

CACHUMA  
CONSERVATION  
RELEASE BOARD

City of Santa Barbara

Goleta Water District

Montecito Water District

May 31, 2011

**VIA MAIL, FAX (916.341.5400) AND  
EMAIL (JFarwell@waterboards.ca.gov)**

Ms. Jane Farwell  
Water Rights Section  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812-2000

Re: Comments on April 2011 2nd Revised Draft Environmental Impact Report for Consideration of Modifications to the United States Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332), State Clearinghouse No. 1999051051)

Dear Ms. Farwell:

The Cachuma Conservation Release Board ("CCRB") appreciates the opportunity to provide comments to the State Water Resources Control Board ("State Board") on the above-referenced 2<sup>nd</sup> Revised Draft Environmental Impact Report ("2011 RDEIR") for proposed modifications to water right permits 11308 and 11310 held by the United States Bureau of Reclamation ("Reclamation") for the Cachuma Project. The proposed actions examined in the 2011 RDEIR are referred to in this letter as the "Project."

CCRB commented on the 2003 DEIR and the 2007 RDEIR for the Project. The State Board's notice accompanying release of the 2011 RDEIR states that the comments made on those prior draft EIRs will be combined and responded to in the Final EIR ("FEIR"). The notice also requests that reviewers limit their comments to Sections 4.3 and 6.0 of the 2011 RDEIR. Accordingly, CCRB will not repeat its prior comments except insofar as they may be relevant to Sections 4.3 and 6.0. In order to ensure that the 2011 RDEIR accurately and comprehensively considers the potential impacts of a State Board water right decision in relation to the Project, CCRB is also submitting technical comments in the appendix enclosed with this letter (Appendix A).

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## I. BACKGROUND

CCRB is a joint powers agency established in January 1973. Its member agencies currently include the City of Santa Barbara, Goleta Water District and the Montecito Water District. CCRB was established to represent its members in protecting their Cachuma Project water entitlements and other related interests. CCRB, the Santa Ynez River Water Conservation District, Improvement District No. 1 (“ID No. 1”), and the Carpinteria Valley Water District are the Cachuma Project Member Units (“Member Units”). The Member Units have been leaders in developing and implementing water conservation programs for more than 30 years. Notwithstanding their extensive water conservation efforts, however, the Member Units face substantial water supply impacts in connection with the alternatives discussed in the 2011 RDEIR.

The history of the water right permits for the Cachuma Project is relevant to the environmental review process for the Project. That history is described in CCRB’s September 27, 2007 comment letter on the 2007 RDEIR and will not be repeated in detail here. The following brief historical summary is submitted to provide context for CCRB’s comments on the 2011 RDEIR, set forth below.

In WR 94-5, the State Board ordered Reclamation to submit information developed pursuant to a 1994 Memorandum of Understanding (“MOU”) executed by Reclamation, representatives of all the downstream water right interests, the City of Lompoc, the Member Units, the California Department of Fish and Game and the United States Fish and Wildlife Service. The State Board also ordered Reclamation to submit information developed and conclusions reached during negotiations among Lompoc and the Member Units relating to water quantity and quality issues raised with respect to the Lompoc Plain. As directed by the State Board, the parties to the 1994 MOU conducted studies and worked together to develop and implement a Fish Management Plan (“FMP”). The FMP protects and provides habitat for steelhead in the Santa Ynez River below Bradbury Dam through a combination of measures including releases of water stored behind the Dam in Lake Cachuma.

During development of the FMP, the National Marine Fisheries Service (“NMFS”) listed the Southern California Evolutionary Significant Unit of steelhead (“steelhead”) as an endangered species under the federal Endangered Species Act. The parties to the 1994 MOU worked with NMFS to develop a Biological Opinion (“BO”), issued on September 11, 2000, that provided for steelhead protection consistent with the FMP. The FMP and BO, which were presented to the State Board, provide for releases below Bradbury Dam as provided in Alternative 3C in the 2007 RDEIR and the 2011 RDEIR.

The release regime specified in the FMP and BO also formed the basis for negotiations among downstream water right interests and the Member Units relating to resolution of their outstanding water quantity and quality issues. These negotiations culminated in the execution of a Settlement Agreement dated December 17, 2002 between CCRB, the Santa Ynez River Water

Conservation District, the Santa Ynez River Water Conservation District Improvement District No. 1 and the City of Lompoc relating to operation of the Cachuma Project (“Settlement Agreement”). The Settlement Agreement is the first and only time since proceedings concerning Santa Ynez River flows below Bradbury Dam commenced before the State Board that Reclamation, the Member Units and all downstream interests have been in agreement on a regime for operation of the Cachuma Project that protects downstream water right interests that is consistent with the protections for steelhead and other public trust resources set forth in the FMP and the BO.<sup>1</sup>

## II. COMMENTS ON THE 2011 RDEIR

### A. The 2011 RDEIR Addresses Concerns Raised by CCRB that the Project Description Set Forth in the 2007 RDEIR Did Not Permit Meaningful Public Review of the Project.

By letter dated September 27, 2007 from Gregory K. Wilkinson to State Board staff member Diane Riddle (“2007 Comment Letter”), CCRB and ID No. 1 provided extensive comments on the July 2007 Revised Draft Environmental Impact Report (“2007 DEIR”) for the subject project. In the 2007 Comment Letter, CCRB criticized the 2007 DEIR for failing to develop and maintain a stable project description. (2007 Comment Letter pp. 7-12). In this regard CCRB asserted that the DEIR should (i) identify Alternative 3C, as supplemented by Reclamation’s recommended modifications to WR Order 89-18, as the project description and the preferred alternative; and (ii) recognize and acknowledge the Settlement Agreement. (*Id.* at 10). The 2007 Comment Letter states: “Alternative 3C incorporates the core elements of the Settlement Agreement, for which CEQA compliance has already been completed, and represents the only “project” resembling what the Permittee (Reclamation) and other parties (the Cachuma Member Units and downstream water rights interests) have presented for the Board’s consideration. This will also allow a proper environmental analysis by way of comparing Alternative 3C to the other alternatives.” (*Id.*)

CCRB concurs with the revised description of Alternative 3C contained in the 2011 RDEIR and the designation of Alternative 3C as the No Project Alternative (subject to CCRB’s comment, set forth below, that the Final EIR should explicitly recognize that the continuing implementation of Alternative 3C will have fewer environmental effects than would implementation of Alternative 4B). Accordingly, CCRB believes that the 2011 RDEIR develops and maintains a stable project description, in compliance with CEQA.

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<sup>1</sup> The provisions of the Settlement Agreement were described in detail in the most recent hearing on the Cachuma Project (MU Exhibit 220; R.T. 202-218). The changes to Reclamation’s permits that are required to implement the Settlement Agreement were described by Ms. Struebing (R.T. 218-220; DOI Exhibit 10) and are particularly described as technical amendments to WR 89-18 in Exhibit “C” to the Settlement Agreement.

**B. The 2011 RDEIR Addresses CCRB's Concern that the 2007 RDEIR Failed to Describe the Project Objectives Clearly.**

CCRB previously commented that the 2007 RDEIR did not clearly identify the specific objectives sought to be achieved by the project in order to guide the alternatives and inform the public of the goals behind the Project. (2007 RDEIR Comments, p. 12.) The RDEIR, in general, appears to have addressed CCRB's concerns by confirming that the Project objectives include protection of public trust resources, taking into consideration impacts to water supply, as well as protection of senior water right holders' water quantity and quality. (2<sup>nd</sup> RDEIR, p. 3.0-2.) .

**C. The Final EIR Should Recognize that Alternative 3C Meets All Project Objectives, and that the Continuing Implementation of Alternative 3C will have Fewer Environmental Effects than the Implementation of Alternative 4B.**

The 2007 Comment Letter stated, among other things, that, based on updated water supply and demand numbers for the Member Units, the impact analysis in the 2007 DEIR indicated that there will be significant water supply shortages under *all* of the proposed alternatives described in the 2007 DEIR and that such shortages could not be made up by the measures suggested in the 2007 DEIR. The 2007 Comment Letter further stated that, although the Member Units cannot fully endorse Alternative 3C as described in the 2007 DEIR because of its significant water supply impacts, it is the one alternative that most clearly reflects Cachuma Project operations under existing water rights, the NMFS 2000 BO, the FMP and the Settlement Agreement. As stated in the 2007 Comment Letter at page 2: "The Member Units have learned to operate within the water supply impacts resulting from Alternative 3C and the sharing of those impacts formed a large part of the negotiations that produced the Settlement Agreement."

Under existing water right terms and conditions as set forth in WR Order 89-18, flow releases and other protective measures required by the BO and FMP, and through mechanisms provided by the Settlement Agreement, the Member Units have accepted the challenge to meet their water supply obligations even during severe droughts. The core elements of this operating regime are contained in the flow releases described in Alternative 3C, which were carefully developed over many years using a peer-reviewed hydrologic model that underwent extensive study and refinements prior to its application to the release requirements specified in the BO and FMP. The Member Units have already implemented the flow requirements required by the BO, as set forth in Alternative 3C, which are additive to existing water right releases under WR Order 89-18. These operations have been highly successful in protecting steelhead as important public trust resource downstream of Bradbury Dam. The flow requirements in Alternative 3C have resulted in increased steelhead/rainbow trout habitat and steelhead/rainbow trout population in the lower Santa Ynez River and its tributaries.

In its 2007 Comment Letter, CCRB criticized the 2007 DEIR for not adequately considering the importance of the Settlement Agreement. (2007 Comment Letter, p. 3). The Settlement Agreement ended more than 50 years of water wars on the Santa Ynez River by resolving

differences among the south coast water agencies, the Santa Ynez River water agencies and the City of Lompoc. The Settlement Agreement resolved the water quality concerns of the City of Lompoc, one of the State Board's stated goals under WR 94-5, and brought agreement among all parties on how the Cachuma Project should be operated. The Settlement Agreement is supported by extensive studies, hydrologic modeling, and negotiations that took place over several years to reach historic resolution among the parties for the protection of public trust resources *and* downstream water rights. It constitutes a complete water rights agreement between CCRB, ID No. 1, the Santa Ynez River Water Conservation District and the City of Lompoc as required by WR Order 94-5. It is fully endorsed by the Cachuma Member Units, Reclamation, the City of Solvang and the City of Buellton. As noted above, Alternative 3C as described in the 2011 RDEIR is the only alternative that encompasses operations under the Settlement Agreement and enables the parties to implement its terms. CCRB strongly supports the minor changes to WR 89-18 that were proposed by Reclamation and effectuated by the Cachuma Member Units in order to implement the provisions of the Settlement Agreement and it urges the State Board to incorporate those changes in any final water decision it may adopt.

Other parties to this proceeding have previously commented that implementation of Alternative 4B is not realistic. (2007 SYRWCD RDEIR Comments, p. 13.) These previous comments also noted that former Alternative 4A was not included in the 2007 RDEIR because the City of Lompoc decided not to pursue a State Water Project water supply, and that Alternative 4B should not be included for similar reasons. (*Id.*) Finally, the previous comments pointed out that, "in lieu of Alternative 4B, Lompoc has entered into a Settlement Agreement with the downstream water right interests and the Member Units, which Reclamation has endorsed, that provides for modifications to WR 89-18 in light of the Biological Opinion to the satisfaction of Lompoc and all downstream water right interests. The Settlement Agreement resolves Lompoc's claims and protests relative to the operation of the Cachuma Project, including with respect to water quality, as provided in Paragraph 3 of the Agreement." (2007 SYRWCD RDEIR Comments, p. 14.) Nothing has changed in this regard. Like the 2007 RDEIR, the 2011 RDEIR acknowledges that "[t]he City of Lompoc, through its legal representative, has notified the SWRCB in a letter regarding the EIR dated June 18, 1999, that the City does not consider this alternative to be feasible because the residents of the City have twice rejected SWP water as a new water supply." (2011 RDEIR, p. 3.0-18.)

The 2011 RDEIR states that "[a]s Alternative 3C is the No Project Alternative, Alternative 4B would be the environmentally superior alternative as *State CEQA Guidelines* requires that another alternative other than the No Project be identified among the other alternatives if the No Project is environmentally superior." (*Id.*, citing California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines* (the "CEQA Guidelines"), Section 15126.6(e)(2)). CCRB concurs with the revised description of Alternative 3C contained in the 2011 RDEIR and the designation of Alternative 3C as the No Project Alternative. Even though the CEQA Guidelines require the identification of Alternative 4B as the "environmentally superior alternative," the SWRCB should recognize in the Final EIR that

the continuing implementation of Alternative 3C will have fewer environmental effects than the implementation of Alternative 4B. The simplest way to incorporate this consideration in the Final EIR is through a discussion comparing Alternatives 3C and 4B. (See 1 Kostka & Zischke, *Practice Under the California Environmental Quality Act* §15.37, p. 770 (discussing compliance with CEQA Guidelines §15126.6(e)(2) by means of a textual discussion of the advantages and disadvantages of each alternative).) The discussion of this issue on page 6.0-3 of the 2011 RDEIR makes this point in a general fashion but does not clearly inform the public that the implementation of Alternative 3C will have the fewest possible effects on the environment while still meeting the Project's objectives. The Final EIR should explicitly draw this conclusion. For this reason, CCRB believes that CEQA requires the SWRCB to use Alternative 3C as the basis for its water right decision.

**D. The 2011 RDEIR Should Clearly State that Alternatives 5B and 5C are Environmentally Inferior to Alternative 3C.**

In its 2007 Comment Letter, CCRB criticized the 2007 RDEIR's impact analysis of Alternatives 5B and 5C on the ground that the 2007 RDEIR,

shows these new alternatives have greater water supply impacts than Alternative 3C, yet fails to acknowledge that such impacts may be grossly underestimated because the flow regimes for these alternatives have not been carefully developed and analyzed over time, and have not been subject to the extensive study needed to determine how they work or what their true impacts may be. The hydrologic modeling used in developing Alternatives 5B and 5C has not undergone peer review, nor has it gained acceptance by the scientific community, as was done for the flows developed for Alternative 3C. Nor have the target flow components of these new alternatives been evaluated against the flow requirements in the BO. In short, not enough is known about the workings of Alternatives 5B and 5C to consider them as feasible alternatives because in-depth analysis of these alternatives has not been performed and there is no agreement on the magnitude of their impacts. The 2007 DEIR's analysis of Alternatives 5B and 5C lacks adequate scientific foundation. (2007 Comment Letter pp. 2-3)

CCRB has carefully reviewed the water supply impact analysis for Alternatives 5B and 5C contained in the 2011 RDEIR. Subject to the technical comments set forth in Appendix A, CCRB concludes that the water supply analysis for Alternatives 5B and 5C has adequate scientific foundation with respect to the impact of those alternatives on Cachuma Member Unit water supplies. Importantly, however, that foundation confirms that Alternatives 5B and 5C:

[W]ould result in potential shortages in supply during dry years that could require new sources of water, which could result in **significant and unavoidable (Class I)** impacts attributable to increased groundwater pumping, temporary water transfers, and desalinization. 2011 RDEIR, p. 6.0-2 (emphasis in original).

The 2011 RDEIR should clearly state that Alternatives 5B and 5C are environmentally inferior to Alternative 3C which meets the proposed Project objectives without creating the Class I water supply impacts to the Member Units that are associated with Alternatives 5B and 5C.

**E. Reservoir Surcharge.**

In its 2007 Comment Letter, CCRB criticized the 2007 RDEIR for the “confusing and vague analysis of reservoir surcharging at Lake Cachuma—which the 2007 RDEIR includes as a basic element of each project alternative.” (2007 Comment Letter, p. 11). The 2007 Comment letter cites correspondence indicating that, from the State Board’s standpoint, the Project does not necessarily entail surcharging Cachuma Reservoir. The 2007 RDEIR acknowledged that Reclamation has already conducted an environmental review of the federal surcharging project as part of the EIR/EIS developed for the steelhead Biological Opinion and FMP, and that Reclamation is implementing those operations independently of the Project under consideration by the State Board.

The 2011 RDEIR incorporates a 3.0 foot surcharge into its description of Alternative 3C as the No Project alternative. (DEIR, p. 3.0-9.) Unfortunately, however, the 2011 RDEIR continues to utilize a 1.8 foot surcharge in its description of Alternatives 3B and 5B. *Id.* It does this while recognizing that Reclamation has already increased the potential to surcharge Lake Cachuma from 0.75 to 2.47 feet and now can implement a 3.0 foot surcharge. (*Id.*, p. 2.0-25). The Final EIR should clarify the current facts regarding the surcharging of Cachuma Reservoir particularly in relation to Alternatives 3B and 5B.

**F. Analysis of Alternatives.**

In its 2007 Comment Letter, CCRB criticized the alternatives analysis contained in the 2007 RDEIR on the grounds that (1) the 2007 RDEIR’s analysis of the No Project Alternative was flawed; (2) the 2007 RDEIR’s failure to establish a definite project description has produced several legal and logical infirmities in the alternatives analysis; and (3) the analyses of Alternatives 5B and 5C to the 2007 RDEIR were not supported by substantial evidence. (2007 Comment Letter, pp. 15-18).

Except for the continued inclusion of Alternatives 3B and 5B, for the reasons expressed above, CCRB believes the 2011 RDEIR adequately addresses these concerns. The characterization of Alternative 3C as the No Project alternative appears to be appropriate given that Reclamation has, for years, abided by the terms of the Settlement Agreement, including the Agreement’s incorporation of the terms of the NMFS 2000 steelhead BO. The Settlement Agreement and NMFS’s 2000 BO now are expressly incorporated into Alternative 3C. Further, as described above, incorporation of the Settlement Agreement into Alternative 3C and the designation of that alternative as the “No Project” alternative result in a stable project description that permits meaningful public review of the Project. Finally, CCRB believes the 2011 RDEIR provides an adequate foundation for the review of Alternatives 5B and 5C and that the resulting review

shows—as the 2011 RDEIR recognizes—that Alternatives 5B and 5C result in Class I water supply impacts that render them environmentally inferior to Alternative 3C.

**G. The 2011 RDEIR Does Not Adequately Account for the Integration of Steelhead/Rainbow Trout life Stages and the Relationship of other Aspects of Habitat on Steelhead/Rainbow Trout Production in the Impact Analysis.**

The analysis of the alternatives on steelhead spawning and rearing in the Lower Santa Ynez River is divided into three separate analyses summarized in Tables 4-43 – 4-45 (RDEIR pages 4.7-46 – 4.49; see also Figure 1 below). The separate analyses conclude that all four alternatives result in a beneficial effect on steelhead spawning and rearing compared to baseline operations with “Alternatives 5B and 5C showing the most benefits to rearing” (page 4.7-49, paragraph 4). We disagree with this statement in that in our estimation this analysis should integrate all lifestages and habitat relationships of steelhead/rainbow trout in the Lower Santa Ynez River and account for habitat bottlenecks when evaluating the alternatives.

A habitat bottleneck can occur when the key habitat for an important lifestage is in short supply, or limiting, and affects the population dynamics to the point that the limitation is seen in the adult population (Bovee, et al. 1988).<sup>2</sup> The limiting lifestage, and the associated habitat, therefore affects the population size of the next lifestage. Summer rearing habitat is a key habitat that potentially limits the juvenile population of southern steelhead (Boughton and Goslin 2006).

CCRB agrees with the analysis that all alternatives result in a beneficial effect on steelhead/rainbow trout spawning over baseline conditions. We note that the differences in habitat improvement for spawning between Alternatives 5B and 5C and Alternatives 3B and 3C are insignificant. Examination of Table 4-43 reveals that Alternatives 5B and 5C are superior to Alternatives 3B and 3C (based on the scoring criteria) in only 6 percent of the years. This improvement, however, is offset by an increased frequency of years receiving a score of 1 (2.6 percent of years as compared with Alternatives 3B/3C). Increasing the frequency of years with poor habitat is likely to have a greater impact to steelhead/rainbow trout spawning and survival than increasing the number of years with scores of 4 to 5. The analysis does not consider the greater impact to the population at the lower end of the scale in evaluating the scores.

In examining the impacts to rearing habitat, the analysis should account for habitat bottlenecks which, in the Santa Ynez River, occur during the juvenile lifestage. While Alternative 5C shows

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<sup>2</sup> References are to the following scholarly articles: Boughton, D.A. and M. Goslin. 2006. Potential steelhead over-summering habitat in the Southern-central/Southern California Coast Recovery Domain. NOAA-TM-NMFS-SWFSC-391; Bovee, K.D., B.L Lamb, J.M. Bartholow, C.B. Stalnaker, J. Taylor and J. Henriksen. 1998. Stream habitat analysis using the instream flow incremental methodology. U.S. Geological Survey, Biological Resources Division Information and Technology Report USGS/BRD-1998-0004. Viii + 131 pp.



a slight advantage over Alternatives 3B, 3C, 4B and 5B for fry rearing (RDEIR Table 4-44; Figure 1 below), Alternatives 3B, 3C and 4B have an advantage over Alternatives 5B and 5C for juvenile rearing (RDEIR Table 4-45; Figure 1 below). Habitat bottlenecks during the juvenile lifestage affect later life stages, i.e., the adult steelhead population size. This would eliminate any minor advantage that could accrue for steelhead during the spawning or fry stage. Steelhead fry produced during the spring grow into juvenile fish and continue to reside in the River through the fall and into the winter when habitat is limited. Thus, any additional fry produced under Alternatives 5B or 5C must pass through a habitat bottleneck occurring during the juvenile rearing stage. Alternatives 3B and 3C and Alternatives 5B and 5C provide similar flows in fall and winter. Therefore, in view of the potential limitations to juvenile rearing in the lower Santa Ynez River, Alternative 5B or 5C would not be expected to increase production relative to Alternative 3B or 3C, since the same habitat limitation would apply at the juvenile rearing stage. These considerations indicate that it is unlikely that Alternatives 5B and 5C will provide any additional benefit to steelhead/rainbow trout over Alternatives 3B and 3C.

CCRB concurs with the statement that additional flow from Alternatives 5B and 5C would not necessarily provide favorable rearing conditions in the Alisal Reach. As discussed in the 2011 RDEIR, the limited habitat potential of this reach was also recognized in the Biological Opinion which placed this reach at the low level of priority.

**H. The 2011 RDEIR Does Not Include an Analysis of the Potential for Increased Predation and Competition on Southern Steelhead Resulting from the Alternatives.**

Predation of steelhead/rainbow trout and other listed species (e.g. red-legged frog) is discussed in a number of places within the 2011 RDEIR; however the potential for increased predation resulting from the alternatives is not included in the alternatives analyses. Page 4.7-23 discusses particularly predation of steelhead juveniles by largemouth bass and bullfrogs and the increases in the populations of both introduced species in the lower river, concluding that “increased abundance and distribution of these piscivorous fishes and their impacts on *O. mykiss* warrants further study and active management to reduce the impacts of predaceous fishes may be necessary.” Page 4.7-49 notes that predatory fish may limit steelhead/rainbow trout use in the Refugio, Alisal and Highway 154 Reaches and that bullfrogs “prosper in areas that are wetted year round.” Page 4.7-51 concludes that “the additional flow provided under Alternatives 5B and 5C would likely provide slightly more pool depth within the Alisal Reach, which should ...increase habitat space for these warm water fish in spill years and the year following a spill year.” The alternatives analysis does not include the impact of this increased habitat for predators on the survival of southern steelhead. Although we agree that improved pool habitat has the potential to provide a benefit to all fish, the impact of increased predation must be considered in the overall impact analysis. Furthermore, even in the absence of active predation, there is no guarantee that additional pool habitat would be occupied with additional steelhead/rainbow trout.

Competition and carrying capacity limitations also can affect the habitat available for native fish. These factors also are not considered in the alternatives analyses.

Section 6 of the 2011 RDEIR evaluates and contrasts the alternatives under the State CEQA Guidelines. Among the findings, Alternatives 3B, 5B and 5C would result in Class I impacts due to potential shortages in water supply during dry years that could require new sources of water. It also concludes that the potential impacts to steelhead/rainbow trout and other fishes is the same across all alternatives (i.e. Class IV, Beneficial). We agree with the summary of these findings and conclude that Alternative 3B/C provides benefits to steelhead/rainbow trout that are equivalent to those of Alternative 5B/C.

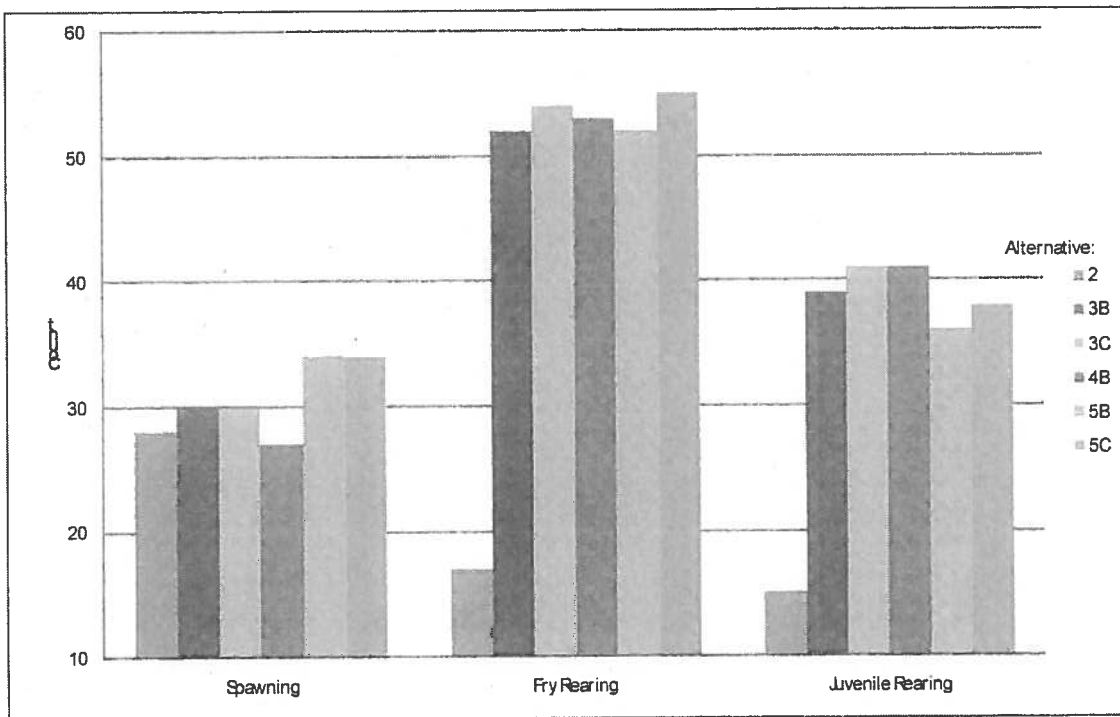


Figure 1. Combined frequency of scores 4 and 5 from RDEIR Tables 4-43-4-45.

**I. Miscellaneous Comments and Suggested Corrections.**

The 2011 RDEIR contains the following erroneous references to entities involved in this proceeding, which should be corrected:

p. 2.0-33, last paragraph, line 3, revise to read: "In 2008, the Cachuma Operation and Maintenance Board (COMB) completed the removal of crossing #6. . ."

p. 2.0-44, first paragraph under Settlement Agreement, revise to read: "In 2002, the Cachuma Project Settlement Agreement was approved by the Cachuma Conservation Release Board (CCRB), the Santa Ynez River Water Conservation District (SYRWCD), the Santa Ynez River Water Conservation District Improvement District No. 1 (ID No. 1), and the City of Lompoc (the Parties)."

p. 3.0-15, fourth paragraph, line 2, revise to read: "...of the 2002 Settlement Agreement reached between CCRB, SYRWCD, ID No. 1, and the City of Lompoc."

p. 4.2-13, second paragraph, line 3, revise to read: "The SYRTAC was composed of technical experts representing Reclamation, Department of Fish and Game, U.S. Fish and Wildlife Service, CCRB, ID No. 1, SBCWA, SYRWCD, City of Lompoc, and interested environmental agencies."

p. 4.13-23, CCRB paragraph, revise to read: "The Cachuma Conservation Release Board is a joint powers agency formed in January 1973 between the Carpinteria Valley Water District, Goleta Water District, the City of Santa Barbara, Montecito Water District, and Summerland Water District. CCRB's current members include Goleta Water District, the City of Santa Barbara, and Montecito Water District."

p. 8.0-1 Other Agencies and Districts, add: Cachuma Conservation Release Board.

An additional correction needed is in the Cumulative Impact Section on p. 7.0-1, under Increased Risk of Flooding. The first paragraph states that all of the proposed alternatives could affect a recreational facility (the boat launch ramp). That is no longer the case as the original boat launch ramp was replaced with a new ramp that was designed to accommodate a lake elevation greater than 753 ft, *i.e.* the full 3 foot surcharge. Therefore, there is no increased risk of flooding the boat launch ramp.

Page 4.2-4, the stated capacity of Gibraltar Reservoir is incorrect. The 2011 RDEIR references a total storage capacity of 8600 AF. The most recent Gibraltar survey calculated a storage capacity of 5,251 AF.

Page 4.2-9, top of page, states that Cachuma Reservoir with 3.0 foot surcharge has capacity of 198,200 AF. The most recent 2008 bathymetric survey of Cachuma Reservoir indicates that capacity is 195,578 AF with 3.0 foot surcharge.

Section 4.2.1.4 does not include sedimentation effects of the 2007 Zaca fire which is very important to the upstream hydrology and should be noted.

Page 4.3-9. At the bottom of this page there are bullets stating, without references, percentages of Cachuma use by the Member Units. The Member Unit water use information to which the

percentages refer is not clear. The water use information relating to these percentages should be clearly described.

Page 4.3-13-14. With respect to drought supplies, the Final EIR should explain the limits of hydrologic modeling with respect to the forecasting of actual drought supplies. The principal value of models is to compare alternatives, not to forecast actual drought supplies with complete accuracy. In addition, the 2011 RDEIR appears to assume, as did the 2007 RDEIR, that during droughts the Member Unit water supplies are combined. The Member Units work together during severe droughts but their water supplies are not shared or combined. This should be clarified in the final EIR.

Page 4.3-28. "According to the USGS, the cost of desalinated water is approximately \$1,000 per acre-foot. However, the costs for desalination will likely decrease as new less expensive technology becomes available." CCRB believes these statements are inaccurate. This is a USGS general projection when a recent, specific cost estimate is available. There are recent cost estimates for the Santa Barbara Desalination facility which estimate the cost to desalinate water at approximately \$1,500/AF, per the City of Santa Barbara. The lead time to reactivate the facility should be 12 to 16 months rather than 6 to 12 months. The estimated capital cost of reactivation is \$18 million in 2008 dollars. These items should be corrected.

Page 4.3-29. "These (fossil fuel power) impacts could be mitigated in part if the desalination plant has been designed so that it can be shut down during peak power demand periods, thereby taking advantage of unused power capacity in off-peak times." CCRB questions the feasibility of plant shut down during peak power demand periods.

Page 4.3-29. The 2011 RDEIR states:

"However, the feasibility of fully mitigating for all of the potential indirect environmental impacts is uncertain. During the 2003 evidentiary hearing before the SWRCB, expert witnesses for CalTrout testified that the Member Units could conserve an additional 5,000 to 7,000 af by replacing inefficient toilets and washing machines and improving landscape irrigation efficiency. The Member Units presented rebuttal testimony, however, that disputed the testimony of CalTrout's witnesses. In addition, if a drought were to occur in the near future it might not be possible to fully offset water supply shortages by implementing the conservation measures identified by CalTrout. Accordingly, this EIR assumes that the impacts to the Member Units' water supply under Alternatives 3B, 5B, and 5C could result in significant and unmitigable indirect environmental impacts (Class I)."

CCRB concurs with the approach taken in the 2011 RDEIR with respect to impacts on Member Units' water supply under Alternatives 3B, 5B, and 5C. The testimony of CalTrout witnesses

that the Member Units could conserve an additional 5,000 to 7,000 af by replacing inefficient toilets and washing machines and improving landscape irrigation efficiency is not credible and was directly refuted by the Member Units' rebuttal testimony. The Member Units are members of the California Urban Water Conservation Council ("CUWCC") and they are at the forefront of efforts to develop and implement urban water conservation measures. It is simply not feasible to close the gap in the Member Units' water supplies that would result under Alternatives 3B, 5B and 5C through additional water conservation efforts.

Page 4.4-4. "SYRWCD covers approximately 180,000 acres in the Santa Ynez River basin and includes the service areas of seven water purveyors. Several mutual water companies and a large number of private users also pump water for irrigation and domestic purposes within the SYRWCD (Stetson, 1992). Eighty-five percent of water use in the Santa Ynez basin is supplied from groundwater<sup>1</sup>. The remaining five percent, approximately 3,000 af, comes from Cachuma Lake (via deliveries to SYRWCD, ID #1). Groundwater represents approximately 60 percent of SYRWCD ID #1 current water supply (see Table 4-14)." The numbers in this paragraph do not appear to add up. If 85 percent is supplied from groundwater and 5 percent from Cachuma Lake where does the other 10 percent come from?

Page 6.0-2: "The impacts of the various alternatives were evaluated in Section 4.0 using Alternative 2 as the environmental baseline (No Project)." As identified in the 2011 RDEIR, Alternative 3C is properly designated as the No Project Alternative. So this statement appears to be in error and should be corrected.

### III. CONCLUSION

The 2011 RDEIR resolves many of the issues raised by CCRB regarding the 2007 RDEIR. In particular, the 2011 RDEIR includes the important clarification that Alternative 3C incorporates the Cachuma Project Settlement Agreement. It also includes updated information on water supply, biological resources, oak trees and recreation, and corrections and clarifications in response to prior comments, except that the water supply tables should be revised to reflect the corrections noted in Appendix A.

While the 2011 RDEIR represents a significant improvement over the 2007 RDEIR, CCRB believes that further refinement and clarification of the analysis is warranted, as described above and in the technical appendix. The Final EIR should make clear that, in contrast to Alternatives 5B and 5C, the impacts of Alternative 3C are known because it has been part of Cachuma Project operations for several years. Alternative 3C is the only alternative that was developed after significant study, pursuant to the directives of WR 94-5. It is also the only alternative that (1) meets all of the Project objectives, (2) avoids significant, unavoidable (Class I) impacts to the Member Units' water supplies, and (3) is the environmentally superior alternative among all of the alternatives that comprise the proposed Project.

Ms. Jane Farwell  
May 31, 2011  
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CCRB greatly appreciates the efforts of State Board staff and consultants in preparing this revised analysis. CCRB looks forward to working with the State Board to conclude this proceeding promptly in accordance with all applicable law.

Very truly yours,



Kate Rees  
General Manager

Attachment

cc: Board of Directors, Cachuma Conservation Release Board  
Service List

**CACHUMA CONSERVATION RELEASE BOARD**

**APPENDIX A**

**TECHNICAL COMMENTS**

Prepared by Stetson Engineers, Inc.  
for the Cachuma Conservation Release Board

May 31, 2011



**STETSON**  
ENGINEERS INC.

## TECHNICAL MEMORANDUM

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TO: Kate Rees

DATE: May 31, 2011

FROM: Curtis Lawler and Ali Shahroody

JOB NO: 1815-2

RE: 2011 RDEIR Comments

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This technical memorandum provides the results of our analysis of the SWRCB 2011 2nd Revised Draft Cachuma Project EIR.

A. Overall, the 2011 RDEIR makes significant improvements from the 2007 RDEIR in that the 2011 RDEIR reaches the correct conclusions about Class I water supply impacts for Alternatives 3B, 5B, and 5C, primarily due to changes in assumptions regarding reductions in SWP water supply during critical droughts. The 2011 RDEIR has a clear description of the Project Objectives, which will help make the Final EIR a stronger document.

However, the 2011 RDEIR continues to ignore information in the “Final Program and Project Specific Environmental Impact Report/Environmental Impact Statement for Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion” (Cachuma Operation and Maintenance Board and Bureau of Reclamation, February 2004) (FMP/BO EIR/EIS).

B. The updated water supply and demand numbers for each Cachuma Project Member Unit were provided to the State Board’s consultant, and were checked against Tables 4-10 through 4-14 in the 2011 RDEIR. All of the figures match those provided to Impact Sciences by CCRB on 3/4/2010. Except that the Cachuma Project Drought Year in the 2011 RDEIR uses Alternative 5B for the critical drought year, and normalizes all Member Units’ SWP supplies to 63% average annual delivery and 6% delivery during droughts. All of the totals in the tables matched the numbers provided to Impact Sciences.

CCRB provided data on Cachuma Project supplies for the critical drought year under Alternative 3C for Tables 4-10 through 4-14. In our opinion, it is more realistic to use Alternative 3C in Tables 4-10 through 4-14 and 4-20 through 4-24, instead of Alternative 5B, because Alternative 3C is the No Project alternative. Furthermore, Alternative 5B has no relevance to these calculations because the reservoir is surcharged by 3.0’ instead of 1.8’. However, although Alternative 5B was used in the document to calculate water supply in the critical drought year, the conclusions in the 2011 RDEIR were not affected. Impact Sciences relied on Tables 4-17 to determine the water supply impacts of the alternatives.



C. The SYRHM simulated Cachuma Project yields for all of the alternatives have not changed from the 2007 RDEIR for all of the water supply tables in Section 4.3. The Member Units' prior comments on the 2003 DEIR and 2007 RDEIR regarding shortages with reserves set aside have not been incorporated in the 2011 RDEIR. Water supply shortages for all alternatives are considerably larger when reserves are set aside in the critical drought year 1951 (see Table 1 from the CCRB's and ID No.1's 2007 comments). In real-time planning for water supply during a prolonged drought period, water supply managers do not know if they are in the last year of drought. They have to plan as if the next year would be an additional dry year.

D. Section 4.3.1.6 on post-2003 conditions should also mention the effects of the 2007 Zaca Fire on water supply, as the fire generated additional sedimentation and reduced storage capacities in Gibraltar and Cachuma reservoirs. The latest June 2010 bathymetric survey for Gibraltar Reservoir indicates that the current capacity at elevation 1400.0 feet is 5,250 af compared with 7,264 af at the time the NOP was issued (5/19/1999). The latest June 2008 bathymetric survey for Cachuma Reservoir indicates the current capacity at elevation 753.0 feet is 195,578 af compared with 197,302 af at the time of the NOP. Storage capacities in post-Zaca Fire are 2,014 af and 1,724 af less for Gibraltar and Cachuma reservoirs respectively, compared with the baseline conditions. This reduced storage exacerbates shortages in water supply to the Cachuma Member Units during droughts.

Potential mitigation for water supply shortages could also benefit from additional discussion in the 2011 RDEIR. As mentioned in CCRB's and ID No. 1's comments on the 2007 RDEIR, it is erroneous to assume that significant amounts of groundwater will be reliably and legally available to the Member Units. For example, in "Water Resources of Southern California with Special Reference to the Drought of 1944-51" (USGS, 1957), the groundwater tables in the Carpinteria and Goleta groundwater basins showed considerable decline in the groundwater levels of up to 70 to 80 feet during the 1949-1951 drought.

E. Below are additional technical comments on specific pages of the 2011 RDEIR.

1. Page 2.0-1 Para 2, third line – replace with "A bathymetric survey conducted in 2008 indicated that the reservoir capacity has been further reduced to 186,636 af at elevation 750.0 feet (MNS, 2008)." This comment also applies to Page 4.2-5 Par 3, 3<sup>rd</sup> sentence.
2. Page 2.0-4 Para 4, line 3 – change "delivery" to "allocation." The total deliveries to Member Units have exceeded 25,714 afy in some years, as shown in Table 2-1, due to carrying over water from previous years. Also change "Deliveries" to "Allocations" on Table 2.1.
3. Page 2.0-8 Table 2-2 – Minor corrections should be made for the following water years:

- a. 2006 – Inflow: 100,565 af; Fish Releases: 7,057 af; Spills: 63,849 af
  - b. 2007 – Inflow: 4,357 af; Fish Releases: 4,931 af
  - c. 2008 – Inflow: 109,551 af; Fish Releases: 6,689 af; Spills: 22,994 af
  - d. 2009 – Inflow: 13,216 af
  - e. Add to footnote 8: A new capacity table went into effect on December 1, 2008, which indicates a reduction in storage of 1,110 af.
  - f. Add a new footnote: Since 2006, leakage has not been estimated in the reservoir hydrologic budget.
4. Page 2.0-16 Section 2.3 Para 2 – Change to “The reservoir has spilled 22 times since Bradbury Dam was completed. The most recent spills occurred in 1998, 2000, 2001, 2005, 2006, 2008, and 2011.”
  5. Page 2.0-26 Table 2-5 – Add a footnote at the bottom of the table noting that the target flows required by the Biological Opinion are met from a combination of surcharge, Cachuma Project yield, and conjunctive use of water rights releases. The text includes the above statement but it should also be added as a footnote to the table.
  6. Page 3.0-11 Para 2, first line – Strike “when the NOP was issued”. The NOP was issued in May 1999 not September 2000.
  7. Page 4.2-3 and 4.2-4 Bullets – Numerous typos. For all bullets replace the phrase “maximum lake level” with “daily maximum lake level” (the lake level can go higher on an hourly basis during large storm events).
    - a. Bullet 1 – Change “April 17, 2000 to June, 10, 2001” to “...to June 12, 2000”.
    - b. Bullet 2 – Delete 2nd sentence (this statement deals with the 2005 operations not 2001). Change “751.34 (April 21, 2001)” to “752.17 (March 5, 2001)”.
    - c. Bullet 3 – Change “752/47” to “752.47”.
    - d. Bullet 4 – Change “753.08 (May 21, 2006)” to “753.15 (May 22, 2006)”.
    - e. Bullet 5 – Replace 1st sentence with “From January 30, 2008 to June 27, 2008, the lake exceeded 750.0’ with a maximum of 752.7’ (April 10, 2008).”

8. Page 4.2-8 Para 3 – Change “Section 3.22” to Section 3.2.2”. Change “baseline conditions that existed in August of 2003” to “baseline conditions that existed in September 2000.”
9. Page 4.2-8 Para 4 2nd Sentence – Delete “The first action undertaken was the raising of the reservoir surcharge level from the previous elevation of 750.75 feet to an interim elevation of 751.8 feet.” That action never took place. The Final EIR/EIS for implementation of the Biological Opinion and Fish Management Plan was completed in February 2004, and the radial gates were modified in October 2004 for a full 3.0 foot surcharge.
10. Page 4.2-8 Para 4 last Sentence – Delete last sentence. This sentence implies that releases for fish occur solely from the surcharge water. However, releases to meet the target flows required by the Biological Opinion are derived from a combination of surcharge, Cachuma Project yield, and conjunctive use of water rights releases. The Member Units will have less Cachuma Project water during droughts due to releases for fish.
11. Page 4.2-9 Para 1 last Sentence – Change to “Originally, the 3.0 foot surcharge would increase reservoir capacity by 9,200 af. However, the 2008 bathymetric survey (MNS 2008) indicates the 3.0 foot surcharge will increase the reservoir capacity by only 8,942 af due to sedimentation to a total of 195,578 af.”
12. Pages 4.2-19, 4.2-20, and 4.2-21 – The following sentences do not compare alternatives, but rather compare actual historical operations with simulated results over different hydrologic periods. The following sentences (underlined text) from the 2011 RDEIR, with minor edits, are recommended to be moved into a new section titled “Updates After 2003”.

“As a comparison, based on data available from Reclamation, under current operations (which is similar to Alternative 3C), the average annual fish release<sup>6</sup> between April 2005 and July 2010 (prior to April 2005, USBR does not indicate Hilton Creek as a discharge point on monthly reports) and 2010 has been approximately 3,600 acre-ft/yr<sup>7</sup>. The releases documented by Bureau of Reclamation for 2005 through 2010, a very short hydrologic period, averaged 3,600 acre-ft/yr which is higher than the modeled result likely due to the short hydrologic period skewed by a very wet year in 2005.”

“Reclamation data indicates that between 2000 and 2010, two spills occurred in 2005 (in January and February) and 2008 in the winter, or 4 months of 33 months. Summer spills,

were not reported during that period. However, data over a longer period is required to assess the long-term effect of current operations.”

“For comparison under current operations (which is similar to Alternative 3C), the combined average annual releases for water rights and fish between April 2005 and July 2010 was approximately 13,900 af<sup>8</sup>. The modeled (long-term hydrologic period, 76 years) value as opposed to the reported value (short term hydrologic period, about six years) under Alternative 3C is 8,452 acre-ft (5,737 acre-ft/yr for average order WR 89-18 releases and 2,715 acre-ft/yr 2,715 = 8,452 acre-ft/yr). The modeled value is lower than the reported values.”

Suggested additional text for the new section is provided below. (Note: some calculations for averages of Cachuma operations were cited incorrectly in the 2011 RDEIR):

“Actual operations under the interim and long-term BO operations are compared with Alternatives 2 and 3C, respectively, in Table 4-7b. Interim BO operations were in place for the period 2001-2004 (4 years) and are compared with Alternative 2 which was simulated for the period 1918-1993 (76 years). Long-term BO operations have been in place for the period 2005-2010 (6 years) and are compared with Alternative 3C which was simulated for the period 1918-1993 (76 years).”

“Table 4-7b shows that the 2001-2004 period was relatively drier and the 2005-2010 period was relatively wetter compared to the 1918-1993 time period. Correspondingly, actual spills were less in the 2001-2004 period and more in the 2005-2010 period compared with simulated spills. Similarly, actual water rights releases were more in the 2001-2004 and less in the 2005-2010 compared with simulated water rights releases. Actual fish water releases under both interim and long-term BO operations have been higher than simulated fish releases, which is discussed in further detail in Section 4.3 Water Supply Conditions.”

“Overall it should be noted that this comparison between actual and simulated operations is for informational purposes only. It is not valid to draw conclusions by comparing averages over different hydrologic periods. To date, interim and long-term BO operations have occurred only over short time periods, which skews the averages. Data over a longer period are required to assess the long-term effect of current operations.”

**Table 4-7b  
Comparison of Actual and Simulated BO Operations**

<b>Parameter</b>	<b>Simulated Alt 2 1918-1993 (76 years)</b>	<b>Actual Interim BO Operations 2001-2004 (4 years)</b>	<b>Simulated Alt 3C 1918-1993 (76 years)</b>	<b>Actual Long-term BO Operations 2005-2010 (6 years)</b>
Average spills (AFY)	36,293	28,078	34,915	57,599
Average 89-18 releases (AFY)	6,023	7,364	5,737	3,430
Average fish releases (AFY)	1,762	2,310	3,215	6,264
Total non-spill discharges from the dam (AFY)	7,785	9,673	8,952	9,694
Total discharges from the dam (AFY)	44,078	37,752	43,867	67,293
No. of spill months	82 (9%)	3 (6%)	78 (9%)	11 (15%)
No. of spill water years	26 (34%)	1 (25%)	25 (33%)	3 (50%)
No. of spill water years > 20,000 acre-feet	16 (21%)	1 (25%)	15 (20%)	3 (50%)

Note: Leakage from spillway gates has been subtracted from the spills and added to the fish water releases in this table. Leakage was simulated at 400 afy and 500 afy, for Alt 2 and 3C, respectively.

13. Page 4.3-7 Para 4 – This paragraph is currently under the subsection titled “Santa Ynez River Water Conservation District, Improvement District #1” and should be moved to precede Table 4-15.

14. Page 4.3-6 Table 4-15 – This table currently extends through 2000 and should be updated through 2010 to be consistent with several other updates throughout the RDEIR.
15. Page 4.3-13 Para 2 Lines 6-9– replace with “The shortages beyond those of the baseline would be 1,454 af (or 5.65 percent) under Alternative 3B; 2,698 af (or 10.49 percent) under Alternative 5B; and 1,595 af (or 6.21 percent) under Alternative 5C (Table 4-16). For Alternatives 3C and 4B, the annual deliveries would be approximately the same or albeit slightly more at 87 af (or 0.33 percent) af and -457 af (or -1.77 percent), respectively.”
16. Page 4.3-20 Line 6– Replace the phrase by “demand would exceed supply.”
17. Page 4.3-27 Para 2 Lines 3 and 4– Delete “..or three year drought period”. Change 2,845 af to 1,530 af and 13,000 to 14,500.
18. Page 4.3-25 – A new section should be added titled “Water Supply Impacts Due to Meeting Alisal Bridge Flow Target”. Below is suggested text for this new section:

“Releases for meeting target flows have been larger than expected based on modeling results from the Santa Ynez River Hydrology Model (SYRHM), primarily due to required releases to meet the target flow at the Alisal Bridge in spill years and the year following a spill. The SYRHM predicted that, most of the time, releases for meeting target flows at the Highway 154 Bridge (3.2 miles downstream) would also meet the target flow requirement at the Alisal Bridge (10.5 miles downstream). The target flow requirement at the Alisal Bridge has been in effect from 2005 through 2009. In only two of the five years (2005 and 2006), were the target flows at the Highway 154 Bridge sufficient to also meet the target flow at the Alisal Bridge. In 2007, 2008, and 2009, substantially more water had to be released during the summer in order to meet the target flow at Alisal Bridge.”

“Factors contributing to the relatively large amount of fish water released for target baseflows in years 2007, 2008 and 2009 include the following abnormalities:

- Year 2007 had the lowest precipitation total on record as measured at Lake Cachuma, 7.41 inches; (Zaca Fire)
- Year 2008 was a marginal spill year greater than 20,000 acre-feet (about 23,000 acre-feet of spill); and
- Year 2009 was unusually hot and dry (Jesusita Fire).

Years 2007 and 2009 had the lowest and third lowest runoff totals in a year following a spill greater than 20,000 acre-feet, respectively, compared with the years used in the SYRHM.”

“Besides the hydrologic abnormalities mentioned above, several other factors have contributed to greater impacts to Cachuma Project water supply than originally anticipated as a consequence of meeting higher target flow. These include the following:

- Year round baseflow releases have increased riparian vegetation growth in the Santa Ynez River channel which, in turn, has increased consumptive use by the riparian vegetation, resulting in a further increase in water releases to meet the target flows downstream.
- Originally, inflow from the tributaries between Bradbury Dam and the Highway 154 Bridge were combined with releases from the dam to meet target flows at the Highway 154 Bridge. Private property restrictions in the Highway 154 Reach have limited the ability to measure these tributary inflows, so they have not been accounted for in meeting the target flows at the Highway 154 Bridge.
- Under actual operations, releases were made to provide flows of 3-5 cfs at the Alisal Bridge in spill years and in the year following a spill. Whereas, the SYRHM is based on meeting the required 1.5 cfs target flow at the Alisal Bridge as specified in the BO.”

19. Page 4.14-1 first bullet Para 1 – Delete “B” from “(Alternative 2B)” in line 2 and line 6. Change “forecast demand” to “current demand” in line 5.