September 28, 2007

Ms. Diane Riddle
Division of Water Rights
State Water Resources Control Board
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VIA EMAIL AND OVERNIGHT DELIVERY

RE: Revised Draft Environmental Impact Report Regarding Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir)

Dear Ms. Riddle:

The Environmental Defense Center (EDC) submits these comments regarding the State Water Resources Control Board (SWRCB) Revised Draft Environmental Impact Report (RDEIR) evaluating potential modifications to the U.S. Bureau of Reclamation's (BOR) water rights permits to protect public trust values and downstream water rights on the Santa Ynez River on behalf of our client California Trout (CalTrout). CalTrout is a non-profit river conservation organization with a substantial interest in the public trust resources of the Santa Ynez River, including the endangered southern California steelhead.

The RDEIR modifies portions of the SWRCB's August 2003 Draft EIR, including adding and deleting alternatives. However, the RDEIR does not address or respond to the

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vast majority of comments previously raised by EDC regarding these now modified portions of the August 2003 Draft EIR. As discussed in detail below, EDC's prior comments are still pertinent to the SWRCB's review of the newly identified range of alternatives, including Alternatives 5B and 5C. Therefore, this comment letter incorporates by reference EDC's October 7, 2003 comments (in their entirety) submitted on behalf of CalTrout in response to the SWRCB's August 2003 Draft EIR ("October 2003 comment letter").

Our detailed comments are below. In sum, we submit that the RDEIR fails to comply with the California Environmental Quality Act (CEQA) because it:

- fails to adequately identify the project objectives and fails to provide the specificity required;
- fails to analyze a reasonable range of alternatives that fulfill the basic objectives and substantially lessen or avoid significant impacts;
- fails to identify alternatives that are capable of restoring or preserving the public trust in steelhead;
- lacks a clear, stable project description;
- fails to acknowledge the proper baseline for analyzing protection of public trust resources;
- fails to include adequate analysis or mitigation for many project impacts, including impacts to steelhead and water supply impacts; and
- fails to analyze consistency with applicable plans and policies.

For these reasons, the Draft EIR and the RDEIR are inadequate for the SWRCB to rely on in making a final decision regarding modification of BOR's permits. The EIR should be revised consistent with our comments below and recirculated for public review and comment prior to certification.[1]

I. The RDEIR Fails To Adequately Identify The Project Objectives And Fails To Provide The Specificity Required By CEQA.

Under CEQA, objectives must contain the basic underlying project purpose. A clearly written statement of objectives helps identify a range of reasonable alternatives that can fulfill most of the underlying purposes of the project.[2] In our October 2003 comment letter, EDC previously commented that the Draft EIR objective to provide

[1] CEQA Guidelines § 15088.5.
[2] CEQA Guidelines § 15124(b).

"appropriate protection of public trust resources" lacked definition. These comments are still pertinent to the RDEIR. This objective is too vague for CEQA purposes and too ambiguous to determine if the newly identified range of alternatives can fulfill it.

The RDEIR still fails to explain the Project's objective of protecting public trust resources in terms of the public's use and interest in those resources or the status of such resources prior to construction of the Cachuma Project.[3] Since the release of the Draft EIR, additional information has been submitted to the SWRCB that is also pertinent to this deficiency. NOAA Fisheries and CalTrout submitted evidence during the administrative hearing proceedings demonstrating that, prior to the Cachuma Project, the Santa Ynez River supported a thriving steelhead population and significant recreational fishery for the public.[4] This fishery has been completely lost as a result of the Cachuma Project. This information must also be considered to adequately define the Project's objective of protecting public trust resources.

The RDEIR also still fails to define the Project's objective of protecting public trust resources above Bradbury Dam.[5] Although the RDEIR does analyze impacts to resident trout[6] migration from the Cachuma Reservoir upstream into tributary creeks, the RDEIR still fails to consider how Bradbury Dam impedes protection of public trust resources by blocking migration. This continued omission is inexplicable. As discussed in detail in EDC's October 2003 comment letter, the SWRCB has specified that its permit decision includes protection of public trust resources above Bradbury Dam, including fish passage around Bradbury Dam for the benefit of fish above and below the dam.[7] Also as discussed in EDC's October 2003 comment letter, the SWRCB clearly has the authority to consider such matters. The SWRCB has previously considered the effects of dams on migrating salmonids[8] and the effects of water rights decisions on resources above dams.[9]

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[3] EDC October 2003 comment letter at 2-4.
[4] Ex. No. NOAA 6 at 1-4 (Capelli); Ex. No. CT 90 at 3-5 (Edmondson); Ex. No. CT 95 (Edmondson Powerpoint) at 1-5. Exhibits identified here and throughout this letter refer to exhibits entered into the Record for the SWRCB Hearing to Review the U.S. Bureau of Reclamation Water Right Permits (Applications 11331 and 11332) – Cachuma Project Phase 2.
[5] EDC October 2003 comment letter at 4-6.
[6] Section 4.7.2.1 discusses "Lake Cachuma - Rainbow Trout" but fails to differentiate between native resident trout (landlocked steelhead) which inhabit Cachuma and planted trout. Native resident trout residing in Cachuma Reservoir are part of the same biological species (*Oncorynchus mykiss*) as steelhead and native trout below Bradbury Dam. Many native resident trout in Cachuma and in the watershed above Bradbury Dam would migrate downstream and go through physiological changes to become steelhead smolts if access to the ocean was available, but remain landlocked due to the migratory barrier imposed by the Cachuma Water Project. The Cachuma Project as permitted currently precludes recruitment to the steelhead population below Bradbury Dam from the upstream native resident trout population. Native resident trout above Bradbury Dam are important to the recovery of steelhead according to NOAA's Draft Viability Criteria for Southern Steelhead and are part of the Santa Ynez River steelhead public trust resource. Like their anadromous counterparts below the dam, resident trout above the dam are isolated and severely impacted by the Cachuma Project as a migratory barrier.
[7] Silva, Peter S. (Hearing Officer, SWRCB). 2003. *Letter to the Cachuma Service List*. May 29.; Silva, Peter S. (Hearing Officer SWRCB). 2003. Letter to the Cachuma Service List. Aug. 13.
[8] SWRCB Order No. 95-17 (Lagunitas Creek) at 136-139 (1995).

The SWRCB has also required various measures to protect resources above dams including requiring fish bypass above diversions.[10] Furthermore, multiple experts, including the California Department of Fish and Game and NOAA Fisheries, have identified passage around Bradbury Dam as critical to the protection and restoration of steelhead in the Santa Ynez River.[11]

The Project objective must be modified to reflect the full scope of the SWRCB's decision in this matter, including protection of public trust resources above Bradbury Dam affected by the operation of the Cachuma Project. Alternatives that would assist in fulfilling this objective are discussed below.

Lastly, the RDEIR still fails to identify relevant legal requirements that define SWRCB objectives, including compliance with Fish and Game Code Section 5937 and Article X, Section 2 of the California Constitution.[12]

II. The RDEIR Fails To Analyze A Reasonable Range Of Alternatives That Fulfill The Basic Objectives And Substantially Lessen Or Avoid Significant Impacts.

Under CEQA, an EIR must analyze a reasonable range of alternatives that fulfill most of the basic underlying objectives of the project.[13] In our October 2003 comment letter, EDC previously commented that the Draft EIR failed to analyze a reasonable range of alternatives.[14] Despite the addition of two new alternatives in the RDEIR, these comments are still pertinent to the RDEIR.

As with the Draft EIR, the RDEIR continues to improperly limit analysis to an unreasonably narrow range of alternatives. As before, the RDEIR merely repackages the same alternative – implementation of the flow schedule identified in NOAA Fisheries' Biological Opinion (BO) – with different water supply impact mitigation measures (3B and 3C) and with an alternative method for delivering water to downstream interests (4B). Thus, with respect to fulfilling the Project objective of protection of public trust

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[9] SWRCB Decision No. 1632 (Carmel River) at 73-74 (1995).
[10] See e.g. SWRCB Decision No. 16631 (Mono Lake) at 59, 71, 82, and 117 (1994); Order No. WR 95-17 at 147-148 (1995).
[11] Experts from the DFG testified during the administrative hearing proceedings that passage around Bradbury Dam is "critical" to the restoration of steelhead. Reporter's Transcript (RT):554 (McEwan); Ex. No. DFG 4 at 7 (Dr. Titus). NOAA Fisheries similarly testified. RT:748 (Jim Lecky); see also BO at 82 ("Access to [above-dam] areas would be of huge benefit to the Santa Ynez steelhead population."). Consistent with this evidence, NOAA Fisheries, CDFG, and CalTrout have each recommended a study of the feasibility of fish passage around Bradbury Dam. October 7, 2003 NOAA comment letter; Ex. No. DFG 2 at 6 (McEwan); Ex. No. CT 30 at 16 (Keegan). Citations to Reporter's Transcript ("RT") here and throughout this letter refer to proceedings conducted for the SWRCB Hearing to Review the U.S. Bureau of Reclamation Water Right Permits (Applications 11331 and 11332) – Cachuma Project Phase 2.
[12] EDC October 2003 comment letter at 6-7.
[13] CEQA Guidelines § 15126.6(a).
[14] EDC October 2003 comment letter at 8-9.

resources, these alternatives are essentially identical, and 4B does not significantly differ from 3B and 3C. The California Department of Fish and Game (CDFG) also noted the inadequacy of assessing only the BO based alternatives in the DEIR: "All of the [DEIR] alternatives go no further than the flow related measures contained in the Biological Opinion."[15] Moreover, as discussed below, the measures identified in NOAA Fisheries' BO are not sufficient to fulfill the public trust objective.

The addition of Alternatives 5B and 5C does expand the range of alternatives, but as these alternatives both represent the same flow schedule, the addition of these alternatives adds only one new alternative to the flow schedule identified in every other alternative.[16] The RDEIR thus only analyzes two different flow scenarios - the BO flows (Alternatives 3B, 3C and 4B) and an alternative flow schedule (Alternatives 5B and 5C). Even these two different scenarios are identical 60% of the time – i.e., during all years except above-normal and wet years. (RDEIR at 3-10 - 3-15.)

In addition, none of the alternatives identified consider modifications to Order No. WR 89-18 to benefit public trust resources. As pointed out in our October 2003 comment letter, this Order did not weigh or consider public trust uses of the water, and may therefore be inappropriate in light of current knowledge or inconsistent with current needs. As discussed below, WR 89-18 releases adversely impact public trust resources below Bradbury Dam. There is no basis to assume that implementation of WR 89-18 should continue without an assessment of the impacts of that Order on public trust resources, or to presume that continued implementation of this Order will fulfill the Project objective of protecting public trust resources. At least one alternative that includes modification to WR 89-18 should be included for consideration in the EIR, as discussed below. Alternative 4B (water rights releases made via pipeline to the river at Lompoc) does not suffice in this regard as it would actually reduce flows compared to baseline conditions in the lower River and likely have adverse impacts to steelhead and other aquatic resources. [17]

The alternatives analysis is governed by a rule of reason.[18] It is unreasonable to limit alternatives for protecting public trust resources to only two flow scenarios which the RDEIR's analysis indicates may result in largely indistinguishable effects on steelhead and downstream water rights. It is also unreasonable to limit water rights release scenarios to two alternatives, one of which – Alternative 4B – is politically infeasible and is legally infeasible because it increases impacts and fails to protect public trust values.

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[15] Raysbrook, C.F. (CDFG). 2003. Letter to Andrew Fecko (SWRCB) re 2003 Draft EIR. Oct. 7. See p. 6.
[16] See also, Williams, John. 2007. Letter to Ms. Diane Riddle (SWRCB) re Cachuma Project RDEIR. Sept. 26. [Attached.] See pp. 4-5.
[17] As discussed below, Alternative 4B is also infeasible, leaving only one water rights release method (WR 89-18) shared by all feasible RDEIR alternatives.
[18] CEQA Guidelines § 15126.6(f).

There are additional feasible alternatives that may be capable of fulfilling the Project objectives that should be included in the EIR for this Project. These include additional instream flow schedules (assuming continued implementation of WR 89-18 as well as considering modifications to the downstream water rights release schedule) and passage for steelhead around Bradbury Dam and Lake Cachuma, [19] as discussed in more detail below.

III. The Alternatives Analyzed In The RDEIR Are Incapable of Restoring or Preserving The Public Trust In Steelhead And Thus Do Not Fulfill The Project Objective.

The RDEIR Project objectives include protecting the public trust resources and the downstream water rights on the Santa Ynez River below Bradbury Dam. In our October 2003 comment letter, EDC previously commented that the Draft EIR failed to include any alternatives that were capable of fulfilling the Project objective of protecting public trust resources, including steelhead.[20] Despite the RDEIR's identification of two new alternatives, these comments are still pertinent to the RDEIR.

As explained in detail in our October 2003 comment letter, protecting the public trust resources in the Santa Ynez River includes restoring and preserving the steelhead fishery, as well as the public's interest in the Santa Ynez watershed in a natural condition, for ecological study, and aesthetic enjoyment. One standard for protecting steelhead public trust resources in the lower Santa Ynez River is Fish and Game Code Section 5937, which requires that:

> The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam.

Fish and Game Code Section 5937 "is a legislative expression concerning the public trust doctrine that should be taken into account when the SWB acts under its public trust authority." [21] The phrase "good condition" is not defined by statute. However, the CDFG has stated that the definition developed by Dr. Peter Moyle, Professor of Fish Biology at University of California, Davis, is "most applicable" for steelhead in the Santa Ynez

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[19] See also, Raysbrook 2003. CDFG states that the Draft EIR "does not include any alternatives that take into consideration the upstream public trust resources and none of the alternatives take into consideration the recommendations contained in the Biological Opinion and the Fish Management Plan (FMP) for evaluation of fish passage at Bradbury Dam. The DEIR does not contain a range of reasonable alternatives that would satisfy the stated objective of protection of public trust resources."

[20] EDC October 2003 comment letter at 9-10.

[21] See, e.g., SWB Decision 1644 (Lower Yuba River) at 30 (2001) (citing California Trout, Inc. v. State Water Resources Control Board, 207 Cal. App. 585, 626, 631 (1989)); Order No. WR 95-2.

River.[22] Under Dr. Moyle's definition, the condition of steelhead must be evaluated at the individual level, the population level, and the community level.[23]

Protection of steelhead public trust resources is also appropriately informed by NOAA Fisheries' recovery standards for the species[24] – the southern California Distinct Population Segment (DPS), which includes the Santa Ynez River population, is listed as a federal "endangered" species. NOAA Fisheries has recently developed viability criteria for the southern California DPS that are relevant to evaluating the RDEIR alternatives.[25] NOAA Fisheries' attached Southern California Steelhead Federal Recovery Outline also describes specific viability criteria that must be met for a population of steelhead to be viable (i.e., no longer "endangered").[26]

EDC's October 2003 comment letter and testimony submitted on behalf of CalTrout during the administrative hearing proceedings demonstrates that the alternatives identified in the Draft EIR are inadequate to meet the public trust objective.[27] NOAA Fisheries has also stated that the BO, which is the basis of the alternatives identified in the Draft EIR, does not address the measures necessary to achieve restoration of steelhead runs in the Santa Ynez River.[28] The CDFG agrees that, "The jeopardy standard used in section 7 consultation [which resulted in the BO] is not necessarily equivalent to the SWRCB responsibility to protect public trust resources."[29] The alternatives carried through into the RDEIR (3B, 3C, 4B) thus suffer from the same shortcoming and are incapable of achieving the Project public trust objective.

Alternatives 5B and 5C move somewhat further than the BO based alternatives towards protecting steelhead as a public trust resource, but are still incapable of achieving this Project objective.[30] Williams (2007) evaluated all of the alternatives identified in the RDEIR and found that there is no basis to conclude that any of these alternatives will meet the stated objectives of the Project.[31] Williams concludes that none of the alternatives will restore steelhead to "good condition."[32] He similarly concludes that none of the alternatives identified will restore the Santa Ynez River steelhead population

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[22] Ex. No. DFG 4 (Titus) at 6.
[23] Moyle, Peter B. 2003. *Statement of Peter B. Moyle*. Oct. (Attachment 20 to EDC's October 2003 comment letter); Ex. No. CT 70 (Moyle).
[24] Williams 2007 at 19.
[25] Boughton, David et al. (NOAA Fisheries TRT). 2007. *Viability Criteria for Steelhead of the South-Central and Southern California Coast*. July. [Attached.] See also Boughton, David et al. (NOAA Fisheries TRT). 2006. *Steelhead of the South-Central/Southern California Coast: Population Characterization for Recovery Planning*. Oct. [Attached.]
[26] NOAA Fisheries. 2007. *2007 Federal Recovery Outline for the Distinct Population Segment of the Southern California Coast Steelhead*. Sept. [Attached.] See pp. 31-35.
[27] See, e.g., Ex. No. CT 30 (Keegan).
[28] Lent, Rebecca (NOAA Fisheries). 2001. *Letter to Harry Schueller (Chief, Division of Water Rights, SWB)*. Sept. 19.; RT:746 (Testimony of Jim Lecky, NOAA Fisheries).
[29] Raysbrook 2003.
[30] Williams 2007 at 29.
[31] Id. at 19-25.
[32] Id.

to viable levels as determined under NOAA Fisheries' criteria.[33] Williams' evaluation considers recent data that the RDEIR does not include.[34]

Dr. Moyle has also concluded that the RDEIR alternatives are not adequate to protect public trust resources, and that Santa Ynez River steelhead may become extinct in the near future if a more protective flow regime is not adopted.[35]

The RDEIR must identify and consider alternatives that would help fulfill the Project's public trust objective while avoiding and minimizing impacts. There are additional feasible alternatives that could fulfill the Project public trust objective that should be included in this EIR. These include additional instream flow schedules (assuming continued implementation of WR 89-18 as well as modifications to the downstream water rights release schedule) and passage for steelhead around Bradbury Dam and Lake Cachuma, as discussed in more detail below.

IV. The RDEIR Suffers From Lack Of A Clear, Stable Project Description.

The RDEIR fails to include a clear project description, as required by CEQA. EDC commented on this issue in our October 2003 comment letter and these comments are still pertinent to the RDEIR.[36] An accurate project description is required for an informed evaluation of the newly identified range of alternatives.

V. The Discussion Of The Environmental Baseline Should Acknowledge The Proper Baseline For Analyzing Protection Of Public Trust Resources.

The RDEIR identifies as its baseline, operations under WR 89-18, WR 94-5 and BO interim release requirements (Alternative 2). (RDEIR at 3-5.) We agree that this baseline is the appropriate standard under CEQA to evaluate the potential adverse impacts of the Project.

Irrespective of the CEQA baseline, however, the RDEIR should also assess pre-Cachuma Project conditions in order to determine whether the Project public trust objective can be met by any of the alternatives. Only through identification of the historical, pre-Cachuma Project steelhead conditions is it possible to identify the public trust conditions the SWRCB is seeking to restore and preserve.[37] This comment was

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[33] Id.
[34] Id. at 21-23. Santa Ynez River data was received in response to EDC's June 22, 2007 Public Records Act Request to CCRB. CCRB supplied data to EDC on approximately August 17, 2007. This data was provided by EDC to John Williams for his evaluation of the RDEIR. CCRB delivered additional data to EDC on September 25 at 6 p.m. This recently delivered data was not available to John Williams when he conducted his evaluation.
[35] Moyle, Peter B. 2007. *Letter to Ms. Diane Riddle (SWRCB) Re: Santa Ynez River, Williams Analysis*. Sept. 26. [Attached.]
[36] EDC October 2003 comment letter at 10-16.
[37] *National Audubon Society v. Superior Court of Alpine County*, 33 Cal. 3d 419 (1983).

made in EDC's October 2003 comment letter and is still pertinent to the RDEIR.[38] While restoration to pre-Cachuma Project steelhead population levels may not be feasible to protect steelhead as a public trust resource, an assessment of pre-Cachuma Project conditions is necessary for this EIR to adequately support the SWRCB's decision regarding the measures necessary to protect public trust resources in the Santa Ynez River. As discussed above, evidence has already been submitted to the SWRCB regarding pre-Cachuma Project steelhead conditions. This includes the 1944 and 1945 Shapovalov assessments.[39]

VI. The RDEIR Fails To Include Adequate Analysis Or Mitigation For Many Project Impacts.

In our October 2003 comment letter, EDC previously identified inadequacies in the Draft EIR's impact analysis and mitigation assessment. These comments are still pertinent to the RDEIR.[40] Additional issues raised specifically by the RDEIR are discussed in detail below.

RDEIR Section 4.2 – Surface Water Hydrology

The Surface Water Hydrology analysis for Alternatives 5B and 5C uses old and outdated data.

The RDEIR surface water hydrology analysis for Alternatives 5B and 5C uses an old and outdated data set from 1918 only up to 1993. (RDEIR at 4-6.) CEQA requires that a baseline in an EIR shall normally be set at the time the Notice of Preparation of the EIR, which was May 1999.[41] Thus, at a minimum, water year data through 1999 must be included in the EIR. In addition, because an EIR must be based on up to date information to adequately inform and disclose the environmental impacts expected to result from the alternatives, water year data available for years beyond 1999 must also be included.[42] The RDEIR only includes data through 1993 and is therefore inadequate under both of these requirements.

The period from 1994 to 2000 includes record and near-record rainfall years that must be included in the analysis to accurately reflect the baseline hydrological conditions.[43] Inclusion of the hydrological records for 1994 through the present, or at least through 1999 (to track the NOP), may indicate that more water is available to

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[38] EDC October 2003 comment letter at 16-17.
[39] See e.g., Ex. No. CT 23 and CT 24.
[40] EDC October 2003 comment letter at 17-22.
[41] CEQA Guidelines § 15125(a).
[42] *Berkeley Keep Jets over the Bay Com. v. Board of Port Comrs.*, 91 Cal. App. 4th 1344, 1367 (Cal. Ct. App. 2001) (Use of scientifically outdated information is not a "reasoned and good faith effort to inform decisionmakers and the public" about the consequences of a project).
[43] Santa Barbara County Public Works Department. _____. *Santa Barbara County Climate.* Webpage: http://www.countyofsb.org/pwd/water/climatology.htm. Viewed Sept. 17, 2007. [Attached.]

protect the public trust resources with minimal impact to water supply. The hydrological timeframe should be updated and utilized to inform hydrological and biological models and analyses used throughout the Draft EIR and RDEIR.

There is no change in scouring flows and therefore no change in existing flood conditions.

The RDEIR finds a Class III impact to flooding caused by new Alternatives 5B and 5C because of an alleged reduced frequency of scouring flows which maintain channel capacity. Evidence does not support this conclusion. Flows that scour the channel occur when the reservoir spills. (RDEIR at 4-18.) Spills are virtually always high flows (e.g. over 50 cfs). The frequency of high flows (over 50 cfs) "downstream of Cachuma Lake" does not change for Alternatives 5B and 5C compared to baseline conditions (14% of time) according to Table 4-9. Therefore there is no evidence in the RDEIR or administrative record that there is a reduction in the occurrence of scouring flows below the dam and thus no evidence of any adverse impacts to channel capacity or flooding under Alternatives 5B and 5C. However, the reduction in uncontrolled spills caused by surcharging will result in a beneficial impact. Therefore, the flooding impact should be classified as beneficial (Class IV) for Alternatives 5B and 5C.

RDEIR Section 4.3 – Water Supply Conditions

The three-year critical drought is poorly defined.

The RDEIR analyzes water supplies during a critical three-year dry period for the purposes of analyzing and comparing the water supply impacts of Alternatives 5B, 5C and the other alternatives. The critical three-year drought period used as a reference period is May 1949 to May 1951. The RDEIR states that this is a 36-month period. (RDEIR p. 4-21.) However May 1949 to May 1951 is only a 24-month period or a "two year drought."

What is the statistical return time period for the "critical 3-year drought" used in this analysis? Is it statistically a once in a hundred year occurrence, once in a 50-year occurrence or a more or less frequent event?

Water supply analyses should assess reasonable worst case scenarios. If the impacts related to alternative water supplies during the critical three-year drought would only occur once in more than 100 years, then the analysis of Alternatives 5B's and 5C's water supply-related impacts is based on an unreasonable worst case scenario.

Member Units' water supplies from sources other than Cachuma are not fully accounted for in the RDEIR's water supply impact analyses.

The RDEIR's analysis of Alternative 5B's and 5C's water supply impacts lists the Member Units' non-Cachuma water sources during a three-year drought period but

excludes, and may understate, sources. Tables 4-17, 4-18, 4-22 and 4-25b fail to identify Cold Springs Tunnel as a City of Santa Barbara water supply available during droughts.[44] Like the desalination plant, which is currently dismantled yet considered a drought-time City water supply, Cold Springs Tunnel should be included in an updated analysis of water supplies.[45]

Table 4-18 lists Mission Tunnel's infiltration coupled with Devil's Canyon diversion as 500 AFY. Table 4-25b lists the three-year supply from Mission Tunnel and Devil's diversion as 1,577 AF. However, while Mission Tunnel infiltration varies with rainfall, Mission Tunnel infiltration averages approximately 1,100 AFY according to official documents.[46] Given the 1,100 AFY average Mission Tunnel infiltration and the 500 AFY minimum infiltration rate, the 3-year drought infiltration into Mission Tunnel likely exceeds 1,500 AF because the infiltration rate would only reach the minimum 500 AFY during the last year of the three year drought. Unless the infiltration rate would run at its minimum for all three years of the 3-year drought, the three year supply from the Mission Tunnel infiltration and Devils' Canyon diversion likely provides more than 1,577 AFY and would mitigate at least some of Alternative 5B's alleged indirect impact associated with water supplies during a three-year drought. Was this modeled, and if so, how was it modeled? What assumptions were made in the modeling of Mission Tunnel infiltration and Devil's Canyon production during the three-year drought?

The Goleta Water District has other water sources not apparently accounted for in the RDEIR. Specifically, the Goleta Water District has the following secondary supplies: Glen Annie Reservoir, [47] El Capitan Mutual Water Company, stored injection wells, and a bedrock well.[48] The RDEIR also fails to note that the GWD currently has 30,000 AF banked in underground aquifers.[49] This information was released in a Santa Barbara County EIR since release of the SWRCB's DEIR and was not previously known to EDC or the general public. If these sources are included in the RDEIR's analysis of water supplies and indirect water supply-related impacts, they would appear to help offset or mitigate Alternative 5B's alleged indirect water supply-related impact.

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[44] Ferguson, Bill (City of Santa Barbara). 2007. *E-mail to Das Williams, Santa Barbara City Council Member*. Sept. 14. [Attached.] The tunnel is constructed and owned by the City. The City has rights to all flows in excess of 60 gallons per minute. Reconstruction of a damaged water line is needed to ensure this additional water supply would be available.

[45] A recently rerouted public trail segment leads to the remote tunnel location. Prior to this trail access, it was unknown to EDC and the general public that the City has Cold Springs Tunnel.

[46] Santa Barbara County Water Agency. _____. *Water Resources of Santa Barbara County*. Downloaded Sept. 26, 2007 from: http://www.countyofsb.org/pwd/water/downloads/Part%204%20(Water%20Supplies%20-%20Surface%20Water,%20SWP,%20Desal;%20Water%20Quality).pdf. [Attached.] See p. 43.

[47] The 135-foot fall Glen Annie Dam creates Glen Annie Reservoir which impounds up to 470 acre-feet of water on Glen Annie Creek in the Santa Ynez Mountains. U.S. Bureau of Reclamation. _____. Webpage: http://www.usbr.gov/dataweb/html/cachuma.html. Viewed Sept. 26, 2007. Permits 11308 and 11210 permit Glen Annie Canyon Creek diversions into Glen Annie Reservoir at 500 AFY. [Attached.]

[48] Santa Barbara County. 2007. *Final EIR for Isla Vista Master Plan.* Aug. [Attached.] See p. 3.12-15.

[49] Id. at 3.12-15

In addition, it is not clear whether the RDEIR included Lauro Canyon water in its inventory of the Member Units available water supply. Unlike other water supply sources (e.g., Tecolote Tunnel infiltration), Lauro Canyon was not explicitly identified as part of the Cachuma Project yield, non-Cachuma sources, or potential drought time supplies. The Bureau of Reclamation's permits authorize water use from Lauro Canyon Creek and Lauro Canyon Dam at rates of 15 cfs and 500 AFY. If this source has been excluded from the RDEIR, it may be understating available supply, and therefore overstating potential water supply impacts.

Alternative 5B would not result in significant water supply impacts.

The RDEIR finds that Alternative 5B may cause an indirect significant water supply-related impact during a critical three-year drought depending on implementation of drought contingency conservation measures. We disagree that such an impact is likely. By way of context, it is worth noting that the reductions compared to baseline in the average annual Cachuma Project yield under Alternatives 5B, 5C, and 3B respectively are: 260 AFY, 127 AFY and 129 AFY. These figures represent approximately 1/2% to 1% of project yield. The RDEIR concludes that Alternatives 5C and 3B would not have significant impacts. Offsetting half of Alternative 5B's annual reduction in yield (i.e. from 260 to ~130 AFY) through water conservation or other measures would essentially match Alternatives 3B's and 5C's reduction in yield and thus appears to lessen the impact identified in the RDEIR to less than significant.

Moreover, any water supply-related impact that might occur under Alternative 5B will be fully offset by feasible water conservation measures identified in the RDEIR. Mitigation Measure WS1 requires that drought contingency measures in the Member Units' Urban Water Management Plans be implemented "to the extent necessary to make up for a shortage in water supply in a critical drought year." (RDEIR at 4-33.) This mitigation measure, by its plain language, mitigates Alternative 5B's water supply-related impact to less than significant (Class II) and fully offsets the water supply-related impact. In the past the Member Units' customers have conserved at substantial rates during droughts, illustrating that this is a feasible mitigation measure.[50]

Most significantly, however, the RDEIR analysis of water supply impacts is flawed and overstates the potential for water supply impacts, including indirect water supply impacts. This comment was raised regarding the Draft EIR and is still pertinent to the RDEIR.[51]

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[50] City of Santa Barbara. _____. *City of Santa Barbara Water; Frequently Asked Questions*. Webpage: http://santabarbaraca.gov/Government/Departments/PW/FAQ.htm. Viewed Sept. 26, 2007. [Attached.]; See also, Santa Barbara County Water Agency. _____ *SBWater.org: Saving you water*. Webpage: http://www.sbwater.org/WaterConservation.htm. Viewed Sept. 26, 2007. [Attached.]

[51] EDC October 2003 comment letter at 17-18 and Attachment 18.

First, the RDEIR significantly overstates future demand.[52] The RDEIR demand projections for 2020 are based on outdated estimates and ignore more recent water demand projections from the Member Units themselves.[53] These more recent projections (2005 Urban Water Management Plans, or UWMPs) submitted by all but one of the Member Units suggest that future demand will be closer to 51,000 AFY, which is 10% less than the approximately 56,000 AFY identified in the RDEIR.[54] This difference would more than offset the purported shortfalls for Alternatives 5B, 5C, and 3B identified in the RDEIR. The RDEIR impact analysis thus overestimates potential water supply shortfalls. At a minimum, the RDEIR must be modified to reflect the demand projections identified by the Member Units in their 2005 UWMPs.

The RDEIR also overstates future demand because its demand projections fail to take into account cost effective conservation improvements and conservation that will necessarily occur because it is mandated under national plumbing codes.[55] The RDEIR demand projects should be corrected to account for conservation measures.

Second, the RDEIR fails to analyze specific measures that could feasibly mitigate projected water supply impacts from any of the identified alternatives.[56] The Pacific Institute previously assessed the potential among the Member Units for improving water use efficiency and concluded that the Member Units could cost-effectively conserve 5,000 to 7,000 AFY in the Cachuma service area by implementing existing efficiency technologies and well-understood policies to promote water conservation.[57] The Pacific Institute has recently reviewed this assessment and determined that these estimates remain valid, as the Member Units conservation efforts have not intensified in the last 4 years.[58] Even a small percentage of this 5,000 to 7,000 AFY estimate, for example 10% (500 to 700 AFY), would more than offset Alternative 5B's potential impacts associated with a 1,737 AF (579 AFY) shortfall during critical 3-year droughts identified in the RDEIR.

The RDEIR attempts to discredit the Pacific Institute's 2003 analysis with the assertion that the Member Units presented rebuttal testimony disputing the Pacific Institute report, but the RDEIR presents no analysis of either the Member Units' rebuttal or the Pacific Institute report. (RDEIR at 4-32.) This mere assertion is a gravely inadequate basis to cast aside the entire body of evidence presented by the Pacific Institute. In fact, the Member Units' rebuttal testimony contains numerous factual errors

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[52] Cooley, Heather and Peter Gleick. 2007. *Comments on the Revised Draft EIR for the Cachuma Water Rights Hearing*. Sept. 27. [Attached.] See pp. 11-16.
[53] Cooley and Gleick 2007 at 11-13.
[54] Id. at 12-13.
[55] Id. at 13-15.
[56] Haasz, Dana and Peter Gleick. 2003. *Comments on the Draft EIR for the Cachuma Water Rights Hearing: Report to the Environmental Defense Center*. Oct. 1. (Attachment 18 to EDC's October 2003 comment letter.)
[57] Id.
[58] Cooley and Gleick. 2007 at 4.

and omissions.[59] It identifies no technical basis to discount the Pacific Institute's conclusions regarding potential water savings.

The RDEIR also attempts to suggest that, short of implementing drought contingency measures, the Member Units are already implementing sufficient conservation measures. (RDEIR at 4-32 – 4-33.) This intimation is belied by the facts. While all of the Member Units are signatories to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding, none of the Member Units have met the CUWCC requirements for all of the designated "best management practices" (BMPs).[60] All of the Member Units could thus expand their current conservation efforts just in terms of implementing the BMPs.[61] Furthermore, the BMPs represent the "most basic level of conservation that agencies should be implementing."[62] A variety of effective conservation measures that go beyond the BMPs are also available.[63] Further study of this issue would identify the mix of conservation options most appropriate for the individual Member Units and the associated water savings.[64]

The RDEIR similarly overstates the value of the Member Units' water rates, concluding that they "constitute a strong incentive to conserve water." (RDEIR at 4-32.) This statement is simply incorrect. High rates in themselves "do not necessarily send a strong conservation signal to customers."[65] The Pacific Institute has reviewed the Member Units' rate structures and concluded that "all of the Cachuma contractors fail to implement rate structures and pricing policies that encourage water conservation and efficiency, even those that are in compliance with BMP 11 [conservation pricing]."[66]

Fish releases under Alternatives 5B and 5C illustrate the feasibility and effectiveness of conjunctive use of WR 89-18 releases to minimize adverse impacts to water supply.

Table 4-7 illustrates that Alternatives 5B and 5C require lesser WR 89-18 water rights releases than Alternatives 3B and 3C. (RDEIR at 4-12.) This is because Alternatives 5B and 5C release more water for fish compared to all other alternatives in the RDEIR, and this extra water also recharges the groundwater in downstream aquifers. This indicates that it may be feasible to modify WR 89-18 to undertake more efficient conjunctive use of downstream water rights releases and fish releases to maximize benefits to steelhead and avoid or further minimize impacts to water supply. However, it

[59] Id. at 5-11.
[60] Cooley and Gleick 2007 at 15-16 and Table 4 ("GWD and SB are the best performers and have met or are on track to meet the requirements of eight and nine of the 14 BMPs, respectively. By contrast, CVWD, MWD, and SYRWCD, ID#1 have met or are on track to meet only five of the 14 BMPs.").
[61] Id. at 17.
[62] Id.
[63] Id.
[64] Id. at 17.
[65] Id. at 20.
[66] Id. at 20-26.

is not clear from the RDEIR text that groundwater recharge from fish releases is fully accounted for in reduced WR 89-18 releases. Could an alternative water rights release pattern that attempts to mimic more of a natural hydrograph (high in winter and spring tapering through mid- to late-fall), and that concurrently acts as fish rearing releases, be able to maintain groundwater recharge to protect downstream water rights while better protecting steelhead public trust resources in the Lower Santa Ynez River? As discussed below, further studies should be conducted to evaluate modifications to WR 89-18.

Alternatives 5B and 5C are only small steps in the right direction of conjuncitive use of water releases to concurrently fulfill steelhead protection and downstream water rights requirements.

RDEIR Section 4.4.2.2 – Above Narrows Alluvial Basin Storage and Groundwater Levels

Alternatives 5B and 5C provide a greater relative benefit to groundwater levels than all other alternatives.

The monthly dewatered storage in the Above Narrows alluvial groundwater basin (Table 4-27) is less for Alternatives 5B and 5C than for any other alternative (-7% for 5B and 5C versus -3% and 1% for the other alternatives). The slightly greater amount of water released for fish under Alternative 5B and 5C generally has the relatively greater beneficial side effect of maintaining average higher Above Narrows groundwater levels on a monthly basis compared to other alternatives. Average higher Above Narrows groundwater levels have the apparent effect of reducing the need (frequency and/or magnitude) for WR 89-18 releases. (RDEIR at 4-12.) This beneficial effect on groundwater levels under Alternatives 5B and 5C compared to the baseline, and compared to all other alternatives, should be highlighted in the FEIR because the comparison shows how alternatives that release more water to protect steelhead are concurrently recharging the basin and thus helping fulfill both objectives at the same time.

In practice, Alternative 5B's and 5C's relatively larger fish releases would help recharge downstream aquifers as required, and they are therefore a more efficient use of the water as directed by Article X, Section 2 of the California Constitution and Water Code Section 100. Incidentally, in addition to relatively greater surface flows under 5B and 5C compared to the other RDEIR alternatives, higher average groundwater levels under 5B and 5C will indirectly result in better protection of public trust resources, including steelhead in and along the River.[67] Further, groundwater quality has been a longstanding issue in the Below Narrows Account (Lompoc Forebay and Plain). The slightly greater fish releases under Alternatives 5B and 5C augment a naturally tapering hydrograph in the spring and summer, and would have the effect of keeping Lompoc

[67] Higher groundwater levels promote riparian vegetation which shades and cools the River water, and sustain surface water in the River, thereby promoting public trust resource protection.

ground water levels higher. This, in turn, would produce higher quality (lower total dissolved solids) water which requires less treatment, thus also saving water treatment costs for the City of Lompoc. (RDEIR at 4-48 – 4-50.)

Thus, the RDEIR analysis shows that greater releases for fish (e.g. 5B and 5C) result in higher average monthly groundwater levels, and that greater fish releases are simultaneously fulfilling the downstream water rights objective. Providing enhanced fish flows that also result in downstream (ANA and BNA) groundwater recharge during longer periods and to a greater extent than proposed in any RDEIR alternatives may be necessary to maximize fulfillment of both objectives. Similarly, Alternative 3A2 as modified by CalTrout (and proposed in our October 2003 comment letter) has a more effective fish flow regime which represents a higher degree of conjunctive use than entailed in Alternatives 5B and 5C.

Therefore, compared to Alternatives 5B and 5C, Alternative 3A2 Modified can likely better help protect public trust resources without compromising downstream water rights or resulting in unmitigated impacts to project yield.

Conjunctive water rights and steelhead protection releases can more efficiently and effectively help maximize fulfillment of the project's objectives.

The artificial, mid-summer, high-rate discharges implemented pursuant to WR 89-18 to fulfill downstream water rights obligations require that the River be essentially dried out (i.e. ANA dewatered storage capacity >10,000 AF) and are therefore not beneficial or protective of steelhead. The timing and pattern of the large WR 89-18 releases may be appropriately modified to benefit steelhead while still fulfilling downstream water rights requirements. WR 89-18, as is, deliberately mandates a dry riverbed when it otherwise may not be dry under natural conditions. It is thus fundamentally at cross-purposes with one of the stated project purposes: "to provide appropriate public trust…protection." (RDEIR at 1-1.) In addition, the provisions of WR 89-18 to allow the riverbed to dry intentionally are inconsistent with Fish and Game Code Section 5937. As discussed below, further studies should be conducted to evaluate modifications to WR 89-18.

RDEIR Section 4.5.3 – Surface Water Quality Mitigation Measures

The mitigation measure for Alternative 4B is not enforceable and cannot be relied upon to ensure that water is "released from the dam in sufficient quantity to offset negative impacts to water quality." (RDEIR at 4-44.) The measure must be revised to include mandatory language (i.e. "shall" instead of "should" in the second sentence) so that it is an enforceable and effective measure.[68]

[68] Mitigation measures must be effective and enforceable. CEQA Guidelines § 15126.2.

RDEIR Section 4.7.2.3 – Impacts on Southern California Steelhead /Rainbow Trout along the River

The analysis of Alternative 5B's and 5C's impacts on southern steelhead and resident trout contains significant flaws and omissions. The RDEIR states that the method used to evaluate the alternatives with respect to steelhead impacts does "not necessarily present a complete analysis of the benefits of the alternatives," and suggests that this incomplete assessment is excused by the fact that "CEQA does not require the discussion of positive environmental effects." (RDEIR at 4-51.) This conclusion overlooks the fact that providing benefits to steelhead is part of the Project description and one of the two Project objectives:

> . . . . The revised release requirements are to provide appropriate public trust and downstream water rights protection . . . .

(RDEIR at 1-1.) The RDEIR alternatives have been identified specifically for the purpose of implementing measures to protect steelhead. As a result, the RDEIR must provide sufficient analysis to determine whether the alternatives will meet this objective. "An EIR may not define a purpose for a project and then remove from consideration those matters necessary to the assessment of whether the purpose can be achieved."[69] Specific concerns with the RDEIR analysis are discussed below.

> *The analysis of Alternative 5B's and 5C's beneficial impacts to steelhead migration incorrectly assumes 14 days of passage flows in a year is a good condition for steelhead migration.*

The RDEIR generally concludes that new Alternatives 5B and 5C benefit steelhead migration roughly equivalently to the other alternatives. (RDEIR Table 4-42.) In doing so, the RDEIR used a scale of 0 to 5 to judge migration conditions. Flow levels that would result in more than 14 days of passage flows (25 cfs or more at Alisal Bridge) per year earn a score of 5; flow levels resulting in 11 to 14 days of passage flows per year earn a score of 4; flow levels resulting in 7 to 10 days of passage flows per year earn a score of 3; flow levels resulting in 4 to 6 days of passage flows per year earn a score of 2; flow levels resulting in 1 to 3 days off passage flows per year earn a score of 1; and flow levels resulting in zero days of passage flows per year earn a score of 0. (RDEIR Table 4-41.) This scoring system is highly flawed and cannot be relied upon as substantial evidence to determine the relative environmental impacts and benefits of the alternatives.[70]

The reference to 14 days of passage flows in the RDEIR was based on BOR's biological assessment (BA). The BA proposed to supplement storm flows to ensure a minimum of 14 days of continuous passage flows for storm events in order to double the

[69] *County of Inyo v. City of Los Angeles*, 124 Cal. App. 3d 1, 9 (Cal. Ct. App. 1981).
[70] Williams 2007 at 5-8.

number of storm events that resulted in a minimum of 14 days of continuous passage flows. Thus, the 14-day criteria was developed on *a per storm event* basis, not a per year basis as applied in the RDEIR's scoring system and analysis. Fourteen days of continuous passage flows is a minimum threshold for passage, not an ideal condition.[71] One minimal migration event during one entire steelhead migration season from January through April is not a good condition and does not warrant 5 out of 5 in the scoring system. Because the scoring system maxes out at 5 for >14 days of passage flows in a year, the RDEIR's analysis cannot distinguish between alternatives that provide 15 days of passage flows in a year and those that provide for more days of flow, e.g., 90 days of passage flows in a year.[72]

Accordingly, the RDEIR scoring system for migration habitat is flawed because it assumes 14 days of passage in a year is the best possible condition for migration. The result of this incorrect and unsupported assumption is that new Alternatives 5B and 5C incorrectly appear to result in approximately the same nominal benefit to steelhead migration as the other alternatives. In actuality, Alternatives 5B and 5C implement higher migration flows and result in considerably more migration passage and thus more spawning opportunities than the other alternatives during most of the spawning season (i.e. at least 48 cfs from 15 February to April 14 (RDEIR at 3-14) versus 25 cfs or more "for an average of 14 days or more of passable flows." (RDEIR at 2-15.)). The RDEIR's conclusion that these vastly different flow regimes result in the same level of protection for steelhead defies logic and evidence in the record.

NOAA Fisheries BO clearly states:

> In the opinion of the NMFS fishery biologists and hydraulic engineers, these criteria are close to the <u>minimums</u> at which passage is possible, not water depth and width that produce good migration habitat.[73]

Assigning the highest score (5) to these minimum conditions is, therefore, a fundamental error in the scoring system used in the RDEIR. If 14 days of 25cfs is deemed "minimum" for good migration habitat, 14 days should receive a rank score of "1," not "5" in any objective rank scoring system developed. Any conditions below that 14 days of 25cfs should receive a "0" in the scoring system. The NOAA Fisheries provides expert guidance regarding what conditions should score a "5":

> When the model removes the effects of Bradbury dam, passage opportunities (flows at greater than 25 cfs) ranged from 20 to 120 days, averaging 63.5 days. Under the proposed impoundment of water, passage opportunities ranged from 0 to 68 days, averaging 18.5 days.[74]

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[71] Raysbrook 2003.
[72] Williams 2007 at 8.
[73] BO at 35 (emphasis in original); See also, Williams 2007 at 8.
[74] BO at 37.

Thus, a score of 5 (i.e., the best score) should be assigned to the number of passage days equal to the best conditions predicted by the model with impoundment of water – 68 days or greater. Conditions between 14 and 68 days should then receive scores between 1 and 5, evenly distributed. This score assignment protocol provides a best match with the biological conditions found in Santa Ynez River. Under this scoring system, 5B and 5C would likely score a 4 out of 5 in 40% of the years because during above normal and wet years, flows would be at least 48 cfs for 2 months – February 15 to April 14, then 20 cfs to June 1, then 25 cfs for one week, followed by ramp downs to 5 cfs through rest of year. Thus, in the wettest 40% of the years, 5B and 5C would at a minimum provide slightly fewer than 68 days of passage flows (about 60 continuous days) and likely score at least a 4 out of 5 those years. In the other 60% of the years (below normal, dry and critically dry), 5B and 5C would score the same as 3B, 3C and 4B.

In addition, the analysis also fails to consider whether the mouth of the River would be open, which would be necessary for steelhead migration.[75] Similarly, the RDEIR does not assess whether the proposed flows and flow scoring system account for the need for steelhead exhibiting iteroparity to have adequate flows to return to the ocean after spawning. Inadequate flows for steelhead exhibiting iteroparity would likely be detrimental to the diversity and viability of steelhead by selecting against iteroparity in the population.

To correct the flawed analysis and distinguish between Alternatives 5B and 5C and the other alternatives' ability to protect steelhead migration, the RDEIR's analysis should be based on evidence in the record from CDFG and NOAA, i.e. that 14 days of *continuous* passage flows is not an ideal passage time for steelhead to spawn. The analysis must also recognize that 14 days of *continuous* passage flows during individual storm events - not 14 days of passage flows per year - is necessary to enable successful migration and spawning. In addition, the analysis must recognize the evidence that 25 cfs is a minimum flow for passage, not an ideal passage condition.

The RDEIR fails to analyze adverse impacts to steelhead and other public trust resources caused by WR 89-18 releases.

Water rights releases under WR 89-18 result in a number of adverse impacts to steelhead.[76] The RDEIR considers five alternatives, all of which continue the existing WR 89-18 releases, but does not analyze the adverse effects of WR 89-18 releases on steelhead or other public trust resources. WR 89-18 releases can only be made when the downstream Above-Narrows aquifer is dewatered by 10,000 AF. The 10,000 AF of dewatered storage capacity requirement dictates that the WR 89-18 releases will be made as large unnatural pulses of water into a dry, or largely dry, river bed during summer or

[75] Williams 2007 at 8.
[76] Id. at 18.

fall. By implementing WR 89-18, each of the RDEIR alternatives treats the River like a delivery pipe and treats the water basin like a bucket, filling it when it gets low – without any regard for the natural riparian and aquatic environment.

These unnatural mid-summer or fall water rights release pulses of up to 150 cfs result in detrimental effects to steelhead and other public trust resources. For instance, the RDEIR should analyze whether non-native fish such as bass, planted rainbow trout and catfish will be introduced into the River and harm steelhead under the proposed alternatives' water rights release pattern. Continued re-introduction of non-native fish into the River below Bradbury Dam during WR 89-18 releases[77] would adversely affect steelhead though increased competition for limited space and resources, as well as through predation. Introduction of non-native fish likely to occur during continued WR 89-18 releases would harm steelhead and impair the alternatives' ability to fulfill the public trust objective.

In addition, Holmgren reports that water rights releases have resulted in unnatural flow increases in the summer that raised water levels during willow flycatcher nesting season and caused nest abandonment. (RDEIR at 4-84.)

Flows mimicking a more natural hydrograph for this region would tend to mitigate the adverse effects of the proposed ongoing WR 89-18 releases and would benefit native species, such as steelhead. The impacts of the alternatives' water rights releases can also be mitigated by screening releases and/or implementing non-native predator control in steelhead rearing areas in order to ensure that the new alternatives' water rights releases protect public trust steelhead resources.

The RDEIR relies on flawed scoring and analysis to evaluate flow related impacts.

The RDEIR evaluation of flow related impacts for steelhead is inadequate because it relies on a flawed scoring system.[78] The system uses misleading rankings and is biologically unsound.[79] Flaws specific to the scoring of passage flows have already been discussed above. The scoring system for spawning and rearing habitat is similarly unsound.[80] In all cases, the scoring system gives highest scores to conditions "that are best described as marginal," making it impossible to distinguish alternatives that provide marginal habitat from alternatives that provide better than marginal habitat.[81] For example, the scoring system is blind to the fact that Alternatives 5B and 5C provide flows

[77] Non-native fish are introduced to the lower Santa Ynez River from Cachuma during spill events and are expected to be entrained in WR 89-18 water rights releases and introduced to the lower portions of the river during such releases.
[78] Williams 2007 at 5-9.
[79] Id.
[80] Id. at 8-9.
[81] Id. at 8.

greater than 10 cfs 40% of the years, in contrast to the other alternatives.[82] The RDEIR scoring system also fails to take the integrated life cycle of steelhead into account:

> . . . . the RDEIR analyzes conditions for these life history phases separately, without consideration that fish must pass through them sequentially. As an example, the analysis of migration does not consider whether the mouth of the lagoon is open. Similarly, the analysis of migration opportunity does not consider whether years with adequate opportunity for smolt migration are preceded by good conditions for rearing. Rather than simply counting the frequency with which suitable or unsuitable conditions occur for migration, spawning, rearing, etc., the RDEIR should consider the frequency and consistency with which conditions occur that will allow steelhead to complete their life cycle. [83]

The RDEIR evaluation of flow related impacts for steelhead is also inadequate because it relies on a flawed method of analyzing potential improvements in habitat. The top-width method for assessing habitat conditions under Alternatives 5B and 5C and the other RDEIR alternatives is not reliable.[84] The RDEIR approach simply equates habitat with the width of the stream, which "has little relationship to reality."[85] The criticisms in our October 2003 comment letter are still pertinent to the RDEIR.[86] Williams (2007) reviews available literature regarding this methodology and concludes:

> [T]he top-width or wetted perimeter method is a simple, first-cut approach for determining minimum flows that is based on an assumption regarding invertebrate production, rather than on fish habitat requirements. It has never been properly tested . . . . better methods are available. In the RDEIR, the top-width method (1) is improperly applied to habitats other than riffles (2) is improperly applied to an unstable channel, (3) does not estimate habitat area for fish, and (4) does not meet ordinary scientific norms for statistical practice. It does not provide a rational basis for balancing the habitat needs of an endangered species against out of stream uses of water.[87]

As a result of these flaws with the top-width method, the RDEIR is incapable of adequately distinguishing the impacts of Alternatives 5B and 5C from the impacts of the other alternatives. The RDEIR scores all flows greater than 10 cfs at "5" because "the

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[82] Id. at 9.
[83] Id. at 13.
[84] Id. at 9-13.
[85] Id. at 9.
[86] EDC October 2003 comment letter at 25 and Attachment 19 (Keegan, Tom. 2003. *Preliminary Report to CalTrout*. Oct. 6.). Similar criticisms were raised during the administrative hearing proceedings. See, e.g., Ex. No. CT 30 (Keegan); RT:817-818 (Keegan); RT:937 (Li, NOAA Fisheries); RT:593-594 (Titus, CDFG).
[87] Williams 2007 at 13.

top-width versus flow relationships developed during the habitat analysis show that the rate of increase of habitat (i.e., top-width) typically declines above 10 cfs." (RDEIR at 4-66.) The RDEIR's conclusion that the alternatives are generally similar in terms of benefits to steelhead habitat is belied by the fact that Alternatives 5B and 5C release more water for steelhead than the other alternatives in wet years when steelhead are expected to be present. For example, Alternative 4B has less flow in the River than baseline conditions. (RDEIR Table 4-9.) Despite this fact, Alternative 4B results in the exact same score in the RDEIR for migration flows, and in near identical scores for rearing and spawning habitat compared to Alternatives 5B and 5C, which release more water into the River above spawning habitats and spawning tributaries during migration season.

The definition of water year types used to evaluate alternatives 5B and 5C is fundamentally in error.

The RDEIR states that Alternatives 5B and 5C are "…based on a variation of CalTrout Alternative 3A2 Adjusted for Dry Years." (RDEIR at 3-14; Draft Technical Memorandum No. 5, Stetson Engineering, Appendix F at 1.) Five water year types are described as originating in Appendix F, Technical Memorandum No. 5 (at 7-9). These water year types are identified as "wet," "above average," "below average," "dry," and "critical."

Technical Memo 5:

Upon close inspection, it is clear that Technical Memorandum No. 5 (TM5) is based on a significantly flawed categorization of water years. First, it is expected and customary in analysis of flow regimes to define "normal" flows under either of the mathematical/statistical constructs of "average" or "median." However, no "normal" flows are defined or analyzed under the categorization and analysis used in TM5. The categorization used in TM5 instead divides all water year types, based on inflow over a 76-year period, into roughly 20-percentile groups (TM5 Sec. 2E, "Santa Ynez River Hydrologic Year Classification," page 7, Table 2, page 8, and TM5 Figure 2).

This method produces mischaracterizations of flow at the semantic, conceptual, and mathematical/statistical levels. The crux of these errors is as follows: the third (middle, or central) percentile group (40-60% of water year types) is defined erroneously as "below normal." By definition, water year types greater than the 50th percentile cannot semantically, conceptually, mathematically, or statistically be deemed anything but "above normal." As noted in Williams (2007), "all children in Lake Wobegon are above average" is a non-sequitur. Flow years above the 50th percentile cannot be "below average."[88]

As a practical matter, this places about 11% of the 76 water years, from the 50th to 60th percentiles, reported in the wrong category (below normal). This is a significant error

[88] Id. at 5, fn 3.

in the fundamental modeling framework underpinning both of the new Alternatives (5B and 5C). A variety of methodologies could correct this mischaracterization; any method chosen should be 1) consistent with the common or expert understanding of "normal," 2) conceptually accurate, and 3) mathematically/statistically valid and defensible. NOAA Fisheries provided guidance on what is considered normal in its review of the Bureau's Biological Assessement: "Normal years comprise 31% of all years." (NMFS 2000: 37). Based on their expert guidance, clearly, the "normal" category should span the 35th to 65th percentile. Dividing "above normal" and "wet" years would be roughly the 87th or 88th percentile. Likewise, division between "critical" and "dry" years would occur at the 17th or 18th percentile. This is fairly consistent with CalTrout's original proposal to apply 3A2 flows in all but the driest 20% of years (hereafter referred to as "Alternative 3A2 Modified for Dry Years").

When this error is integrated with and applied to the two new alternatives proposed, it also becomes clear that selecting only "wet" (>80th percentile) and "above normal" (61st to 80th) percentiles hugely magnifies the divergence of Alternatives 5B and 5C from Alternative 3A2 Modified for Dry Years. There are an additional 41% of water year types eliminated from application of 3A2 Modified for Dry Years, a full quarter of which are, in fact, above average water years by definition. This results in nearly a three-fold decrease, overall (from 20% dry years to 60% and above water year types) in the number of water years in which 3A2 Modified for Dry Years would be applied, and is fundamentally inconsistent with CalTrout's proposed flow regime. The cumulative effect of this mathematical and conceptual error and application to a reduced set of water year types from "Biological Opinion flows in 20% driest years" is the addition of 2 new alternatives that are not significantly different from the rest of the alternatives. This is particularly evident given the much wider range of flow regimes found frequently in the Santa Ynez River over the time period analyzed. An alternative must be developed and analyzed that uses water year categories supported by common sense, mathematics, and NOAA Fisheries' expert opinion on the matter. The alternative should also provide significant divergence from other alternatives, including the RDEIR's 5B and 5C, to produce a meaningful range of alternatives under CEQA. A clear example of this would be analysis of the 3A2 flow schedule applied to all but dry years (be that 17, 18, or 20%).

It is further unclear why TM5 excludes readily available water year/inflow data from 1994 to the present, to at least the most recent year for which reliable inflow data exist (presumably 2006) or to the CEQA baseline of 1999. This additional data would improve the reliability and applicability of the analysis on purely a statistical basis, and also will improve the model's reflection of true conditions in the watershed. As discussed above, the RDEIR has improperly omitted this data.

Figures 4a and 4b illustrated in TM5 also imply that it would be appropriate to use the 3A2 flow schedule at least down to the 50th percentile (from wet to normal years) in Alternatives 5B and 5C, judging by the inflection point in the flow curves of Alternative 5B (Figure 4a) and 5C (Figure 4c), which begin to increase rapidly at about the 50th percentile. Likewise, Figures 5b and 5c illustrate for the primary management

reach (Bradbury Dam down to Highway 154), that Alternatives 5B and 5C (Figure 5b) should be implemented down to at least the 50th percentile. Further, for flows in the Alisal and Buellton reaches downstream of the primary management reaches, Figures 5c and 5c indicate that flows start to be non-zero in these two reaches at about the 20th percentile, consistent with CalTrout's proposed application of 3A2 flows down to the lowest 20% of water year types. Not only does the Cachuma Project Contract Renewal EIS find 3A2 beneficial for steelhead flows below Bradbury Dam, but the present RDEIR's supporting Technical Memoranda modeling appears to do the same, in more detail.

TM5's Figure 3, a box diagram illustrating operational criteria for fish water releases from Cachuma Reservoir for Alternatives 5B and 5C, should be modified accordingly. The blue box at the top should read such that the total inflow is the number identified as the 20th percentile. The left yellow box should read "wet, normal and below normal years," and the right box should read "dry years, <20th percentile."

Technical Memo 6

Technical Memorandum #6 (RDEIR Appendix F), "Santa Ynez River Flow Analysis for Impact Assessment on Steelhead," includes a tabulation of flow exceedances for RDEIR alternatives that depends on daily flow estimates, but the Santa Ynez River Hydrology Model (SYRHM) produces only monthly flow data. To bridge the gap, TM6, at Table 1, notes that "monthly flows were converted to daily flows based on daily variations of gaged flow in Salsipuedes Creek and releases from Cachuma Reservoir." Salsipuedes Creek is extremely low in the Santa Ynez River system, the second-lowest tributary, in fact, in the watershed. It is situated relatively close to the ocean low in the alluvial plain compared to most of the rest of the Santa Ynez River and its tributaries, and receives the brunt of storm systems which in wintertime normally come from the northwest. It is thus likely to be a poor yardstick against which to measure daily flows in the entire River system. Use of the Salsipuedes Creek Gage to make this conversion is not supported in any way in the analysis presented in TM6, and thus the daily flow exceedance figures reported in Table 1 to compare various EIR alternatives are not supported. Using a flow gage at the low end of the system could magnify errors in the model to the point where all reasonable confidence is lost; that error must be estimated. In addition, TM6, like TM5, excludes readily available flow data from 1994 to 2006, further confounding the utility of the analysis in making supportable conclusions regarding differences among the alternatives, including the two newly identified Alternatives 5B and 5C.

However, TM6 does use a more valid analysis of water year types (wet, normal and dry) to analyze and summarize the number of days fish passage is achieved under the various alternatives. Why TM5 is based on such faulty conceptual/mathematical basis and inconsistent with the approach used in TM6 is unclear, and since TM6 demonstrates that a model for analysis can in fact be chosen that incorporates the concept of "normal" flows, it also further illustrates the inadequacy of analysis in TM5.

The RDEIR fails to compare the steelhead habitat quality in the Refugio Reach under Alternatives 5B and 5C to other alternatives' steelhead habitat quality for the same reach.

The analysis of Alternatives 5B's and 5C's benefits to steelhead habitat focuses on the Highway 154 Reach and concludes that "additional flows would provide the greatest biological benefit in this reach." (RDEIR at 4-70 – 4-71.) The RDEIR also discusses relative beneficial impacts in the Alisal Reach but entirely fails to discuss the relative benefit to steelhead spawning and rearing in the lengthier Refugio Reach under Alternatives 5B and 5C compared to other alternatives. [89] CEQA requires a comparative analysis of alternatives.[90] Page 4-70 notes that "Cool water refuges, caused by groundwater upwelling, have been found in several pools in the Refugio and Alisal reaches," but the RDEIR's analysis does not provide any comparative analysis of habitat conditions in the important Refugio Reach under Alternatives 5B and 5C and the other alternatives. There is a discussion of predatory fish in all reaches including the Refugio Reach, but the RDEIR concludes predatory fish limit steelhead and are forced into pools with steelhead "because stream flow is low or absent at times." (RDEIR at 4-70.) The statement on page 4-70 implies that higher flows (i.e. under 5B and 5C or 3A2 Modified for Dry Years) allow the non-native predatory fish to spread out within the River and not be concentrated in pools with steelhead (better protecting steelhead), but otherwise lacks a comparative analysis of alternatives' effects on the Refugio Reach.

The Refugio Reach is dominated by pools and riffles, and therefore, as described in the RDEIR, contains better potential rearing habitat than the Alisal Reach. (RDEIR at 4-70.) The Refugio Reach goes intermittent sometimes in the summer. (RDEIR at 4-70.) Additional flows beyond those required in the BO to stave off further decline of steelhead would render this reach perennial more frequently and improve the degraded conditions for steelhead.[91] Increased flows would result in deeper pools and riffles in the Refugio Reach, while failure to provide additional flows would maintain the Refugio Reach pools and riffles in a degraded condition.[92] The RDEIR notes that cool water upwelling in pools in the Refugio Reach provides refugia for steelhead during the summertime when the river water becomes warmer. This cool water upwelling will persist under all of the alternatives (to the extent they maintain surface water). Moreover, the RDEIR's analysis fails to assess the flow alternatives effect on the linear extent of habitat along the River's length. The additional flows of Alternatives 5B and 5C would increase the extent and duration of aquatic habitat in the Refugio Reach.[93] These alternatives will increase

[89] The Refugio Reach is 5 miles long while the Alisal Reach and Highway 145 Reaches are only 2.6 and 2.9 miles respectively. DEIR 4-85.
[90] CEQA Guidelines § 15126.6(a).
[91] Keegan 2003 (Attachment 19 to EDC's October 2003 comment letter) at 5.
[92] Keller, Edward A. 2003. *Statement of E.A. Keller*. Oct. 6 (Attachment 21 to EDC's October 2003 comment letter). See p. 2.
[93] Williams 2007 at 16-17.

riparian cover in the Refugio and Alisal Reaches relatively more than the other RDEIR alternatives, leading to decreased water temperatures and more suitable steelhead habitat.

Therefore compared to the BO alternatives (3B, 3C and 4B), Alternatives 5B's and 5C's higher rearing and migration flows would provide greater public trust benefits in the Refugio Reach and Highway 154 Reach while fully fulfilling the downstream water right objective. Unfortunately, the RDEIR is significantly flawed for not comparing habitat conditions in the integral Refugio Reach under Alternatives 5B and 5C to the baseline conditions or other alternatives.

The RDEIR analysis of water temperature is inadequate.

The RDEIR continues to rely on Entrix's preferred temperature criteria to conclude that "[t]he Highway 154 Reach is about the limit of where releases from Bradbury Dam can provide water temperatures in the preferred range for steelhead/rainbow trout." (RDEIR 4-70.) This discussion fails to acknowledge information raised during the prior administrative proceedings that Entrix's temperature criteria are not based on any definitive data, and that rainbow trout/steelhead have been observed to survive and grow during summer months downstream of the Highway 154 Reach at temperatures in excess of Entrix's temperature criteria.[94] Keegan also noted that temperatures in the Refugio Reach are suitable for steelhead.[95]

Williams (2007) also notes that the RDEIR's conclusion about temperature and the Highway 154 Reach "is not supported by any useful data or analysis."[96] Williams states that "[b]oth the mass of the water and its velocity increase with discharge, so it is reasonable to expect that the length of habitat with suitable or at least tolerable water temperature will increase with discharge."[97]

The RDEIR fails to analyze effects of water quality on the success of incubating steelhead embryos and alevins.

The RDEIR relies on incorrect assumptions and generally fails to consider the effects of dissolved oxygen for the different alternatives.[98] Williams (2007) concludes that:

> Alternatives with higher flows during the incubation season for steelhead (i.e., 5B and 5C) should result in higher rates of hyporheic flow and better water quality in the hyporheic environment.[99]

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[94] See, e.g., Exhibit No. MU 224 (Hanson); at 13 RT:279 (Hanson) (discussing observations of juvenile fish in Highway 154 Reach in water temperatures that were "in excess of the general guidelines established").
[95] Keegan 2003 (Attachment 19 to EDC's October 2003 comment letter).
[96] Williams 2007 at 17.
[97] Id. at 17.
[98] Id. at 18-19.
[99] Id. at 18.

4.8.2.5 – Riparian and Lakeshore Vegetation - Impacts to Sensitive Plant Species

Section 4.8.2.5 has been modified in the RDEIR but still fails to note specific substantial evidence submitted as comments on the DEIR identifying sensitive plant species within Alternative 5B's and 5C's surcharge zones. Displacement of sensitive species from portions of their range and/or loss of individuals may qualify as a significant impact that must be evaluated and disclosed. However, despite specific comments regarding the Draft EIR, the impact to rare plant species is still not disclosed in the RDEIR. Alternative 5B avoids some of Alternative 5C's impact to these species.

4.9.2.1 – Sensitive Aquatic and Terrestrial Wildlife – Potential Impacts of the Alternatives – Lake Impacts

Sensitive wildlife species present at the reservoir and lower River would be impacted by surcharging and WR 89-18 releases.

The RDEIR revisions in Section 4.9 fail to note that several sensitive wildlife species have been recorded along the lakeshore; accordingly, the RDEIR incorrectly concludes that "no sensitive wildlife species would be affected." (RDEIR at 4-81.) The evidence in the record identifies specific impacts to specific sensitive species, including Clark's and western grebe and southwestern willow flycatcher, resulting from the alternatives' proposed WR 89-18 releases. These impacts illustrate how the proposed alternatives fail to adequately protect public trust resources in addition to steelhead. Feasible measures and alternatives, including water conservation as outlined by the Pacific Institute, can reduce the need to surcharge and thus minimize impacts to rare species. Similarly, alternatives to the uniformly-proposed mid-summer WR 89-18 water rights release patterns could minimize identified effects on some or all these species, e.g. by protecting southwestern willow flycatcher nests.

Alternative 5B avoids part of the potentially significant impact to sensitive plant and wildlife species and is environmentally superior to Alternative 5C because of the lower surcharge. Alternative 5B is environmentally superior to Alternative 5C because it avoids impacts to lakeside vegetation and species by implementing the lower surcharge, and because its water supply-related impact during the critical three-year drought can be fully mitigated by feasible water conservation measures outlined in the record of evidence before the SWRCB.

The RDEIR misrepresents the area of impact from surcharge.

Section 4.9.2.1 of the RDEIR states that surcharging would impact only a narrow band of "15 to 25 feet" around the reservoir margin. (RDEIR at 4-81.) However, the RDEIR contradicts itself by finding that in some flatter areas of the shoreline the impact zone from surcharging will extend up to a maximum of 218' to 363' inland for Alternatives 5B and 5C respectively. (RDEIR 4-74, Table 4-47.)

RDEIR Section 4.10 – Recreation

The RDEIR fails to analyze the impacts to public recreation in and along the River caused by increased flows under Alternatives 5B and 5C, and fails to compare the impacts to those of the BO alternatives and the baseline. Impacts to bird watching, hiking, swimming, rafting, kayaking, canoeing and playing in the River would result in different degrees from the alternatives. Given the higher flows and greater support for public trust resources under Alternatives 5B and 5C, these alternatives' recreational impacts will be beneficial. For instance, recreational activities that occur on the Santa Ynez River, including bird-watching, rafting, swimming, and wading, benefit from increased and/or extended flows in the River under Alternatives 5B and 5C. Other alternatives, such as 4B, will reduce flows and harm natural resources causing adverse impacts to these recreational activities. Therefore the alternatives' varying flows impacts on recreational activities must be analyzed in this EIR's recreation section.

RDEIR Section 5.0 – Environmental Analysis of Non-Flow Habitat Enhancements on Tributaries

The title of this section suggests it is limited to non-flow habitat measures in tributaries, but the text seems to imply that all non-flow measures, potentially including fish passage around Bradbury Dam, are more appropriately analyzed by COMB as a lead agency. To the extent the SWRCB intends to defer consideration of fish passage around Bradbury Dam to COMB, EDC disagrees with this portion of the RDEIR. As discussed throughout this letter, the SWRCB must consider fish passage around Bradbury Dam to fulfill its own public trust responsibilities. Consistent with this obligation, the SWRCB must discharge its duty under CEQA and analyze the effects of an adequate range of alternatives that fulfill the public trust objective, including fish passage around Bradbury Dam. The SWRCB cannot defer its public trust responsibilities to COMB.

6.1 Comparison of Alternatives – Flow-Related Actions along the Santa Ynez River

> *Alternatives 5B and 5C avoid a significant impact to the Santa Ynez River public trust resources caused by Alternative 4B.*

Alternative 4B (water rights releases made via pipeline to the River at Lompoc) would actually reduce flows compared to baseline conditions in the lower River and would likely have adverse impacts to steelhead and other aquatic resources. (RDEIR at 4-15.) Alternatives 5B and 5C would continue to release water for downstream water rights in the Santa Ynez River below Bradbury Dam during WR 89-18 releases. Thus, Alternative 4B is worse for public trust resources than Alternatives 5B and 5C because Alternative 4B places the downstream water rights releases in a pipe and bypasses many of the water-dependant public trust resources along the River altogether.

Alternative 5B's 1.8' surcharge substantially lessens and avoids portions of the significant impact to oaks trees caused by Alternative 5C's 3.0' surcharge.

Alternatives 5B and 5C involve different levels of impacts to oak trees, identified as a significant impact in the Draft EIR and revised sections of the RDEIR. In the past several years following the release of the Draft EIR, impacts of the surcharge on oaks up to the 2.47-foot surcharge level have already begun. By implementing a 1.8' surcharge instead of a 3.0' surcharge, Alternative 5B appears designed to avoid a portion of Alternative 5C's Class I impact to oaks (from 452 trees to 271 trees). However, because surcharging to the 2.47' level has already been initiated, the impact to existing oaks above 1.8' and below 2.47' has begun and cannot be entirely avoided by Alternative 5B. Nevertheless, over the long-term, Alternative 5B's 1.8' surcharge would protect 13 more acres of oak woodland from inundation according to the RDEIR's analysis (RDEIR Table 4-48) - compared to Alternative 5C's 3-foot surcharge. Alternative 5B would substantially lessen Alternative 5C's identified significant long-term impact to oak trees in oak woodlands through partial avoidance, rather than after-the fact replacement, of some of the 181 trees in 13 acres of oak woodland without causing any new significant impacts.[100]

VII. Alternative 5B Is The Environmentally Superior Alternative Of Those Analyzed In The RDEIR.

Although Alternatives 5B and 5C would not protect steelhead as a viable public trust resource, of the RDEIR alternatives, Alternatives 5B and 5C should provide somewhat better habitat conditions for steelhead than the other alternatives in the RDEIR (3B, 3C and 4B).[101] In addition, Alternative 5B avoids much of the significant oak impact associated with Alternatives 3C, 5C and 4B and mitigates the water supply-related impacts through Measure WS1.[102] Therefore, of the alternatives in the RDEIR, Alternative 5B would result in the least environmental impacts. It is thus the environmentally superior alternative of each of the alternatives identified in the RDEIR. Nonetheless, even Alternative 5B does not fulfill the basic objective of protecting the public trust resources, so the EIR must consider other alternatives that can feasibly protect steelhead without causing significant secondary impacts. The alternatives discussed below will meet the Project objectives and reduce or avoid Project impacts.

[100] As described above, modest water conservation can feasibly offset the potential water supply-related impact associated with Alternative 5B.
[101] Williams 2007 at 15.
[102] As discussed above, the RDEIR overstates potential water supply impacts. When overstated demand projections are corrected and specific mitigation measures identified by the Pacific Institute are taken into account, none of the identified alternatives would have significant water supply impacts.

VIII. CalTrout's Proposed Alternative 3A2 Modified And Other Measures Are Capable of Fulfilling The CEQA Project Objective Of Protecting Public Trust Resources.

Under CEQA, the SWRCB cannot adopt an alternative if there is another feasible alternative that fulfills most of the basic project objectives and avoids or substantially lessens a significant impact.[103] In our October 2003 comment letter, EDC commented that none of the alternatives identified in the Draft EIR were capable of fulfilling the Project's public trust objective, and we identified new alternatives that could feasibly protect steelhead without causing significant adverse impacts.[104] EDC and CalTrout appreciate that the RDEIR includes new alternatives (5B and 5C) that are somewhat more beneficial for steelhead than the alternatives identified in the Draft EIR. Nonetheless, as explained above, these alternatives are still incapable of fulfilling the Project's public trust objective.

Alternatives do exist that are more capable fulfilling the Project's public trust objective, and they should be incorporated into the EIR.

CalTrout's proposed instream flow schedule is more capable of meeting Project objectives and reducing or avoiding impacts.

In our October 2003 comment letter, EDC identified three alternatives (IFIM alternative, Public Trust alternative, and Maximum Beneficial Use alternative) that were more capable of meeting the Project's objectives than those identified in the Draft EIR, and that would reduce or avoid impacts. EDC acknowledged that additional information should still be obtained to determine the full range of measures that should be implemented to protect public trust resources and comply with Fish and Game Code Section 5937. These comments are still pertinent to the RDEIR, with some modifications as described below.

The RDEIR describes Alternatives 5B and 5C as incorporating "the release criteria under the proposed CalTrout Alternative 3A2 during wet and above-normal year types."[105] (RDEIR at 3-13.) However, the RDEIR's Alternatives 5B and 5C differ significantly from CalTrout's proposed Alternative 3A2 Modified as identified in our October 2003 comment letter[106] and during the administrative hearing proceedings. (RDEIR at 3-14.) Specifically, CalTrout proposed flow requirements of the following magnitude and duration:

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[103] Pub. Res. Code §§ 21002, 21002.1(b), 21081; CEQA Guidelines §§15002(a)(3), 15021(a)(2), 15091(a), 15092(b)(2)(A); see also, *Mountain Lion Foundation v. Fish and Game Commission* (1997) 16 Cal.App.4th 105, 134.
[104] EDC October 2003 comment letter at 23-31.
[105] Wet and above average year types are synonymous.
[106] In EDC's October 2003 comment letter, this is the water release portion of the "Public Trust Alternative." See pp. 25-26.

- 48 cfs February 15 to April 14 for spawning, then
- 20 cfs to June 1 for incubation and rearing, then
- 25 cfs for one week for emigration, then
- ramp releases to 10 cfs by June 30, then
- hold at 10 cfs to October 1, then
- 5 cfs until February 14 for resident fish.[107]

EDC and CalTrout also specified that this schedule should be modified so that during dry years – i.e. when anadromous steelhead are not expected to spawn or to have recently spawned – the long-term flows identified in the BO would be implemented.[108] Such "dry" years were anticipated to occur 20% of the time based on the hydrologic modeling done for the Draft EIR.[109]

In contrast to the schedule identified by EDC and CalTrout ("Alternative 3A2 Modified for Dry Years"), the RDEIR presents Alternatives 5B and 5C as implementing the lower BO flows in dry years and in average years, resulting in implementation of BO flows 60% of the time. This is a critical difference that undercuts the effectiveness of Alternatives 5B and 5C. Alternatives 5B and 5C do not include higher flows during average years when such releases have the greatest ability to enhance current steelhead conditions.

Alternative 3A2 Modified for Dry Years is more capable of fulfilling the Project's public trust objective and has been identified as the most "protective" standard based on available information.[110] Evidence submitted by EDC and CalTrout demonstrates that this instream flow schedule can be implemented without significant impacts to water supplies if the Member Units implement existing efficiency technologies and well-understood policies to promote water conservation.[111] The Pacific Institute has recently affirmed that these estimates remain accurate.[112] Correcting the overstated demand projections in the RDEIR would also demonstrate that potential water supply impacts from this alternative would be fully offset or less than significant.[113]

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[107] EDC October 2003 comment letter; Ex. No. CT 90 (Edmondson).
[108] Id. The long-term mainstem rearing "target" flows under the BO are 10 cfs at Highway 154 and 1.5 cfs at Alisal Road (if steelhead are present) when Cachuma has >120,000 AF and spills greater than 20,000 AF; 5 cfs at Highway 154 when Cachuma has >120,000 AF but spills less than 20,000 AF; 2.5 cfs at Highway 154 when Cachuma has < 120,000 AF; and 1.5 cfs at Alisal Road when Cachuma has >30,000 AF when steelhead are present the year after a 20,000 AF or more spill. When Cachuma has <30,000 AF, periodic releases of less than or equal to 30 AF month are required. (RDEIR at 2-15.)
[109] Ex. No. CT 90, Appendix I (referencing SWRCB DEIR, Appendix C, Table 4-1).
[110] Id. at 27; Moyle 2007.
[111] Ex. No. CT 90 (Edmondson); Ex. No. CT 50 (Haasz and Gleick).
[112] Cooley and Gleick 2007 at 4-5.
[113] Id. at 11-16.

Alternative 3A2 Modified for Dry Years should be evaluated in the EIR.[114] This instream flow schedule should be adopted on an "interim" basis while monitoring and further studies, as described below, are conducted.

A study of fish passage should be conducted to fulfill the public trust objective.

As previously discussed, a significant omission in the RDEIR is the failure to consider alternatives to protect public trust resources above Bradbury Dam. Passage around Bradbury Dam would support steelhead above Bradbury Dam by facilitating migration to the ocean and would also support steelhead below the dam by facilitating migration to the best, and most abundant, spawning and rearing habitat in the Santa Ynez River watershed. The need for a study of fish passage, in conjunction with any instream flow schedule, was identified in EDC's October 2003 comment letter and is still pertinent to the RDEIR.[115]

According to evidence in the record, and as apparent during the SWRCB's site visit to the Santa Ynez River in 2003, the vast majority (approximately 150 miles, or about 80%) and by far the highest quality spawning and rearing habitats in the Santa Ynez River watershed are above Bradbury Dam.[116] Multiple experts, including the California Department of Fish and Game and NOAA Fisheries, have identified passage around Bradbury Dam as critical to the protection and restoration of steelhead in the Santa Ynez River.[117] NOAA Fisheries has also more recently concluded that "the major anthropogenic limit on southern steelhead occurrence at the basin scale appears to be quite specific: anthropogenic barriers are preventing migration to suitable habitat."[118] Consistent with this evidence, in these proceedings, NOAA Fisheries and CDFG have each recommended a study of the feasibility of fish passage around Bradbury Dam.[119] CalTrout's experts have also identified the importance of fish passage and recommended further studies.[120]

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[114] To adequately expand the range of alternatives in the RDEIR and fully assess potential impacts, the EIR should also evaluate alternative 3A2 as identified in the Cachuma Contract Renewal EIR, without any modifications. This is referred to as the "IFIM Alternative" in EDC's October 2003 comment letter.

[115] EDC October 2003 comment letter at 26-28. A study of fish passage was identified as part of CalTrout's "Public Trust Alternative."

[116] See e.g. Raysbrook 2003; Ex. No. CT 30 (Keegan); Keller 2003 (Attachment 21 to EDC's October 2003 comment letter); Ex. No. NOAA 7A (map of Santa Ynez River watershed).

[117] Experts from the DFG testified during the administrative hearing proceedings that passage around Bradbury Dam is "critical" to the restoration of steelhead. RT:554 (McEwan); Ex. No. DFG 4 at 7 (Titus). NOAA Fisheries similarly testified. RT:748 (Lecky); see also BO at 82 ("Access to [above-dam] areas would be of huge benefit to the Santa Ynez steelhead population."). The CDFG Steelhead Restoration and Management Plan also identifies passage at Bradbury Dam as key to protecting steelhead in the Santa Ynez River. Ex. No. DFG 2. See also, NOAA Fisheries 2007.

[118] Boughton, David et al. 2005. *Contraction of the Southern Range Limit for Anadromous Oncorhynchus Mykiss*. Aug. See p. 12-13.

[119] October 7, 2003 NOAA comment letter; Ex. No. DFG 2 at 6 (McEwan).

[120] Ex. No. CT 30 at 16 (Keegan); Ex. No. CT 10 (Zapel); Zapel, Ed. 2007. *Letter to Ms. Diane Riddle (SWRCB) re Cachuma Project RDEIR*. Sept. 27. [Attached.] ; Williams 2007 at 25.

Recent data from the lower Santa Ynez River confirms the need for measures beyond instream flow augmentation below Bradbury Dam.[121] The RDEIR notes that few spawning pairs have been found below Bradbury Dam in the 154 Reach though it "was selected as the index location for spawning and rearing habitat because it contains the best quality habitat available in the mainstem." (RDEIR at 4-65.) Recent trapping data from the main stem and tributaries below Bradbury Dam shows very few adult steelhead.[122] Snorkel surveys have identified adult trout in the Refugio and Alisal Reaches, however, very few redds have been observed in these reaches, and no additional information is provided to ascertain whether the observed adults are non-native or native, or whether they are resident or anadromous.[123] The best quality spawning habitat in the River below the dam is producing few spawning pairs of anadromous steelhead or redds under current flow conditions (i.e., the BO's instream flow schedule, which is the basis for 3 of the alternatives).[124] Only two fish (a 20.3" female trapped in Salsipuedes Creek on 4-15-06, and a 22.4" female captured on 1-28-06 in Hilton Creek) are identified as "steelhead" in the recently delivered trapping data and only four trapped fish exceeded the 525 mm threshold used in Robinson et al 2007 to define anadromous fish.[125] Thus, even after seven years of implementation the BO instream flow schedule does not appear to be resulting in any significant improvements in the steelhead population or protection of steelhead as a public trust resource, and measures beyond those required by the BO (i.e., Alternatives 3B, 3C and 4B) are necessary to fulfill the Project objectives.[126]

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[121] Santa Ynez River data was received in response to EDC's June 22, 2007 Public Records Act Request to CCRB. CCRB supplied data to EDC on approximately August 17, 2007. This data was provided to John Williams for his evaluation of the RDEIR. CCRB delivered additional data to EDC on September 25 at 6 p.m. As a result, this recently-delivered data was not available to John Williams when he conducted his evaluation.

[122] Robinson, Timothy H., Scott B. Engblom and Scott J. Valon (Cachuma Project Biology Staff). 2007. *Memo to David Boughton* (TRT Chairman, National Marine Fisheries Service). June 13. [Attached.]

See also Robinson, Tim (COMB). 2007. *2004-2007 Trapping Data*. (hereafter Robinson 2007a".) Delivered to EDC by CCRB on 9-25-07 in response to 6-22-07 Public Records Act request.

[123] Robinson et al. 2007; Robinson, Tim (COMB). 2007. *2004-2007 Snorkel Survey Data*. [Attached.]

[124] Data delivered by CCRB to EDC on September 25 provides more specific details about the fish that were trapped, but still does not provide evidence that BO flow conditions will protect steelhead as a public trust resource. This trapping data covered the same time period and streams as the data described in Robinson et al. 2007, but the two data sets are inconsistent. For instance, the data provided to EDC on 9-25-07 (Robinson 2007a) shows that only four fish over 525 mm were trapped (three of which were trapped in Hilton Creek) during 2004 to 2007. However, the Robinson et al 2007 trapping data indicates there were seven fish over 525 mm trapped (all in Salsipuedes Creek) during 2004 to 2007.

[125] Robinson 2007a. See also, Robinson et al 2007, which notes that many fish in the 300-525 mm range could have been anadromous but have not ben confirmed. However, only approximately 119 fish over 15" have been trapped in the Lower Santa Ynez River in 2004, 2005, 2006 and 2007.

[126] Williams 2007 at 24; Robinson et al 2007; Robinson 2007.

Recent trapping, snorkel and redd survey data shows that there has been no significant increase in adult steelhead in the main stem or tributaries. The number and distribution of smolts, juveniles and adults captured indicate an unsustainable population. For example, the highest number of juveniles (212) and smolts (138) captured in Hilton Creek was during 2007. Given the survival rate of 1% to 1.5%, this represents only 2-5 adult anadromous steelhead returning, which is not a sustainable population. Snorkel survey data showed up to 463 fish in the 0-3" range in Hilton Creek on 6-25-07. In May 2007 Salsipuedes Creek snorkel surveys estimated 151 fish in the 0-3" range. In May 2007 snorkel surveys estimated 9 fish in the 0-3" range in El Jaro Creek. June 2007 snorkel surveys in Quiota Creek estimated 59 fish in the 0-3"

Therefore, a strategy that includes consideration of fish passage around Bradbury Dam is necessary to protect steelhead as a public trust resource in the Santa Ynez River.[127]

EDC submitted evidence with our October 2003 comment letter demonstrating that there are several feasible methods of securing passage around Bradbury Dam and other dams in the Santa Ynez River watershed.[128] This evidence is still pertinent to the RDEIR. Similar evidence was also presented during the administrative hearing proceedings.[129]

Fish passage around Bradbury Dam is a critical element of steelhead restoration on the Santa Ynez River, in conjunction with protective instream flow requirements below Bradbury Dam. Further study is necessary to determine the most feasible methods of passage around Bradbury Dam. Mr. Ed Zapel, a civil engineer with over 20 years of experience in hydraulic, hydrologic, and fisheries engineering, has identified a potential plan for the comprehensive study of fish passage around Bradbury Dam.[130] This study plan is consistent with recommendations of CDFG.[131] The RDEIR should include the study of fish passage around Bradbury Dam as an alternative in conjunction with adopting protective instream flow standards and the other studies identified here.

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range. May 2007 mainstem surveys showed 0 fish <3". Total fish between 0-3" estimated in the lower river and tributaries in 2007 is 741. Applying the standard survival rates for juvenile steelhead to 741 fish, 7 to 11 adult steelhead would be expected to return from the 0-3" cohort. Snorkel survey data showed up to 1,386 fish in the 0-3" range on June 27, 2006 in Hilton Creek. Salsipuedes Creek snorkel surveys in July 2006 estimated 40 fish between 0 and 3". El Jaro Creek had 2 fish in the 0-3" range in July 2006. Ytias Creek was estimated to have 126 fish in the 0-3" range in July 2006. Surveys estimated 97 fish in the 0-3" range in Quiota Creek August of 2006. The Alisal Reach of the mainstem was snorkeled and had 3 fish in this size range in summer 2006; there were five 0-3" fish estimated in the Refugio Reach in June 2006 and 0 in the Avenue of the Flags Reach. Thus in 2006 when snorkel surveys were identifying the largest numbers of fish, 1,659 fish on 0-3" range were observed. Applying standard survival rates to these numbers equate to 16 to 25 returning adult steelhead from the 2006 0-3" range cohort. Similarly, snorkel surveys show that at any single time, only 58 fish between 12 and 21 inches were observed in any one reach of the mainstem (October 11 2006 in the 5-mile long Refugio Reach).

The NMFS southern California steelhead population Viability Criteria report identifies 4,150 fish per return-year (for a 3-year spawning steelhead) as a minimally viable population size. Seven years implementation of BO flows has resulted in just over one percent of that. This makes it clear that the BO flow schedule is meant to address conditions of "no [further] jeopardy" as opposed to "protection of public trust resources." That is, BO-specified flows were indicated as minimal to prevent the run from extinction, not to protect public trust resources.

[127] See also, Williams 2007 at 24-25.
[128] Zapel, Ed T. 2003. *Opinion of E.T. Zapel*. Oct. (Attachment 17 to EDC's October 2003 comment letter).
[129] Ex. No. CT 10 (Zapel).
[130] Zapel 2007 at 2-10.
[131] Ex. No. DFG 7.

A "Demonstration Flow Assessment" should be conducted to identify instream flow requirements necessary to fulfill the public trust objective.

EDC and CalTrout have previously urged that additional studies should be conducted to confirm the efficacy of any adopted instream flow schedule.[132] Rather than continued reliance on currently available predictive models, Williams (2007) recommends the use of a structured "Demonstration Flow Assessment."[133] The Demonstration Flow Assessment method for instream flow evaluation uses direct observation of river habitat conditions at several flows and expert judgment to rank the alternative flows.[134] The success of such an approach is contingent upon utilizing a "balanced group of experts insulated from outside interference," and following a program of actual adaptive management.[135]

A study of modifications to WR 89-18 must be conducted to fulfill the public trust objective and maximize the beneficial use of Cachuma Project water.

As described in EDC's October 2003 comment letter, at least one alternative that includes modification to WR 89-18 should be included for consideration in the EIR.[136] None of the alternatives identified in the RDEIR consider modifications to Order No. WR 89-18 for the purpose of protecting public trust resources. This Order did not weigh or consider public trust uses of the water, and may therefore be inappropriate in light of current knowledge and needs.[137] As discussed above, and in our October 2003 comment letter, these water rights releases may have adverse impacts on steelhead below Bradbury Dam. In addition, modifying the downstream water rights release schedule to fully coordinate with releases to benefit steelhead could fully maximize the amount of water available for both beneficial uses and thus reduce any potential water supply impacts from steelhead releases. Williams (2007) similarly recommends integrating WR 89-18 releases with fish releases, and identifies appropriate modeling techniques to evaluate such an approach.[138] The RDEIR should include the study of modifications to WR 89-18 in conjunction with the measures identified above.

Additional Water Conservation Studies

As discussed above, the Pacific Institute has determined that 5,000 to 7,000 AFY could be cost-effectively conserved by the Member Units by implementing existing

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[132] EDC October 2003 comment letter at 25; CalTrout Closing Brief at 9.
[133] Williams 2007 at 25-26.
[134] Id.
[135] Id. at 26. EDC and CalTrout commented regarding on Draft EIR's alternatives use of a flawed "adaptive management" program. EDC October 2003 comment letter at 14-16. These comments are still pertinent to the RDEIR.
[136] EDC October 2003 comment letter at 28-29 (referred to as CalTrout's "Maximum Beneficial Use Alternative.").
[137] *National Audubon, supra*, 33 Cal. 3d at 447.
[138] Williams 2007 at 26.

efficiency technologies and well- understood policies to promote water conservation. This information demonstrates that the alternatives in the RDEIR and CalTrout's Alternative 3A2 Modified for Dry Years can be implemented without significant impacts to water supply. To identify further potential water savings, additional study is recommended to identify additional conservation opportunities and to determine the mix of conservation options most appropriate for the individual Member Units.[139]

In sum, the RDEIR should be revised to include the following:

- An evaluation of the 3A2 Modified for Dry Years instream flow schedule;
- A study to determine the most feasible methods of fish passage around Bradbury Dam;
- A "Demonstration Flow Assessment" to confirm the efficacy of any adopted instream flow schedule and evaluate alternative flow schedules;
- A study of potential modifications to the WR 89-18 downstream water rights release schedule to evaluate alternative schedules that would minimize impacts to public trust resources and more effectively maximize the water available for fish releases and downstream water rights releases; and
- A study to identify potential water savings beyond the 5,000 to 7,000 AFY already identified by the Pacific Institute.

IX. The RDEIR Fails To Analyze Consistency With Applicable Plans And Policies And Fails To Acknowledge The Project's Inconsistency With Such Plans And Policies Resulting In A Potentially Significant Land Use Impact.

In our October 2003 comment letter, EDC previously commented that the Draft EIR did not analyze Land Use impacts, including conflicts with existing plans and policies. These comments are still pertinent to the RDEIR.[140]

X. Other Comments Regarding the RDEIR

Flood Control Impacts

EDC previously commented on the Draft EIR regarding potential flooding impacts.[141] These comments are still pertinent to the RDEIR. Additional concerns regarding the RDEIR's evaluation of flooding impacts are discussed above.

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[139] Cooley and Gleick 2007 at 17-18.
[140] CEQA Guidelines, App. G, Sec. IX.
[141] EDC October 2003 comment letter at 31-32.

Protection of public trust resources in other streams impacted by Cachuma Project

EDC previously commented on the Draft EIR regarding its failure to consider protection of public trust resources in other streams impacted by the Cachuma Project.[142] These comments are still pertinent to the RDEIR.[143]

RDEIR Section 7.0 – Cumulative Impacts

EDC previously commented on the Draft EIR regarding its failure to consider an ongoing vegetation removal project in the lower Santa Ynez River at Lompoc and the proposed Cachuma Resource Management Plan.[144] This comment is still pertinent to the RDEIR.

In addition, the RDEIR fails to analyze the cumulative impacts of Gibralter Dam, Jameson Dam, Alder Creek Diversion, Devil's Diversion and other upstream water diversion (e.g. No Name Creek) that affect surface flows into Cachuma (and thus affect frequency and rate of spill events, surcharging, lakeshore vegetation, water supplies and the amount of water available for fish). These upstream projects affect the same public trust resources and other environmental resources as the subject Cachuma Project, including native *O. mykiss* and surface water quality. These related water supply projects contribute to significant impacts to steelhead, *O. mykiss*, and other in-stream and riparian biological resources related to surface flows and migration, and must therefore be analyzed for the EIR's cumulative impact analysis to be complete and adequate.

Furthermore, existing and reasonably foreseeable future downstream water rights projects have been improperly excluded from the DEIR's and RDEIR's cumulative impact analysis. Specifically, the water projects listed on pages 3-1 through 3-3 of the RDEIR are closely related past, present and reasonably foreseeable cumulative projects that affect the same resources the subject Project affects, and they must therefore be analyzed in the RDEIR's cumulative impact analysis.

Project-related activities such as operation of Glen Annie Reservoir and other south coast dams which are part of the Cachuma Project must also be evaluated in the RDEIR. As an example, the habitats of federally-listed red-legged frog and other aquatic species may be damaged by the proposed continued operation of Glen Annie Dam and Reservoir, which are part of the subject Cachuma Project.

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[142] EDC October 2003 comment letter at 32.
[143] However, in response to EDC's comments the RDEIR does now acknowledge that continuous flows in the lower River would promote riparian vegetation that could stabilize River banks and reduce erosion. In addition, based on EDC's comments, the RDEIR has been revised to delete reference to clearing of riparian vegetation in the River by the County Flood Control District as a mitigation measure. (RDEIR at 4-17.)
[144] EDC October 2003 comment letter at 32-33.

The RDEIR does not reflect new data and information that is pertinent to the evaluation of the newly identified range of alternatives.

Almost 4 years have passed between the release of the August 2003 Draft EIR and the July 2007 RDEIR. Given this significant length of time, it is not surprising that new data and information relevant to evaluating the Project alternatives is now available. The Revised DEIR does include some new data and information. For example, the RDEIR updates the Draft EIR regarding the increased Cachuma surcharge, updated Cachuma Project annual deliveries, updated information regarding releases from Bradbury Dam, and updated information regarding available water supply.[145] (RDEIR at ES-1, 2-3, 2-7, and 4-19.) However, the RDEIR does not similarly include new data and information that is relevant to evaluate potential impacts from the RDEIR alternatives. For example, the Revised DEIR does not include data gathered since the Draft EIR that is pertinent to the status of steelhead in lower Santa Ynez River and the population's response to implementation of the BO instream flow requirements. The RDEIR also contains outdated information regarding the Member Units' water demand, and it also fails to consider best available science from NOAA Fisheries regarding recovery of southern California steelhead.

Throughout our comments, we have specifically identified new data and information that should be included to adequately evaluate the alternatives in the RDEIR. This information must be considered in order for the EIR to adequately inform and disclose the environmental impacts expected to result from the alternatives, including alternatives 5B and 5C.[146]

The RDEIR improperly describes the SYRTAC and its decision making role with respect to conditions for endangered steelhead.

Section 2.3 (page 2-11 et seq.) of the RDEIR describes the Santa Ynez River Technical Advisory Committee (SYRTAC), noting a distinction between committee members and nonmember "participants" (including CalTrout, other NGOs and other government agencies). The RDEIR also notes that the SYRTAC directs the studies performed under the 1994 MOU and directed the timing and amount of releases from the Fish Reserve Account each year. While this occurred from 1994 to about 2000, subsequent to that a much smaller subset of agencies created under a later MOU, called the "Adaptive Management Committee," assumed that role. (RDEIR at 2.4.2.5 "Adaptive Management Account.") The RDEIR does not make it clear that primary responsibility for determining flow and other conditions for steelhead shifted from the SYRTAC to the AMC. One consequence of this shift is that CalTrout and other NGO groups had little to

[145] As discussed above, although the RDEIR does update water supply data, it is still outdated, and does not reflect more recent demand projections identified by the Member Units themselves.
[146] *Berkeley Keep Jets over the Bay Com. v. Board of Port Comrs.*, 91 Cal. App. 4th 1344, 1367 (Cal. Ct. App. 2001) (Use of scientifically outdated information is not a "reasoned and good faith effort to inform decisionmakers and the public" about the consequences of a project).

no opportunity to influence decision making on conditions for steelhead in the Santa Ynez River after about 2000, when the SYRTAC ceased to meet regularly.

The RDEIR may not reflect the independent judgment of SWRCB.

CEQA Section 21082.1 authorizes a lead agency to utilize information prepared by any person, but requires the lead agency to "independently review and analyze" such information. CEQA Guidelines specifically require that:

> Before using a draft prepared by another person, the Lead Agency shall subject the draft to the agency's own review and analysis. The draft EIR which is sent out for public review must reflect the independent judgment of the Lead Agency.[147]

EDC has previously raised concerns that the SWRCB's reliance on Stetson Engineers, Inc. ("Stetson") and Entrix, Inc. ("Entrix") to draft portions of the EIR is inappropriate because both of these consultants have been retained by the Member Units to represent the Member Units' interests during the Cachuma Water Rights Hearing.[148] We remain concerned about this approach as the RDEIR continues to rely upon methodologies and conclusions developed by Stetson and Entrix without discussing or addressing criticisms raised regarding these consultants' products via comment on the Draft EIR and in the course of the administrative hearing proceedings.

For example, although multiple parties (including the Department of Fish and Game and NOAA Fisheries) criticized Entrix's "top width" method of evaluating changes to steelhead habitat, this methodology is still applied to evaluate the new and remaining alternatives in the RDEIR.[149] (RDEIR at 4-65.) The RDEIR does not identify or otherwise address the criticisms raised regarding this methodology. The RDEIR also continues to rely on Entrix's preferred temperature criteria to conclude that "[t]he Highway 154 Reach is about the limit of where releases from Bradbury Dam can provide water temperatures in the preferred range for steelhead/rainbow trout." (RDEIR 4-70.) This discussion fails to acknowledge information raised during the prior administrative proceedings that Entrix's temperature criteria are not based on any definitive data, and that rainbow trout/steelhead have been observed to survive and grow during summer

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[147] See also, CEQA Guidelines § 15084(e).

[148] Kraus, Karen M. (EDC). 2007. *Letter to Victoria A. Whitney (Chief, Division of Water Rights, SWRCB) Re Environmental Impact Report for Consideration of Modifications to the U.S. Bureau of Reclamation's Water Rights Permits 11308 and 11310 (Application 11331 and 11332) To Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir).* Jan. 17.

[149] See, e.g., Keegan 2003 (Attachment 19 to EDC's October 2003 comment letter); Exhibit No. CT-30 (Keegan); Oral testimony of Dr. Li at RT:937 ("the top width is a poor habitat index because it is inconsistent, doesn't take into consideration the parameters that are relevant to steelhead directly"); and oral testimony of Dr. Titus at RT:593-594 (Top width method suitable to describe only basic attributes of steelhead habitat.).

months downstream of the Highway 154 Reach at temperatures in excess of Entrix's temperature criteria.[150]

Similarly, the analysis of potential water supply impacts (based on Stetson's technical analysis) continues to rely on inaccurate demand projections without addressing criticisms of these projections identified by the Pacific Institute.[151] The Revised DEIR does acknowledge the Pacific Institute's conclusion that the Member Units' water consumption could be reduced by 5,000 to 7,000 acre feet through simple conservation measures, but brushes it aside with the mere statement that the Member Units dispute this, and the unsupported assertion that a drought in the near future might undercut the ability to achieve such reductions. (RDEIR at 4-32.) Not only do these conclusory statements overlook a number of other criticisms raised by the Pacific Institute, they also reflect an apparent lack of any independent assessment of the potential water supply impacts.

EDC formally submitted its concerns regarding the SWRCB's decision to rely on Stetson and Entrix for the Revised DEIR in January of 2007. SWRCB staff responded in March that CEQA guidelines authorize the participation of Stetson and Entrix, and that EDC's submission was "untimely" as the 2003 Draft EIR lists both consultants as preparers of that document.[152] We understand that CEQA and its implementing regulations provide some flexibility regarding what persons may prepare an EIR. However, in this case, the SWRCB has made some effort to ensure that even the "applicant" – i.e., the Bureau of Reclamation – does not unduly influence the content of the EIR or retain an unfair advantage over the other parties. The 2004 Supplemental Statement of Responsibilities for preparation of the Cachuma EIR, for example, prohibits the Bureau's own contractor – URS – from communicating with the Bureau regarding the "analytical or other substantive work" it performs, and it requires URS to report directly to the SWRCB, rather than the Bureau.[153] The Bureau explicitly allied itself with the Member Units' interests in this matter when these parties jointly presented their testimony during the Cachuma Water Rights Hearing.[154] Thus, the Member Units should be treated similarly to the Bureau in this regard.

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[150] See, e.g., Exhibit No. MU 224 (Hanson); at 13 RT:279 (Hanson) (discussing observations of juvenile fish in Highway 154 Reach in water temperatures "we thought were in excess of the general guidelines established").

[151] Haasz and Gleick 2003 (Attachment 18 to EDC's comment on the 2003 Draft EIR); Exhibit No. CT-50 (Haasz and Gleick).

[152] Whitney, Victoria A. (Chief, Division of Water Rights, SWRCB). 2007. *Letter to Karen M. Kraus (EDC) Re Environmental Impact Report for Consideration of Modifications to the U.S. Bureau of Reclamation's Water Rights Permits 11308 and 11310 (Application 11331 and 11332) To Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir).* Mar. 19.

[153] Supplemental Statement of Responsibilities at ¶ 4-5.

[154] See, e.g., RT:15-16 (Discussing Bureau's intention to jointly present testimony with Member Units during Hearing).

Even without this explicit alliance, allowing Stetson and Entrix, the paid private consultants for the Member Units, to participate in the preparation of the SWRCB's EIR is still improper because it provides a single party in these multi-party proceedings with a potentially unfair advantage, and it undercuts the SWRCB's "final authority over scope and content, including determination of the significance of environmental impacts."[155] The RDEIR bears out our concerns that the participation of these consultants could improperly influence the contents of the EIR. Furthermore, as discussed above, EDC raised its substantive concerns regarding these consultants' work for the 2003 Draft EIR in its comment letter and during the administrative hearing proceedings. EDC identified its concerns regarding Stetson and Entrix's involvement with the RDEIR in a timely manner following our initial finding that Stetson and Entrix would be involved in preparing the RDEIR and discussion with SWRCB staff regarding the specifics of this matter.[156]

XI. Conclusion

For the reasons discussed above, the Draft EIR and the RDEIR are inadequate for the SWRCB to rely on in making a final decision regarding modification of BOR's permits. The EIR should be revised consistent with our comments below and recirculated for public review and comment prior to certification.

Sincerely,

/s/
Karen M. Kraus
Staff Attorney

/s/
Brian Trautwein
Environmental Analyst

Attachments (electronic files)

[155] Supplemental SOR at ¶ 4.
[156] EDC first became aware that Stetson and Entrix were involved in preparation of the Revised DEIR in late July 2006 when it was mentioned in passing by SWRCB staff during a conversation with Craig Fusaro of CalTrout regarding the yet to be released RDEIR. EDC and CalTrout subsequently followed up with SWRCB staff and staff counsel to confirm the information and determine the staff's understanding regarding whether these consultants' involvement complied with the terms of the 2004 Supplemental Statement of Responsibilities. These discussions took place during August through November of 2006.

List of Attachments

Boughton, David et al. 2005. *Contraction of the Southern Range Limit for Anadromous Oncorhynchus Mykiss*. Aug.

Boughton, David et al. (NOAA Fisheries TRT). 2006. *Steelhead of the South-Central/Southern California Coast: Population Characterization for Recovery Planning*. Oct.

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Cooley, Heather and Peter Gleick. 2007. *Comments on the Revised Draft EIR for the Cachuma Water Rights Hearing*. Sept. 27.

Ferguson, Bill (City of Santa Barbara). 2007. *E-mail to Das Williams, Santa Barbara City Council Member*. Sept. 14.

Moyle, Peter B. 2007. *Letter to Ms. Diane Riddle (SWRCB) Re: Santa Ynez River, Williams Analysis*. Sept. 26.

NOAA Fisheries. 2007. *2007 Federal Recovery Outline for the Distinct Population Segment of the Southern California Coast Steelhead* at 31-35. Sept.

Robinson, Tim (COMB). 2007. *2004-2007 Snorkel Survey Data*.

Robinson, Timothy H., Scott B. Engblom and Scott J. Valon (Cachuma Project Biology Staff). 2007. *Memo to David Boughton (TRT Chairman, National Marine Fisheries Service.* June 13.

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Santa Barbara County Public Works Department. _____. *Santa Barbara County Climate.* Webpage: http://www.countyofsb.org/pwd/water/climatology.htm. Viewed Sept. 17, 2007.

Santa Barbara County Water Agency. _____. *Water Resources of Santa Barbara County*. Downloaded Sept. 26, 2007 from: http://www.countyofsb.org/pwd/water/downloads/Part%204%20(Water%20Supplies%20-%20Surface%20Water,%20SWP,%20Desal;%20Water%20Quality).pdf.

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Williams, John. 2007. *Letter to Ms. Diane Riddle (SWRCB) re Cachuma Project RDEIR.* Sept. 26.

Zapel, Ed. 2007. *Letter to Ms. Diane Riddle (SWRCB) re Cachuma Project RDEIR*. Sept. 27.