If the Bureau intends to ever use aggregate or cement from the 3M Quarry, they must include the quarry and all it's impacts as part of the Bureau's Draft EIS. The Bureau must also go through the Draft EIS certification process with the correct local lead agency - the City of Shasta Lake.

In the Bureau's latest Draft EIS, the document skims over compensation for the residents/ businesses if their property is flooded. Bureau representatives left critical questions unanswered. How much would these residents be given for their properties? Which homes will be flooded? Which business will be flooded? How much will they be paid for their businesses? How are the business owners and employees being compensated for years of lost income?

The Westlands Water District, already the largest agricultural user of Northern California water, has purchased 3,000 acres along the McCloud River to "make it easier to one day raise Shasta Dam."

Westlands is also aggressively pushing legislation to remove the existing state law that protects the McCloud River from development or flooding. WWD is privately owned by 'farmers' that don't grow anything. They buy the water at a cheap 'agricultural' rate and resell the water further south at a profit.

Records obtained under the Public Records Act, revealed a "Secret Society" organized in 2009 to influence water rates (and other decisions) at California's largest public water district - The Metropolitan Water District. MWD has an annual budget of $1.8 billion and serves a six-county region with an annual economy valued at greater than $1 trillion.

The Delta Watershed acts as a natural limit to how much water can be diverted south. Each year, California pumps about 4.9 million acre feet of freshwater out of the Delta. The proposed Peripheral Tunnels, two giant water tunnels, would have the capacity to carry up to 11 million acre-feet annually. The proponents of the project say they would "never use the tunnels at full capacity."

Why then build them so large? Why not build *one* tunnel?

It is indisputable that the additional 6 million acre-feet of water yearly would come from the Sacramento River and other North State Rivers. Therefore, the full impact of the

Peripheral Tunnels must be part of a valid and legally defensible EIS.

According to the Sacramento Bee, Sacramento Mayor Kevin Johnson and City Manager John Shirey have expressed opposition to Governor Jerry Brown's proposal to build these giant tunnels. Johnson expressed concerns over the impact to the region's water supply and habitat. "For us, we want to be good stewards," the mayor said. "I'm going to speak out any chance I get." Shirey said the plan is moving "without any collaboration with the city of Sacramento."

This master plan to ship the North State's water south hinges on the Peripheral Tunnels. If the tunnels are not built, not enough water can get through to make the project viable.

No tunnels means no raising of Shasta Dam. The remaining Winnemem Wintu's sacred sites would not be flooded, businesses and homes in Lakehead would not be destroyed. The resorts on the Lake would not be ruined. The beautiful McCloud River would still be enjoyed by everyone. The City of Shasta Lake would not be devastated by an enormous quarry.

The full impacts of constructing the water tunnels under the Delta as a direct impact of the Shasta Dam raising project must be included.

Sincerely,

Celeste Draisner
Heidi Strand
Citizens for Clean Air
P.O. Box 1544,
Shasta lake City, Ca 96019
(530) 223-0197

D-FOTDW1 Duplicate of O-FOTDW1

CHOW, KATRINA <kchow@usbr.gov>

A friendly feline reminder that Public Comments are due on the raising of Shasta Dam Sep 30, 2013

1 message

Rose Flame <mysecretfires@gmail.com> Mon, Sep 23, 2013 at 1:18 PM
To: info@packersbay.com, admin@silverthornresort.com, info@philsprop.com, Donna Smith <managersaltcreekresort@gmail.com>, antlersrvpark@campingshastalake.com, info@bassholebarandgrill.com, Lesa@lakeshasta.com, office@fawndaleoaks.com, info@shastatackle.com, joyce@shastarv.com, houseboats dotcom <admin@houseboats.com>, info@shastacamping.com, info@mt-gatervpark.com, tsasdi2@snowcrest.net, robert@shastalakehb.com, "hswriter@frontiernet.net" <hswriter@frontiernet.net>, "fantompenguin@fantompenguin.com" <FantomPenguin@fantompenguin.com>, "Frank J. Strazzarino, Jr." <info@reddingchamber.com>, news@khsltv.com, news <news@krcrtv.com>, S Young <mahalo3366@yahoo.com>, Charles Alexander <sushibar007@hotmail.com>, Seabrook Leaf <seabrook@frogwood.org>, John Laird <secretary@resources.ca.gov>, Damon Arthur <darthur@redding.com>, organizations@moveon.org, "gomauro ." <mauro@signaloflove.org>, Marily Woodhouse <trees@thebattlecreekalliance.org>, Tom Stokely <tstokely@att.net>, Mark Lathrop <MLathrop@spi-ind.com>, Gracious A Palmer <graciouspalmer2009@yahoo.com>, Peter Griggs <pgriggs@shastacollege.edu>, Gypsy Perry <gypsyperry03@gmail.com>, Carla Thompson <cthompson@cityofshastalake.org>, Carole Ferguson <cferguson@redding.com>, Jeff <jkiser@ci.anderson.ca.us>, Gary Cadd <white.bear@sbcglobal.net>
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Hello Everyone,

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What an an amazing turnout!

We are asking for even more help from our community. Especially ... we need experts to ask detailed environmental questions on the cumulative impacts of the project.

Written comments on the Draft EIS may be provided before midnight
Monday, September 30, and should be mailed to
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Personally... I recommend email. It leaves a permanent record. Go ask Enron.

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Reclamation issued a Draft Environmental Impact Statement (DEIS) for the Shasta Lake Water Resource Investigation on June 28, 2013 and requested written comments by September 30, 2013. The Northern California Power Agency (NCPA) offers the following comments on the power portions of the DEIS.

The hydropower section on page 8 of the Executive Summary states that over the next 10 years California's peak demand is expected to increase 30 percent, from about 50,000 megawatts to about 65,000 megawatts. The 50,000 megawatt peak demand is correct for the part of California operated by the California Independent System Operator but does not include the other control area demand in California, such as Imperial Irrigation District, Los Angeles Department of Water and Power, and the Balancing Authority of Northern California. In total, California's current peak demand exceeds 60,000 megawatts. In addition, the California Energy Commission projects California's peak demand will increase by approximately 1.3 percent per year. The language in the hydropower section on page 16 of chapter 1 should also be changed to reflect these corrections.

This generation data for potential benefits that is shown in Table 4-4 of the Plan Formulation Appendix conflicts with the potential generation benefits shown for the five comprehensive plans (CP) starting on page 2-38 in Chapter 2 and in the Plan Formulation Appendix. It appears data contained in Tables 23-3 though 23-7 of Chapter 23, Power and Energy, was used to develop the generation impact for the five CP's by adding the generation data in Impact Hydro – 2 - Decrease in CVP System Energy Generation with the data in Impact Hydro – 3 – Decrease in SWP System Energy Generation. That computation, however, overstates the additional generation developed by the CP alternatives. The data contained in Impact Hydro – 6 – Decrease in Pit 7 Powerplant Energy Generation needs to be subtracted from the additional generation derived from Hydro 2 and 3 to obtain the true generation impact for each CP. In addition, the report needs to clearly state how the generation data for each CP is developed.

The Impact Hydro – 1- Decrease in Shasta Powerplant Energy Generation category should be eliminated in all the tables in Chapter 23 since Shasta generation is included in Impact Hydro 2. Including the same Shasta energy generation in both categories is duplicative and leads to confusion regarding the total generation increase for each CP. Impact Hydro 4 and 5 should be extracted from the current tables and placed in separate tables so generation impacts are shown in one table and pumping impacts in another.

Since some of the generation benefit accrues to the State Water Project (SWP), the report should clearly state that the proportional project cost associated with SWP power benefits will be allocated to SWP for repayment. The DEIS should state that a long term contract will need to be negotiated with the SWP to ensure the repayment of the allocated cost associated with the SWP benefits.

Chapter 23, Section 23.1 should be corrected to state that power is marketed by the Western Area Power Administration, not the Western Power Authority. Chapter 23, Section 23.2, omits an important proposed regulation by the State Water Resources Control Board (SWRCB) that could have a significant effect on each CP. The SWRCB has proposed implementation of unimpaired flow criteria for both the San Joaquin and Sacramento rivers. If that flow criteria is placed into effect, the calculated benefits for each CP will be greatly altered. In addition, Reclamation has recently made water releases for fishery that reduces reservoir storage (i.e. Trinity River), or bypasses generation (i.e. Folsom Dam) to meet other regulatory requirements. The affect of implementing these potential regulation requirements on Shasta Lake needs to be addressed in the DEIS.

Thank you for your consideration of these comments.

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D-HSWR Duplicate of O-CFCA1

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All these years later, the Winnemem Wintu have yet to receive the "like lands" that were promised in the 1941 Indian Lands Acquisition Act, which authorized the stealing and subsequent destruction of their homeland.

"Like lands" for a tribe who lived along the McCloud River for over six thousand years, would be along the McCloud River. This land along the McCloud would still be considered their ancestral land.

The 3,000 acre Bollibokka Fishing Club on the McCloud River was sold to Westlands Water District for nearly $35 million. Why does the nation's largest water district, located in Southern California (Fresno) want this land?

"We did not want to see the use of this land to be changed to impede the potential of raising the dam." Tom Birmingham, general manager, Westlands. ~Record Searchlight 2/19/2007

It is the very property that would protect the Winnemem Wintu's remaining sacred sites. This is the land that Westlands has recently purchased in their efforts to "de-list" the McCloud River and thereby remove a major impediment to the Shasta Dam raising project.

The Bureau of Reclamation knew the Winnemem were entitled to "like land" for their land the federal government removed them from in the late 1930's. Why didn't the Bureau stop the sale of the Bollibokka fishing club to Westlands?

Your agency's duty to honor your legal commitment to the Winnemem is much older and more important than appeasing special interests in Southern California.

In 1851, the Winnemem (represented by the signature of Numterareman), along with other Wintu bands signed the [congressional] Treaty at Cottonwood Creek which ceded to the United States a vast territory.

In 1914, the U.S. government took steps to purchase land from the Winnemem Wintu.

Congress recognized the Winnemem Wintu in the 1941 Indian Lands Acquisition Act.

For decades the Winnemem received scholarships, health care and permits to gather eagle feathers from the federal government. They had federal tribal recognition.

In the 1980's, the Bureau of Indian Affairs reorganized their Agency and established a Federal Recognition List. The Winnemem Wintu were wrongfully (and secretly) left off of that list. The Bureau of Indian Affairs has not corrected it's own error to this day. The tribe's medical care, scholarships and permits were canceled without notification.

However, the most grievous harm by the Bureau of Indian Affairs is the tribe's loss of sovereign status. Without the Winnemem's rightful status, their fight to save ancestral and sacred sites from permanent destruction is severely compromised.

Until the Winnemem receive 'like lands' for the land Congress acknowledges they took and Congress declared they would compensate the Winnemem for, this project is without moral or legal grounds to proceed. The original deal has never been completed.

Is this the reason for the Bureau of Reclamation's formal "no response" to the theft of the Winnemem Wintu's lands?

The Westlands Water District and the Metropolitan Water District are behind legislation to de-list the McCloud River from current protection under the California Wild & Scenic Rivers Act.

It is the policy of the State of California that certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of this state. The Legislature declares that such use of these rivers is the highest and most beneficial use and is a reasonable and beneficial use of water within the meaning of Section 2 of Article X of the California Constitution. - The California Wild & Scenic Rivers Act (Public Resources Code Sec. 5093.50 et seq.)

The upper McCloud River offers spectacular waterfalls, great fishing, and shady camping and picnicking spots under towering pine trees. With easy access from Highway 89, the upper McCloud offers a wide variety of outdoor recreation opportunities. The Forest Service acquired 13 miles of this river in 1989 through a land exchange with the Champion timber company. The 2,600 acre river corridor had long been a Forest Service priority for acquisition because of its exceptional recreational and scenic qualities. This segment of the river is considered eligible by the Forest Service for National Wild & Scenic River status due to its free flowing character and outstanding scenic, geological, and fishery values.

According to Friends of the River, the upper McCloud is perhaps best known for its three spectacular waterfalls. They provide an exhilarating sight for hikers and anglers. A short trail extends upstream and downstream from Fowler Campground and provides easy access to the waterfalls. This segment of the river is also popular with anglers, although upstream of the falls, the river provides habitat for the rare McCloud redband trout in two small tributaries closed to fishing.

Included is the following excerpt from a February 2, 2013 Record Searchlight article:

"McCloud River takes central role in the dam-raising proposal" ~By Damon Arthur Saturday,

The Westlands Water District and Metropolitan Water District, two rich and powerful south state water agencies interested in raising the height of Shasta Dam have the McCloud River in its sights.

The law governing the river' s status forbids any state agency from planning for or building anything that would affect the river. The law also specifically says the state can' t spend money on proposals to raise Shasta Dam.

A U.S. Bureau of Reclamation draft report released last year said it would be economically feasible to raise the dam, but two issues were unresolved: the McCloud' s wild and scenic status and the numerous Winnemem Wintu sacred sites along the river."

The land acquired by Westlands would be sold to the federal government and inundated if officials and lawmakers decided to raise the dam. Will Westlands set the price the federal government, i.e. the people pay for this land? Where are the Environmental Assessments for flooding 3,000 acres of pristine land?

We urge you to visit this amazing wilderness yourself and after it wins your heart, apply for National Wild and Scenic Status protection.

Shasta County was recognized by the federal Environmental Appeals Board, *In Re Knauf Fiber Glass,* as an Environmental Justice community, requiring EJ guidelines to be addressed.

We want to point out that in a Bureau of Reclamation press release dated December 7th, 2012, the Bureau claimed "Reclamation initially released the Draft Feasibility Report in February 2012..." Yet, the first time the Winnemem and Citizens for Clean Air realized the report had been 'released for public comment' was when citizens happened upon your press release on December 9th.

This does not qualify as "Early and sustained involvement with the effected community."

After public outcry, the comment period was extended until January 28. We were never notified of this time extension. Citizens discovered the extension while scrolling through press releases on the Bureau's website.

We attended the September 10, 2013 Bureau meeting held in Redding, CA regarding the SLWRI project. Several times the Bureau's staff mentioned (with humorous groans) that the new Environmental Impact Report was over 1,000 pages. Some people have estimates it to be around 6,000 pages. It is not conveniently numbered. On-line, it is divided into many sections which makes it very time consuming and confusing.

In legal circles, if you want to overwhelm and bog down your opponents, you "blizzard" them with thousands of pages of mostly unnecessary information they have to pick through to find what they need.

"However, for perspective, it relies on the reader being familiar with the massive, 10 year-old EISs for the implementation of the Central Valley Project Improvement Act and the CalFed program. Both documents were about two feet thick; organized for those looking for specific subjects, not overall perspective; and probably hard to find by now. It would be most useful for the revised DEIS, to include an account of the major water problems facing California, each of which is potentially budget-busting in a slow economy. Otherwise EISs for enormous, but still small, billion-dollar parts of the overall picture come across as examples of piece mealing..."

~Sept. 13,2013 Letter to the Editor, Buford Holt, U.S. Bureau of Rec. (retired.)

1,000's of pages of documents (in an unfriendly format) is a highly unreasonable burden to place on an Environmental Justice community. This is a low income community, with lower than average education rates.

Are citizens supposed to read thousands of pages, analyze the information and compose a comprehensive response in three months? In their spare time?!

Citizens For Clean Air has had volunteers skim through the plethora of sections. We did not

find answers regarding the direct and cumulative impacts to this community. These impacts are not being seriously considered.

For example, the Bureau did not appear to think it was appropriate to include new inundation levels for the proposed raising of Shasta Dam. If the dam breaks, I guess we are just out of luck?

The Bureau still claims they do not need to consider the 3M quarry's impact as part of the dam raising project. Isn't a potential "take" site identified in the preliminary EIS the proposed 3M Quarry?

Wouldn't the quarrying of Turtle Bay be considered a related impact on the environment if an EIS was done on the original Shasta Dam project?

Eric Cassano finally received the map he has been requesting for our group, Citizens For Clean Air, on September 15, 2013.

This newly released map is critical for our community's public comments.

Our greatest concern, besides the Winnemem's sacred sites, is the devastation that will come to the residents of Shasta Lake and Shasta County from the proposed 3M Moody Flats Quarry.

The importance of the "Shasta Dam Enlargement Sand and Aggregate Sources" report can not be underestimated. It is only weeks before all public comments are due.

In response to repeated Freedom of Information Act (FOIA) requests, the Bureau claims they have had no communication with the proposed 3M Quarry.

However, it is our understanding that in February of 2012, during a conference call, including Katrina Chow, and community activist Eric Cassano, Ms. Chow informed Mr. Cassano that the Bureau had a geologist who was the contact liaison for the proposed 3M quarry.

At the Bureau's previous July SLWRI workshop in Redding, Bureau representatives told Eric Cassano that the Bureau plans to acquire all the aggregate for the project on site. If that is accurate, then the specific site needs to be identified and the impacts considered in the Draft EIS.

If the Bureau intends to purchase the aggregate from the 3M Quarry, then the Bureau needs to state that now to produce a legally defensible document.

If the 3M Quarry is going to supply aggregate for the project, the City of Shasta Lake is the rightful lead agency. All the impacts of the 3M Quarry must be considered in the Bureau's Draft EIS.

If the Bureau is planning to build a Construction Depot within the City of Shasta Lake borders, then the City of Shasta Lake is the correct lead agency, not Shasta County. Also, the full impact of the Construction Depot must be included in this Draft EIS.

"Pacific Constructors, the main company building Shasta Dam, set up its own camp near the base of the Shasta Dam site, called "Contractor's Camp"

or "Shasta Dam Village". The company built an enormous 2,000-man mess hall, hospital, recreational center and other venues at the dam site. Three other makeshift camps nearby, called "Central Valley", "Project City", and "Summit City", soon filled with men from all over the state hoping to get jobs at the Shasta Dam as drillers, crane operators, mechanics, truck drivers, carpenters, welders, among others." ~ wikipedia.org/wiki/Shasta Dam

The 3M Quarry project includes several acres inside the limits of the City of Shasta Lake.

A road within city limits was identified by the facilitator of the 3M Scoping Meeting as being used by the proposed 3M project to bring in fuel and explosives as part of their planned operation. This is not addressed in the Bureau's Draft EIS.

If the Bureau intends to ever use aggregate or cement from the 3M Quarry, they must include the quarry and all it's impacts as part of the Bureau's Draft EIS. The Bureau must also go through the Draft EIS certification process with the correct local lead agency - the City of Shasta Lake.

In the Bureau's latest Draft EIS, the document skims over compensation for the residents/ businesses if their property is flooded. Bureau representatives left critical questions unanswered. How much would these residents be given for their properties? Which homes will be flooded? Which business will be flooded? How much will they be paid for their businesses? How are the business owners and employees being compensated for years of lost income?

The Westlands Water District, already the largest agricultural user of Northern California water, has purchased 3,000 acres along the McCloud River to "make it easier to one day raise Shasta Dam."

Westlands is also aggressively pushing legislation to remove the existing state law that protects the McCloud River from development or flooding. WWD is privately owned by 'farmers' that don't grow anything. They buy the water at a cheap 'agricultural' rate and resell the water further south at a profit.

Records obtained under the Public Records Act, revealed a "Secret Society" organized in 2009 to influence water rates (and other decisions) at California's largest public water district - The Metropolitan Water District. MWD has an annual budget of $1.8 billion and serves a six-county region with an annual economy valued at greater than $1 trillion.

The Delta Watershed acts as a natural limit to how much water can be diverted south. Each year, California pumps about 4.9 million acre feet of freshwater out of the Delta. The proposed Peripheral Tunnels, two giant water tunnels, would have the capacity to carry up to 11 million acre-feet annually. The proponents of the project say they would "never use the tunnels at full capacity."

Why then build them so large? Why not build *one* tunnel?

It is indisputable that the additional 6 million acre-feet of water yearly would come from the Sacramento River and other North State Rivers. Therefore, the full impact of the

Peripheral Tunnels must be part of a valid and legally defensible EIS.

According to the Sacramento Bee, Sacramento Mayor Kevin Johnson and City Manager John Shirey have expressed opposition to Governor Jerry Brown's proposal to build these giant tunnels. Johnson expressed concerns over the impact to the region's water supply and habitat. "For us, we want to be good stewards," the mayor said. "I'm going to speak out any chance I get." Shirey said the plan is moving "without any collaboration with the city of Sacramento."

This master plan to ship the North State's water south hinges on the Peripheral Tunnels. If the tunnels are not built, not enough water can get through to make the project viable.

No tunnels means no raising of Shasta Dam. The remaining Winnemem Wintu's sacred sites would not be flooded, businesses and homes in Lakehead would not be destroyed. The resorts on the Lake would not be ruined. The beautiful McCloud River would still be enjoyed by everyone. The City of Shasta Lake would not be devastated by an enormous quarry.

The full impacts of constructing the water tunnels under the Delta as a direct impact of the Shasta Dam raising project must be included.

Sincerely,

Celeste Draisner
Heidi Strand
Citizens for Clean Air
P.O. Box 1544,
Shasta lake City, Ca 96019
(530) 223-0197

D-TCPC Duplicate of O-TCPC

FW: BOR hearing RE Shasta Dam

Michael Han <MHan@tcpcadmin.com> Mon, Sep 23, 2013 at 6:41 AM
To: "bor-mpr-slwri@usbr.gov" <bor-mpr-slwri@usbr.gov>

Dear Katrina Chow,

Please see concerns raised by our team at Shasta Recreation Company.

I look forward in seeing your responses to all of the questions and concerns raised at the hearings. Should you have any questions please don't hesitate to give me a call at 530-355-4990.

With kind regards,
Michael Han
General Manager, Northern California
Corporate Director of Safety and Training

"The California Parks Company values safety first, no excuses"

From: Kris Koeberer
Sent: Wednesday, September 11, 2013 1:04 PM
To: Michael Han; Marshall Pike
Cc: John Koeberer; Pam Pitts
Subject: RE: BOR hearing RE Shasta Dam

Mike,

Our questions should revolve around the BOR's plan to re-develop recreation areas impacted by water covering existing facilities. Our preference is for less but larger campgrounds updated to meet the needs of the current and future recreational users. This includes but is not limited to the following.

- Larger pull-thru RV sites

- Full-hook ups
- Wifi
- Shower Facilities/updated flush restrooms
- Playgrounds
- Park Models, Yurts etc….
- Parking for additional vehicles and trailers
- Automated fee boards (reader boards)

In regard to launch ramps.

- Longer and wider ramps with low-water capability
- Expanded parking particularly in the JV, Centimudi and Antlers areas.
- Entrance gates
- Automated Pay Stations
- Security/Surveillance Systems
- Improved rail systems

Kris Koeberer
Vice President
The California Parks Company
530-529-1512
www.calparksco.com<http://www.calparksco.com/>
A Safety First Company

D-LAFO Duplicate of O-LAFO

DLA Comments - Shasta Dam Raising PDEIR 9-30-13

Lily Evans <lilylily@mail.com> Mon, Sep 30, 2013 at 11:53 PM
To: BOR-MPR-SLWRI@usbr.gov

Dear Ms. Katrina Chow, Project Manager, US Bureau of Reclamation, Planning Division, Sacramento, CA

9/30/13

Please accept the attached public comment letter that addresses the noise impacts of the proposed Shasta Dam Raising Project.
This comment letter is submitted in reference to the Shasta Lake Water Resources Investigation and preliminary draft EIS.

If you have any questions, please let me know and I will forward them to Mr. La Forest.

Thank you sincerely,

Lily Evans
Assistant to Dale La Forest

DLA Comments - Shasta Dam Raising PDEIS_9-30-13.pdf
1038K

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Katrina Chow, Project Manager
US Bureau of Reclamation, Planning Division
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SIGNIFICANT NOISE IMPACTS
SHASTA DAM RAISING PROJECT
Shasta Lake Water Resources Investigation
Preliminary Draft Environmental Impact Statement

Dear Ms. Chow:

September 30, 2013

I submit this comment letter on behalf of the residents of Shasta Lake City. This comment letter addresses some of the potentially significant noise impacts that the Shasta Dam Raising Project's construction activities may create in its vicinity. The Shasta Lake Water Resources Investigation's Preliminary Draft Environmental Impact Statement (PDEIS) fails to adequately disclose those noise impacts. It fails to contain a professional and meaningful acoustical study that accurately predicts such noise impacts. An EIS is required to evaluate a project's noise impacts on homes and schools that are considered to be "noise sensitive" so that effective mitigations can be adopted.

I am a professional planning consultant, architectural designer, and expert acoustical consultant. I have over 20 years of experience in evaluating the environmental noise impacts in California. Projects such as this dam raising construction project can generate significant noise impacts at homes affected by such construction noise or its related off-site transportation noise from increased vehicles and heavy trucking.

All too often project proponents only focus on noise impacts caused by on-site construction activities. This comment letter focuses on how this Project's off-site traffic will create significant noise impacts that may continue for as long as five years to residents within and near Shasta Lake City and elsewhere. But with a massive, long-lasting construction project like this one, those significant off-site construction traffic impacts can linger so long that they seem nearly permanent to affected residents. This isn't a project that can be tolerated or endured for just a few days or weeks. Exposure to excessive project-related noise levels for years can cause serious health impacts to affected residents, as well as immediate sleep-disturbance impacts.

There are homes located very near this Project's main haul routes along Lake Boulevard and Shasta Dam Boulevard that could be adversely impacted by this Project's substantial increase in

construction traffic and heavy trucking. Some of these homes appear to be only about 50 feet from the centerline of these roads as described below with some examples.
The PDEIS fails to describe in any meaningful detail (i.e. with maps) that residents also live along Shasta Dam Boulevard and Lake Boulevard where heavy truck traffic would deliver construction materials to the Project and where large numbers of construction workers will pass for years.

PHOTOS OF EXISTING HOMES IN SHASTA LAKE CITY AS EXAMPLES OF HOW CLOSE PEOPLE LIVE TO THIS PROJECT'S ARTERIAL ACCESS ROUTES

EXISTING HOMES WITHIN 50 FEET OF CENTERLINE OF SHASTA DAM BOULEVARD

EXISTING HOMES WITHIN 50 FEET OF CENTERLINE OF LAKE BOULEVARD

The point of showing these photos is to clarify a point missing in the PDEIS: that some homes are so close to this Project's access roads that the noise from the large increase in construction traffic will severely impact these residents. There are other homes in Shasta Lake City that are farther from the centerline of these arterial roads that will also be exposed to excessive construction noise levels, even if not as severely as these examples at 50 feet away. The PDEIS should have included existing noise level measurements at such adversely impacted homes. Only if one first knows how loud traffic noise is for such homeowners can one calculate whether or not the noise level increase during construction traffic operations will be significant. While the PDEIS only purports to estimate that noise levels won't increase by more than 3 dBA, an even lesser increase could still be significant. Or using other relevant standards, if traffic noise levels along Lake Boulevard where homes are nearby are much lower than along Shasta Dam Boulevard, then this Project's heavy trucking and large numbers of employee trips could have a greater relative noise impact.

As the PDEIS states, "where existing traffic noise levels are greater than 65 dB Ldn, a + 1.5 dB Ldn increase will be considered significant." The problem is that the PDEIS never applied this more restrictive threshold of significance to the circumstances that exist in Shasta Lake City.

The PDEIS also contains no hourly equivalent noise level (L_{eq}) measurements. It defines such L_{eq} measurements on page 8-5, but never bothered to actually acquire such necessary measurements. Without such actual existing hourly equivalent noise levels, the public cannot determine whether this Project complies with the Shasta County's noise standards that include restrictions based upon such L_{eq} noise levels.

> Shasta County Noise Element
> **Policy N-f** – Noise created by new transportation sources shall be mitigated to satisfy the levels specified in Table 8-5 at outdoor activity areas and/or interior spaces of existing noise-sensitive land uses. Transportation noise shall be compared with existing and projected noise levels.
>
> Table 8-5. Noise Level Performance Standards for New Projects Affected by or Including Nontransportation Sources
> 55 dB Hourly L_{eq}, Daytime (7 a.m. to 10 p.m.)
> 50 dB Hourly L_{eq} Nighttime (10 p.m. to 7 a.m.)

But no hourly L_{eq} noise level measurements are included in the PDEIS. This Project is not apparently being prohibited from operating at nighttime, so it would be required to meet the more restrictive nighttime noise standards. The PDEIS fails to disclose that this Project would expose people to and would generate noise levels in excess of local standards and other applicable standards of other agencies.

THIS PROJECT WOULD GENERATE SUBSTANTIAL AMOUNTS OF CONSTRUCTION TRAFFIC NOISE

As described in either the City of Shasta Lake's comment letter of September 27, 2013, or in the DEIS, Chapter 20, page 20-8, import of fill and construction materials and export of construction waste would result in 122 - 177 truck trips per day for up to 5 years; export of vegetation would result in 52-75 round trips per day for up to 3.5 years; and the construction labor force would add average of 900 daily round trips for up to five years. This increased traffic has the potential to result in significant noise impacts to the residents living near this Project's access routes.

Since, according to CalTrans, the passing of a single heavy truck can generate as much noise as that of about 28 automobiles, this Project's possible increase of 177 truck trips per day hauling construction aggregates and materials would make as much noise as about 4,956 cars per day. Add to that other medium weight trucks and about 900 auto trips for construction workers, this Project may generate as much traffic noise as if nearly 6,000 extra cars passed by those nearby homes along Lake Boulevard and Shasta Dam Boulevard. Residents of Shasta Lake City should be informed of the true noise impact of such a possible five-year long Project on their lives.

NIGHTTIME CONSTRUCTION AND TRAFFIC NOISE IMPACTS WILL BE SIGNIFICANT

The PDEIS places no restrictions on the hours of the day during which this Project would be allowed to operate or to conduct its off-site transportation activities.[1] The PDEIS, p. 8-27,

[1] To quote from the PDEIS, "Typical construction would occur during daylight hours Monday through Friday, but the construction contractor may extend the hours and may schedule construction work on weekends if necessary to complete aspects of the work within a given time frame." *(emphasis added.)*

therefore acknowledges that the Project's evening, nighttime and early morning construction activities could create a significant noise impact.[2] The PDEIS proposes Mitigation Measure Noise-1 that includes a restriction to limit construction noise at non-dam sites to only during daytime hours of 7 a.m. to 10 p.m., Monday through Friday. But the PDEIS places no time-of-day restriction on construction noise at the dam site or along the haul routes leading to the dam. In realistic terms, that guarantees that residents along Shasta Dam Boulevard and Lake Boulevard will be exposed to loud heavy trucking noise before 7 a.m. During the hot summer months, construction activities, worker traffic and material shipments typically begin operating before 7 a.m. to avoid the heat of day. Accordingly, there is no evidence that Mitigation Measure Noise-1 is adequate to reduce this Project's non-daytime construction noise impacts. For example, since the PDEIS considers evening (7 p.m. – 10 p.m.) construction noise to be potentially significant, but its mitigation measure does not restrict such evening noise levels, then this Mitigation Measure Noise-1 will not reduce the Project's evening noise impacts to less-than-significant.

MAXIMUM EXISTING TRAFFIC NOISE LEVEL ARE UNDERESTIMATED

The Project's maximum existing daily traffic noise level on any major access route may also be greater than the average daily traffic noise levels that the PDEIS calculates. The PDEIS incorrectly estimates existing traffic noise along this Project's access routes. It does so in at least two ways:

1) It uses outdated traffic counts from 2006 and provides no traffic counts whatsoever for some roads sections of Shasta Dam Boulevard where sensitive users exist.
2) It fails to consider the worst case (i.e. loudest) noise levels that traffic generates at some hours of the day. Caltrans[3] instructs that "[a]ll Caltrans highway traffic noise analysis should be done in terms of the worst noise hour L_{eq} (h)," but the worst noise hour is not evaluated in this PDEIS. Thus, the Project's maximum existing noise impacts have been underestimated in the PDEIS's calculation that is based on average traffic counts, and not maximum hourly counts.

The consequence of the PDEIS having underestimated the current traffic noise levels is that the true severity of this Project's additional construction traffic noise is not being evaluated and mitigated.

On the other hand, the data the PDEIS relies upon does not accurately correlate with the most current CalTrans data. For example, the PDEIR, in Table 8-2, describes a traffic count of 5,500 ADT on SR 151 in Shasta Lake yet no current CalTrans data in the vicinity is that high. The 2012 CalTrans traffic count on Shasta Dam Boulevard to the east of Lake Boulevard is much lower and only about 1,550 AADT.[4] Father east yet along Shasta Dam Boulevard, CalTrans's

[2] In terms of noise impact analysis, the "daytime hours" are considered either to be from 7 a.m. to 10 p.m. (under the L_{dn} standards) or 7 a.m. to 7 p.m. (under the CNEL standards).
[3] See: *Technical Noise Supplement, A Technical Supplement to the Traffic Noise Analysis Protocol*, October 1998, page 44, by California Department of Transportation. Available online at: http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf
[4] See 2012 CalTrans data here for SR-151 online: http://traffic-counts.dot.ca.gov/2012all/Route134-161.htm

2012 traffic count increase to about 2,250 AADT, still only half as much as the PDEIS reports from 2006. There are homes within about 50 feet of Shasta Dam Boulevard along this road section, some of which are pictured above. The PDEIS calculates that an existing 5,500 ADT results in an existing traffic noise level 68 dBA L_{dn}. But if the more recent data of 2,250 AADT is used, with less than half as many vehicles, then the existing traffic noise levels along that road section might be about 65 dBA L_{dn} and not 68 dBA L_{dn} as the PDEIS calculates. Those are still noise levels that exceed the City's standards, but this Project's heavy traffic and other cumulative traffic would constitute a greater percentage increase and would thus generate a greater traffic noise level increase than the PDEIS reports.

NOISE IMPACTS TO MOUNTAIN LAKES HIGH SCHOOL WOULD BE SIGNIFICANT

The PDEIS, p. 8-10, inaccurately describes that the nearest school to construction activities is approximately 500 feet away. It totally ignores that another school, the Mountain Lakes High School, is less than about 50 feet away from Lake Boulevard at the Shasta Dam Boulevard intersection where off-site Project-generated construction traffic will pass. Construction traffic is a construction activity, and its noise impacts must be disclosed and mitigated where feasible. The PDEIS, in Table 8-7, identifies that the "maximum allowable noise exposure" from transportation noise sources at playgrounds and parks is 70 dBA L_{dn}/CNEL at the property line.

This outdoor activity area, at the intersection of two roads, may be exposed to noise levels in excess of 70 dBA L_{dn}/CNEL. The PDEIS calculates noise levels from just traffic along Shasta Dam Boulevard as being about 68 dBA L_{dn} at 50 feet, and that doesn't include the additional noise from traffic on Lake Boulevard nor future noise from other foreseeable projects. The City of Shasta Lake has an even stricter noise standard to limit the noise level in outdoor activity areas at schools of 60 dBA L_{dn}.[5] The photo below shows just such an outdoor activity area with a tree-shaded picnic table and students using it near the Lake Boulevard property line to the west.

Photo and aerial photo of Mountain Lakes High School:

The PDEIS calculates that the existing noise level along Shasta Dam Boulevard was 68 dBA L_{dn} at a distance of 50 feet from the centerline of that road. That means traffic noise is quite excessive at this school's southern property line also about 50 feet from the centerline where such

[5] See Shasta Dam Area RP Fourth Amendment DEIR, Feb. 2008, Table 6.6-3. (Document accessed online on 9/30/13 at: http://www.ervincg.com/pdf/DEIR-SDARP4A.pdf. A copy will be made available if requested.

noise standards apply. That noise level, especially when updated for the increased traffic now some seven years later, will be at least 8 dBA louder than the City's standards allow. This Shasta Dam Raising Project's construction traffic would expose this school to up to five years of increased heavy trucking noise, raising noise levels at the school even higher. The possible approval of the Moody Flats Quarry near the Shasta Dam would generate an even greater amount of additional, cumulative noise at this school.[6] Such increases in traffic noise would likely exceed 3 dBA during the Shasta Dam Raising Project's construction and would be considered significant. Since the standard however for noise sensitive land already exposed to more than 65 dBA L_{dn} is even lower, where only a 1.5 dBAL/CNEL noise level increase is considered to be significant, there should be no doubt this Shasta Dam Raising Project will create a significant noise impact to users of that school.[7]

In *Los Angeles Unified School District v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, the Court overturned an approval by the City of Los Angeles of a development that would have exposed an existing school to even higher unacceptable traffic levels. The court ruled that an increase under those circumstances in 1997 that might have been only 2.8 dBA was nonetheless significant. Some of that decision[8] is entirely relevant to this Shasta Dam Raising Project's noise impacts:

> "The EIR is inadequate because it fails to consider the cumulative impact of existing and projected traffic noise at the schools."
>
> "The EIR in the present case concluded there would be no significant impact on the schools from increased traffic noise. The existing ambient noise level of 72.1 dBA already exceeds the Department of Health's recommended maximum of 70 dBA and would only increase by another 2.8--3.3 dBA at build-out, an increase the EIR considered "insignificant." "
>
> "The City ignores the statutory requirement the EIR consider the cumulative effects of the project on the environment..."
>
> "We conclude the evidence in the record does not support the EIR's finding the plan will have no significant impact on traffic noise at Canoga Park High School and Parkman Junior High School ..."

The same conclusion now applies to this Shasta Dam Raising Project's PDEIS and its construction traffic noise impacts to this Mountain Lakes High School; the cumulative noise impacts will be significant. The PDEIS must be revised to correctly include such analysis and noise mitigation.

---

[6] The proposed Moody Flats Quarry project site is adjacent to the City's northerly city limit, southeast of the Shasta Dam complex. The proposed Quarry would also utilize SR 151 during a portion of its construction operations.

[7] See PDEIS: "Where existing traffic noise levels are greater than 65 dB Ldn, a + 1.5 dB Ldn increase will be considered significant."

[8] Court decision in *Los Angeles Unified School District v. City of Los Angeles* is available online here: http://ceres.ca.gov/ceqa/cases/1997/la_unified.html

INAPPROPRIATE THRESHOLD OF SIGNIFICANCE FOR NOISE IMPACTS

The PDEIS, on page 8-28, is inaccurate in reference for this construction project to state that it would typically require a doubling of traffic volumes on area roads in order for the noise level along those roads to increase by 3 dBA. This Shasta Dam Raising Project would not represent not a "typical" situation. Heavy construction vehicles hauling aggregate and materials typically emit much more noise than typical automobiles. The percentage of heavy trucks during these five years of construction would be much greater than occur currently with recreational traffic along these access roads. Each heavy truck produces approximately as much noise when passing a home as 28 automobiles. Thus, a much smaller percentage increase in construction traffic could result in a 3.0 dBA CNEL/L_{dn} noise level increase. The PDEIS must be revised to evaluate the actual circumstances with louder heavy trucking noise rather than some irrelevant rules of thumb that greatly understates the noise impacts to nearby homes.

The PDEIS uses the wrong threshold of significance for noise impacts caused by noisy construction-related traffic. It considers the severity of noise level increases of 3.0 dBA L_{dn} or less to be less-than-significant. However the courts in California have ruled that even lesser noise level increases along roads that are already excessively noisy can be significant. For example, in *Grey v. County of Madera* (2008) 167 Cal.App.4th 1099, the court found even a **2.1 dB** increase at a residence due to a project's increased heavy trucking to be significant for a road already exposed to excessive noise levels.[9] The PDEIS identifies that one of the major access routes to this Project, Shasta Dam Boulevard, as based on outdated traffic information from 2007, was exposed to noise levels of 68 dBA CNEL at a distance of 50 feet from its centerline. 68 dBA CNEL is excessive noise exposure already because the BLM and Shasta County consider noise levels of 60 dBA CNEL to be limit for acceptable exposure.

The PDEIS, p. 8-9, Table 8-2, fails to measure, predict or describe what noise levels currently exist along Lake Boulevard where existing residences are located to the north of Shasta Dam Boulevard. Construction traffic is allowed to and will also pass along that route. The PDEIS Table 8-2's calculation or modeling is also outdated because it relies upon traffic counts from 2006 that are more than 7 years old. The PDEIS also fails to state what the average daily volume of traffic is along Lake Boulevard. As such, the PDEIS is inadequate and must be revised.

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[9] Quote from the Court's decision in *Grey v. County of Madera* (2008) 167 Cal.App.4th 1099, 1122-1123:
"Here, the Madera County General Plan Noise Element establishes that for residential uses affected by transportation noise sources (off-site traffic in this case), 60 dBA Ldn (Day-Night Average Level noise descriptor) is the maximum acceptable noise level. All of the sites tested for SR 41, however, show that existing traffic noise levels are already in excess of this amount. Thus, the EIR should consider whether the cumulative noise impact would be significant when increases of up to 2.1 dBA are added to the existing noise level. For example, even though a 2.1 dBA noise in isolation will not be noticeable, when added to an already high noise level, it could cause a tipping point of noise problems for the general public. The EIR, however, does not analyze this issue and merely concludes that it would not be significant because "[I]t is generally recognized that an increase of at least 3 dB is usually required before most people will perceive a change in noise levels." This bare conclusion cannot satisfy the requirement that the EIR serve as an informational document."

The "Shasta Dam Area Redevelopment Plan Fourth Amendment DEIR" states that the 1999 Shasta Lake General Plan EIR identified that Lake Boulevard to the north of Shasta Dam Boulevard had 2,400 average daily trips.[10] That figure shows that residents along Lake Boulevard are exposed to less traffic and therefore less traffic noise than those along Shasta Dam Boulevard (5,500 ADT or more if the reader believes the PDEIS). Accordingly, construction traffic noise from this Shasta Dam Raising Project would result in a more noticeable noise impact to residents along Lake Boulevard than this PDEIS considers.

The PDEIS fails to describe the existing (2012 or 2013) traffic noise levels on those various streets where Project-related construction traffic will likely pass. Therefore it fails to support with substantial evidence its conclusion that traffic noise from temporary construction vehicles will not increase those noise levels by less than 3 dBA CNEL/L_{dn}.

Other noise standards that need to be examined are found in federal regulations, in other communities' regulations, and in case law. The County of Shasta has a limited set of noise standards in its General Plan. But those are not the only measures of whether this Project will have a significant noise impact. CEQA allows and requires an agency to examine the full range of significantly harmful noise impacts, even if the agency has not adopted specific noise limits for all types of noise. Under conditions such as is found with Shasta County's limited set of noise standards, this PDEIS should examine whether the Project will adversely impact people in other measureable ways.

Some communities examine whether a project will increase the ambient noise level by greater than a specified amount, and if so, then they will deem such a noise increase to be significant. In Oregon, for example, developers of commercial projects are not allowed to increase the ambient noise levels of quiet, previously undeveloped land by more than 10 dBA during any hour of the day. Those noise standards are also applied on the basis of the time of day, and on the basis of how frequently excessive noise occurs within any given hour.[11]

The A-weighted sound level alone, however, is not sufficient to describe the noise environment at any given location, due to the fact that environmental sound levels tend to change frequently with time. Therefore, an environmental noise descriptor needs to address the length of time sound is present as well as the level of the sound. One environmental noise descriptor used widely throughout the United States is the "Statistical Sound Level." The statistical sound level is given as "L_{xx}," which corresponds to the level exceeded "xx" percent of the specified measurement time. For example, the L_{50} would be that level exceeded 50% of the time during a specified time period. Similarly, the L_{10} is exceeded just 10% of the time. Typically, in noise regulations and standards, the specified time period is one hour. The PDEIS could fashion effective mitigations by evaluating these types of standards and restricting noise levels with specific numerical limits based upon how often the noise exceeds these levels. This is one

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[10] See: http://www.ervincg.com/pdf/DEIR-SDARP4A.pdf as available online

[11] In light of Shasta County's rural character, on the basis of which many of its residents have chosen to make Shasta County their home, the PDEIS should consider Oregon's approach to regulating new commercial or industrial noise sources in its agricultural areas. See, http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_035.html.

measurement methodology that is used in some California communities, as well as in Oregon.

THE PDEIS CONTAINS NO ANALYSIS OF PROJECT SLEEP-DISTURBANCE IMPACTS

This Project's traffic noise will likely cause significant sleep-disturbances to residents living elsewhere along the main travel routes to the construction sites. Some people live close enough to Lake Boulevard and Shasta Dam Boulevard that their sleep may be significantly disturbed by this Project's added early morning or nighttime truck traffic. The PDEIS is defective for failing to disclose that information. It never even mentions or examines such sleep-disturbing traffic noise impacts.

The PDEIS is also inadequate for failing to evaluate how loud this Project's sleep-disturbing impacts may be. Individual heavy trucks can generate brief but loud noise levels that can awaken people and harm their health and well being. Yet this PDEIS never evaluates such noise impacts, as measured with the "single event level" (SEL) descriptor. The court in *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 CA4th 1344 ruled against a project's Environmental Impact Report where the project would generate additional airplane flyovers with up to 61 dB (SEL) impacts. It ruled that a consultant's disclosure of 61 dB SEL was loud enough to disturb the sleep of about 30% of the people under the flight paths. In that case, its EIR disregarded such sleep disturbance impacts and only considered whether the Project was consistent with general plan noise standards. This is the same error that the PDEIS is now making. With possible significant noise impacts in this instance for homes at about 50 feet from Shasta Dam Boulevard and Lake Boulevard that are not protected by topographic features, this Project's sleep-disturbing noise from increased passenger vehicles and its construction-related trucking will be louder than 61 dB (SEL) and potentially more disturbing yet.

The purpose of mitigation measures is to reduce such noise impacts. The PDEIS cannot legitimately claim to have mitigated noise impacts unless it can demonstrate the probable effectiveness of such mitigation as it proposes. With respect to noise impacts, it is quite feasible to accurately quantify both anticipated impacts and proposed mitigation. Here, the PDEIS does neither.

That essential error defeats some of NEPA's and CEQA's important objectives—to ensure adequate mitigation in order to limit exposure to impacts, in this case excessive construction noise. At the very least, NEPA and CEQA require even temporary construction-related noise levels to be evaluated, and mitigated if feasible. This PDEIS is inadequate in that it establishes no specific maximum noise levels for construction noise, and fails to propose or analyze reasonably feasible mitigation measures.

AN ACOUSTICAL ANALYSIS IS REQUIRED

The PDEIS is inconsistent with the Shasta County requirement that an "acoustical analysis" is required because it fails to include any adequate acoustical analysis. The Shasta County General Plan Noise Element's Policy N-c requires such an acoustical analysis be prepared when this Project would likely produce noise levels that exceed the performance standards on existing noise-sensitive uses. The PDEIS itself even acknowledges that construction noise levels will

exceed acceptable limits for some homes. The standards for an acoustical analysis are described in the PDEIS, page 8-16, Table 8-6, as copied from the Noise Element. But the PDEIS fails to comply with those minimal requirements because:

- It appears not to have been prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics. That is evidenced by the many flaws in the PDEIS's chapter 8 regarding noise impacts and its misunderstanding of Federal and California law on this subject of this Project's noise impacts.[12]
- It fails to include any representative noise level measurements to describe the local conditions and predominant noise sources. There is no evidence anywhere in the PDEIS that any noise level measurements were taken anywhere related to this Project.
- It fails to estimate the existing and projected (20 years) noise levels at homes affected by this Project and compare them with the policies of the Noise Element. The Project will obviously have short-term construction noise impacts that will be significant. It will also have long-term noise impacts due to increased traffic and altered recreational access that should have been predicted for 20 years in the future.
- It fails to recommend appropriate noise mitigation for homes exposed to excessive heavy trucking noise impacts.
- It does not estimate the noise exposure after the prescribed Mitigation Measures have been implemented.
- It contains no post-project assessment program to evaluate the effectiveness of the proposed Mitigation Measures.

Without a professional acoustical analysis upon which to base its conclusions, the PDEIS has no valid support for its determination that the Project's noise impacts will be less-than-significant. Since this PDEIS must also comply with the California Environmental Quality Act in evaluating noise impacts on County, and not only on Federal roads, such an acoustical analysis that meets CEQA requirements and case law must be prepared for this Project.

ADDITIONAL NOISE MITIGATION SHOULD BE CONSIDERED

The PDEIS, when revised for additional noise impact analysis, must analyze and could require as conditions of approval a range of common and reasonably feasible noise mitigations to be

[12] This comment that questions the professional qualifications behind the PDEIS's noise chapter is not meant to be unduly harsh. There may be other unnamed professionals who contributed to the noise impact chapter of this PDEIS who, if identified, might tend to support the credibility of this PDEIS study. But for purposes of an EIS or an EIR, the public is entitled to the assurance that the preparer of such noise studies is qualified, accurate and truthful in his reports. The means for an EIS to provide that public assurance is to describe somewhere what personnel worked on the EIS and describe their professional qualifications. As to the qualifications of the preparer of the noise chapter of the PDEIS, it only identifies one person, Jake Weirich, having a B.S., Sound Engineering; with 4 years experience, Noise and Vibration, Air Quality and Climate. But the University of Michigan's Bachelor of Science in Sound Engineering does not appear to qualify a person in California for the fields of environmental noise assessment and architectural acoustics, and no substitute qualifications are provided in the PDEIS either. (See: http://www.music.umich.edu/departments/pat/bs_curr_d.htm) To comply with the Shasta County General Plan's Noise Element for a required *acoustical analysis*, more information is needed to support that an acoustical analysis has actually been prepared by a "qualified person experienced in the fields of environmental noise assessment and architectural acoustics."

implemented to reduce the Project's noise impacts on its neighbors including:

- Requiring that construction noise levels do not exceed a specific decibel level that is consistent with the current maximum noise levels permitted by the Shasta County General Plan Noise Element and the Shasta Lake City General Plan Noise Element.
- Limiting startup hour to 8 a.m. to lessen the Project's sleep-disturbance to neighbors.
- Prohibit any off-site trucking to or from the Project site except during the approved hours.
- Conditioning the Project such that its trucking would be prohibited from using certain routes where homes are located very close to those roads at times of the day that would exceed allowable noise levels.
- Require a sufficiently tall and continuous noise berm of earth or rock that wraps closely around construction areas to lower the Project's noise transmission to existing distant homes. Earth berms are commonly used to effectively reduce sounds levels. In addition, require as necessary portable on-site noise barriers. Install noise berms or noise walls where off-site trucking would significantly impact existing neighbors near those roads.
- Require better-than-average mufflers on construction equipment, mobile equipment, and haul-trucks to lower their noise emissions by at least 5 dBA lower than typical mufflers.
- Retrofit existing homes nearest to the Project's haul routes with sound-resistant windows and other structural noise-proofing, including air-conditioning for warm summer operations.
- Replace backup alarms or bells with a signaling operator, or use variable level backup alarms that measure the background sound between the beeps and vary the amplitude so as to generate an OSHA-compliant sound level. A feasible mitigation for some noise impacts might include the use of flashing lights instead of backup beepers under low-light conditions during nighttime hours.
- Relocate on-site equipment, or select inherently quieter units.
- Install sound-measuring devices at nearby homes to provide neighbors with information on whether they are being adequately protected.
- Use noise monitoring and inspections to ensure that mitigation measures are in place and operating, and that noise standards are being met.

Based on these comments, it should be abundantly obvious that the PDEIS's discussion and mitigation of the Project's noise impacts is inadequate and fails to comply with NEPA and CEQA. Please revise the PDEIS and provide additional opportunity for public review afterward.

Thank you for considering these comments. Please notify me of any additional opportunities there may be to review this Project or its related environmental documents.

Dale La Forest

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