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July 31, 2013

BY REGULAR AND ELECTRONIC MAIL

Don Reck
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Re: Comments on Draft Environmental Documents for Use of Trinity Reservoir Water to Make Supplemental Releases to the Lower Klamath River [EA-13-07-NCAO and FONSI 13-07 NCAO]

Dear Mr. Reck:

The San Luis & Delta-Mendota Water Authority ("Authority") and Westlands Water District ("Westlands") write to express significant concerns with the Bureau of Reclamation's ("Reclamation") July 17, 2013 Draft Environmental Assessment ("Draft EA") and Finding of No Significant Impact ("Draft FONSI") for the supplemental release of Trinity Reservoir water to the lower Klamath River in August and September 2013. The proposed action will harm Reclamation's ability to satisfy Central Valley Project purposes, including Reclamation's ability to protect, restore, and enhance fish and associated habitats in the Central Valley and serve agricultural, municipal, and industrial users. That harm will result with no reasonable assurance the proposed action will actually benefit fish in the lower Klamath River.

On May 31, 2013, the Authority wrote to David Murillo, Regional Director of Reclamation, in response to press accounts that Reclamation was considering making the late summer releases from the Trinity River Division ("TRD") of the Central Valley Project ("CVP") now purportedly analyzed in the Draft EA and Draft FONSI. The comments in that letter are pertinent to the Draft EA and Draft FONSI, and are incorporated herein by this reference. A copy of the May 31 letter is attached to this comment letter. In addition, with this letter we have provided copies of various studies and reports relevant to the issues raised by the proposed action.

The member agencies of the Authority, including Westlands, have a vital interest in the water and power supplies provided by the TRD. These agencies are concerned by any changes to the TRD operations that may reduce water and power supplies, thereby causing adverse impacts within their service areas from shortages. They are also concerned about actions that may impair conditions for protected species downstream of CVP facilities, because a decline in those species will negatively affect CVP operations as well. The proposed August and September

2013 releases threaten to significantly and adversely affect each of these interests. The Authority and Westlands are particularly concerned about loss of CVP water supplies this year, when south-of-Delta agricultural water service contractors are receiving a 20% allocation, and are likely to receive a very low and perhaps 0% initial allocation in 2014. It is also concerning that Reclamation would make the releases associated with the proposed action in a year like this, when Reclamation requested and received relief from water quality objectives in order to conserve the cold water pool in Shasta Reservoir for the protection of fishery resources.

As we explain below, the Draft EA and Draft FONSI are deficient. To comply with the National Environmental Policy Act ("NEPA"), Reclamation must fully consider the effects of the proposed action in an environmental impact statement ("EIS"). The Draft EA fails to answer substantial questions about whether the supplemental releases may have significant effects on the human environment. Indeed, significant effects are likely. As a result, Reclamation cannot implement the proposed supplemental releases in August and September this year.

I. Reclamation Has No Authority To Make The Proposed Supplemental Releases

In the Draft EA, Reclamation relies upon the 1955 Act as the legal authority for making the supplemental releases. The Draft EA states:

> The TRD Central Valley Project Act of 1955 (P.L. 84-386) provides the principal authorization for implementing the Proposed Action. Specifically, Section 2 of the Act limits the integration of the Trinity River Division with the rest of the Central Valley Project and gives precedence to in-basin needs, including that "the Secretary is authorized and directed to adopt appropriate measures to insure preservation and propagation of fish and wildlife…."

(Draft EA at 2.) That reliance is misplaced. Section 2 of the 1955 Act does not "limit[] the integration" of the TRD with the rest of the CVP or give precedence to in-basin needs in a manner that gives Reclamation the authority to make the proposed supplemental releases. Quite the opposite, Section 2 affirmatively states that "the operation of the Trinity River division shall be integrated and coordinated, from both a financial and an operational standpoint, with the operation of other features of the Central Valley project." Pub. L. 84-386 (1955), § 2 (emphasis added).

The basis for the "preference" referred to in the Draft EA is apparently the provision in Section 2 "[t]hat not less than 50,000 acre-feet shall be released annually from the Trinity Reservoir and made available to Humboldt County and downstream water users." That proviso does not authorize the supplemental releases of water at issue here. As the California State Water Resources Control Board ("SWRCB") has made clear, and Reclamation has agreed, to take advantage of that 50,000 acre-feet reservation, Humboldt County or other downstream water users must obtain a water right in accordance with California law. There is no right to appropriate water directly for instream uses. *National Audubon Society v. Superior Court*, 33 Cal.3d 419, 444 (1983); *Fullerton v. State Water Resources Control Board*, 90 Cal.App. 590, 603 (1979). In order to appropriate water, a party must demonstrate an intent to take the water, accompanied by some open, physical demonstration of the intent, and for some valuable beneficial use. *Fullerton,* 90 Cal.App. at 598. Thus, there can be no appropriation of water

without some physical act by the appropriator that separates the water from the stream. *Id*. at 603. There is no water right supporting the supplemental releases.

The general reference to "appropriate measures" in the 1955 Act does not authorize the releases either. The 1955 Act was neither the last nor most specific statutory direction to the Secretary on the subject of instream flows for the Trinity River. The most recent and most specific direction is section 3406(b)(23) of the Central Valley Project Improvement Act ("CVPIA"), enacted in 1992. The supplemental releases are inconsistent with the Trinity River Mainstem Fishery Restoration Record of Decision ("ROD") adopted on December 19, 2000 pursuant to CVPIA section 3406(b)(23). The ROD specifically defined the "appropriate measures" the Secretary must implement to meet Federal trust responsibilities and for the Trinity River fishery restoration, propagation, and maintenance. In addition, the supplemental releases are inconsistent with the place of use terms in the water right permits applicable to the TRD. Finally, the supplemental releases are inconsistent with Reclamation's contractual obligation to optimize deliveries to CVP water service contractors.

A. The Proposed Releases Would Violate The Trinity ROD And CVPIA Section 3406(b)(23)

The long history of controversy, legislation, studies, and directives regarding releases from the TRD for instream flows to benefit fish is recounted in detail in Chapter 2 of the Trinity River Flow Evaluation Final Report (June 1999) ("Final Flow Report"). For present purposes, it is sufficient to note that after 1955, Congress enacted specific legislation regarding Trinity River flow requirements. In 1992, in CVPIA section 3406(b)(23), Congress directed the Secretary to develop a specific set of flow criteria. That resulted in a precise definition of the quantities of water to be released from the TRD for instream flow purposes. Those flows are defined in the ROD adopted on December 19, 2000. The direction in the 1955 Act allowing "appropriate measures" does not authorize the proposed supplemental releases. Those proposed releases are instead unlawful, because they would conflict with the specific fishery flows terms of the ROD, and hence would conflict with the specific and more recent direction to the Secretary by Congress in CVPIA section 3406(b)(23).

CVPIA section 3406(b)(23) provides "[t]he Secretary, in consultation with other State and Federal agencies, Indian tribes, and affected interests, is further authorized and directed to:

> (23) In order to meet Federal trust responsibilities to protect the fishery resources of the Hoopa Valley Tribe, and to meet the fishery restoration goals of the Act of October 24, 1984, Pub. L. 98-541, provide through the Trinity River Division, for water years 1992 through 1996, an instream release of water to the Trinity River of not less than 340,000 acre-feet per year for the purposes of fishery restoration, propagation, and maintenance and,
>
> (A) By September 30, 1996, the Secretary, after consultation with the Hoopa Valley Tribe, shall complete the Trinity River Flow Evaluation Study currently being conducted by the U.S. Fish and Wildlife Service under the mandate of the Secretarial Decision of January 14, 1981, in a manner which insures the development of

> recommendations, based on the best available scientific data, regarding permanent instream fishery flow requirements and Trinity River Division operating criteria and procedures for the restoration and maintenance of the Trinity River fishery; and
>
> (B) Not later than December 31, 1996, the Secretary shall forward the recommendations of the Trinity River Flow Evaluation Study, referred to in subparagraph (A) of this paragraph, to the Committee on Energy and Natural Resources and the Select Committee on Indian Affairs of the Senate and the Committee on Interior and Insular Affairs and the Committee on Merchant Marine and Fisheries of the House of Representatives. If the Secretary and the Hoopa Valley Tribe concur in these recommendations, any increase to the minimum Trinity River instream fishery releases established under this paragraph and the operating criteria and procedures referred to in subparagraph (A) shall be implemented accordingly. If the Hoopa Valley Tribe and the Secretary do not concur, the minimum Trinity River instream fishery releases established under this paragraph shall remain in effect unless increased by an Act of Congress, appropriate judicial decree, or agreement between the Secretary and the Hoopa Valley Tribe. . . .

CVPIA § 3406(b) (Pub. Law No. 102-575, 106 Stat. 4600, 4720-4721) (emphasis added).

The Final Flow Report completed in June 1999 set forth the recommendations regarding "permanent instream fishery flow requirements and Trinity River Division operating criteria and procedures" required by section 3406(b)(23)(A). The Final Flow Report did not recommend making supplemental releases in August and September such as those now being considered, and such releases were not analyzed in the NEPA review culminating in the ROD. Instead, much lower and steady flows of 450 cfs to 300 cfs were proposed. That after decades of study no one suggested the need for the supplemental late summer flows that are now in vogue based on a single episode in 2002 is at least one indication that such flows lack scientific support.

After completing a Trinity River Mainstem Fishery Restoration Environmental Impact Statement Report ("EIS/EIR"), the Secretary of the Interior adopted the ROD on December 19, 2000. The ROD sets out different volumes of releases depending upon year type. The volume of releases ranges from 368,000 acre-feet in a critically dry year to 815,000 acre-feet in an extremely wet year. ROD at p. 12. The ROD provides that "the schedule for releasing water on a daily basis, according to that year's hydrology, may be adjusted but the annual flow volumes established in Table 1 may not be changed." *Id.* (emphasis added). The same day, on December 19, 2000, the Hoopa Valley Tribe formally "concurred" with the ROD as the means to protect the Trinity River Chinook salmon fishery in which the Tribe holds treaty fishing rights. Upon that concurrence, section 3406(b)(23) mandates that the ROD's flow release schedule is "permanent," and Reclamation has a duty to implement the ROD flow release schedule and criteria established by the ROD.

The current water year has been declared a "dry" water year. Accordingly, under the ROD, a total volume of 453,000 acre-feet may be released for instream flow purposes. Under the release schedule for 2013 that Reclamation adopted in April, releases peaked May 2-3 at 4,500 cfs, and gradually decreased to 450 cfs on June 24. Under this schedule, releases are to remain at 450 cfs until October 16, when they drop further to 300 cfs. Reclamation did not include higher August and September releases in the schedule. Under the existing schedule, without the proposed August and September releases, Reclamation will release the full volume of 453,000 acre-feet specified for a "dry" year under the ROD. If Reclamation were to make the proposed August and September releases, it would exceed the volume of 453,000 acre-feet for fishery releases allowed by the ROD for this year by up to 109,000 acre-feet.

The ROD allows for flexibility in varying the daily release schedule within a year. But as the ROD makes clear, "the annual flow volumes established in Table 1 may not be changed." ROD at p. 12 (emphasis added). Here, Reclamation could have, but did not, hold back sufficient water from the allotment of 453,000 acre-feet for 2013 to make the supplemental releases in August or September. Under the release schedule Reclamation adopted for 2013 it has already released too much TRD water to make the proposed supplemental August and September releases.

One of the more troubling aspects of making late summer releases in excess of the ROD annual flow volumes is that it disregards the difficult compromise embodied in the ROD, and promotes new controversy. In section 3406(b)(23), Congress sought to bring to an end the long running controversy over the appropriate level of releases from the TRD for fishery flows, in competition with other water uses, by providing that the fishery flows would become "permanent" upon agreement of the Secretary and the Hoopa Valley Tribe. The ROD explains:

> In section 3406(b)(23) of the CVPIA, Congress sought the final resolution of these issues in order to meet the federal trust responsibility and to meet the goals of prior legislation, calling for the completion of the scientific efforts initiated by Secretary Andrus and for the implementation of recommendations, based on the best available scientific information, regarding permanent instream fishery flow requirements and TRD operating criteria and procedures necessary for the restoration and maintenance of the Trinity River anadromous fishery.

(ROD at p. 17.) The ROD flows represent a compromise among the competing uses of the water developed by the TRD, and among the Secretary's multiple obligations. The ROD explains:

> For the reasons expressed in this ROD, the Department's agencies are directed to implement the Preferred Alternative as described in the FEIS/EIR and as provided below. This alternative best meets the statutory and trust obligations of the Department to restore and maintain the Trinity River's anadromous fishery resources, based on the best available scientific information, while also continuing to provide water supplies for beneficial uses and power generation as a function of Reclamation's Central Valley Project (CVP).

(ROD at p. 2.) The Secretary expressly rejected an alternative that would require higher levels of releases to the Trinity River, based on the adverse impacts that CVP water and power users would suffer:

> Although the Maximum Flow Alternative scored better than the Preferred Alternative in terms of estimated [fish] population increases, the Maximum Flow Alternative would exclude or excessively limit the Department's ability to address the other recognized purposes of the TRD, including water diversions to the CVP and power production in the Trinity Basin. The best available science presently indicates that the Department's statutory and trust obligations can be achieved while still meeting Congressional intent to have the TRD integrated with the CVP to the extent that diversions to the CVP do not impair in-basin needs.

(ROD at p. 25.) Increasing TRD releases above the levels set in the ROD contradicts the intent of Congress to bring a "final resolution" to these issues, creates new controversy, and upsets the ROD's balance among competing uses of the TRD.

If Reclamation believes that late summer supplemental releases have sufficient benefits to justify the use of TRD water for that purpose, and that those benefits outweigh releases of water at other times of the year to provide instream flow, then it should plan for making such releases within the annual volume allowed each year under the ROD. Because there are significant environmental impacts associated with such late summer releases, however, it should begin that process early to accommodate the necessary environmental review under NEPA. It is too late to do an adequate NEPA analysis for releases in 2013. We elaborate further on NEPA's requirements in the next sections below.

B. The Proposed Releases Would Violate CVPIA Section 3411(a) And 43 U.S.C. Section 483

A second legal barrier to the proposed releases of TRD stored water is the terms of the water rights permits applicable to the TRD. The Trinity River and lower Klamath River are not authorized places of use under the SWRCB permits applicable to the TRD. CVPIA section 3411(a) directs that "the Secretary shall, prior to the reallocation of water from any . . . place of use specified within applicable Central Valley Project water rights permits and licenses to a . . . place of use not specified within said permits or licenses, obtain a modification in those permits and licenses, in a manner consistent with the provisions of applicable State law, to allow such change in . . . place of use." In addition, section 8 of the Reclamation Act requires Reclamation "to proceed in conformity with" State law "relating to the control, appropriation, use or distribution of water used in irrigation." 43 U.S.C. § 483. The planned releases are intended to improve conditions for salmon in the lower Klamath River. Reclamation has failed, however, to obtain a modification of the authorized place of use in the State permits applicable to the TRD in accordance with State law. The releases therefore would violate the Secretary's mandatory duties under CVPIA section 3411(a) and 43 U.S.C. section 483 to obtain a modification of the State permits before reallocating TRD water for use in the lower Klamath River.

C. The Proposed Releases Are Contrary To Reclamation's Contractual Obligations to Optimize Deliveries

A third legal barrier to the proposed supplemental fishery releases is Reclamation's contractual obligations. Making voluntary releases of TRD stored water that could instead be

delivered to CVP contractors is inconsistent with Reclamation's contractual obligations to optimize deliveries.

In 2003 and 2004, before making similar late summer and fall releases of TRD stored water, Reclamation made provisions to ensure that the Authority's members, including Westlands, would not suffer water supply losses. In 2003 Reclamation did an exchange with the Metropolitan Water District of Southern California, and in 2004 Reclamation purchased water from Sacramento Valley settlement contractors. By contrast, the Draft EA makes no mention of any commitment or effort to compensate CVP water and power users for the loss of 62,000 to 109,000 acre-feet of stored TRD water due to the proposed action.

In 2012, in a July 27, 2012 letter, the Regional Director made assurances to the Authority that Reclamation would make Authority member agencies whole in the event that the supplemental releases made in August and September of 2012 adversely affected member water supply. A copy of the July 27 letter is provided with this comment letter. Trinity Reservoir did not refill in 2013. Hence, as a result of the 2012 releases, TRD storage is some 40,000 acre-feet lower than it otherwise would have been.

Given the current low storage levels, which are well below average, Trinity Reservoir is unlikely to refill in 2014 either. Indeed, Reclamation's most recent 50% exceedance forecast shows that Trinity Reservoir will not fill next year, by a substantial margin. So, by its own evaluation, Reclamation has concluded that there less than a 5 in 10 chance Trinity Reservoir will refill, even without the proposed supplemental release. To refine this likelihood even further, we used the Department of Water Resources' latest State Reliability Calsim Studies, which include all current regulatory requirements. We found that in years when carryover storage in Trinity Reservoir is equal to the 1.4 million acre-feet expected for this year, Trinity filled in only 3 years during the 82 year hydrologic sequence used in the model. It is highly unlikely that 2014 will be wet enough to fill Trinity Reservoir. If Reclamation makes the planned supplemental releases in 2013, the cumulative deficit in storage in 2014 will likely exceed one hundred thousand acre-feet. Reclamation has taken no steps to compensate for the impact of the 2012 releases, let alone the impact of the further proposed releases in 2013.

In sum, Reclamation has no statutory authority to implement the proposed action. To the contrary, the supplemental releases would violate CVPIA sections 3406(b)(23) and 3411(a), section 8 of the Reclamation Act of 1902, and the ROD. Further, the releases are contrary to Reclamation's contractual obligations to the Authority's member agencies.

II. The Draft EA's Statement Of Purpose And Need Is Inadequate

The Draft EA describes the purpose for implementing the proposed late summer releases as "to augment the lower Klamath River flows to reduce the likelihood, and potentially reduce the severity, of any fish die-off in 2013." (Draft EA at 2.) The need for the action, although not explicitly labeled as such, appears to be to avoid "large-scale fish die-offs [that] could substantially impact present efforts to restore the native Klamath Basin anadromous fish communities and the many user groups that rely upon the fishery." (*Id*.) Although only a brief discussion of purpose and need is required (40 C.F.R. § 1508.9(b)), the discussion in the Draft EA is inadequate.

If the need for the action is derived from the potential risk of *Ich* and *Columnaris* outbreaks to fall-run Chinook salmon, then the purpose of the action is to reduce the risk of *Ich* and *Columnaris* outbreaks. By stating the purpose of the action in terms of increasing lower Klamath River flows, Reclamation has pre-determined the action, and arbitrarily limited the alternatives. Flow should not be the only considered means to reduce *Ich* and *Columnaris* outbreaks. To satisfy its NEPA obligations, Reclamation should revise its statement of purpose and need and evaluate a broader range of alternatives to meet that purpose and need.

III. The Draft EA's Discussion Of Alternatives Considered But Eliminated From Further Consideration Is Inadequate

The Draft EA notes that in 2012, the Trinity River Restoration Program's ("TRRP") Flow Work Group, Fall Flow Subgroup stated their "expectation . . . that increased water volumes and velocities in the lower river would dilute the infective stages of *Ich* and reduce the overall density of adult fall-run Chinook salmon.[1] Accordingly, the Subgroup did not recommend a specific source for the supplemental water (i.e. storage in the upper Klamath River Basin vs. the upper Trinity River)." (Draft EA at 8.)

The Draft EA states that Reclamation considered the upper Klamath River as a source of the supplemental releases in addition to the TRD. The Draft EA goes on to state that "[a]fter planning for the Klamath River flows below Iron Gate Dam, and Upper Klamath Lake elevation management, consistent with the NMFS and Service's biological opinion addressing operation of Reclamation's Klamath Project, and providing for limited irrigation water delivery, Reclamation determined that in practical terms supplemental water for late summer lower Klamath River flows is not available from the upper Klamath River." (*Id*.) This explanation is inadequate.

Reclamation has not disclosed an adequate justification for its decision that the upper Klamath River is not an appropriate source of supplemental releases. Many of the functions of the proposed supplemental instream flow in the late summer could be met by releasing water from the Klamath River system rather than from the Trinity River. Increased late summer releases from the Klamath River would contribute to the increased water velocity, increased flushing, increased habitat area and potentially reduced fish densities, and increased adult upstream attraction flows to stimulate adult salmon upstream migration and reduce holding in lower river pools that are thought to be beneficial in reducing disease risk. Increased releases in the late summer from the Klamath River system would avoid the potentially significant adverse impacts to the Trinity River and potential impacts to cold water pool water temperature management on Clear Creek and the Sacramento River salmonids. Without additional analysis and explanation, the Draft EA's rejection of the upper Klamath River as a source of supplemental release flows is inadequate.

The Draft EA does not reference any alternative potential sources of supplemental water other than the upper Klamath River. This is in error. Reclamation should have considered alternative sources of water as possible alternatives. For example, Reclamation should have analyzed whether it could develop a source through exchanges or purchases of water available in

[1] The Draft EA discusses the 2012 recommendations of the TRRP's Flow Work Group, Fall Flow Subgroup, but does not identify or discuss any recommendations by that subgroup for 2013. No 2013 recommendations of the subgroup appear on the TRRP website. If any such recommendations were made, they have not been made publicly available.

the Central Valley, as it did in 2003 and 2004. Reclamation should have considered whether it could use water set aside for flow releases in the Trinity ROD. Reclamation's failure to explore and evaluate all reasonable alternatives renders the Draft EA inadequate under NEPA.

The Draft EA's consideration of alternatives is inadequate for the additional reason that the alternatives are arbitrarily limited to actions involving flow releases. As discussed in section II above, the need for the action is tied to avoiding the potential risk of *Ich* and *Columnaris* outbreaks to fall-run Chinook salmon. Reclamation has not asserted, nor can it, that the only way to reduce the potential risk of *Ich* and *Columnaris* outbreaks to fall-run Chinook salmon is to increase flow in the lower Klamath River. Therefore to comply with its NEPA obligations, Reclamation must analyze additional alternatives.

IV. Reclamation Must Prepare An Environmental Impact Statement To Comply With NEPA

There can be no reasonable dispute that the releases will have significant effects on the human environment. But even if Reclamation disagrees, it is still required to prepare an EIS because at a minimum there are "substantial questions whether a project may have a significant effect on the environment." *Anderson v. Evans*, 371 F.3d 475, 488 (9th Cir. 2004); *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998). Reclamation must prepare an EIS to address those substantial questions. The Draft EA and Draft FONSI are inadequate to meet Reclamation's NEPA obligations.

Whether a proposed project's effects may be "significant" is informed by consideration of context and intensity. 40 C.F.R. § 1508.27; *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1185 (9th Cir. 2008). "Intensity . . . refers to the severity of impact" and can involve consideration of a number of factors, including:

- The degree to which the effects on the quality of the human environment are likely to be highly controversial;
- The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks;
- Whether the action is related to other actions with individually insignificant but cumulatively significant impacts;
- The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973; and
- Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

40 C.F.R. § 1508.27(b)(4), (5), (7), (9) and (10).

It is not enough for an environmental assessment to assert that impacts will be "minor" or "insignificant" unaccompanied by any analysis or supporting data. An objective quantification of the impacts is required; "'vague and conclusory statements' unaccompanied by 'supporting

data'" do not demonstrate a hard look at the environmental consequences of an action as required by NEPA. *Center for Biological Diversity v. Nat'l Hwy Traffic Safety Admin.*, 538 F.3d 1172, 1223-24 (9th Cir. 2008).

As explained below, the Draft EA's analysis of "Affected Environment and Environmental Consequences" is inadequate for multiple reasons. As a threshold defect, the Draft EA improperly characterizes the size of the proposed action for purposes of the impact analysis. Where the Draft EA discusses potential impacts to the environment, it does so only in terms of potential impacts from up to 62,000 acre-feet of releases. The proposed action will potentially be much larger. It includes releases of 62,000 acre-feet of TRD storage, plus an additional volume of about 8,000 acre-feet if the release period is extended past September 21 to September 30, plus the potential for additional "emergency" releases of up to 39,000 acre-feet of TRD storage. (Draft EA at 6.) The proposed action may therefore result in total releases of about 109,000 acre-feet from TRD storage.

The Draft EA's impacts analysis is therefore inadequate for its failure to analyze the potential impacts associated with the full potential 109,000 acre-feet of releases associated with the proposed action. That is a substantial quantity of water. It is enough to irrigate approximately 43,600 acres of farmland, based on the average use of 2.5 acre-feet per acre in Westlands. It is also enough to meet the needs of approximately 218,000 households for an entire year.[2]

The volume of releases attributed to the proposed action in the Draft EA does not include 11,000 acre-feet of planned releases to support the Hoopa Valley Tribe's Boat Dance Ceremony on August 27, 2013. According to the Draft EA, peak releases for that ceremony will reach 2,650 cfs at Lewiston, and with associated ramping flows the ceremony releases will total 11,000 acre-feet. (Draft EA at 6.) This volume of releases for the ceremony is more than twice the volume released in years prior to 2009. Reclamation should explain why in odd-numbered years beginning in 2009 it has doubled the volume of ceremonial releases, and whether this change from pre-2009 operations has been analyzed under NEPA.

The proposed supplemental releases may have significant effects on water and power resources, biological resources, the global climate, environmental justice, socioeconomic resources, air quality, and land use. Consequently, the Draft EA and FONSI are inadequate under NEPA, and preparation of an EIS is required.

A. The Proposed Action May Have A Significant Effect On Water And Power Resources

1. Impacts To CVP Water Supply Allocations

The Draft EA asserts that "[p]roviding up to 62 TAF of supplemental water in the lower Klamath River as a preventative measure in the late summer in 2013 would not affect water supply allocations managed as part of the CVP in 2013, or water operations within the Central

[2] According to the City of Tracy website, http://www.ci.tracy.ca.us/documents/Tracy_Water_Supply_Presentation .pdf , the typical single family household will use ½ acre-foot of water per year. The City of Tracy is a member of the San Luis & Delta-Mendota Water Authority.

Valley. Water allocations for irrigation and M&I deliveries have already been determined for 2013, and the supplemental water would not affect the projected volume of water to be exported to the Sacramento River Basin in 2013." (Draft EA at 13.) The Draft EA's assertion that the proposed action does not affect 2013 water supply is wrong. In lieu of the proposed action, the 62,000 to 109,000 acre-feet of water associated with the proposed action could be used to restore south-of-Delta agricultural contractors' 2013 CVP water allocation to 25%.

In February 2013, Reclamation announced an initial allocation of 25% for south-of-Delta agricultural water service contractors. However, on March 22, 2013, Reclamation reduced the contract allocations for south-of-Delta agricultural water service contractors to 20%. When it made this reduction, Reclamation explained that "this decreased allocation for South-of-Delta contractors is based on the critical water year classification, the projection of reduced Delta inflows this spring, significant loss of reservoir storage to support pumping this summer and water quality permit requirements." (Reclamation Press Release (Mar. 22, 2013), available at http://www.usbr.gov/newsroom/newsrelease /detail.cfm?RecordID=42565 (emphasis added).) Less than four months later, Reclamation is proposing to release up to 109,000 acre-feet from TRD storage, an amount that instead could be delivered to CVP contractors south of the Delta. If Reclamation now has this quantity of water available for release from storage in 2013, it should be used to restore the south-of-Delta agricultural contractors' allocation for 2013 to 25%.

The volume of water Reclamation proposes to release down the Trinity River, 62,000 to 109,000 acre-feet, would support a 5% increase in allocation to south-of-Delta CVP water service contractors. A late summer or early fall increase to contract allocations would be consistent with Reclamation's historical practice. In 2001, Reclamation made a 2% increase on October 19. (See Summary of Water Supply Allocations, available at http://www.usbr.gov/mp/cvo/vungvari/water_allocations_historical.pdf.) In 2002, Reclamation made a 5% increase on September 10. Again in 2004, Reclamation made a 5% increase on September 13. When water is available to supplement contract allocations in a dry year such as 2013, that water may be used to increase, or in this case to restore, contract allocations. That water is desperately needed in 2013 by south-of-Delta farmers laboring under a 20% allocation. It is not too late to revise annual water allocations. The statement in the Draft EA that "[w]ater allocations for irrigation and M&I deliveries have already been determined for 2013" is no excuse; the allocation may and should be increased now. (Draft EA at 13.)

Currently, many farmers served with water by south-of-Delta agricultural water service contractors have turned to groundwater to substitute for CVP water that Reclamation took back in March. Reclamation is well aware that the groundwater basins from which these farmers are extracting groundwater are overdrafted, and the extraction of groundwater from these overdrafted basins causes subsidence, which in turns does permanent harm to the storage capacity of the groundwater basin and causes harm to infrastructure, including roads, canals (including the San Luis Canal), pumping plants along the canal, and groundwater wells. The Draft EA contains no analysis of these environmental impacts caused by Reclamation's failure to make CVP water available to these farmers or the impacts that could be avoided if additional CVP water were made available through an increased allocation to south-of-Delta contractors.

Reducing storage in the TRD in 2013 will affect project operations and allocations in 2014. With respect to potential impacts to CVP water supply allocations in 2014, the Draft EA states that "[t]he extent that the release of up to 62 TAF affects the 2014 water supply and water

allocations will depend on the water year 2014 hydrology and operational objectives." (Draft EA at 13.) The document goes on to state that "[t]he approximate 62 TAF for preventative use in supplementing the lower Klamath River flows in late summer is about 4.5 percent of the forecasted volume present in Trinity Reservoir at the beginning of water year 2014 and about 3 percent of the 50 percent exceedance forecasted volume by the end of April 2014." (*Id*.) Further, the Draft EA states "[i]f Trinity Reservoir does not fill in 2014, some water volume, up to the amount released for supplemental Klamath River flows, may not be available for other potential purposes. However, this represents a small proportion of the water made available for various purposes annually, on average, from the CVP." (*Id*.)

The Draft EA fails to quantify potential impacts to CVP water supply in 2014, implying that potential impacts are too complicated to discern or will depend entirely on unpredictable 2014 conditions. Yet one impact to CVP water supply in 2014 is simple to determine. The 2013 supplemental releases will create a hole in storage that correlates exactly with the size of the 2013 supplemental releases. Trinity Reservoir is unlikely to fill in 2014, and hence the entirety of the quantity of water associated with the 2013 supplemental releases will not be available for CVP uses in 2014. The proposed action will likely reduce the amount of storage in Trinity Reservoir in 2014 by up to 109,000 acre-feet.

At a minimum, the reduced water in storage in the TRD will result in lower initial 2014 allocations in February, and delays in increased allocations as the year progresses. Depending upon hydrology, it may result in lower final contract allocations as well. All these consequences will have negative impacts within a south-of-Delta service area that already is negatively affected by the 20% 2013 water allocation. The Draft EA, however, fails to analyze these consequences at all, let alone establish why the impacts will not be significant. Instead of analyzing the consequences, the Draft EA says "this represents a small proportion of the water made available for various purposes annually, on average, from the CVP." (Draft EA at 13.) Comparing the volume of water lost to the releases to average total water made available annually by the CVP is meaningless. It ignores context. As Reclamation well knows, shortages of CVP water are not spread evenly across all water users and project purposes. Instead, shortages fall most heavily and disproportionately on agricultural water service contractors in the region south of the Delta. The Draft EA fails to address what the loss of this water will mean to these contractors and this region if, as is highly likely, Trinity Reservoir does not refill in 2014.

In sum, the Draft EA fails to address the potential impacts of the releases on CVP water users in 2013 or 2014. To make a finding of no significant impact, Reclamation is required to provide a "convincing statement of reasons" to explain why the impacts to water supply from losing up to 109,000 acre-feet will be insignificant. *EPIC v. U.S. Forest Service*, 451 F.3d 1005, 1008-1009 (9th Cir. 2006). The Draft EA comes nowhere close to meeting this standard. To comply with NEPA, Reclamation must prepare an EIS.

2. Impacts To Hydropower Generation

The Draft EA asserts that "[i]mplementation of the Proposed Action will not adversely affect power generation in 2013, with the exception of a small loss of potential power generation at Trinity Dam." (Draft EA at 12.) However, because the quantity of water associated with the proposed action can and should be used to restore the 25% allocation to CVP contractors south

of the Delta, the water associated with that additional export of water to the Sacramento River in 2013 has hydropower generation potential that will be lost if the proposed action is taken.

Regarding hydropower impacts in 2014, the Draft EA asserts that "decreased power generation . . . would be complex to determine and quantify." (Draft EA at 12.) However, the Draft EA states, "[i]n very general terms, if 62 TAF were released to the Trinity river to implement the preventative flows under the Proposed Action, future foregone [power] generation could be a maximum of about 75,330 megawatt hours. However, power generation opportunities are subject to many restrictions and uncertainties unrelated to the Proposed Action." (*Id*.) This understates the potential volume of releases, and hence the potential lost hydropower.

While estimating the impact of the releases on water allocations and hydropower generation in the following year may be complex and subject to several factors, Reclamation may and should better estimate the size and likelihood of such potential impacts. For example, it could assume a range of scenarios that would encompass the least and greatest impacts, and assess the likelihood of each scenario based on the historical record of hydrology and oeprations.

In essence, the Draft EA concedes that the releases may have a significant effect on power generation; Reclamation just has not tried to figure it out. That is why it must try, in an EIS. The Draft EA does not assess whether the 75,330 megawatt hours associated with 62,000 acre-feet in releases is a "significant" impact on the human environment. Reclamation must do so. For example, what does this loss in power translate to in terms of costs? What substitute sources of power will be used to make up for this loss, and what is the impact of using those substitute sources? What power will be lost if the releases are up to 109,000 acre-feet? Something more than a "vague and conclusory statement" is required here to convince the readers of the Draft EA that the impacts of the proposed action will not be significant. Reclamation is required to provide a "convincing statement of reasons" to explain why the impacts to hydropower generation will be insignificant. *EPIC v. U.S. Forest Service*, 451 F.3d 1005, 1008-1009 (9th Cir. 2006). An EIS is required.

3. Impacts To Cold Water Pool Management

The Draft EA states that "[i]n 2014, the reduction in storage of up to 62 TAF due to implementation of augmentation flows may influence the cold water resource, but is dependent upon whether the reservoir would fill. … [T]here could be a relatively minor reduction in available cold water resources that may be accountable to this action." (Draft EA at 12.)

The finding that "a relatively minor reduction in available cold water resources" is insignificant and does not warrant an EIS is illogical in light of the position taken by Reclamation earlier this year. In May, Reclamation and the California Department of Water Resources ("DWR") jointly asked that the CVP and State Water Project be relieved from meeting certain Bay-Delta Water Quality Control Plan requirements that would require Reclamation to draw down storage in Shasta Reservoir so far that it would deplete the Shasta Reservoir cold water pool that is needed to maintain temperatures for winter-run Chinook salmon in the Sacramento River in the late summer.

In a joint letter dated May 24, 2013 from Reclamation and DWR, to the SWCRB, a copy of which is provided with this comment letter, these agencies explained:

> The 2013 water year has been particularly challenging with double the normal precipitation in November and December and historically low values from January into May. The current Northern Sierra 8 Station Precipitation Index from January 1, 2013 through May 15 is about 8.8 inches. Without additional measurable precipitation in May, this figure will represent the driest Northern Sierra 8-Station Precipitation Index for the January through May period on record. . . . The nearly 80 percent of this year's precipitation occurred in the first three months of the water year, and an abnormally large portion of this fell as rain rather than snow as a result of warmer than normal conditions for that time of year. This combined with critically dry conditions in the months since the first of the year has resulted in minimal snow pack in the Sierra Nevada in the critical spring months. The Northern Sierra snowpack was only about 48% of the historical April 1 value and about 17% of normal as of May 1, 2013. Creek and small stream flows that enter the Sacramento River system below major reservoirs are running at historically low levels in response to the extended dry period.

(May 24, 2013 letter at p. 2.)

The May 24 letter explains the impact of these conditions on project storage and the cold water pools in storage that are necessary to maintain cool water temperatures below Shasta Dam and other dams in the late summer and fall:

> The CVP and SWP reservoir systems were in a near normal condition in January, but Reclamation and DWR have drawn heavily on the storage since then due to the extended dry period, low unregulated flow entering the system, and high depletions in the Central Valley. Reservoir releases are currently well above average for this date. In order to meet the Dry year water quality objectives rather than the Critical objectives, DWR and Reclamation have released significant volumes of water from Oroville, Shasta, and Folsom Reservoirs. <u>The low reservoir inflow and increased storage withdrawal is depleting the cold water pool in the reservoirs that is important to provide adequate instream fishery habitat for anadromous fish in the rivers through the summer and fall</u>.

(*Id*. at p. 3 (emphasis added).) Reclamation sought to operate to Critical Dry rather than Dry year type requirements, to save 100,000 to 200,000 acre-feet of storage:

> There is a significant difference between the volume of Delta inflow needed to achieve the Dry and Critical water quality objectives for Jersey Point and Emmation through June 15. If Reclamation and DWR are able to begin operating to the Critical

> year water quality objectives in May it may be possible to achieve 100,000 to 200,000 af, of cold water benefits in the upstream reservoirs. This savings in cold water storage would improve the chances of meeting the temperature objective at Airport Road. This cold water benefit will help avoid temperature related fish losses in the Sacramento River.

(*Id*. at p. 4.)

On May 29, 2013, in response to this request to save 100,000 to 200,000 acre-feet of CVP and SWP water in storage, the SWRCB, through the Delta Watermaster, indicated that it would not object or take any action if Reclamation and DWR operated to meet Critically Dry year rather than Dry year objectives under the Water Quality Control Plan, provided they submitted and operated to an approved temperature management plan to maximize benefits to fisheries resources. A copy of the May 29 letter is provided with this comment letter. In response, Reclamation submitted its plan for managing the cold water pool in Shasta Reservoir in 2013 to the SWRCB.

That exchange between Reclamation and the SWRCB is significant because it highlights the position taken by Reclamation in May that between 100,000 to 200,000 acre-feet is a significant quantity of water for cold water pool purposes. It is unclear how Reclamation can characterize up to 147,000 acre-feet (including impacts from the 2012 supplemental releases) as insignificant when, two months prior to the issuance of the Draft EA, Reclamation argued that a quantity of 100,000 to 200,000 acre-feet was significant to its efforts to meet the temperature objective and to avoid temperature-related fish losses in the Sacramento River. To comply with NEPA, more explanation and analysis is required, and an EIS should be prepared.

4. Impacts To Recreational Activities In Trinity Lake

The Draft EA concludes that "[i]n 2013, recreational activities in Trinity Lake are not likely to change to <u>any great extent</u> due to the Proposed Action." (Draft EA at 12 (emphasis added).) Regarding recreational activities in 2014, the Draft EA acknowledges "a <u>small chance</u> that some boat ramps might not be useable due to a reduced water elevation in the lake during the latter part of summer 2014." (*Id*. (emphasis added).) The Draft EA again claims that "the complexities and uncertainties of accurately predicting water surface elevations that far in the future are tied to variable and unpredictable precipitation patterns and therefore preclude Reclamation from providing meaningful estimates." (*Id*.) If there are uncertainties, then Reclamation can analyze a range if scenarios to bracket potential effects. An analysis yielding a range of potential outcomes still provides meaningful information.

Reclamation is not excused from analyzing whether the impacts to recreational activities will be significant. Although water surface elevations may be impacted by future precipitation events, the potential quantity of water associated with the 2013 supplemental releases is quantifiable. Moreover, Reclamation provides "meaningful estimates" of water storage on a regular basis, in its monthly operations forecasts. Reclamation is required to analyze potential impacts to recreational activities in more detail than it did in the Draft EA, providing a "convincing statement of reasons to explain why a project's impacts are insignificant." *EPIC v.*

U.S. Forest Service, 451 F.3d 1005, 1008-1009 (9th Cir. 2006). Reclamation has not provided such an explanation here. An EIS must be prepared.

5. Impacts To Groundwater Resources

Although the Draft EA acknowledges that the proposed action may result in impacts to the 2014 CVP water supply and water allocations (Draft EA at 13), the Draft EA makes no mention of the secondary impacts the proposed action may have on groundwater resources. The term "groundwater" appears nowhere in the EA. That is error.

Reduced deliveries of CVP water supplies to Authority member agency service areas compel greater reliance on groundwater to meet demand. (Corbett et al. 2011.) In turn, reduced exports and deliveries during more year types and in greater quantities diminish the ability of water managers to replenish and store groundwater when water is available to do so.

These circumstances can, and likely will, lead to additional groundwater overdraft (pumping beyond an aquifer's safe yield) in much of the Authority's and Westlands' service areas, particularly in agricultural areas. When water is removed from the spaces between the particles in the sediment, the soils compact, which reduces the volume for water storage. Long-term impacts resulting from overdraft include land subsidence and damage to water conveyance facilities. Land subsidence is the sinking of the Earth's surface due to subsurface movement of earth materials. The major cause of subsidence in the southwestern United States is the overdrafting of aquifers. The negative effects of land subsidence include the permanent loss of groundwater storage space and changes in elevation and the slope of streams, canals, and drains. Additionally, in some areas where groundwater levels have declined, surface streams lose flow to adjacent groundwater systems. These losses entail significant impacts to hydrology, as well as the biological systems that depend on those groundwater or surface flows.

Reduced groundwater levels can also lead to land subsidence that can additionally damage water conveyance facilities and other infrastructure, as has been documented throughout California. (Faunt, C.C. ed., 2009.) Land subsidence can lead to cracks and fissures at the land surface, which may damage bridges, roads, railroads, storm drains, sanitary sewers, canals, levees, and private and public buildings. Furthermore, land subsidence leads to the failure of well casings, which will require additional well drilling and attendant environmental impacts.

These potential impacts to groundwater resources may result from reduced export and delivery of Delta water supplies to the CVP service area. They are significant, and warrant analysis in an EIS.

6. Cumulative Impacts

The Draft EA states that "[t]here are no anticipated substantial cumulative impacts on Trinity Basin resources related to the Proposed Action." (Draft EA at 13.) It also states that "[d]ue to varying future water supply conditions within this large geographic area, it is not possible to meaningfully evaluate how a potential slightly lower Trinity Reservoir storage in 2014 may exacerbate system-wide supply conditions in the future. However, any such effects would be very minor." (Draft EA at 14 (emphasis added).) It is perplexing how Reclamation can logically conclude that any cumulative effects would be "very minor" when Reclamation

also claims it is not able to "meaningfully evaluate" those effects. Reclamation should describe the analysis it has completed, and explain how that analysis supports a conclusion that cumulative impacts are "very minor."

"Cumulative impact" means "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions." 40 C.F.R. § 1508.7. The Draft EA errs by failing to evaluate the cumulative impact of the proposed 2013 supplemental releases and similar releases from Trinity Reservoir in 2012. In 2012, Reclamation released nearly 40,000 acre-feet from Trinity Reservoir ostensibly for the benefit of fall-run Chinook salmon. Because Trinity Reservoir did not refill in 2013 and Reclamation did not supplement its 2013 contract allocations with 40,000 acre-feet of water from some alternative source, the 2012 action created a 40,000 acre-foot-sized "hole" in Trinity Reservoir storage that has not been refilled. This water supply impact should be added to the 109,000 acre-feet of potential water supply impacts associated with the 2013 supplemental releases, and this total quantity should be analyzed in Reclamation's cumulative impacts analysis. Because the cumulative total of the 2012 and 2013 impacts is significant—149,000 acre-feet of water—this analysis necessitates an EIS.

B. The Proposed Action May Have A Significant Effect On Biological Resources

1. Impacts To Trinity River Salmon

With respect to biological resources in the Trinity River and lower Klamath River, the Draft EA states: "Under the Proposed Action, the susceptibility of returning adult fall Chinook salmon to diseases that led to the 2002 fish die-off would decrease in the lower Klamath River during the late summer in 2013. The proposed action would be expected to decrease water temperatures in the lower Klamath River during the period of flow augmentation, and in turn, Chinook salmon may experience less physiological stress and vulnerability to disease." (Draft EA at 17-18 (emphasis added).) Elsewhere, however, the Draft EA concedes that "it is not possible to predict with absolute certainty that the Proposed Action will preclude a fish die-off in 2013, nor is it possible to accurately quantify the reduced disease risk attributed to the increased flows." (*Id*. at 18.)

The Draft EA overstates the certainty of a relationship between supplemental flow releases and reduced risk of disease to fall-run Chinook salmon (*O. tshawytscha*). Although there have been a number of analyses of the potential factors contributing to the observed fish kill that occurred in 2002 (Turek et al. 2002, Guillen 2003, Belchik et al. 2004), definitive cause-and-effect relationships have not been identified. Factors such as increased salmonid density in the lower Klamath River associated with high escapement of fall-run Chinook salmon, increased exposure to seasonally elevated water temperature, reduced flushing flows, and potentially reduced upstream attraction flows have been identified as potentially contributing factors contributing to an increased risk of disease infection. The role of these factors individually or in combination in disease outbreak and mortality, however, should be characterized as hypotheses.

Over the entire period of record there has been only one disease outbreak (2002) that resulted in substantial adult salmon mortality in the lower Klamath River. Although increased flows have been provided during the late summer and early fall months in recent years, there is

no proof that these flows precluded a disease outbreak just as there have been no outbreaks, or mortality in past years when these supplemental flows were not made. In addition, the necessary magnitude of potential flow in the late summer remains unknown, assuming that increased flows provide any contribution to the health of adult salmon in the lower Klamath River. In previous years supplemental releases of 30,000 - 40,000 acre-feet have been made with no observed salmon mortality. Results of these earlier years provide no scientific basis to suggest that higher releases would be necessary in 2013 to avoid disease outbreak. Further, there is no assurance that if the supplemental flows are released in the late summer of 2013 there will be no disease outbreak. To comply with NEPA, Reclamation should provide a better description of the hypothetical nature of the action being proposed and acknowledge that the supplemental flows may or may not provide the desired level of benefit. The impacts of late summer releases on fall-run Chinook salmon in the lower Klamath River are highly uncertain, and an EIS is required to provide additional analysis. *See* 40 C.F.R. § 1508.27(b)(5).

The potential impacts to spring-run Chinook salmon (*O. tshawytscha*) in the Trinity River must also be further analyzed in an EIS. Increasing Trinity River flows as described in the proposed action has the potential to create conditions for salmon spawning (e.g., spring-run spawning in September-October; EA Figure 3,) when Trinity River flows are elevated during the proposed releases, followed by a flow reduction that could result in redd dewatering and stranding. Spring-run adult salmon would likely spawn in areas of the Trinity River during at least a portion of the higher flow period of the proposed action. Under the artificial conditions created by the proposed action there is a risk that redds constructed and eggs laid in September under the higher flows would be dewatered as flows are reduced in late September and early October. By contrast, under the ROD release schedule and natural hydrologic conditions, late summer flows would remain at relatively low levels throughout the late summer and early fall months, and there is a low risk of natural redds dewatering due to changes in flows.

Similarly, the releases would reduce water temperatures during the flow release period, followed by an increase in water temperatures (qualitatively characterized as about 0.5 C increase) when the releases end. An abrupt increase in water temperatures for eggs acclimated to reduced temperatures during the flow release period has the potential to result in increased spring-run Chinook salmon egg mortality. The Draft EA does not adequately address or quantity the potential risk of adverse impacts to spring-run Chinook salmon associated with either redd dewatering or exposure to altered water temperatures during incubation during and following the proposed action. Analytical tools are available to quantitatively evaluate these potential significant impacts that were not used or presented in the Draft EA or Draft FONSI.

Finally, there is no discussion in the Draft EA of potential effects of the proposed action on listed coho salmon (*O. kisutch*) in the Trinity River. The proposed action will result in unnaturally high and cold flows for the late summer. That will cause an abrupt change in water temperatures. Such flows will also alter the location and availability of micro habitat for rearing coho salmon. These and any other potential effects of the proposed action on coho salmon should be addressed in an EIS.

2. Impacts To The Yellow Legged Frog, Western Pond Turtle, And Lamprey

The Draft EA does not analyze potential impacts to other biological resources in the Trinity River and lower Klamath River, other than to concede that "[t]here may also be an increase in water temperatures in the Trinity River just subsequent to the Proposed Action" that "could be as high as one-half a degree Fahrenheit at Lewiston Dam." (Draft EA at 18.) The Draft EA does not present any analysis of the potential impacts that this increase in temperatures, or the increased instream flows during August and September more generally, may have on other biological resources in the Trinity River and lower Klamath River.

Increased instream flows during the late summer and early fall months were not analyzed in the NEPA process culminating in the Trinity ROD. The instream flow schedule the ROD imposed for the benefit of fisheries and other aquatic resources on the Trinity River was predicated on mimicking a natural seasonal pattern of instream flows and hydrologic patterns in the river. Providing artificially manipulated increased flows in August and September of a dry year with these altered environmental cues during the late summer and early fall months has the potential to adversely impact the life history and population dynamics of aquatic species such as the yellow legged frog (*Rana boylii*) and Western pond turtle (*Actinemys marmorata*). (Ashton et al. 2010, Ashton et al. 2011, Bettaso et al. 2010, Mount et al. 2009, Reese 1996, Reese and Welsh 1998a and b, Sullivan et al. 2005.) These potential significant adverse impacts of altered instream flow conditions during the late summer and early fall months have not been adequately evaluated in the Draft EA.

The Trinity River supports populations of western pond turtle and yellow legged frog, which are both "Species of Special Concern" in California.[3] These species have evolved to respond to naturally occurring seasonal environmental cues and conditions within the river. The proposed increase in late summer flows would result in an increase in water velocities within the river as well as seasonally reduced water temperatures. Concerns have been expressed (e.g., Ashton et al. 2011) that changes in river conditions associated with construction of Lewiston Dam and alterations to the river hydrology and management have adversely impacted the population dynamics of amphibians inhabiting the river and that the conditions that would occur under the proposed late summer TRD flow releases would compound and further aggravate these already compromised habitat conditions.

Reducing water temperatures as a result of the proposed late summer releases on the Trinity River would further reduce western pond turtle body temperature, reduce growth and energy reserves, require longer periods of basking, which would reduce foraging opportunities, and could potentially trigger pre-mature hibernation. These changes in temperature conditions that have occurred cumulatively on the Trinity River mainstem and would be directly associated with the proposed action are recurring issues that have been discussed in a number of previous reports and documents (Reese 1996, Reese and Welsh 1997, Reese and Welsh 1998a and b, Bettaso et al. 2010, and in the Trinity River conceptual model of potential issues and adverse impacts prepared by Trinity River staff in 2009). Because these impacts may be significant, preparation of an EIS is required.

[3] Department of Fish and Wildlife, Species of Special Concern, http://www.dfg.ca.gov/wildlife/nongame/ssc/.

In addition, altered flows and temperatures may have significant impacts on yellow legged frog metamorphosis and survival in the fall (Ashton et al. 2010) as well as the cumulative impacts on yellow legged frog associated with construction of the dam and alterations in river habitat conditions. Although these incremental and cumulative issues of potential significant adverse impacts to both western pond turtle and yellow legged frogs have been known to Reclamation for a number of years, they are not acknowledged or addressed in the Draft EA.

A third species potentially adversely affected by the proposed action is lamprey. (Stutsman 2005.) Monitoring by the Yurok Tribe of the effects of the 2003 and 2004 late summer releases indicated that such flows "had a significant 'dislodging' effect upon lamprey (*Lampetra* spp.) ammocetes." (*Id*. at 8.) They concluded that "it is reasonable to consider that the 2003 PFR could have had a profound effect upon ammocete abundance in 2004. For these reasons, impacts to lamprey should also be considered in the Environmental Assessment for any future Proactive Flow Release actions." (*Id*. at 9.)

Concerns about impacts of unnaturally high and cold late summer pulse flows were raised in TRRP discussions about the 2012 releases. The May 31, 2012 memorandum by the Fall Flow Subgroup recommending the 2012 releases noted "potential negative ecological consequences" from the releases. These included that: (1) "[u]nseasonably high flows could trigger premature migration of juvenile lamprey (Stutsman 2005)"; (2) "maintaining high flows after the second week in September, followed by reductions in flows to 450 cfs could cause up to 20% of Chinook salmon redds in the upper Trinity River to be dewatered"; (3) "high flows in September could cause increased hybridization of spring-run and fall-run Chinook salmon if early migration of fall-run Chinook salmon occurred"; and (4) "negative effects to amphibians and reptiles." These impacts have never been addressed. Reclamation's EA for the 2012 releases ignored these impacts, just as the Draft EA does this year.

The proposed action may have significant adverse impacts to western pond turtle, yellow legged frog, and lamprey. As a result, these impacts are required to be analyzed in an EIS.

3. Impacts To Central Valley Salmonids

The Draft EA states that "there would be no substantial effects to the biota of the Sacramento River Basin in 2013" and that "[c]hanges to the ability to achieve temperature objectives [in 2014] would be expected to be minor, as would the associated affects to ESA-listed salmon and steelhead." (Draft EA at 18.) However, the proposed supplemental releases may significantly and adversely affect three ESA-listed species, the Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*), Central Valley spring-run Chinook salmon (*O. tshawytscha*), and the Central Valley steelhead (*O. mykiss*). NEPA requires Reclamation to consider the degree to which the proposed action may affect these listed species in evaluating the significance of impacts to biological resources. 40 C.F.R. § 1508.27(b)(9).

The analysis of potential impacts on biota in the Sacramento River Basin is belied by Reclamation's own prior statements concerning the dire effects that critical hydrologic conditions and low storage levels in CVP reservoirs may have on fishery resources in the Sacramento River basin. The 2013 water year has been particularly challenging, with double the normal precipitation in November and December and historically low values from January through May. Indeed, the period from January through May was the driest period for those

months on record. Due to these unprecedented hydrologic conditions and projected low storage conditions in CVP reservoirs, on May 24, 2013 Reclamation sent to the SWRCB a letter requesting that the State Board reclassify the water year type from "Dry" to "Critical," thus relaxing Delta water quality objectives. A copy of the May 24 letter is attached to this comment letter. Reclamation stated:

> [I]t is clear that meeting the dry year [water quality] objectives could jeopardize the ability to meet other fisheries objectives later in the year. The reservoir storage that accumulated in the wet fall, which was originally projected to be sufficient to meet the dry year objectives, is falling rapidly due to the abnormally large valley demands and Reclamation is projecting CVP September carryover storages [of] only about 63% of average.

If storage conditions in May were so dire that Reclamation could not operate the CVP to meet its legal obligations without potentially jeopardizing its ability to meet fishery objectives in the Sacramento River and the Delta, it is incomprehensible for Reclamation to now conclude that the loss of 62,000 – 109,000 acre-feet of water from storage will not have a significant effect on its ability to provide cold water for the protection of listed species in the Sacramento River. At a minimum, Reclamation's prior statements raise "substantial questions whether [the proposed action] may have a significant effect on the environment" (*see Anderson v. Evans*, 371 F.3d at 488), which necessitate the preparation of an EIS.

Operations of the Trinity River system have direct implications for water temperature management and cold water pool on Clear Creek and the Sacramento River downstream of Keswick Dam as well as on the Trinity River. During the late summer and early fall months winter-run Chinook salmon spawn in the Sacramento River downstream of Keswick Dam. During spawning and egg incubation exposure of eggs to water temperatures above approximately 56º F results in high egg mortality. In addition, Central Valley spring-run Chinook salmon also spawn and their eggs incubate during the fall months (starting in September) in the Sacramento River, Clear Creek, and the Trinity River. Reduction in reservoir storage in the late summer and early fall as a result of the proposed action would directly result in a reduction in reservoir and cold water storage that may adversely impact winter-run and/or spring-run salmon egg incubation in 2013 and 2014 if the winter of 2014 does not result in sufficient flows to refill the reservoirs.

The Draft EA provides only a cursory qualitative analysis of this potentially critical issue. As noted, earlier this year Reclamation petitioned the SWRCB for relaxation of seasonal water temperature management requirements on the Sacramento River as a result of limited availability of cold water (letter from Ron Milligan, Reclamation, to Ms. Barbara Evoy, SWRCB, dated June 3, 2013, provided with this comment letter). The proposed action would potentially make these conditions more severe and contribute to greater risk of adverse effects to these protected species. The proposed action may significantly impact these protected species.

The proposed action may also impact the Central Valley steelhead, another listed species. The Draft EA acknowledges that the Central Valley steelhead (*O. mykiss*) is present in the waterways affected by the proposed late summer releases. (Draft EA at 16.) The Central Valley steelhead is listed as "threatened" under the ESA. 71 Fed. Reg. 834 (Jan. 5, 2006). Despite the

Central Valley steelhead's special ESA status, the degree to which the proposed release may affect the Central Valley steelhead is not discussed in the Draft EA. Potential impacts to this ESA-listed species should factor into the Draft EA's "significance" analysis. 40 C.F.R. § 1508.27(b)(9). The Draft EA's failure to include this discussion is in error**.**

Moreover, the Draft EA contains no analysis concerning how the proposed action might affect the Sacramento-San Joaquin Rivers Delta and fishery resources in the Delta. Again, Reclamation's prior statements in its May 24 letter to the Water Board raise "substantial questions" concerning potential impacts of the proposed action on water quality and fishery resources in the Delta. Reclamation has a duty to take a "hard look" at these questions through the preparation of an EIS before making supplemental releases down the Trinity River.

In sum, preparation of an EIS is required to address impacts to Central Valley salmonids. The EIS should, at a minimum, present results of the Reclamation water temperature simulation model, egg mortality model, and SALMOD comparing baseline no-action conditions to the proposed action for conditions that occur in 2013 and for a drought scenario for 2014 to identify and quantify potential significant adverse impacts to winter-run and spring-run Chinook salmon and other aquatic resources.

4. Impacts To Green Sturgeon

The Draft EA acknowledges that the southern distinct population segment ("DPS") of North American green sturgeon (*Acipenser medirostris*) is present in the waterways affected by the proposed late summer releases. (Draft EA at 16.) The southern DPS of green sturgeon is listed as "threatened" under the ESA. 71 Fed. Reg. 17,757 (Apr. 7, 2006); 73 Fed. Reg. 52,084 (critical habitat designated). Despite the green sturgeon's special ESA status, the degree to which the proposed release may affect the green sturgeon or its critical habitat is not discussed in the Draft EA. Potential impacts to this ESA-listed species should factor into the Draft EA's "significance" analysis. 40 C.F.R. § 1508.27(b)(9). The Draft EA's failure to include this discussion is error.

5. Impacts To Delta Smelt

The Draft EA limits its identification of biological resources in the Central Valley to anadromous fish species. (Draft EA at 16.) Unfortunately, this results in the Draft EA failing to discuss potential impacts to the delta smelt (*Hypomesus transpacificus*). The delta smelt is listed as "threatened" under the ESA. 58 Fed. Reg. 12,854 (Mar. 5, 1993); 59 Fed. Reg. 65,256 (Dec. 19, 1994) (critical habitat designated). Because the delta smelt is endemic to the San Francisco Bay / Sacramento-San Joaquin Delta Estuary, it inhabits the environment affected by the proposed action. Reclamation should have analyzed potential impacts to the delta smelt from the proposed action and the significance of these impacts in light of the delta smelt's status. *See* 40 C.F.R. § 1508.27(b)(9).

There is a potential that the proposed action will create a conflict between the U.S. Fish and Wildlife Service's ("FWS") management objectives for the delta smelt and the National Marine Fisheries Service's ("NMFS") management objectives for listed salmonid species. In the 2008 FWS biological opinion on the effects of coordinated operation of the CVP and State Water Projects on the delta smelt, FWS imposed certain fall outflow requirements for the delta smelt.

As described above, NMFS is concerned with maintaining the cold water pool storage necessary to provide temperature management for salmonid species. Both objectives implicate project storage. If the proposed supplemental releases to the Trinity River occur, they will reduce the overall quantity of water available in storage to meet Delta outflow requirements and cold water pool storage requirements, increasing the potential for a conflict between the two management objectives. This potential conflict should be analyzed in Reclamation's NEPA document.

6. Impacts To Longfin Smelt

The Draft EA also fails to discuss potential impacts to the longfin smelt (*Spirinchus thaleichthys*). The longfin smelt is a candidate species under the ESA. 77 Fed. Reg. 19,756 (Apr. 2, 2012.) Despite the longfin smelt's special ESA status, the degree to which the proposed release may affect the longfin smelt is not discussed in the Draft EA. The Draft EA's failure to include this discussion is in error**.**

C. The Proposed Action May Have A Significant Effect On The Environment With Respect To Climate Change

The Draft EA admits that there may be some impacts to greenhouse gas ("GHG") emission levels associated with the proposed action. (Draft EA at 19.) As noted above in section IV.A.2., the Draft EA determines that 75,330 megawatt hours of power generation may be lost as a result of the proposed action. (*Id*.) The Draft EA then states that "[a]ssuming that power customers would have to replace all of that power with hydrocarbon generated power, an estimated additional 53,149 metric tons of carbon dioxide ("CO2") equivalent would be emitted. The timing and distribution of the potential additional CO2 equivalent is unknown." (*Id*. at 19-20.) The Draft EA therefore concedes that an additional 53,149 metric tons of CO2 equivalent may be emitted, but declines to analyze the impacts on the global climate associated with this quantity, and fails to allege or explain why this emission will not have a significant effect on the global climate. An EIS is required to analyze these potential impacts in more detail.

In *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172 (9th Cir. 2008), the Ninth Circuit Court of Appeals criticized the National Highway Traffic Safety Administration ("NHTSA") for failing to analyze potential impacts from GHG emissions in an EIS. The court in that case agreed with plaintiffs that the "NHTSA failed to provide a convincing statement of reasons for why a small decrease (rather than a larger decrease) in the growth of CO2 emissions would not have a significant impact on the environment." 538 F.3d at 1220-1221. The court found that the proposed action in that case "may have an 'individually insignificant but cumulatively significant' impact with respect to global warming," and also found that "NHTSA's conclusion that a small reduction . . . in the growth of carbon emissions would not have a significant impact on the environment was unaccompanied by any analysis or supporting data." *Id*. at 1222, 1223.

Similarly here, Reclamation has failed to explain why an increase in CO2 equivalent emissions will not have a significant impact on the environment. Reclamation identifies (although incompletely) the potential quantity of emissions associated with the proposed action, but does not claim that the emissions will be insignificant and does not support its statements with any analysis or supporting data. Accordingly, there is a substantial question as to whether

the increased CO2 emissions may cause a significant impact on the environment. An EIS is required.

D. The Draft EA Fails To Adequately Address Environmental Justice

The Draft EA's very brief discussion of Environmental Justice notes that "[t]he Trinity and Klamath Rivers flow through rural areas. Additionally, these rivers both run through the Hoopa Valley Tribe and Yurok Tribe Reservations. Generally speaking, the Reservations' populations are generally lower-income and traditionally rely on salmon and steelhead as an important part of their subsistence." (Draft EA at 21.) The Draft EA fails to include the Central Valley generally, and the west side of the San Joaquin Valley specifically, as locations that may feel environmental justice impacts from the proposed action. This failure violates NEPA.

NEPA regulations require the significance of an action to be analyzed in several contexts, including "the affected region." 40 C.F.R. § 1508.27(a). The proposed releases will result in lost contract allocations to south-of-Delta CVP water service contractors in 2013, and reduced or at least delayed allocations in 2014 (see section IV.A.1. above). The impacts from such reductions are disproportionately felt in the west side of the San Joaquin Valley. Consequently, the west side of the San Joaquin Valley is an affected region under NEPA, and environmental justice impacts on that region must be analyzed.

The west side of the San Joaquin Valley includes predominantly poor and minority communities where employment losses and environmental effects from chronic and acute CVP water shortages are already prevalent. These characteristics of the counties in the San Joaquin Valley are illustrated in the tables below, using data from the U.S. Census Bureau.[4]

	Race/Ethnicity, percent of persons, 2012							
County	**White**	**Black**	**American Indian, Alaska Native**	**Asian**	**Native Hawaiian, Other Pacific Islander**	**Reporting 2+ Races**	**Hispanic or Latino Origin**	**White Persons Not Hispanic**
Fresno	77.5	5.9	3.0	10.4	0.3	2.9	51.2	31.9
Kern	83.0	6.3	2.7	4.8	0.3	3.0	50.3	37.6
Kings	81.4	7.5	3.0	4.3	0.3	3.5	52.0	34.7
Madera	86.4	4.1	4.6	2.3	0.2	2.4	55.2	37.1
Merced	81.9	4.3	2.5	8.1	0.4	2.9	56.1	30.7
San Joaquin	68.4	8.2	2.0	15.7	0.7	5.0	39.7	35.0
Stanislaus	84.4	3.2	1.9	5.7	0.9	3.8	43.0	45.6
Tulare	88.4	2.2	2.8	4.0	0.2	2.4	61.8	31.4
California	73.7	6.6	1.7	13.9	0.5	3.6	38.2	39.4

	Income, 2007 - 2011		
County	**Per Capita Money Income in Past 12 Months (2011 dollars)**	**Median Household Income**	**Persons below Poverty Level**
Fresno	$20,638	$46,903	23.4%

[4] Information gathered from the U.S. Census Bureau, at http://quickfacts.census.gov/qfd/states/06/06107.html.

Kern	$20,167	$48,021	21.4%
Kings	$18,296	$48,838	19.3%
Madera	$18,296	$47,724	19.8%
Merced	$18,304	$43,945	23.0%
San Joaquin	$22,857	$53,764	16.7%
Stanislaus	$21,820	$50,671	18.0%
Tulare	$17,986	$43,550	23.8%
California	$29,634	$61,632	14.4%

This is even more apparent at the level of local communities within these counties. According to U.S. Census Bureau data, in Huron 96.6% of the population is of Hispanic or Latino origin, and 47.4% of the population is below poverty level. In Mendota, 96.6% of the population is of Hispanic or Latino origin, and 47.5% of the population is below poverty level. In Firebaugh, 91.2% of the population is of Hispanic or Latino origin, and 27.6% of the population is below poverty level. Over the last several years, each of these communities suffered severe dislocation as a result of water shortages brought about in significant part by ESA-related restrictions on CVP water supplies.

Communities in the west side of the San Joaquin Valley have suffered as a result of reductions to CVP contract allocations in the past, and the water export losses associated with the proposed action may significantly and disproportionately impact these communities going forward.

Although the Draft EA asserts that "[c]umulative effects of future activities on minority and low income populations are speculative," there is no indication that Reclamation even attempted to perform any analysis of cumulative environmental justice effects. Impacts from the 2013 supplemental releases will be on top of impacts from 2012 supplemental releases (discussed above in section IV.A.6.) and impacts from restrictions on project operations associated with the 2008 FWS biological opinion and 2009 NMFS biological opinion. Regardless of whether it may be difficult to assess the cumulative impacts of these several federal agency actions, it is necessary to comply with NEPA. Certainly Reclamation can do much better than doing no environmental justice analysis at all of impacts in the San Joaquin Valley.

E. The Proposed Action May Have Significant Effects Within the CVP Service Area South Of The Delta

The proposed Trinity River releases will cause or exacerbate already existing socioeconomic impacts south-of-Delta due to reduced water supplies. It is well known that reduced Delta water supplies already cause socioeconomic impacts for agricultural communities in that region. As discussed in more detail below, in response to reduced water supplies, farmers fallow fields and this reduced agricultural productivity results in layoffs, reduced hours for agricultural employees, and increased unemployment in agricultural communities. Reduced agricultural productivity also has socioeconomic impacts for agriculture-dependent businesses and industries. In addition, unavailability of stable and sufficient water supplies reduces farmers' ability to obtain financing, which results in employment losses due to the reduced acreage of crops that can be planted and the corresponding reduction in the amount of farm labor needed for that reduced acreage. Reduced water supplies and the resulting employment losses also causes cascading socioeconomic impacts in affected communities including increased

poverty, hunger and crime along with dislocation of families and reduced revenues for local governments and schools.

As discussed above, the releases mean a loss of CVP water that could be used to restore a 5% south-of-Delta allocation for 2013. Loss of that water must be examined in the context of the current diminished water supply situation in the Delta. For the current water year, Westlands has received only 20% or 230,000 acre-feet of the 1,150,000 acre-foot amount to which it is entitled under its primary CVP water service contract with Reclamation. The final allocation was well short of full supply. For the 2014-2015 water year, Westlands expects that Reclamation's initial allocation to agricultural water service contractors south-of-Delta will be 0% of its contract amount, based on current projections for end-of-season reservoir storage and Delta operations through fall and early winter.

1. Shortages Of CVP Water Cause Reliance On Inadequate Alternative Supplies That Carry Significant Costs And Adverse Environmental Impacts

Absent a reliable CVP water allocation, farmers must find other more costly water sources or reduce crop production. A document showing the various sources of water supply within the Westlands Water District from the 1988-1989 water year through the current water year is provided with this comment letter. The different-colored portions of each vertical bar show the sources of water comprising each year's supply.[5] It is apparent that Westlands' CVP supply fell far short of meeting annual crop demand during the 1991-1995 drought and has fallen short every year since 1995 except for two years. Most recently, in the current water year, the total water supply will be approximately 888,000 acre-feet – far short of the approximate 1.3 million acre-feet in annual crop demand. This includes not only CVP water allocation but also pumped groundwater and supplemental water purchased by both farmers individually and Westlands for distribution to farmers – all at a significant cost to the agricultural community. This deficit will only continue into the next water year, as Westlands estimates that the initial water supply deficit will be 515,000 acre-feet based on the projected 0% allocation. This assumes that growers conserve and carry over 75,000 acre-feet from the current year supplies, pump 550,000 acre-feet of groundwater, transfer in 30,000 acre-feet on an individual basis, and that Westlands is able to purchase about 130,000 acre-feet of water through transfers and exchanges.

Finding a reliable cost-effective supplemental water supply to purchase is difficult. This year's estimate of the cost to purchase supplemental water from the district program is as high as $400 per acre-foot. While increased groundwater pumping can also help mitigate the loss of CVP supply temporarily, it causes significant problems, and is not sustainable for the long term. For example, the safe annual yield of the aquifer beneath Westlands' service area is about 200,000 acre-feet. In the last drought, the farmers were able to pump 600,000 acre feet per year for two years. More recently farmers in Westlands pumped 315,000 acre-feet in 2007, 460,000 acre-feet in 2008, 480,000 acre-feet in 2009, 140,000 acre-feet in 2010, 45,000 acre-feet in 2011, and 350,000 acre-feet in 2012. There is not enough groundwater to sustainably meet demand.

[5] The different sources are net CVP water delivery (indicated in blue), groundwater pumped (green), water acquired and imported from other sources by farmers within Westlands (yellow), and water acquired and imported from other sources by Westlands and distributed to Westlands farmers (red).

Moreover, increased groundwater pumping carries its own costs in the form of land subsidence and increased salinity in soils, making it more expensive and difficult to farm. There has been severe subsidence[6] on the west side of the San Joaquin Valley as a result of reductions in the CVP surface water supply and resulting increased groundwater pumping. In fact, the lining of the San Luis Canal has already been raised in parts of Westlands to compensate for subsidence that was reducing water delivery capacity. Groundwater wells also may be damaged or destroyed. Subsidence occurs unevenly and creates enormous stress on well casings, which often extend 1,000 to 2,000 feet below the ground surface. These uneven stressors will sometimes collapse or break the casing. If such an impact results, the well must be abandoned and a new one drilled and equipped.

Increased groundwater pumping will also reduce the quality of water applied to the soil, and is damaging to many crops. In most areas of Westlands, the groundwater has significantly higher salinity than CVP supplies. Application of poor quality water increases soil salinity and reduces the yields of salt intolerant crops. Certain permanent crops, such as almonds, can be irreparably harmed if irrigated with lower quality groundwater. Right now, some farmers are irrigating almond orchards with groundwater high in boron, just to keep the trees alive. This is a stop gap measure, however, as high boron content is damaging to the trees and reduces yield, and ultimately will kill the trees if such irrigation continues over the longer term. Further reductions in CVP supplies will reduce the ability of farmers to dilute the boron and salinity levels in groundwater.

2. The Socioeconomic Consequences Of Reduced Water Supply

At some point, the high cost and low availability of surface water combined with increased costs to pump salty and crop damaging groundwater will lead to reduced crop production and additional land fallowing. Given these considerations and based on the expectancy of a 0% initial CVP allocation in 2014, Westlands expects that farmers in the Westlands area will fallow at least 160,000 acres next water year.

Increased fallowing and reduced crop production necessarily impacts employment in the area. The labor required to manage agricultural land within Westlands is estimated at 1 permanent worker for every 60 acres in production. The removal of up to 160,000 acres from production will result in approximately 2,700 permanent worker positions being lost. Jobs lost in agriculture-related businesses, like packing sheds and processing plants, and other services, would be additional losses.

These impacts extend well beyond the west side of the San Joaquin Valley. As land goes out of production, production of crops decreases, with ripple effects in higher prices paid by consumers, lost farm employment, lost sales of fertilizer and equipment, and so on. For example, the west side of the San Joaquin Valley has become a key area for growing winter produce such as lettuce. Without sufficient water allocations, however, farmers cannot contract to grow such produce, leaving produce companies with few alternatives. In the coming months,

[6] The groundwater beneath the west side of the San Joaquin Valley is contained in the spaces between the particles and the sediment, which includes silts and clays. When the water is removed from the spaces, particularly the silt and clay materials where "water of compaction" can be squeezed out, the soils compact. The volume that the previously saturated soil has occupied is reduced and, as a result, the ground surface and the area where the water was extracted subsides.

the impact of this shortage will begin to appear in the supermarket, in higher prices paid by consumers. Such increased food costs will be traceable to Reclamation's decisions regarding allocation of CVP water.

There is significant uncertainty about water supply allocations for the coming water year and both the scope and severity of socioeconomic impacts that stem from water supply reductions. Further allocating water away from South-of-Delta contractors by releasing water from the Trinity Reservoir, as Reclamation proposes, will only exacerbate this uncertainty and certainly raises significant questions as to how the proposed releases will impact the farms, families and businesses that depend on CVP water supply. These potential socioeconomic impacts are very real and must be honestly explored and evaluated in the NEPA process before Reclamation may move forward with the proposed action.

F. Air Quality And Land Use May Be Significantly Affected By The Proposed Action And Require Further Analysis

The Draft EA asserts that "Reclamation analyzed the affected environment of the Proposed Action and the No Action Alternative and has determined that there is no potential for direct, indirect, or cumulative effects" to several resources, including air quality and land use. (Draft EA at 3-4.) As explained below, there is a potential for indirect and cumulative effects to air quality and land use. Accordingly, the Draft EA is inadequate. Further analysis is required.

1. Air Quality

The Draft EA states that the proposed action would have no "predictable impacts" to air quality. (Draft EA at 4.) Yet, the proposed action would foreclose the opportunity to restore 2013 allocations to 25%, and will at a minimum reduce initial allocations in 2014, and may result in reduced CVP contract allocations in 2014. Reduced water supplies negatively affect air quality in the San Joaquin Valley. As explained above, reductions in allocations are felt disproportionately on the west side of the San Joaquin Valley, an area that has already suffered as a result of reductions to contract allocations in the past. Reduced allocations frequently result in land fallowing, which results in increased dust and particulate emissions.

Non-irrigated fields in the semi-arid region of the San Joaquin Valley often produce dust during frequent wind events that occur throughout the region, compounding the already significant number of respiratory ailments associated with the San Joaquin Valley such as asthma. Increased airborne dust also increases the risk of exposure to a fungus that lives in the San Joaquin Valley soils, which causes the infection commonly referred to as "Valley Fever." Valley Fever typically causes an infection in the lungs but in some cases, the infection spreads throughout the body and can cause death.

The San Joaquin Valley is designated as being in nonattainment for PM 2.5 and PM 10 under state standards, and for PM 2.5 under federal standards.[7] Those conditions are worsened by dust emissions resulting from water shortages. As one study explained: "Wind-blown fugitive dust is a widespread problem in the arid west resulting from land disturbance or abandonment and increasingly limited water supplies. Soil-derived particles obstruct visibility,

[7] San Joaquin Valley Unified Air Pollution Control District, http://www.valleyair.org/aqinfo/attainment.htm.

cause property damage and contribute to violations of health-based air quality standards for fine particles (PM-10). These dry lands are often difficult to revegetate, yet they may require immediate stabilization. … As the forces exerted by the wind overcome the forces that bind soil particles to the surface, soil loss occurs. Dislodged soil particles may roll across the surface (creep), or they may bounce (saltation), dislodging further particles with each impact. This process leads to a cascade effect resulting in massive emissions of dust. Fugitive dust affects crops and native vegetation by abrading and burying plants and by blocking sunlight." (Grantz et al. 2010.)

The Draft EA does not acknowledge that reduced CVP deliveries can adversely impact air quality by causing increased dust and particulate emissions. Nor does the Draft EA acknowledge that increased air emissions may also occur because of the greater amount of energy that is needed for groundwater well pumps to lift water from a lower depth due to the groundwater overdraft associated with reduced availability of CVP and other surface water supplies.

Reclamation and the other federal agencies involved here must comply with the federal Clean Air Act, 42 U.S.C. section 7401 et seq. Among other requirements, no federal agency is permitted to engage in an activity that does not conform to an implementation plan. 42 U.S.C. § 7506. Reclamation must examine the air quality impacts to ensure that its actions will not violate the Clean Air Act.

In sum, the air quality impacts from the proposed action may be significant, and so must be considered in an EIS.

2. Land Use

The Draft EA ignores that the reduced CVP deliveries that are associated with the proposed action can result in significant changes in land use, particularly in agricultural landscapes. As shown during the 2007-2010 period, reduced export water deliveries can and will increase fallowing of land across the San Joaquin Valley and elsewhere. Reduced water supplies can also cause shifts toward planting permanent crops. Permanent crops have diminished ongoing water requirements, but also require watering year-in and year-out, thus diminishing future flexibility in water budgeting by precluding management options such as annual crop-shifting or fallowing. Reduced supplies and lower quality water can also impact the production of certain crops, as well as the yield of crops that are grown. The unavailability of CVP water also increases the costs to obtain supplemental water. Lost exports also negatively impact water management plans that are produced by water agencies as source documents for evaluating land use projects. As imported water supplies become less reliable, establishing firm water supplies sufficient to meet land use planning objectives, like affordable housing requirements, becomes more difficult. The Draft EA does not discuss these potential impacts, or provide a "convincing statement of reasons" why the impacts to land use will be insignificant. *EPIC v. U.S. Forest Service*, 451 F.3d 1005, 1008-1009 (9th Cir. 2006). More is required.

V. The Proposed Action May Affect Species Listed Under The Endangered Species Act, And ESA Consultation Is Required

The potential effects of the proposed action on listed species require an EIS. The potential for such effects also raises a potential violation of the ESA, if Reclamation fails to consult under ESA section 7 before carrying out the proposed action.

Under 50 C.F.R. section 402.14, consultation is required if an action "may affect" a listed species or its critical habitat. The Draft EA acknowledges that ESA section 7 "requires Federal agencies, in consultation with the Secretary of the Interior and/or Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species." (Draft EA at 24.) The Draft EA then boldly declares; "The Proposed Action would not affect any federally listed threatened or endangered species under the jurisdiction of the Service. Therefore there is no need to consult with the Service pursuant to the ESA." (*Id*. (emphasis added).) This assertion is completely unsubstantiated.

Listed coho salmon (*Oncorhynchus kisutch*) reside in the Trinity River. 61 Fed. Reg. 59,028 (Nov. 20, 1996) (listing); 64 Fed. Reg. 24,049 (May 5, 1999) (critical habitat designated). It defies reason and common sense to suggest that a large pulse release of unnaturally high and cold late summer flows into the Trinity River may not affect the coho salmon and its critical habitat in any way. Consultation under ESA section 7 is necessary to determine those effects.

The proposed action "may affect" several other federally listed species in the Sacramento River watershed—the winter-run Chinook salmon, the spring-run Chinook salmon, the Central Valley steelhead, the green sturgeon, and the delta smelt. Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*) is listed as "endangered" under the ESA. 70 Fed. Reg. 37,160 (June 28, 2005). Central Valley spring-run Chinook salmon (*O. tshawytscha*) is listed as "threatened" under the ESA. 71 Fed. Reg. 834 (June 5, 2005); 70 Fed. Reg. 37,160 (June 28, 2005) (critical habitat designated). Central Valley steelhead (*O. mykiss*) is listed as "threatened" under the ESA. 71 Fed. Reg. 834 (Jan. 5, 2006). The southern distinct population segment of the North American green sturgeon (*Acipenser medirostris*) is listed as "threatened" under the ESA. 71 Fed. Reg. 17,757 (Apr. 7, 2006); 73 Fed. Reg. 52,084 (critical habitat designated). The delta smelt (*Hypomesus transpacificus*) is listed as "threatened" under the ESA. 58 Fed. Reg. 12,854 (Mar. 5, 1993); 59 Fed. Reg. 65,256 (Dec. 19, 1994) (critical habitat designated). The proposed action will reduce the available volume of water from the TRD to assist with temperature management in the upper Sacramento River, and will reduce the volume of flows in the Sacramento River and Delta. The proposed action therefore may affect these listed species and their critical habitat. ESA section 7 consultation to assess those effects is required.

If Reclamation fails to consult on the effects of the proposed TRD releases in August and September before taking the proposed action, it will be in violation of its duties under the ESA, including but not limited to ESA section 7, and the consultation regulations, 50 C.F.R. section 402.01 *et seq*. As no biological opinion authorizes incidental take associated with the proposed action, any take caused by the proposed action will be in violation of ESA section 9, 16 U.S.C. section 1538, until issuance of a biological opinion addressing such operations and related take.

Reclamation is not permitted to defer consultation when "implementation of the Proposed Action results in substantive changes to CVP operations in subsequent years that may adversely affect listed salmon and steelhead species." (Draft EA at 24). The danger of deferring analysis is that some impacts of the proposed action on listed species may be missed entirely, or may be identified only after the proposed action is implemented, or after the agencies have made irreversible or irretrievable commitments of resources.

In *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988), the Ninth Circuit held "that the FWS violated the ESA by failing to use the best information available to prepare comprehensive biological opinions considering all stages of the agency action, and thus failing to adequately assess whether the agency action was likely to jeopardize the continued existence of any threatened or endangered species, as required by section 7(a)(2)." *Conner* informs the scope of analysis required to lawfully consult on the proposed 2013 supplemental releases. As the court in *Conner* explained, "biological opinions must be coextensive with the agency action." *Conner,* 848 F.2d at 1457-58. The Draft EA demonstrates that Reclamation is deferring analysis of the proposed 2013 supplemental releases on ESA listed species to some future time. This violates the direction in *Conner v. Burford* that agencies analyze the entire action based on the best information available, even if more detailed information regarding some elements may become available later. The approach taken here—deferring analysis of the effects of the proposed action—is unlawful.

Conclusion

The Authority and Westlands thank Reclamation for providing the opportunity to submit comments regarding the Draft EA and Draft FONSI. For all the reasons set forth above, the Authority and Westlands respectfully request that Reclamation not carry out the proposed TRD releases in August and September.

Sincerely,

Daniel G. Nelson
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San Luis & Delta-Mendota Water Authority

Thomas W. Birmingham
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Attachments

Ashton D., J. Bettaso, and H. H. Welsh, Jr. 2010 Foothill Yellow-legged Frog (*Ranaboylii*) distribution and phenology relative to flow management on the trinity river. PowerPoint presentation.

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July 27, 2012 letter from Donald R. Glaser, U.S. Bureau of Reclamation to Daniel Nelson, San Luis & Delta-Mendota Water Authority, re: Proposed Trinity River Division Releases for Lower Klamath Chinook Salmon.

May 24, 2013 letter from Ronald Milligan, U.S. Bureau of Reclamation and David H. Roose, Department of Water Resources to Thomas Howard, State Water Resources Control Board, re: State Water Resources Control Board Water Right Decision 1641 Water Year Classification.

May 29, 2013 letter from Craig Wilson, State Water Resources Control Board to Ronald Milligan, U.S. Bureau of Reclamation and David H. Roose, Department of Water Resources, re: Actions to Conserve Cold Water Pool in Shasta Reservoir for Fishery Resources.

May 31, 2013 letter from Daniel G. Nelson, San Luis & Delta-Mendota Water Authority to David Murillo, U.S. Bureau of Reclamation, re: Lower Klamath River Late Summer Flow Augmentation.

June 3, 2013 letter from Ronald Milligan, U.S. Bureau of Reclamation, to Barbara Evoy, State Water Resources Control Board, re: Report on Proposed Operation of Shasta/Trinity Divisions for 2013.