GR/DKR
11331 et al

BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

3750 University Avenue, Suite 400
Post Office Box 1028
Riverside, California 92502-1028
(951) 686-1450
(951) 686-3083 Fax
BBKlaw.com

INDIAN WELLS
(760) 568-2611

IRVINE
(949) 263-2600

LOS ANGELES
(213) 617-8100

ONTARIO
(909) 989-8584

SACRAMENTO
(916) 325-4000

SAN DIEGO
(619) 525-1300

WALNUT CREEK
(925) 977-3300

Gregory K. Wilkinson
(951) 826-8270
Gregory.Wilkinson@bbklaw.com

September 27, 2007

Ms. Diane Riddle
Division of Water Rights
State Water Resources Control Board
P. O. Box 2000
Sacramento, CA 95812-2000

Re: Comments on July 2007 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)

Dear Ms. Riddle:

The Cachuma Conservation Release Board ("CCRB") and the Santa Ynez River Water Conservation District, Improvement District No. 1 ("ID No. 1") appreciate the opportunity to provide comments to the State Water Resources Control Board ("State Board") on the above-referenced Revised Draft Environmental Impact Report ("2007 DEIR"), State Clearinghouse No. 1999051051.

I. Executive Summary

CCRB is a joint powers agency comprised of the Goleta Water District ("Goleta"), the City of Santa Barbara ("City"), the Montecito Water District ("MWD") and the Carpinteria Valley Water District ("CVWD"). Together, the members of CCRB and ID No. 1 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, unmitigable water supply impacts in connection with the alternatives discussed in the 2007 DEIR.

Because so much time has passed since the 2003 DEIR was issued, water supply and demand numbers for the Member Units have changed. (Section VI.A below sets forth current water demand figures for the Member Units.) Using this updated

information in the impact analysis indicates there will be significant water supply shortages under *all* of the proposed alternatives that cannot be made up by the measures suggested in the 2007 DEIR. Although the Member Units cannot fully endorse Alternative 3C because of its significant water supply impacts, it is the one alternative that most clearly reflects Cachuma Project operations under existing water rights, the National Marine Fisheries Service ("NMFS") 2000 Biological Opinion ("Biological Opinion" or "BO"), the 2000 Lower Santa Ynez River Fish Management Plan ("Fish Management Plan" or "FMP"), and the December 2002 Cachuma Project Settlement Agreement ("Settlement Agreement") which the Member Units and downstream interests are fully committed to carrying out. 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 rights set forth by 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 by the BO and FMP. Perhaps of greatest importance is that the Member Units have already implemented the flow operations 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 an important public trust resource downstream of Bradbury Dam. Indeed, the fisheries releases 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.

By contrast, Alternatives 5B and 5C in the 2007 DEIR have been pieced together to include components of both CalTrout's "dry" Alternative 3A2 and components of Alternative 3C into what the DEIR describes as "hybrid" alternatives. Notably, the 2007 DEIR is the *first and only* opportunity the Member Units and the public have had to review Alternatives 5B and 5C. The DEIR 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 an 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.

As set forth in greater detail below, the 2007 DEIR has not adequately considered the importance of the Settlement Agreement. That 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. It resolved the water quality concerns of the City of Lompoc, one of the State Board's stated goals under WR Order 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 accomplishes 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 Bureau of Reclamation ("Reclamation"), the City of Solvang, and the City of Buellton, and the adoption of the Settlement Agreement has already been analyzed in compliance with CEQA. Importantly, Alternative 3C is the only alternative that encompasses operations under the Settlement Agreement and enables the parties to implement its terms. However, the 2007 DEIR does not evaluate potential ramifications to the Settlement Agreement if Alternative 5B or 5C is chosen as the preferred alternative. This is a major concern to CCRB and ID No. 1.

As also discussed below, Alternatives 5B and 5C provide little to no additional benefit to the fishery downstream of Bradbury Dam compared to Alternative 3C, yet they cause additional significant and unmitigable water supply impacts. It makes little sense to interrupt and replace a successful fisheries program currently underway to initiate an uncertain, untested flow regime that will cause additional water supply shortages during dry periods to citizens throughout Santa Barbara County. While the Member Units have substantial concerns about the revised DEIR, these concerns can be ameliorated by the adoption of Alternative 3C as the preferred alternative. It appears, however, that such concerns cannot be resolved if Alternative 5B or 5C is adopted.

The following detailed comments are intended to assist the State Board with remedying deficiencies in the 2007 DEIR and completing this environmental review process in compliance with the California Environmental Quality Act (Pub. Res. Code § 21000 *et seq.* ("CEQA")) and CEQA's implementing guidelines (Cal. Code Regs., tit. 14, § 15000 *et seq.* ("CEQA Guidelines")). The Member Units' comments focus on the following key issues: (1) procedural deficiencies in the DEIR; (2) flawed water supply impacts analysis; (3) failure to demonstrate that Alternatives 5B and 5C provide significant biological benefit to steelhead; (4) improper analysis of oak tree impacts that have already been analyzed and mitigated; and (5) failure to evaluate how Alternatives 5B and 5C would affect the 2002 Cachuma Project Settlement Agreement and compliance with WR Order 94-5.

II. Procedural Background

The regulatory history leading up to the State Board's preparation of the 2003 and 2007 DEIRs is a critical component of this CEQA process, as it defines the proper scope of the CEQA analysis currently at issue and forms the basis of an appropriate project description in this case.

The history of the water rights permits issued for the Cachuma Project involves an operational regime carefully developed among Reclamation, the Cachuma Project Members Units, downstream water rights holders, and other interested parties. Since 1958, when the original water rights permits were issued by the State Board in Water Rights Decision 886, making the Cachuma Project Permits 11308 and 11310 subject to certain criteria, the Cachuma Project has operated in accordance with a series of orders that have allowed for trial periods to work out additional detail along with the retention of continued jurisdiction by the Board and reporting by the parties to the Board regarding the results of their work.

In 1973, a negotiated order, WR Order 73-37 was issued by the State Board modifying prior Decisions and permitting storage of all inflow, but providing for periodic downstream releases through credits in an Above Narrows Account and a Below Narrows Account (accrued under specific conditions). As in previous orders, the State Board reserved jurisdiction and extended the initial 15-year trial period for an additional 15 years, until 1989, to further refine Cachuma reservoir operating procedures.

In 1989, the State Board adopted WR Order 89-18, which made revisions to an account-based system of operating the Cachuma Project originally developed in WR Order 73-37 for the purpose of addressing water rights concerns raised by the Santa Ynez River Water Conservation District and the cities of Solvang and Lompoc among other downstream interests. WR 89-18 called for the further development of information regarding the protection of downstream rights, including a trigger for a "Perc curve" and other details to be developed by agreement among Reclamation, the Cachuma Member Units, and downstream water rights holders. WR 89-18 also called for the development of information concerning potential impacts of the Cachuma Project on public trust resources of the Santa Ynez River and directed State Board staff to prepare for and schedule a hearing on a complaint by the California Sport Fishing Protection Alliance concerning claimed project impacts on fishery resources downstream of Bradbury Dam.

A consolidated hearing to consider all outstanding actions within the Santa Ynez River Watershed was commenced in July of 1990. Shortly thereafter, the hearing was recessed to allow the parties to work together to resolve technical concerns related to downstream water rights and public trust issues "outside of the hearing process." In 1993, Reclamation, the Cachuma Member Units, and many of the other interested parties including downstream water rights holders entered into two Memoranda of Understanding (MOU) for cooperation and research related to the protection of fish and

fish habitat for the portion of the Santa Ynez River below Bradbury Dam. Subsequently, in 1994, an additional MOU was executed for the purpose of completing the collection of data needed for the presentation of information on fisheries and fish habitat in the Santa Ynez River below Bradbury Dam. Parties to the 1994 MOU included the California Department of Fish and Game, the United States Fish and Wildlife Service, the Bureau of Reclamation, the Cachuma Member Units, the Santa Ynez River Water Conservation District, the Santa Barbara County Water Agency, and the City of Lompoc – virtually all of the agencies that have historically been involved in water rights and public trust issues concerning the Cachuma Project. The 1994 MOU recognized that a 3 to 5 year period was needed to collect necessary data related to outstanding downstream water rights and public trust issues and established a Fish Reserve Account of water to be used for the maintenance of fish below Bradbury Dam pending completion of the necessary studies. While the parties concurred with the designation of water for fish maintenance and study, all of the interests, including the State Board, recognized significant issues remained to be resolved concerning the relationship between water released from Bradbury Dam for the protection of the public trust and downstream water rights.

In WR Order 94-5, the State Board provided for the 3 to 5 year study plan contemplated in the 1994 MOU. In doing so, the Board appeared to recognize the need for a consensus-based operational regime that could provide the necessary protection for public trust resources as well as downstream water rights by agreement among the parties. Consistently, WR Order 94-5 provided for the results of the studies to be presented to the Board in a manner that would allow for the completion of environmental review and consideration by the Board in development of changes to the conditions under WR 89-18 to allow for such consensus-based solutions.

Beginning in 1994, the parties to the 1994 MOU and to a later 2001 MOU carried out the contemplated studies, and developed a consensus-based fishery management plan that provides protection for steelhead trout downstream of Bradbury Dam through a combination of water releases from the Dam, the construction of a system to release water to Hilton Creek (downstream of Bradbury Dam) and the removal of numerous passage barriers to steelhead on tributaries to the main stem river. By implementing the Fish Management Plan for the Lower Santa Ynez River, the MOU parties created significant additional habitat for steelhead within the Santa Ynez River watershed, including its tributaries.

While the parties were preparing the Fish Management Plan, the National Marine Fisheries Service ("NMFS") listed the Southern California Evolutionarily Significant Unit (ESU) of steelhead as an endangered species under the federal Endangered Species Act. Preparation of the Fish Management Plan was therefore coordinated with NMFS, resulting in a Biological Opinion that protected steelhead in a manner compatible with the terms of the Fish Management Plan. The Fish Management Plan was formally presented to the State Board in 2000. It incorporates a regime of releases from Bradbury Dam which has been identified as Alternative 3C in the DEIR, and it is that Alternative

3C which has served as the basis for discussions among the parties regarding the reconciliation of flows for the protection of downstream public trust resources with the protection of downstream water rights and water quality in Lompoc.

Following adoption of the Fish Management Plan, Reclamation, the Cachuma Member Units and downstream water rights holders including, in particular, the Santa Ynez River Water Conservation District and the cities of Solvang and Lompoc, turned their attention to downstream water rights issues – including those related to implementation of the Fish Management Plan. These discussions essentially replaced DEIR Alternative 4B with the historic water rights Settlement Agreement which, for the first time since completion of the construction of the Cachuma Project in 1951, brought peace among the variant parties with water rights interests on the Santa Ynez River.

The Settlement Agreement was finalized by the parties in late 2002. By letter dated February 26, 2003, CCRB provided the State Board a copy of the Settlement Agreement and noted that the Agreement resolves key issues related to the protection of downstream water rights as identified in the Board's September 25, 2000 Notice of Public Hearing. Additionally, the Settlement Agreement implemented the Biological Opinion adopted by NMFS as well as the Lower Santa Ynez River Fish Management Plan developed by the MOU parties. Subsequently, on March 21, 2003, Reclamation endorsed the Settlement Agreement and proposed modifications to the terms of WR 89-18 determined by the parties to the Settlement Agreement, and Reclamation, to be necessary to protect water rights on the Santa Ynez River downstream of Bradbury Dam. Indeed, the Settlement Agreement is dependent upon the State Board's modification of WR 89-18 as proposed by Reclamation to implement the Fish Management Plan for the protection of public trust resources.

Thus, the State Board should adopt Alternative 3C as supplemented by Reclamation's technical modifications to WR Order 89-18. At the same time, the Board should recognize and acknowledge the Settlement Agreement executed by the Member Units and downstream parties. As Reclamation noted in its letter of March 21, 2003, the State Board has the authority pursuant to section 11415.60 of the Government Code to issue a decision acknowledging the Settlement Agreement and adopting the proposed technical modifications to WR 89-18 as the means for resolving the public trust and water rights issues identified as "key issues" in Phase 2 of the Cachuma Water Rights hearings. Importantly, the Settlement Agreement is dependent upon releases from Bradbury Dam as described in Alternative 3C of the 2007 DEIR. Furthermore, surcharging of Lake Cachuma to partially mitigate for the loss of water supply resulting from releases in accordance with the Fish Management Plan, as recognized by Alternative 3C, has already been implemented. Through negotiation of the Settlement Agreement, the parties have also developed a detailed understanding of downstream water supply impacts and impacts to project supplies. Those impacts, while adding to water management challenges for water users downstream of Bradbury Dam and in Santa Barbara County's south coast region, are at least understood and accepted by the parties.

By suggesting different operations pursuant to Alternatives 5B or 5C, the 2007 DEIR fails to recognize the fact that those operations are not compatible with the Settlement Agreement and, if implemented, will relieve the parties to the Agreement of their obligations under its terms. Furthermore, Alternatives 5B and 5C have not evolved through the process of study and evaluation used to develop Alternative 3C. Thus, additional study, trial and negotiation would be necessary – likely along the lines of the 10 years required to develop the current Fish Management Plan and Settlement Agreement – before it can be determined whether Alternatives 5B or 5C meet the project description of providing protection to both public trust resources and downstream water rights. On the other hand, operations under WR 89-18 with Reclamation's technical modifications, the BO/FMP, and the Settlement Agreement *do* provide protection to public trust resources *and* downstream water rights. Accordingly, such operations should be adopted as the preferred alternative under Alternative 3C.

Despite the attempt set forth in the 2007 DEIR to limit written comments only to the revised portions of the August 2003 DEIR (2007 DEIR, p. ES-1), the 2007 DEIR contains extensive changes which affect the entire environmental analysis provided in the 2003 DEIR, including the addition and evaluation of new alternatives, the addition of new information regarding the surcharge of Lake Cachuma, revisions based on certain comment letters received by the State Board, and other "update[s] to reflect a number of changes" which occurred following the release of the State Board's initial Draft EIR four years ago. (2007 DEIR p. ES-1.) Accordingly, the Member Units' comments may in certain instances address portions of the 2003 DEIR that were not formally revised or recirculated, but were fundamentally altered due to the 2007 DEIR revisions. Comments on those portions of the DEIR are thus appropriate. (CEQA Guidelines § 15088.5.) For ease of reference, CCRB and ID No. 1 attach and incorporate their prior written comments submitted to the State Board in connection with the 2003 DEIR. (See Attachments "A" and "B.")

III. The 2007 DEIR's Project Description Does Not Permit Meaningful Public Review of the Project

CEQA defines an EIR as primarily "an informational document." (Pub. Res. Code § 21061.) Its main purpose is to "inform the public agency decision makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effect, and describe reasonable alternatives to the project." (CEQA Guidelines § 15121(a).) Under CEQA, a "project" is defined as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (CEQA Guidelines § 15378(a).) A clear and comprehensive description of the project being proposed for approval is critical to meaningful public review. A project description that omits integral components of the project may result in an EIR that fails to disclose all of the impacts of the project. (*Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 829; *City of Santee v. County of San Diego* (1989)

214 Cal.App.3d 1438, 1450.) While extensive detail is unnecessary, an EIR is required to describe a project with sufficient detail and accuracy to permit informed decision making. (CEQA Guidelines § 15124.)

A. The DEIR Fails to Provide a Stable and Clearly Stated Project Description. Instead It Contains Contradictions and is Vague and Ambiguous.

An accurate, stable and finite project description is the *sine qua non* of CEQA. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193.) It allows the lead agency to identify the proper environmental baseline and no-project alternative, to develop a range of reasonable and viable alternatives, to consider mitigation measures, and to balance the proposal's benefit against its environmental cost. (*County of Inyo, supra*, 71 Cal.App.3d at 192-193.) As discussed below, the DEIR fails to develop and maintain a stable project description.

The May 14, 1999 Notice of Preparation (NOP), which was not recirculated, defined the project as follows:

> Development of revised release requirements and other conditions, if any, in the Reclamation water right permits (Applications 11331 and 11332) for the Cachuma Project. These release requirements will take into consideration the [NMFS] Biological Opinion and draft [FMP] and other reports called for by Order 94-5. The revised release requirements are to provide appropriate public trust and downstream water rights protection. Protection of prior rights includes the maintenance of percolation of water from the stream channel as such percolation would occur from unregulated flow, in order that the operation of the project shall not reduce natural recharge of groundwater from the Santa Ynez River below Bradbury Dam. (05/14/1999 NOP, pp. 2-3; emphasis added.)

This description established at least two critical points with respect to CEQA: (1) the proposed action (or "project") by the State Board would be a revision of Reclamation's *existing* water right permits, thus establishing the baseline to evaluate potential environmental impacts, including water supply impacts; and (2) such revision to Reclamation's permits, if any, would have to be harmonized with measures developed and/or carried out independent of the proposed project under the Board's purview, specifically including the Biological Opinion and FMP, and reports and agreements called for by Order 94-5 concerning downstream water rights under the Board's purview.

The 2007 DEIR strays from the originally proposed project description through a series of statements that render the project description amorphous. First, the 2007 DEIR states: "The proposed project analyzed in this revised [DEIR] consists of potential modifications to [Reclamation's] water right permits for the Cachuma Project in order to provide appropriate protection of downstream water rights and public trust resources on the Santa Ynez River." (2007 DEIR, p. ES-1.) Then, the project is described more narrowly: "[T]he project analyzed in this revised DEIR consists of potential modifications to Reclamation's existing water rights permits to provide appropriate protection of downstream water rights and public trust resources on the Santa Ynez River downstream of Bradbury Dam." (2007 DEIR, p. ES-2.) Later, the 2007 DEIR acknowledges the project description set forth in the 1999 NOP (2007 DEIR, p. 1-1), but does not state whether that remains the project, or whether a more limited project is being proposed that no longer must take into consideration the Biological Opinion, the FMP, and agreements called for in WR Order 94-5. This uncertainty is illustrated when the DEIR describes the project differently yet again: "The proposed project entails potential modification of the releases required under Order WR 94-5, and potential imposition of other requirements, taking into consideration the requirements of the Biological Opinion and Fish Management Plan, and the instream flow requirements advocated by Cal Trout." (2007 DEIR, p. 3-1.) Confusion over what CEQA "project" is being proposed for approval reaches its zenith in Section 4 of the 2007 DEIR. There, the document states:

> The purpose of this EIR is to assist the SWRCB in determining if modifications to Reclamation's water rights permits are required to <u>better</u> protect downstream water rights and public trust resources. <u>The SWRCB has not selected a particular modified operational scheme as a proposed project</u>, opting instead to examine several alternatives that address downstream water rights and public trust needs differently. (2007 DEIR, p. 4-1; emphasis added.)

This is contrary to CEQA. CEQA requires a stable and accurate project description and the 2007 DEIR fails to provide one. If the 2007 DEIR fails to identify a proposed project, there exists no standard to evaluate whether any of the project alternatives provide "better" environmental protection.

B. <u>The 2007 DEIR Should Identify the Project Description as Alternative 3C Along with the Modifications to WR Order 89-18 Submitted by Reclamation and Should Recognize and Acknowledge the 2002 Settlement Agreement</u>.

As early as February 26, 2003, prior to the public hearing regarding the 2003 DEIR, CCRB informed the State Board that the December 2002 Settlement Agreement had been entered by CCRB, ID No. 1, the Santa Ynez River Water Conservation District, and the City of Lompoc – and that modifications to WR Order 89-18 submitted by Reclamation, operations under the BO/FMP, and recognition and acknowledgment of the

Settlement Agreement should serve as the proposed project. (A copy of CCRB's February 26, 2003 letter is set forth at Attachment "C.") Reclamation submitted a similar letter to the State Board dated March 21, 2003. In its letter, Reclamation informed the Board that the Settlement Agreement had been entered by the Member Units and downstream water right interests and that, based on the terms of the Settlement Agreement, the Cachuma Project could be operated to protect downstream water rights and public trust resources under a set of technical modifications to WR Order 89-18 which Reclamation provided along with its letter. (See "Proposed Modifications to Order WR 73-37, as amended by Order WR 89-18, Pertaining to Permits 11308 and 11310 (Applications 11331 and 11332)." (A copy of Reclamation's March 21 2003 letter and Proposed Modifications are set forth at Attachment "D" and incorporated herein.)

Furthermore, extensive testimony was presented to the Board during the hearings by representatives of the Member Units and all the downstream interests in support of the Settlement Agreement. Those same parties proposed the use of Reclamation's suggested modifications of WR 89-18 along with the BO/FMP as the State Board's project. (See testimony of Kate Rees, Chris Dahlstrom, Bruce Wales, Marlene Demery and Gary Keefe on October 22, 2003.) Given the extensive evidence presented to the Board, CEQA requires the modifications to WR Order 89-18 as provided by Reclamation to be expressly included within the "project" considered by the Board. That same evidence supports the Board's recognition and acknowledgment of the Settlement Agreement.

Indeed, the 2007 DEIR should identify Alternative 3C, as supplemented by Reclamation's modifications to WR Order 89-18, as the project description and the preferred alternative. At the same time, the 2007 DEIR should recognize and acknowledge the Settlement Agreement. 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 Permitee (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. Further, Alternative 3C is the only project which is consistent with the flow requirements and protective measures for steelhead as specified in the Biological Opinion prepared by NMFS. Nor can it be overlooked that Alternative 3C as supplemented by Reclamation's modifications to WR 89-18 is the *only* project that accomplishes the purposes set forth in the NOP and WR Order 94-5 of providing protection for public trust resources *and* downstream water rights. Hence, many of the concerns raised by CCRB and ID No. 1 in these comments can be ameliorated by the adoption of Alternative 3C as set forth herein.

Given the above, the 2007 DEIR should more fully acknowledge the Settlement Agreement. It should also include the proposed modifications to WR Order 89-18 submitted by Reclamation and expressly recognize that such modifications have been addressed and analyzed under Alternative 3C as part of the DEIR process. Indeed, it would be appropriate for a State Board order to contain provisions incorporating

Reclamation's proposed modifications to WR 89-18, acknowledging the Settlement Agreement, and requiring compliance with the terms and conditions of the Biological Opinion and FMP, including surcharge releases and other fish protective measures of the Biological Opinion. The State Board has effectively implemented this type of approach to protecting fishery resources through water rights regulation in orders such as Decision 1641 concerning operations of the State Water Project and Central Valley Project.

C. The 2007 DEIR's Discussion of Surcharging is Vague and Confusing.

Another flaw in the DEIR's proposed project description is the confusing and vague analysis of reservoir surcharging at Lake Cachuma – which the 2007 DEIR includes as a basic element of each project alternative. To begin with, the State Board first acknowledged, some seven years ago, that the CEQA project it intended to consider did not necessarily include surcharging, since that action was being carried out by Reclamation, not the Board. In a letter sent to CCRB and to ID No. 1's legal counsel on September 1, 2000, Gerald Johns signing for Harry Schueller wrote: "[T]he project for purposes of CEQA is the consideration of revised flow release requirements and other modifications that may be necessary to protect public trust values and downstream water rights. The project does not necessarily entail modification of Cachuma Reservoir." (State Board, 09/01/2000.) In a letter to Reclamation dated December 11, 2000, Mr. Schueller elaborated: "From the SWRCB's standpoint, the project does not necessarily entail surcharging Cachuma Reservoir. We understand that Reclamation intends to surcharge the reservoir, and the DEIR therefore should include that possibility in its analysis, but neither the 1.8 foot surcharge nor the 3.0 foot surcharge has been completed yet." (State Board, 12/11/2000.)

The 2007 DEIR further acknowledges 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 CEQA project currently under consideration by the State Board. The 2007 DEIR thus states:

> Independent of the release requirements under Orders WR 89-18 and WR 94-5, Reclamation has recently modified its operations to allow for additional releases for purposes of protecting and enhancing habitat for the steelhead present in the Santa Ynez River below Bradbury Dam. ... NMFS issued a Biological Opinion in September 2000, which contains mandatory terms and conditions that Reclamation must observe to protect the species, including new water releases from the dam. These releases supplement the releases under Orders WR 89-18 and WR 94-5. (2007 DEIR, pp. 1-4; 3-1; emphasis added.)

Nevertheless, as indicated above, the 2007 DEIR includes surcharging operations within the project description/alternatives. (2007 DEIR, p. 3-5.) Because surcharging has already been evaluated in the FMP/BO EIR/EIS adopted in 2005, is already being implemented, and is consistent with the terms and conditions of the exiting water right permits, such analysis is inconsistent with CEQA to the extent it considers impacts that are independent of the project. (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 732-735.) Thus, the failure to incorporate the EIR/EIS analysis should be clarified and explained in the 2007 DEIR for the document to provide the public with a meaningful discussion of potential impacts. (*Id.*)

D. The 2007 DEIR Fails to Describe Objectives of the Proposed Project with Sufficient Particularity.

The 2007 DEIR project description also fails to clearly identify the specific *objectives* sought to be achieved by the project. CEQA requires a clear statement of objectives be provided in order to guide the lead agency's evaluation of mitigation and alternatives and to inform the public of the goals behind the project. (CEQA Guidelines § 15124(b).) Stated differently, the rationale for elimination of possible project alternatives as not meeting "project objectives" is inappropriate without evidence to support this analysis. (CEQA Guidelines § 15126.6(c).) Here, the 2007 DEIR fails to clearly enunciate the objectives that will guide its ultimate decision. What objectives will guide the State Board's decision if the full protection of public trust uses conflicts with or curtails the protection of downstream water rights? The statement of objectives required by CEQA is intended to assist with making such determinations, and the absence of such a statement in the 2007 DEIR precludes the decision-maker from a meaningful opportunity to determine whether the project alternatives meet the fundamental project objectives. (*Save San Francisco Bay Assn. v. San Francisco Bay Conservation & Development Commission* (1992) 10 Cal.App.4th 908.)

IV. The 2007 DEIR's Description of Baseline Conditions is Not Supported by Substantial Evidence

The baseline for assessing impacts of a proposed project will *normally* be the environmental setting for the project at the time the Notice of Preparation is published. (CEQA Guidelines § 15125(a).) As a general rule, the baseline determination is the first step rather than the last step in the environmental review process. (*Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99, 125; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 955.) The baseline condition, as further discussed below, is not necessarily synonymous with the no-project alternative in determining the significance of a project's impacts. (See CEQA Guidelines § 15125.)

The 2007 DEIR acknowledges that many changes in the existing environment have occurred over the preceding eight years since the NOP was issued in 1999. (See,

e.g., 2007 DEIR, p. ES-1.) These changes and lapse of time serve to stress the importance of having an accurate description of the environmental baseline used for purposes of determining environmental impacts in the 2007 DEIR. However, rather than providing the clear discussion of the environmental baseline called for by CEQA, the 2007 DEIR, instead, presents a confusing discussion of the physical conditions against which impacts will be measured and fails to provide substantial evidence in support of the State Board's baseline selection. Indeed, the 2007 DEIR purports to compare the project alternatives to "baseline conditions" – but freely admits that such baseline conditions have shifted, just as the project description has shifted. As a result, the alternatives – which themselves are not clearly defined – are not being compared to anything that is clear or stable.

As noted by the 2007 DEIR, WR Order 89-18 reflects the operative permit conditions for water right releases from Lake Cachuma. (2007 DEIR, p. ES-2.) Nevertheless, the 2003 DEIR re-characterized WR Order 89-18 operations as "historic conditions" and designated WR Order 89-18 operations plus the interim release requirements set forth in the Biological Opinion as the new "baseline." (2007 DEIR, p. ES-4.) The State Board's rationale for this change was that Reclamation had begun interim releases under the Biological Opinion in September 2000 using a 0.75 foot surcharge. (2007 DEIR, p. ES-6.) However, this change in the baseline incorrectly assumed that the 0.75 foot interim surcharge affected a permanent change to the water rights baseline established by WR Order 89-18. As a matter of both fact and law, this is not the case. Indeed, the 2007 DEIR concedes that Reclamation's releases of surcharged water are "*independent of*" and "*supplement*" the water right release requirements under WR 89-18. (2007 DEIR, pp. 1-4; 3-1; emphasis added.) As a result, the 2007 DEIR's treatment and analysis of surcharge impacts are unclear. (See additional discussion above at Section III.C and below at Section VI.C.) Moreover, the water rights baseline against which they are measured is not supported by substantial evidence.

The 2007 DEIR now errs in the baseline analysis by eliminating WR Order 89-18 operations for comparative purposes. The 2007 DEIR states: "Alternative 1 [does] not represent existing or baseline conditions, however, and therefore the discussion of Alternative 1 has not been incorporated into this document." (2007 DEIR, p, ES-4.) This highlights the current inadequacy of the Board's environmental review: on the one hand, the proposed project is identified as possible modifications to Reclamation's "existing" water right permits; on the other hand, those existing water right permits are expressly eliminated from the CEQA analysis. Confirming this analytical inconsistency, the 2007 DEIR posits that comparing water supply impacts to Alternative 1 (existing water right conditions under WR Order 89-18) "is no longer relevant to this analysis and has been omitted." (2007 DEIR, p. ES-4.)

Further, the 2007 DEIR states that using Alternative 2 (WR Order 89-18 operations plus a 0.75 foot surcharge) as the environmental baseline "will result in a conservative estimate of the potential environmental impacts of the alternatives [and]

results in the full disclosure of the potential environmental impacts of surcharging Lake Cachuma above 0.75 feet, even though some of those impacts have already occurred." (2007 DEIR, p. ES-6.) The reasoning used to support this change in baseline is that "if current conditions, including a 2.47-foot surcharge, were used as the baseline, only the incremental impacts associated with increasing the surcharge from 2.47 to 3.0 feet would be disclosed." (Id.) The identical reasoning contradicts the State Board's decision to abandon WR Order 89-18 operations as baseline conditions. WR 89-18 includes *zero* feet of surcharge and using that as the baseline would truly provide a "conservative estimate" and "full disclosure" of the impacts associated with the proposed alternatives. The Board's failure to do so is inexplicable – particularly because all parties and the State Board agree that WR 89-18 comprises the existing operative permit conditions for water right releases from Lake Cachuma.

Changing the baseline from existing water right conditions under WR Order 89-18 (as set forth in the 1999 NOP) to include Reclamation's release of surcharged water under the Biological Opinion ignores existing water rights and eliminates the ability to analyze the water supply impacts of modifying Reclamation's existing water right permits. At the very least, the 2007 DEIR must be clearly state the baseline against which impacts are measured, provide substantial evidence for the selection of that baseline, and fully analyze the environmental impacts using the appropriate baseline.

V. The 2007 DEIR's Alternatives Analysis is Legally Deficient

Under CEQA, "[a]n EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." (CEQA Guidelines § 15126.6(a).) The requirement that an EIR identify alternatives to the proposed project stems from CEQA's policy that public agencies should not approve a proposed project if a feasible alternative or feasible mitigation measures are available that would reduce the significant environmental impacts of the project. (Pub. Res. Code §§ 21002; 21061.)

The range of alternatives that must be analyzed in an EIR is generally governed by a rule of reason, under which the EIR is required to set forth only the alternatives necessary to analytically evaluate the environmental impacts of the proposed project. An EIR is not required to consider alternatives which are infeasible in relation to the purpose of the proposed project. (CEQA Guidelines § 15126.6(c).) Rather, an EIR need examine in detail only those alternatives the lead agency determines could feasibly attain most of the basic objectives of the project. (Id.) The reasoning for selecting those alternatives must be publicly disclosed by the lead agency in order to foster informed decision-making and public participation. (CEQA Guidelines § 15126.6(a).) The discussion of alternatives should include sufficient information about each alternative to allow

evaluation, analysis, and comparison with the proposed project. (CEQA Guidelines § 15126.6(d).)

A. The 2007 DEIR's Analysis of the "No Project Alternative" is Flawed.

The DEIR incorrectly analyzes the CEQA no-project alternative. Generally, a proper no-project alternative should not be limited solely to an assessment of existing conditions. Rather, the analysis of the no-project alternative in an EIR should discuss the existing conditions at the time the NOP is published, as well as what would be reasonably expected to occur in the foreseeable future if the project is not approved. (CEQA Guidelines § 15126.6(e)(2).) Thus, the no-project alternative is not necessarily synonymous with the environmental baseline in determining the significance of a project's impacts. (See CEQA Guidelines § 15125.)

The 1999 NOP identified Alternative 1 (WR Order 89-18 operations) as the existing permitted water right conditions and also as the no-project alternative. (05/14/1999 NOP, p. 3.) The 2003 DEIR then changed the no-project alternative to Alternative 2 (WR Order 89-18 operations plus Reclamation's interim release requirements under a 0.75 foot surcharge). Now, the 2007 DEIR has identified multiple Alternatives as the no-project alternative. At several points, the DEIR states that Alternative 2 (WR Order 89-18 operations plus a 0.75 foot surcharge) represents the environmental baseline *and* the no-project alternative. (2007 DEIR, pp. ES-5; 3-6; 3-7.) In a separate discussion, however, the DEIR states that Alternative 3C (WR Order 89-18 operations plus operations under the Biological Opinion) constitutes the no-project alternative on grounds that it better reflects how the Cachuma Project is likely to be operated in the foreseeable future if Reclamation's permits are unchanged. (2007 DEIR, p. 3-11.) This discussion of the "no-project" alternative is confusing and contradictory. It must be revised to comply with the requirements of CEQA.

B. The DEIR's Failure to Establish a Definite Project Description has Produced Several Legal and Logical Infirmities in the Alternatives Analysis.

Because the 2007 DEIR fails to set forth a stable and accurate project description and lacks any clear set of "objectives" to be attained through the "project," a meaningful alternatives analysis is impossible. As indicated above, the DEIR does not provide a stable project description to which alternatives can be compared, and admits it has not identified an operational regime as a proposed project. (2007 DEIR, p. 4-1.) Therefore, rather than identify a proposed project and develop a reasonable range of alternatives to be analyzed in comparison to that action, the 2007 DEIR presents several "alternatives" which are more akin to a *series* of proposed "projects" which it attempts to simultaneously evaluate. In the absence of a clear project designation, the DEIR must analyze the potential environmental impacts of each alternative at a project-specific level. Without such detailed analysis, the State Board's approval of a particular project

alternative may not be supported by substantial evidence as required by CEQA. (CEQA Guidelines § 15064(f).)

The alternatives have shifted dramatically over time. They range from the four alternatives originally set forth in the 1999 NOP, to nine alternatives described in a letter from the State Board dated May 17, 2000, to a variation of those alternatives set forth in a subsequent letter from the State Board, to the modified seven alternatives identified in the 2003 DEIR, and now to a once-again-changed set of six alternatives in the 2007 DEIR. If the intent of the Board's efforts is to identify what modifications, if any, to Reclamation's existing water right permits are appropriate to ensure public trust and downstream water rights protection, the suite of four alternatives provided in the 1999 NOP appears to be the best suited for that purpose. Those four Alternatives were the following: (1) WR Order 89-18 operations; (2) WR Order 89-18 operations plus any conditions contained in the Biological Opinion; (3) WR Order 89-18 operations plus any conditions contained in the Biological Opinion and additional fish enhancement measures identified in the FMP; and (4) WR Order 89-18 operations plus any conditions contained in the Biological Opinion and the FMP, plus measures to resolve downstream water right claims asserted by the City of Lompoc. The value of these four alternatives, however, is occluded by the confusing and changing discussion of "alternatives" that has ensued since 1999.

Additionally, the 2007 DEIR offers inconsistent reasoning for why some alternatives remain for analysis while others have been discarded. By way of example, the 2007 DEIR reasons that an analysis of Alternative 3A "has been made irrelevant" because it was based on Reclamation allowing a 0.75 foot surcharge, while Reclamation has constructed spillgate modifications that allow a 3.0 foot surcharge, and has implemented a 2.47 foot surcharge. (2007 DEIR, pp. ES-4, ES-6.) At the same time, however, the 2007 DEIR presents Alternatives 3B and 5B as feasible and viable project alternatives even though each assumes that Reclamation will achieve and operate Lake Cachuma with a 1.8 foot surcharge. Using the DEIR's reasoning for discarding Alternative 3A, Alternatives 3B and 5B should also be deemed irrelevant and eliminated from the DEIR on the grounds that Reclamation has never surcharged to only 1.8 feet. It has had the capability to fully surcharge the reservoir by 3.0 feet ever since the gate extensions were installed in 2004, and has already done so in 2006. If Alternatives 3B and 5B remain part of the analysis, so too should Alternative 3A. In any event, an alternative that is contrary to Reclamation's operation the Cachuma Project in accordance with the Biological Opinion (i.e., with less than a 3.0 foot surcharge) must be analyzed in terms of whether such operations would require Reclamation to re-consult with NMFS pursuant to Section 7 of the ESA, and the State Board must – as to each alternative – clearly explain why an alternative is feasible or infeasible in accordance with CEQA's requirements. (See Pub. Res. Code § 21061.1; CEQA Guidelines § 15364 [defining "feasibility"].)

Moreover, the 2007 DEIR sets forth Alternative 4B as a viable project alternative, even though the water rights and water quality issues presented in 4B have already been

resolved by other means pursuant to the December 2002 Settlement Agreement 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. As discussed above, the Settlement Agreement was forwarded to the State Board in early 2003 and CCRB and Reclamation informed Board staff that, pursuant to WR Order 94-5, the Settlement Agreement resolved the outstanding water rights and water quality issues among the parties. Because Alternative 4B is contrary to the terms of the Settlement Agreement, the State Board must analyze the environmental impacts that Alternative 4B would have upon downstream water rights if the Settlement Agreement is disrupted.

Another defect in the 2007 DEIR is its failure to identify the environmentally superior alternative. An EIR must identify the environmentally superior alternative and, if that is determined to be the no-project alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives. (CEQA Guidelines § 15126.6(e)(2).) As indicated above, the 2007 DEIR does not select a proposed project, opting instead to examine several alternatives that address downstream water rights and public trust needs differently. (2007 DEIR, p. 4-1.) Nor does the DEIR identify the environmentally superior alternative. However, these comments identify the many reasons why Alternative 3C, incorporating Reclamation's proposed modifications to WR Order 89-18 and acknowledging and recognizing the Settlement Agreement, is the environmentally superior project alternative. Indeed, Alternative 3C as presented by Reclamation at the Board's 2003 hearing is the *only* project that is consistent with the protective measures contained in the BO for steelhead, endorsed by all of the Cachuma Member Units and all of the downstream water rights interests, and consistent with the purposes set forth in the NOP and WR Order 94-5 for providing protection for public trust resources *and* downstream water rights.

C. The Addition and Analyses of Alternatives 5B and 5C to the 2007 DEIR Are Not Supported by Substantial Evidence.

The State Board's addition and analyses of Alternatives 5B and 5C to the 2007 DEIR are not supported by substantial evidence and thus do not comply with CEQA. A principal shortfall in Alternatives 5B and 5C is their lack of scientific support in comparison to the other Alternatives, each of which was historically developed through a collaborative stakeholder process and subject to peer review. For instance, Alternative 3C includes operations under WR Order 89-18 and provides flow releases and other protective and enhancement measures for public trust resources as set forth in the BO/FMP and for downstream water rights as required by WR Order 94-5. Both the BO and the FMP are products of extensive study, preparation and peer review by multiple stakeholders, and have undergone detailed environmental review. (2004 FMP/BO EIR/EIS.) The resolution of downstream water rights in accordance with WR Order 94-5, which resulted in the 2002 Settlement Agreement, resolved over 50 years of controversy on the Santa Ynez River, took nearly 10 years to negotiate, and was subject to independent CEQA review and approvals. The underpinnings of other alternatives

were also subject to cross-examination by parties to the State Board's 2003 proceedings on Cachuma Project operations.

In stark contrast, no such processes or opportunities have been undertaken or afforded with regard to Alternatives 5B and 5C. Instead, Alternatives 5B and 5C appear to have been created out of whole cloth and have not been subjected to the ground-truthing faced by other alternatives. Indeed, the 2007 DEIR refers to flow operations under Alternatives 5B and 5C as "hybrid forms" of Alternative 3A2 that was presented in the 1995 Cachuma Project Master Contract Renewal EIS/EIR. (2007 DEIR, pp. 4-5; 4-11; 4-13.) No indication exists that Alternatives 5B and 5C will be subject to cross-examination or other scrutiny by which the other proposals have been tested. Following are but a few additional examples of why the new Alternatives 5B and 5C are not supported by substantial evidence under CEQA:

- There is no scientific analysis or showing that Alternative 5B or 5C fulfills the key project objectives of protecting *both* public trust resources and downstream water rights in accordance with WR Order 94-5.

- There is no acknowledgment or evaluation that the additional flows and schedule of flows required by Alternatives 5B and 5C are beyond the schedule of releases called for in the Biological Opinion prepared by NMFS – the federal expert agency charged by Congress to protect steelhead and steelhead habitat in the Santa Ynez River. NMFS has not advocated for additional fish releases in connection with Cachuma Project operations beyond those set forth in the BO.

- There is no analysis of whether the NMFS' "no jeopardy" determination set forth in the Biological Opinion can be maintained under Alternative 5B or 5C, whether the reasonable and prudent measures set forth in the Biological Opinion are consistent with Alternative 5B or 5C operations, or whether choosing Alternative 5B or 5C would require Reclamation to re-consult with NMFS under Section 7 of the ESA.

- There is no analysis of whether flow releases and other operational components of Alternative 5B or 5C may result in adverse impacts to steelhead, their habitat or other public trust resources, including, without limitation, potentially adverse impacts associated with switching operating criteria to and from those set forth in the BO. (2007 DEIR, p. 3-14.)

- There is no analysis of whether operations under Alternatives 5B or 5C are consistent with downstream water rights and the December 2002 Settlement Agreement between CCRB, SYRWCD, SYRWCD ID No. 1, and the City of Lompoc (see additional discussion below).

- There is no analysis of either Alternative 5B or 5C using updated water supply or demand data for the Member Units to determine the true water supply impacts to the Member Units compared to Reclamation's *existing* water right permits, e.g., WR Order 89-18 operations (see additional discussion below).

- There is no analysis of the mitigation measures that will be required to minimize the impacts of increased willow growth and other streambed alterations resulting from additional flow releases under Alternatives 5B and 5C.

- There is no disclosure that Alternatives 5B and 5C are based in significant part upon Alternative 3A2 evaluated in the 1995 EIS/EIR Master Contract renewal process and that Alternative 3A2 was determined to be an *infeasible* project alternative due to its significant water supply impacts.

VI. The 2007 DEIR Does Not Adequately Disclose or Analyze the Significant Environmental Impacts of Alternatives 5B and 5C, Nor Does the DEIR Demonstrate that Alternatives 5B or 5C Provide a Significant Biological Benefit to Steelhead, Their Habitat or Other Public Trust Resources

An EIR is the "heart of CEQA." (*Laurel Heights Improvements Ass'n v. Regents of the University of California* (1988) 47 Cal.3d 376, 392.) It is an environmental "alarm bell" whose purpose is to alert the public and its responsible officials to environmental changes before they result in ecological consequences. (*Id.*) Indeed, the fundamental purpose of an EIR is to provide public agencies and the public with detailed information about the effect a proposed project is likely to have on the environment, to list ways in which the significant effects of a project may be minimized and to identify alternatives to the project. (Pub. Res. Code § 21061.) These public disclosure requirements require the DEIR to "focus the discussion in the environmental impact report on those potential effects on the environment of a proposed project which the lead agency has determined are or may be significant." (Pub. Res. Code § 21002.1(e).) As discussed below, the DEIR does not adequately analyze the potential impacts of the alternatives it identifies, particularly Alternatives 5B and 5C. Nor does it demonstrate that either Alternative 5B or 5C minimize Project impacts by providing any significant biological benefit to steelhead, their habitat or other public trust resources. Accordingly, substantial evidence does not support the DEIR's conclusions in regard to Alternatives 5B or 5C.

A. The Water Supply Impacts of Alternatives 5B and 5C are Inadequately Analyzed.

Although the Cachuma Project is a water supply facility, the DEIR has lost sight of the critical water supply interests at stake. In particular, the analyses of Alternatives 5B and 5C grossly understate their associated water supply impacts to the Cachuma Member Units and are not supported by substantial evidence. To the contrary, the best available data show that the water supply impacts associated with Alternative 5C are far

more significant than portrayed in the 2007 DEIR and more significant than the water supply impacts associated with Alternative 3C. The following, non-exclusive list and discussion show many ways in which the 2007 DEIR fails to provide the environmental analysis required by CEQA or to satisfy CEQA's informational disclosure requirements with regard to water supply impacts:

- The 2007 DEIR concludes that only Alternative 5B has Class I impacts to water supply, while the Alternatives 5C and 3B are deemed to have Class III impacts and Alternatives 2, 3C, and 4B are concluded to have no water supply impacts. (2007 DEIR, pp. ES-8, ES-12, 4-32.) Although water supply impacts related to Alternative 5B are discussed in Section 4.3, no meaningful analysis is provided to evaluate the project-specific or cumulative water supply impacts to the Member Units relative to Alternative 5C or other Alternatives. (See, 2007 DEIR, Sections 4.3 and 7.0.) As discussed below, the water supply impacts analysis should conclude that each of the Alternatives has a Class I cumulative impact due to *significant* reductions in water supply from the Cachuma Project, similar to the conclusion found in the Final EIR/EIS for the Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion for Southern Steelhead Trout (COMB, Reclamation, 2004).

First, potential mitigation for water supply impacts from State Water Project ("SWP") deliveries is *even less reliable* now compared to the circumstances that existed at the time of the State Board's hearing on Cachuma issues in 2003. This decreased reliability is due in part to the remedies Order issued August 31, 2007 by the United States District Court in the case of *Natural Resources Defense Council v. Kempthorne*, USDC No. 05-CV-1207-OWW. The Court's Order will reduce SWP deliveries to the Cachuma Project service area by as much as 17 percent. (See additional discussion below.)

Second, the water supply impacts shown in the 2007 DEIR, Table 4-16 are considered an underestimate of the actual impacts that would be experienced during both the critical drought year (1951) and critical 3-year drought period (1949-1951). 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. It would be near-sighted to assume that future hydrologic conditions will occur only within the bounds of historical hydrology.

Table 4-16 of the 2007 DEIR is based on the historical hydrology, with a perfect forecast, when the exact length of a drought period is already known and the Cachuma Project supply can be used *in its entirety*. In actual practice, however, water supply managers have to plan for water supply assuming the year following the worst historical drought period itself would be dry. Indeed, to not do so would amount to unacceptably negligent water management. With reserves set aside for an additional dry year following the worst year of the critical period, actual water supply shortages would be substantially *greater* than those shown in the 2007 DEIR, Table 4-16. An estimate of the

actual water supply shortages that will likely occur within the Cachuma Project service area under the alternatives considered in the 2007 DEIR is shown below in Table 1. This Table compares Cachuma Project supplies shown in Table 4-16 to what Cachuma Project supplies would be *with reserves set aside during the critical drought period* based on the Santa Ynez River Hydrology Model (SYRHM). Table 1 shows that in a critical drought year, shortages would range from 14,792 to 16,669 acre-feet for all alternatives, with the largest shortages occurring under Alternatives 5B and 5C. Table 4-16 of the 2007 DEIR erroneously reports that the Cachuma Project shortages during the critical drought period would range from 9,808 to 12,506 acre-feet for all alternatives.

Third, the difference between the shortages in the Cachuma Project that Member Units are actually planning for and what the 2007 DEIR reports is even more significant than the water supply impacts illustrated in Table 1 indicate because the Member Units will be operating in a water *shortage* condition and not a water *surplus* condition as implied in the DEIR. Shortages of water from the Cachuma Project within the context of a regional water shortage condition are an extremely sensitive variable for Santa Barbara County water resources planning. Indeed, since the 2007 DEIR itself recognizes that Alternative 5B would have Class I impacts to water supply with a shortage level of 12,506 acre-feet (about 50 percent shortage from normal year supplies), the State Board's Final EIR should recognize that *all* of the potential alternatives have Class I cumulative impacts to water supply because their critical drought shortages would *all* be greater than 12,506 acre-feet, ranging from about 58 to 65 percent shortage based on a 1951 drought year.

Table 1 below shows that in the critical drought year period, with water supply managers responsibly planning for an additional year of drought, these shortages would range from 27,032 to 31,831 acre-feet based on the 1949-1951 drought, with the greatest shortages again occurring under Alternatives 5B and 5C. By contrast, Table 4-16 of the 2007 DEIR erroneously reports that the Cachuma Project shortages would range from 20,134 to 26,659 acre-feet for all potential alternatives. These differences in shortages become important for water resource planning in the context of Member Units demand and supplies from other sources as discussed below.

TABLE 1 (EXCERPT FROM DEIR TABLE 4-16)
IMPACTS ON PROJECT DELIVERIES TO MEMBER UNITS DURING CRITICAL DROUGHT WITH NO RESERVES AND RESERVES SET ASIDE FOR AN ADDITIONAL DRY YEAR BASED ON SYRHM, 1918-1993 (ACRE-FEET)

Water Supply Parameter	Alt 2 Interim Operations under Biological Opinion	Alt 3B Biological Opinion with 1.8' surcharge	Alt 3C Biological Opinion with 3' surcharge	Alt 4B Biological Opinion with SWP Delivery to Lompoc Forebay	Alt 5B: "3A2"/BO and 1.8' surcharge	Alt 5C: "3A2"/BO and 3' surcharge
Critical Drought Year WITH NO RESERVES SET ASIDE (based on 1951 drought year, compared to target yield of 25,714 af)						
Shortage in critical drought year (af)	9,808	11,262	9,895	9,351	12,506	11,406
% shortage in Cachuma deliveries in critical drought year	38%	44%	38%	36%	49%	44%
% shortage in Cachuma deliveries in critical drought year – difference from Alt. 2	-	6%	0	-2%	10%	6%
Critical Drought Year WITH RESERVES SET ASIDE (based on 1951 drought year, compared to target yield of 25,714 af)						
Shortage in critical drought year (af)	14,792	15,937	15,383	15,089	16,669	16,100
% shortage in Cachuma deliveries in critical drought year	58%	62%	60%	59%	65%	63%
% shortage in Cachuma deliveries in critical drought year – difference from Alt. 2	-	4%	2%	1%	7%	5%
Critical 3-year Drought Period WITH NO RESERVES SET ASIDE (based on 1949-51 drought, compared to target yield of 25,714 af)						
Shortage in critical drought years (af)	20,134	23,373	19,925	17,467	26,659	23,806
% shortage in Cachuma deliveries in critical drought period	26%	30%	26%	23%	35%	31%
% shortage in Cachuma deliveries in critical drought period – difference from Alternative 2	-	4%	0%	-3%	8%	5%
Critical 3-year Drought Period WITH RESERVES SET ASIDE (based on 1949-51 drought, compared to target yield of 25,714 af)						
Shortage in critical drought years (af)	27,032	29,456	27,750	24,526	31,831	29,934
% shortage in Cachuma deliveries in critical drought period	35%	38%	36%	32%	41%	39%
% shortage in Cachuma deliveries in critical drought period – difference from Alternative 2	-	3%	1%	-3%	6%	4%

- The 2007 DEIR analysis regarding the Member Units' water demands is based on outdated water demand figures from the agencies' 2000 Urban Water Management Plans ("UWMPs"). (2007 DEIR, pp. 4-23; 4-27.) The water demands and supplies from the Cachuma Project Member Units have been updated since the SWRCB's hearings and DEIR in 2003, and that information reflects increased current and projected water demands within the agencies.

The Member Units' updated demand data, as provided by each Member Unit, are included in Tables 2 through 9 below. The updated supply and demand numbers are based on the Member Units' current Urban Water Management Plans and water planning documents. State Water Project delivery reliability has also been updated since 2003 in DWR's 2005 "State Water Project Delivery Reliability Report 2005." That report lowers the annual expected reliability to 73 percent of Table A demand, on average, for Member Units. The 2005 DWR report also identifies key drought periods. Based on Table 5-4 of that report, the Member Units now use 32 percent of Table A amounts to represent average annual SWP deliveries during a four year drought period (based on CALSIM II modeling for years 1931-1934). The SWP deliveries shown in Tables 3 through 9 below do *not* include the impacts of the recent decision in *NRDC v. Kempthorne*.

TABLE 2
(DEIR TABLE 4-19, JULY 2007, WITH REVISIONS)
MEMBER UNITS' DEMAND IN ACRE-FEET

Member Unit	Year 2005	Year 2020
Carpinteria Valley Water District[1]	4,300	4,600
Montecito Water District[2]	7,194	7,305
City of Santa Barbara[3]	14,342	18,200
Goleta Water District[4]	14,000	17,300
Santa Ynez River Water Conservation District, ID No. 1[5]	7,268	8,247
Total	**47,104**	**55,652**

[1] Current demand based on year 2005. 2020 demand based on UWMP (2005).

[2] Current demand based on year 2007. 2020 demand based on UWMP (2005). Year 2030 demand is 7,835 acre-feet.

[3] From City of Santa Barbara Long-Term Water Supply Plan with a year 2009 target.

[4] Current and 2020 demand based on UWMP (2000; 2005).

[5] Includes 1,500 AFY of SWP allocated to City of Solvang under a water supply contract. Current demand based on year 2007. Future demand based on year 2025.

TABLE 3
(DEIR TABLE 4-10, AUG. 2003, WITH REVISIONS)
WATER SUPPLY AND DEMAND - CARPINTERIA VALLEY WATER DISTRICT[1]

	Normal Year	Critical Drought Year[2]	Comment
	(acre-feet per year)		
Supplies			
Cachuma Project	2,813	1,330	Fixed percentage of Cachuma Project yield. Cachuma represents 38% of total supply.
State Water Project	1,460	704	SWP Table A amount is 2,000 AFY plus 200 AFY of CCWA drought buffer; Assumes 73% average annual delivery and 32% during droughts.
Local groundwater	2,500	3,000	Share of local groundwater basin.
Total	**6,773**	**5,034**	
Demand			
Current (2005)	4,300		Approx. 50% for agricultural use.
Planned Future (2020)	4,600		

1 Sources: CVWD (2001 and C. Hamilton, General Manager, 2003; Urban Water Management Plan, 2005; 2007)

2 Based on simulation of Alternative 3C from the Santa Ynez River Hydrology Model (SYRHM).

TABLE 4
(DEIR TABLE 4-11, AUG. 2003, WITH REVISIONS)
WATER SUPPLY AND DEMAND – MONTECITO WATER DISTRICT[1]

	Normal Year (acre-feet per year)	Critical Drought Year[2] (acre-feet per year)	Comment
Supplies			
Cachuma Project	2,651	1,065	Fixed percentage of Cachuma Project yield. Cachuma represents 35% of total supply.
Jameson Lake, Fox and Alder creeks	2,000	312	Diversions on the upper Santa Ynez River. Drought year values are from SYRHM.
Doulton Tunnel	375	130	Drought year values are from SYRHM.
State Water Project	2,190	1,056	SWP Table A amount is 3,000 AFY plus 300 AFY of CCWA drought buffer; Assumes 73% average annual delivery of Table A amount and 32% during droughts.
Local groundwater	200	400	District's portion of Montecito Groundwater Basin's safe yield of 1,650 AFY. Maximum pumping is 400 AFY.
Total	**7,416**	**2,963**	
Demand			
Current (2007)	7,194		12% is losses and transfers to City of S.B. (300 AF).
Planned Future (2020)	7,305		2030 demand is estimated at 7,835 ac-ft.

1 Sources: MWD (2001 and T. Mosby, Operations Manager, 2003; 2007).

2 Based on simulation of Alternative 3C from the Santa Ynez River Hydrology Model (SYRHM).

TABLE 5
(DEIR TABLE 4-12, AUG. 2003, WITH REVISIONS)
WATER SUPPLY AND DEMAND – CITY OF SANTA BARBARA[1]

	Normal	Critical Drought Year[2]	Comment
	(acre-feet per year)		
Supplies			
Cachuma Project	8,277	3,325	Fixed percentage of Cachuma Project yield. Cachuma represents 45% of total supply.
Gibraltar Reservoir and Devils Canyon	4,310	0	
Mission Tunnel	1,109	500	Infiltration; tunnel from Gibraltar Reservoir.
Juncal Reservoir	300	300	Water from Montecito Water District per prior agreement.
State Water Project	2,200	1,056	SWP Table A amount is 3,000 AFY plus 300 AFY of CCWA drought buffer. Assumes 73% average annual delivery of Table A amount and 32% during droughts.
Local groundwater	1,104	4,150	City's portion of the Santa Barbara Groundwater Basin's safe yield of about 1,850 AFY; used for seasonal peaking and to replace surface water shortages due to drought.
Recycled water	900	900	
Desalination	0	3,125	For use only during emergency. Currently in storage mode. Max. capacity = 3,125 AFY.
Total	**18,200**	**13,356**	
Demand			
Current (2002)	14,342		
Planned Future (2009 per LTWSP)	18,200		

1 Source: City of Santa Barbara (2000; 1994 adopted Long Term Water Supply Program; and S. Mack, City Water Supply Manager, 2003; 2007).

2 Based on simulation of Alternative 3C from the Santa Ynez River Hydrology Model (SYRHM).

TABLE 6
(DEIR TABLE 4-13, AUG. 2003, WITH REVISIONS)
WATER SUPPLY AND DEMAND – GOLETA WATER DISTRICT[1]

	Normal	Critical Drought Year[2]	Comment
	(acre-feet per year)		
Supplies			
Cachuma Project	9,321	3,745	Fixed percentage of Cachuma Project yield; Cachuma represents about 53% of total supply.
State Water Project	4,500	2,384	SWP Table A amount is 7,000 AFY plus 450 AFY of CCWA drought buffer. The District assumes 60 percent average annual delivery of Table A amount and drought buffer. Assumes 32 percent during drought. The District's right to CCWA facility capacity is 4,500 AFY.
Local groundwater	2,350	4,500	District's portion of the Goleta Basin. Safe yield estimated at 3,410 AFY.
Recycled water project	1,500	1,500	Approximate capacity of built out project. Current production is approximately 1,000 AFY.
Total	**17,671**	**12,129**	
Demand			
Current (2000)	14,000		Includes approximately 1,000 AFY of recycled water.
Planned Future (2020)	17,300		Includes approximately 1,500 AFY of recycled water.

1 Sources: GWD (2001 and K Walsh, GWD General Manager, 2003; 2007).

2 Based on simulation of Alternative 3C from the Santa Ynez River Hydrology Model (SYRHM).

TABLE 7
(DEIR TABLE 4-14, AUG. 2003, WITH REVISIONS)
WATER SUPPLY AND DEMAND – SANTA YNEZ RIVER WATER CONSERVATION DISTRICT, ID NO. 1[1]

	Normal	Critical Drought Year[2]	Comment
	(acre-feet per year)		
Supplies			
Cachuma Project	2,651	1,065	Fixed percentage of Cachuma Project. Cachuma Project represents approximately 41% of total supply.
Santa Ynez Uplands Groundwater Basin	1,191	2,378	Production for normal year is based on an average of the last five years (2002-2007) which reflects Well No. 3 remaining out of production (water quality problems) and all wells producing at a reduced rate due to lower water levels. Drought supply is based upon average annual production during the 1987-1991 drought adjusted for Well No. 3 and reduced production from all wells. Includes Solvang upland well production.
Gallery Well	0	0	Currently inactive due to proximity of the river. Maximum permitted diversion is 515 AFY.
Santa Ynez River Underflow	1,836	1,480	Production from the 6.0 cfs permitted well field with two wells damaged – one permanently and a second under the surface water treatment rule and based on 5-year average. The 4.0 cfs permitted well field out of production except for one well due to flood impacts in 2005 with repairs scheduled for 2009. Includes City of Solvang permitted river well production.
State Water Project	1,606	704	SWP Table A amount is 2,000 AFY plus 200 AFY of CCWA drought buffer. District's Table A amount is 500 AFY plus 200 AFY of drought buffer. The remaining 1500 AFY is allocated to the City of Solvang under a water supply contract. Assumes 73% delivery of its 2,200 AFY allocation in normal year and 32 percent during drought.
Total	**7,284**	**5,627**	
Demand			
Current (2007)	7,268		Includes City of Solvang.
Planned Future (2025)	8,247		Includes City of Solvang.

1 Source: ID No. 1 (Chris Dahlstrom, ID No. 1 General Manager, 2003, 2007).

2 Based on simulation of Alternative 3C from the Santa Ynez River Hydrology Model (SYRHM).

TABLE 8 (DEIR TABLE 4-18, with Revisions)
SUMMARY OF MEMBER UNITS' SUPPLY FROM SOURCES OTHER THAN CACHUMA PROJECT IN CRITICAL DROUGHT YEAR (1951)

CVWD	
1. Local groundwater supply	**3,000**
MWD	
2. Jameson Lake and Alder Creek diversions (SYRHM simulation, Appendix E)	312
3. Doulton Tunnel infiltration and Fox Creek diversion (SYRHM simulation, Appendix E)	130
4. Local groundwater supply	400
5. MWD subtotal (2 + 3 + 4)	**842**
City of Santa Barbara	
6. Gibraltar Reservoir (SYRHM simulation, Appendix E)	0
7. Mission Tunnel infiltration and Devil's Canyon diversion (SYRHM simulation, Appendix E)	500
8. Jameson Reservoir	300
9. Local groundwater supply	4,150
10. Recycled water	900
11. Desalination	3,125
12. City of Santa Barbara subtotal (6 + 7 + 8 + 9 + 10 + 11)	**8,975**
GWD	
13. Local groundwater supply	4,500
14. Recycled water	1,500
15. GWD subtotal (10 + 11)	**6,000**
SYRWCD, ID No. 1	
16. Local groundwater supply	2,378
17. Santa Ynez River diversion	1,480
18. SYRWCD, ID No. 1 subtotal (16 + 17)	**3,858**
19. Average State Water Project delivery (assume 32% of Table A + buffer)	**5,904**[1]
20. Total supply from sources other than the Cachuma Project (1 + 5 + 12 + 15 + 18 + 19)	**28,579**

1 Includes SWP delivery to Solvang under a water supply contract with SYRWCD, ID No. 1.

TABLE 9 (DEIR TABLE 4-25b, with Revisions)
MEMBER UNITS' SUPPLY FROM SOURCES OTHER THAN CACHUMA PROJECT
DURING CRITICAL THREE-YEAR DROUGHT PERIOD (1949-1951)

CVWD	
1. Local groundwater	**7,200**
MWD	
2. Jameson Lake and Alder Creek diversions	2,194
3. Doulton Tunnel infiltration and Fox Creek diversion	432
4. Local groundwater	960
5. MWD subtotal	**3,586**
City of Santa Barbara	
6. Gibraltar Reservoir	4,055
7. Mission Tunnel infiltration and Devil's Canyon diversion	1,577
8. Local groundwater	9,960
9. Recycled water	2,700
10. Desalination	3,125
11. City of Santa Barbara subtotal	**21,417**
GWD	
12. Local groundwater supply	10,800
13. Recycled water	4,500
14. GWD subtotal	**15,300**
SYRWCD, ID No. 1	
15. Local groundwater supply	5,088
16. Santa Ynez River diversion	6,255
17. SYRWCD, ID No. 1 subtotal	**11,343**
18. State Water Project delivery (assumed 32% of Table A + buffer)	**17,712**
19. Total supply from sources other than Cachuma Project in critical three-year drought period (1 + 5 + 11 + 14 + 17 + 18)	**76,558**

- Tables 10 and 11 below reflect both the simulated shortages from the Cachuma Project with reserves set aside (Table 1) and the updated water demands and supplies (Tables 2 through 9). Tables 10 and 11 provide appropriate revisions to Tables 4-17 and 4-25A of the 2007 DEIR and show that during the critical drought period there is a *regional* water shortage that is not made up by water from other sources. Notably, these tables do not include the impacts to Gibraltar and Jameson Reservoirs and Lake Cachuma expected to result from the Zaca fire which burned substantial portions of the Santa Ynez River watershed in 2007. Preliminary estimates are that the fire – and the deposition of debris that is anticipated to result – will reduce the capacity of on-River storage by significant amounts; however, these amounts are yet to be determined. Nonetheless, even without these adjustments, the Final EIR needs to recognize that a large percentage of the population of Santa Barbara County that the Member Units serve will be operating in a water shortage condition and not a water surplus condition as implied in the 2007 DEIR.

- The 2007 DEIR recognizes that Alternative 5B would have Class I impacts using the current demand levels with regional water shortages of 1,487 acre-feet and 1,737 acre-feet during the critical drought year (1951) and the critical drought period (1949-1951), respectively. However, the Final EIR must recognize that the water supply shortages are more dire than noted in the 2007 DEIR with shortages ranging from 14,600 to 19,400 acre-feet during the critical drought period for all alternatives (Table 11), with the largest impacts being generated by Alternatives 5B and 5C. All of these alternatives have a Class I cumulative impact due to significant reductions in water supply from the Cachuma Project, and it is unrealistic for the DEIR to contend otherwise.

TABLE 10 (DEIR Table 4-17, with Revisions)
MEMBER UNITS' SUPPLY AND DEMAND IN CRITICAL DROUGHT YEAR (1951)

	Alt 2	Alt 3B	Alt 3C	Alts 4B	Alt 5B: "3A2"/BO and 1.8' surcharge	Alt 5C: "3A2"/BO and 3' surcharge
1. Cachuma Project yield in a critical drought year (SYRHM simulation, with reserves set aside)	10,922	9,777	10,331	10,625	9,045	9,614
2. Total supply from sources other than the Cachuma Project (Table 4-18)	28,579	28,579	28,579	28,579	28,579	28,579
3. Total supply (1 + 2)	39,501	38,356	38,910	39,204	37,624	38,193
4. Year 2000 demand (Table 4-19)	47,104	47,104	47,104	47,104	47,104	47,104
5. Surplus or shortage (3 - 4)	-7,603	-8,748	-8,194	-7,900	-9,480	-8,911
6. Year 2020 demand (Table 4-19)	55,652	55,652	55,652	55,652	55,652	55,652
7. Shortage (3 - 6)	-16,151	-17,296	-16,742	-16,448	-18,028	-17,459

TABLE 11 (DEIR Table 4-25a, with Revisions)
MEMBER UNITS' SUPPLY AND DEMAND
DURING CRITICAL THREE-YEAR DROUGHT PERIOD (1949-1951)

	Alt 2	Alt 3B	Alt 3C	Alts 4B	Alt 5B: "3A2"/BO and 1.8' surcharge	Alt 5C: "3A2"/BO and 3' surcharge
1. Cachuma Project yield in a critical drought period (SYRHM simulation, with reserves set aside)	50,110	47,686	49,392	52,616	45,311	47,208
2. Total supply from sources other than the Cachuma Project (Table 4-25b)	76,558	76,558	76,558	76,558	76,558	76,558
3. Total supply (1 + 2)	126,668	124,244	125,950	129,174	121,869	123,766
4. Year 2000 demand (Table 4-19 * 3)	141,312	141,312	141,312	141,312	141,312	141,312
5. Surplus or shortage (3 - 4)	-14,644	-17,068	-15,362	-12,138	-19,443	-17,546
6. Year 2020 demand (Table 4-19 *3)	166,956	166,956	166,956	166,956	166,956	166,956
7. Shortage (3 - 8)	-40,288	-42,712	-41,006	-37,782	-45,087	-43,190

• Tables 12 and 13 below compare Cachuma Project water shortages during the critical drought period, with and without reserves set aside, to shortages under Alternative 1 – existing water rights under WR Order 89-18 (2003 DEIR). As Tables 12 and 13 both indicate, the Member Units have already incurred significant water supply reductions during critical drought periods by operating consistently with Alternative 3C. These operating conditions were developed over the period 1994 to 2000 as a result of meetings between and among Reclamation, the Member Units, NMFS, various downstream interests, and other parties, and resulted in NMFS' steelhead Biological Opinion and the Lower Santa Ynez River Fish Management Plan. Tables 12 and 13 below show that the Cachuma Project water supply resulting from Alternative 3C is about a 10-11 percent reduction from the target yield of 25,714 acre-feet compared with Alternative 1. Figure 1 shows the incremental Cachuma Project shortages compared with Alternative 1, with the largest incremental shortages occurring under Alternatives 5B and 5C. It should be noted that while relative differences in Cachuma shortages are greater in the SYRHM when the entire Cachuma supply is used, the absolute shortages in the SYRHM are much greater with reserves set aside.

Figure 1
Cachuma Project Incremental Shortages Compared to Alternative 1 in Critical Drought Period, 1949 through 1951

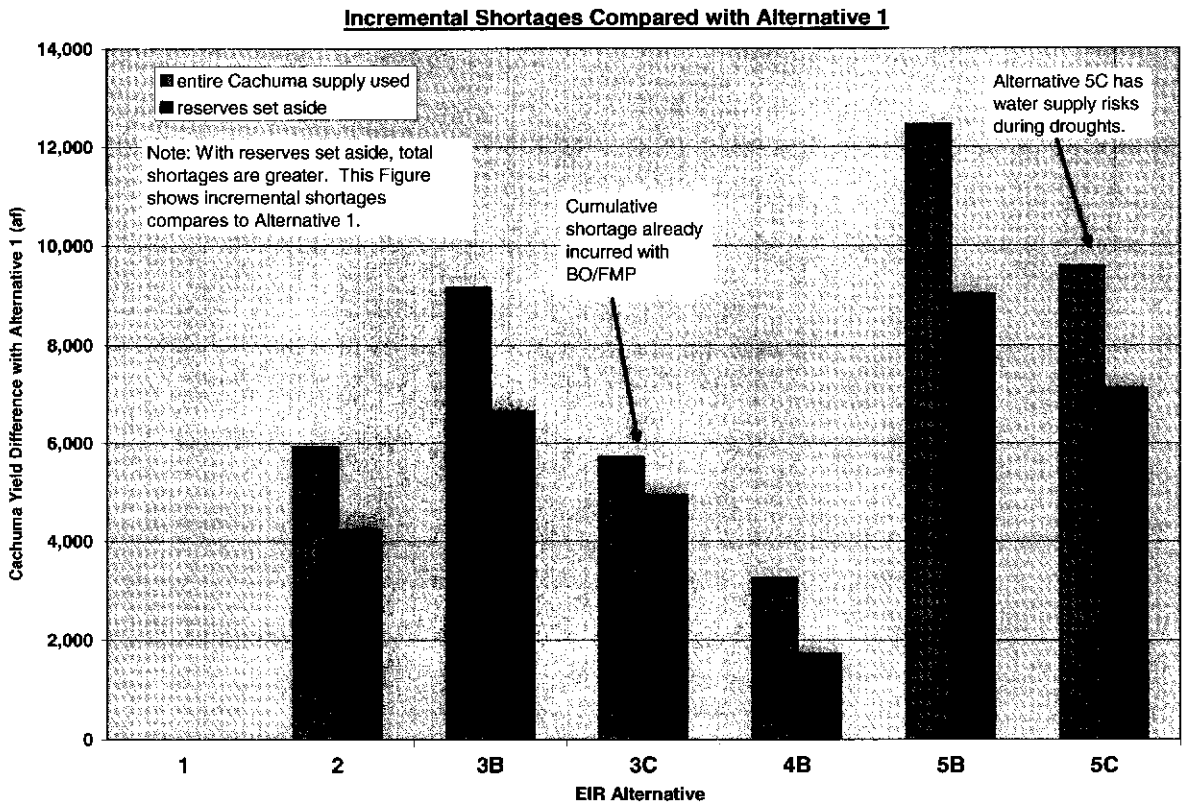


Table 12
Impacts on Project Deliveries to Member Units
in Critical Drought Period, 1949 through 1951,
With No Reserves Set Aside for an Additional Dry Year
Based on SYRHM (acre-feet)

EIR Alternative	Shortage in Critical Drought Year (1951)	Shortage Compared with Alternative 1 (1951)	Shortage Compares with Alternative 1 as Percentage of Target Yield (1951)	Cumulative Shortage in Critical Drought Period (1949-1951)	Shortage Compared with Alternative 1 (1949-1951)	Shortage Compares with Alternative 1 as Percentage of Target Yield (1949-1951)
1	7,068	--	--	14,210	--	--
2	9,808	2,740	11	20,134	5,924	8
3B	11,262	4,194	16	23,373	9,163	12
3C	9,895	2,827	11	19,925	5,715	7
4B	9,351	2,283	9	17,467	3,257	4
5B	12,506	5,438	21	26,659	12,449	16
5C	11,406	4,338	17	23,806	9,596	12

Notes: Annual draft from Cachuma Project is 25,714 acre-feet.
Cumulative shortage in critical drought period based on 36-months starting in May 1949.

Table 13
Impacts on Project Deliveries to Member Units
in Critical Drought Period, 1949 through 1951,
With Reserves Set Aside for an Additional Dry Year
Based on SYRHM (acre-feet)

EIR Alternative	Shortage in Critical Drought Year (1951)	Shortage Compares with Alternative 1 (1951)	Shortage Compares with Alternative 1 as Percentage of Target Yield (1951)	Cumulative Shortage in Critical Drought Period (1949-1951)	Shortage Compares with Alternative 1 (1949-1951)	Shortage Compares with Alternative 1 as Percentage of Target Yield (1949-1951)
1	12,738	--	--	22,804	--	--
2	14,792	2,054	8	27,032	4,228	5
3B	15,937	3,198	12	29,456	6,652	9
3C	15,383	2,644	10	27,750	4,945	6
4B	15,089	2,351	9	24,526	1,721	2
5B	16,669	3,931	15	31,831	9,027	12
5C	16,100	3,362	13	29,934	7,129	9

Notes: Annual draft from Cachuma Project is 25,714 acre-feet.
Cumulative shortage in critical drought period based on 36-months starting in May 1949.

Table 12 above shows there will be significant water supply shortages compared to operations under WR 89-18 even if it is assumed, *arguendo*, that water supply managers in the Cachuma Project service area act irresponsibly and do not plan for a further year of drought. Table 13 above shows that when water supply managers make the reasonable assumption that the following year may also be a drought year, the shortages grow commensurately. In all cases, as the tables demonstrate, the shortages for both a critical year and over the critical drought period are the greatest under Alternatives 5B and 5C.

Further, Tables 12 and 13 suggest that the shortages occurring from the BO/FMP process should not be discounted as the State Board moves to a final decision. In 1994, the SWRCB adopted its most recent order governing Cachuma Project operations (WR Order 94-5). The Member Units and Reclamation have proactively worked with NMFS to increase flows for fish *above* the 1994-level, while acting upon mitigation measures for water supply shortages including surcharging and acquiring SWP water. However, these mitigation measures do not fully restore the Cachuma project water supply that was previously available during a drought period under Alternative 1 (WR Order 89-18). Furthermore, the regional water supply shortages that exist in all of the alternatives, including Alternative 1, are significant and unmitigable as shown in Table 14, below. All of the alternatives discussed in the 2007 DEIR will exacerbate the water shortages that will be experienced in the Cachuma Project service area during critical drought periods.

Table 14
MEMBER UNITS' SUPPLY AND DEMAND IN CRITICAL DROUGHT YEAR (1951) FOR ALTERNATIVE 1

	Alt 1
1. Cachuma Project yield in a critical drought year (SYRHM simulation, with reserves set aside)	12,976
2. Total supply from sources other than the Cachuma Project (Table 4-18)	28,579
3. Total supply (1 + 2)	41,555
4. Year 2000 demand (Table 4-19)	47,104
5. Shortage (3 - 4)	**-5,549**
6. Shortage as Percentage of Demand (5/4*100)	**-12%**

- The 1949-1951 critical drought period reviewed in the 2007 DEIR should also be put in the proper historical context. Droughts in southern California are real and can be more severe than the critical drought that occurred over the 1949-1951 period. History shows, for example, that severe droughts occurred in the Santa Ynez Basin in the periods 1928-34 and 1986-91, as well as 1949-1951. In the USGS Water Supply Paper, "Water Resources of Southern California with Special Reference to the Drought of 1944-51" (USGS, 1957), the USGS found the 9-year dry period of 1895-1904 to be the driest over the period of record. Table

15 shows an excerpt from the USGS study which indicates that the critical period simulated for the Santa Ynez River (1949-1951) could produce more runoff than the critical drought that could be experienced. To ensure that the DEIR does not underestimate the potential for extended droughts on the Santa Ynez River, a sensitivity analysis should be performed on the water supply impacts of the potential EIR alternatives assuming a 10 to 20 percent reduction in runoff into Cachuma Reservoir from the 1944-51 level.

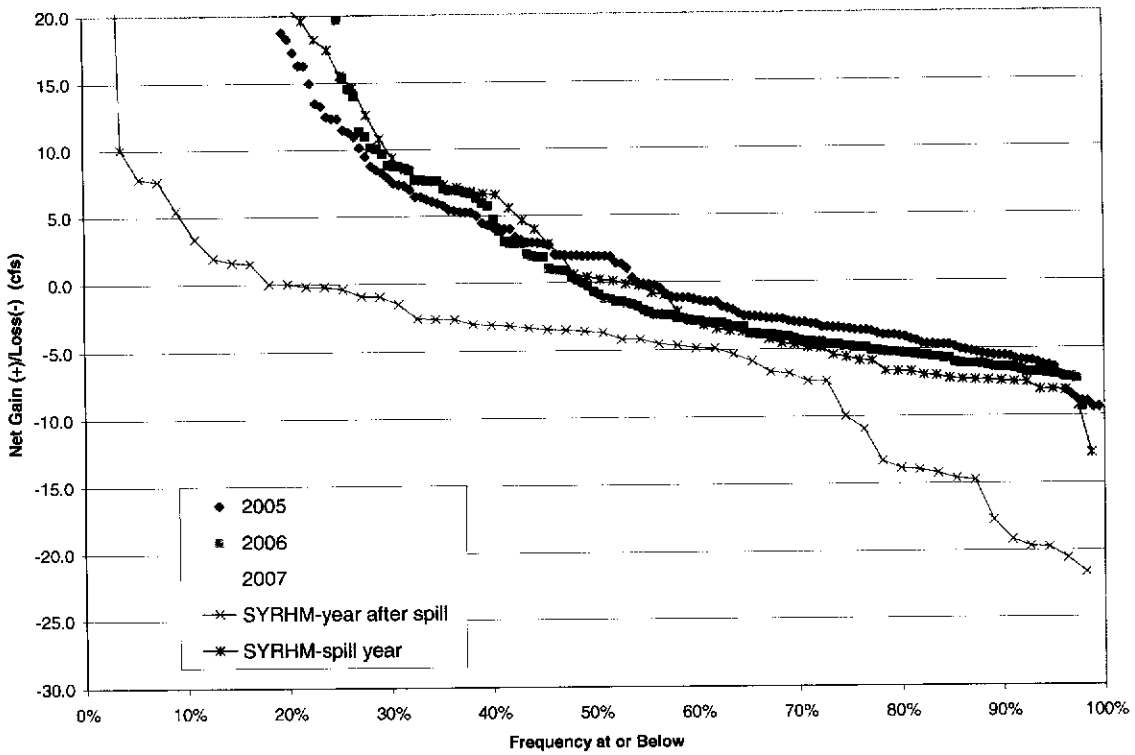
Table 15
Excerpt from USGS Water Supply Paper 1366
Historical Drought Periods in Southern California

			San Gabriel River		Santa Ana River	
Date	Character of Period	Length of Period (years)	Mean of Period (acre-feet)	Departure from 56-year mean (percent)	Mean of Period (acre-feet)	Departure from 56-year mean (percent)
1895-1904	Dry	9	46,400	-59	36,200	-44
1904-22	Wet	18	172,600	51	92,100	44
1922-36	Dry	14	65,900	-42	45,800	-29
1936-44	Wet	8	192,500	69	82,800	29
1944-51	Dry	7	57,100	-50	38,800	-39

- Alternatives 5B and 5C pose an unknown risk to Cachuma Project water supplies by requiring much larger continuous flow targets at Alisal (Solvang) bridge during the summer months (10 to 25 cfs) than that which has been reviewed and planned for under the Fish Management Plan (1.5 cfs). The primary target site for current operations under the long-term BO/FMP is the Highway 154 bridge located about 3.5 miles downstream Cachuma Lake. Alisal bridge is located about 10.5 miles downstream and is subject to more variables that affect flows which are beyond the control of the Cachuma Project operations.

Recent operations for releases for fish indicate that 1.5 cfs at Alisal bridge in itself poses a risk to Cachuma Project water supplies in certain years such as 2007. Under the BO and FMP, long-term operations (Alternative 3C) in a spill year greater than 20,000 cfs and in the year after a spill, provide that the target flow at Alisal bridge is 1.5 cfs. In fact, BO/FMP long-term operations began after the spill in 2005. 2006 was also a spill year, and 2007 is the year after a spill. However, 2007 also happens to be the driest year on record at Cachuma Reservoir in the year after a spill. The SYRHM is based on years 1918-1993. The consequence is that much *more* water had to be released than expected under the SYRHM as shown in Figure 2. Sensitivity analyses regarding losses from Cachuma to Solvang bridge and the target flows at Solvang bridge are definitely needed, particularly for an analysis of the reservoir releases contemplated by Alternatives 5B and 5C, for which the SYRHM has not been calibrated.

Figure 2
Frequency of Net Gain/Loss between Bradbury Dam and Solvang Bridge
April through September, When 1.5 cfs Target Flow at Solvang Bridge is in Effect



• Analyses should also be included in the Final EIR for anticipated SWP deliveries, particularly as drought year water supplies are a very sensitive variable in the SWP model CALSIM II: "The difference between the earlier studies and the update studies for the estimated *minimum* Table A delivery is significant. The updated studies have a minimum delivery of 4 percent to 5 percent of maximum Table A compared to 19 to 20 percent for the studies in the SWP Delivery Reliability Report 2002 (DWR 2003)." (DWR 2006; emphasis added.) Despite this information published by DWR, the 2007 DEIR improperly uses a 50 percent reliability figure for SWP Table A water deliveries for critical drought year and critical 3-year drought periods. (See, e.g., 2007 DEIR, pp. 4-23; 4-24; 4-29.) As indicated above, DWR's 2005 SWP Delivery Reliability Report states that SWP Table A delivery reliability ranges between 4 to 5 percent in a single-dry year, 40 to 41 percent in a 2-year drought, and 32 to 33 percent in a 3-year drought. (DWR 2005 SWP Delivery Reliability Report, p. 18; Table 5-4.) The 2007 DEIR's use of a 50 percent SWP reliability figure for drought periods is also inconsistent with the figures utilized by several Member Units in their most recently adopted 2005 Urban Water Management Plans and water supply planning documents, which use lower reliability figures more akin to those utilized by DWR. On these and other bases, the use of a 50 percent reliability factor for SWP deliveries in critical drought periods is not supported by substantial evidence. Failure to use current and available data that are highly relevant (indeed determinative) to an impact

analysis in an EIR violates CEQA. (See *Berkeley Keep Jets Over the Bay Committee v. Port of Oakland* (2001) 91 Cal.App.4th 1344; CEQA Guidelines § 15088.5.)

The 2007 DEIR acknowledges the water supply impacts of Alternatives 5B and 5C, stating: "Compared to baseline operations, Alternatives 3B, 5B, and 5C involve greater releases for fishery resources that are not fully offset by the additional surcharging during spill events. As a consequence, the frequency of years with shortages of 10 percent or more is greater under Alternatives 3B, 5B, and 5C. Cachuma Lake is the primary local water source for South Coast communities, and an increase in years with shortages will require greater reliance on alternative sources of supply (primarily imported state water) which is less desirable due to lower reliability and higher costs." (2007 DEIR, p. 4-21.) This portion of the 2007 DEIR analysis improperly assumes, without supporting evidence or analysis, that additional SWP supplies will be available to the Member Units to make up for water supply impacts.

The 2007 DEIR states that Member Units may obtain a temporary transfer of additional SWP supplies from "another SWP contractor" (2007 DEIR, pp. 4-30; 4-31), yet the analysis fails to identify those contractors, their contractual/legal rights to use SWP supplies, the quantities of SWP supplies available to those contractors in normal and dry periods, the likelihood of those supplies proving available, or the potential environmental impacts likely to result from using those sources if available. Indeed, the analysis provided in the 2007 DEIR regarding the availability and reliability of additional SWP supplies is the type of "paper water" analysis that falls far short of CEQA's requirements, as set forth in *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412. Moreover, as shown in Tables 3 through 7 above, only the Carpinteria Valley Water District has an excess supply in the critical drought period. The volume of CVWD's supply in excess of anticipated demand is 700 acre-feet. By contrast, Table 10 above shows that regional water supply shortages during the period range from about 7,600 to 9,500 acre-feet. CVWD's "excess" supply is insufficient to make any substantial dent in this shortage – even assuming there are legal agreements in place for such an exchange to occur. Mitigation measures that call for delivering more SWP water into the Reservoir also faces physical pipeline delivery constraints that are not analyzed in the 2007 DEIR.

While the 2007 DEIR assumes that the additional water supply impacts associated with Alternatives 5B and 5C can be substantially mitigated by the use of water delivered from the State Water Project – itself a mischaracterization of the purpose for which the citizens of Santa Barbara County have obligated themselves to pay for the cost of State water – the assumption fails to take into account recent information significantly impacting the delivery of SWP water. On August 31, 2007, the Federal District Court for the Eastern District of California concluded its hearing on interim remedies in the case of *Natural Resources Defense Council v. Kempthorne, et al.* (USDC Case No. 05-CV-1207-OWW). The remedies phase of the proceedings in the case followed the Court's published decision in May 2005 to invalidate the 2005 Biological Opinion issued by NMFS regarding SWP/CVP operations on the grounds that the Biological Opinion failed to adequately analyze impacts to the threatened delta smelt in violation of the ESA.

In its oral ruling delivered August 31, 2007 the Court ordered that SWP operations must be substantially modified pending the completion of a new Biological Opinion for the smelt. The modifications ordered by the Court are substantially similar to a "Delta Smelt Action Matrix" developed by the FWS and DWR that effectively reduces SWP and CVP exports from the Delta by as much as 17 percent as shown in Table 16 below. Nor is there any indication that the export reductions ordered by the Court will be limited just to the period prior to issuance of a new smelt Biological Opinion. Instead, testimony presented at the trial on interim remedies indicated that the measures included in the FWS Action Matrix are likely to be considered for inclusion in the expected long-term Biological Opinion as well. Thus, the assumption of the DEIR that the shortages caused by certain alternatives can be mitigated simply through the delivery of SWP water is dangerously naïve and not supported by substantial evidence. Indeed, because the 2007 DEIR assumes certain SWP deliveries to the Member Units and relies on the Member Units' ability to acquire additional SWP supplies though temporary transfers, the DEIR must address the water supply impacts of the *Kempthorne* ruling, particularly in regard to Alternatives 5B and 5C.

Table 16
Summary of Preliminary Estimated Reductions in State Water Project Deliveries
Natural Resources Defense Council v. Kempthorne, et al. (Case No. 05-CV-1207-OWW)

Total SWP Reductions	**Average**	**Dry**
Annual Delivery Reduction	200 – 680 taf	10-14 taf
Percent Delivery Reduction	**5-17%**	**1-4%**

Source: Preliminary findings from CalSIM II, DWR, 9/18/2007

- Potential mitigation of the increase in Cachuma Project shortages caused by the DEIR's alternatives through increased ground-water pumping also requires a more comprehensive review of impacts. For example, in "Water Resources of Southern California with Special Reference to the Drought of 1944-51" (USGS, 1957), the ground-water tables near the Member Units showed considerable decline as illustrated below in Figure 3. The indirect environmental impacts from ground-water pumping during droughts, such as possible sea water intrusion, requires more discussion than is provided in the 2007 DEIR. Currently, the document provides no information or evaluation of local groundwater rights, overall short- and long-term supplies compared to local demand, or the likelihood of those additional supplies proving available in light of legal, technical or other limitations. (2007 DEIR, p. 4-30.) Instead, the analysis simply assumes that significant amounts of groundwater will be reliably and legally available to the Member Units, contrary to the requirements of *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova, supra*, 40 Cal.4th 412. (See, e.g., 2007 DEIR, Table 4-25b; Appendix F, Tables 19A-B.) This inadequate analysis results in a gross understatement of water supply impacts to the Member Units.

Figure 3
Excerpt from USGS Water Supply Paper 1366
Ground-water Level Decline near Carpinteria and Goleta (1940-1951)

CARPINTERIA AND GOLETA BASINS

The Carpinteria and Goleta basins are two small coastal alluvial areas in the southeast corner of the region (fig. 34). Water-level records before 1941 for these coastal basins (Upson, 1951) are not available and, consequently, it has not been possible to compare the effects of the current drought with previous droughts. However, the record of declining water level obtained at well 4/25-27Q2 in Carpinteria and shown on figure 39 depicts the seriousness of the present drought. Since 1945 the water level in this well has declined at the rate of about 10 feet per year, a rate typical of most of the wells in the area.

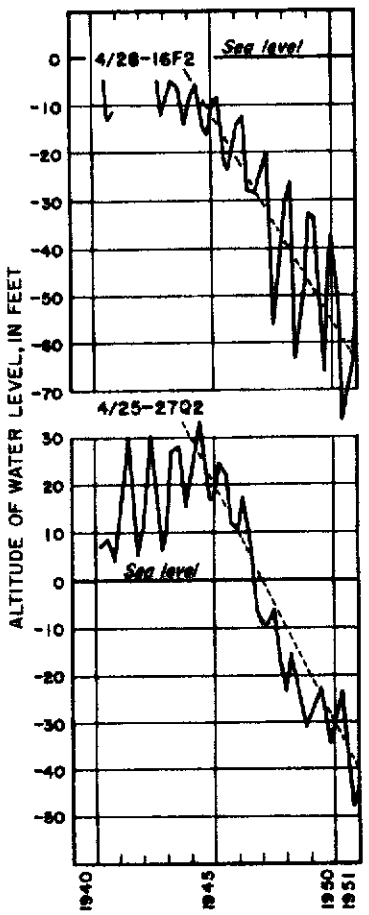


Figure 39.—Altitude of ground water at selected wells in the Carpinteria and Goleta basins.

- The 2007 DEIR improperly assumes desalination will comprise a portion of the Member Units' water supplies during critical drought periods. (See, e.g., 2007 DEIR, pp. 4-23; 4-24; 4-27; 4-29.) While desalinated water is assumed to be available to the City of Santa Barbara, the analysis concedes that necessary National Pollutant Discharge Elimination System permits are not currently in place to produce such water and no discussion is provided regarding the likelihood of those permits being obtained. (2007 DEIR, p. 4-31.) The 2007 DEIR fails to analyze whether the desalination facility is currently operable and whether existing infrastructure exists to deliver desalinated water within the City or to other Member Units. Nor does the DEIR address the time within which such facilities and delivery capabilities would be available, if in fact they could be, to make desalinated water exist as a feasible mitigation measure to offset water supply shortages. As a result, water supply impacts are substantially understated.

- The 2007 DEIR uses a hydrologic period ending in 1993 (almost fifteen years ago) to analyze water supply impacts to the Member Units. (2007 DEIR, Section 4.3.) In accordance with the comments provided above, utilizing this outdated information while more current and relevant data are available violates CEQA.

B. The 2007 DEIR Fails to Demonstrate that Alternatives 5B or 5C Provide a Significant Biological Benefit to Steelhead, Its Habitat or Other Public Trust Resources.

The National Marine Fisheries Service ("NMFS") is the federal agency charged by Congress to protect the endangered Southern California steelhead and its critical habitat under the federal Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.* Section 4 of the ESA provides for the listing of any species found to be in danger of extinction throughout all or a significant portion of its range, or likely to become so in the foreseeable future. (16 U.S.C. § 1533(a)-(c).) The Secretary of Commerce must make this determination "solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species and after taking into account any conservation efforts being undertaken by any state or foreign nation. (16 U.S.C. § 1533(b).) Under Section 7 of the ESA, once a species is listed, no federal agency can take an action which jeopardizes the continued existence of the species or results in the destruction or adverse modification of its habitat. (16 U.S.C. § 1536(a).) This limitation on the authority of all federal agencies is the basis of the Section 7 consultation process, which culminates in the issuance of a biological opinion. (16 U.S.C. § 1536(b).)

On August 11, 1997, NMFS listed the Southern California steelhead (*Oncorhynchus mykiss*), including steelhead found in the Santa Ynez River watershed below Bradbury Dam, as an endangered species under the ESA. In April 1999, the Santa Ynez River Technical Advisory Committee ("SYRTAC")[1] issued a public draft of the Lower Santa Ynez River Fish Management Plan ("FMP"), a study plan for developing fish habitat management alternatives for the lower Santa Ynez River. Much of the SYRTAC's work (resulting in the final FMP in

[1] The SYRTAC included representatives from the California Department of Fish and Game, the National Marine Fisheries Service, the Bureau of Reclamation, CCRB, ID No. 1, and downstream water rights interests.

October 2000) served as foundation for the Reclamation's Section 7 consultation with NMFS regarding operation and maintenance of the Cachuma Project.

On September 11, 2000, NMFS issued its Biological Opinion regarding Reclamation's proposed operation and maintenance of the Cachuma Project, concluding that such activity is not likely to jeopardize the continued existence of the Southern California steelhead and is not likely to destroy or adversely modify its critical habitat. (2007 DEIR, p. 2-12; Biological Opinion, p. 68.) Along with the Biological Opinion, NMFS issued an incidental take statement under ESA Section 7(b)(4) and 7(o)(2), allowing the incidental take of steelhead to occur in connection with Reclamation's ongoing operation and maintenance of the Cachuma Project. The incidental take statement, however, was made conditional upon Reclamation's compliance with a series of non-discretionary terms and conditions implementing 15 reasonable and prudent measures determined to be necessary to minimize and monitor the incidental take of steelhead. These measures included certain modifications to downstream fisheries water releases, the provision of a Hilton Creek watering system, and the removal or modification of certain passage barriers to steelhead migration on tributaries downstream of Bradbury Dam, such as Salsipuedes, El Jaro and Hilton Creeks. (2007 DEIR, p. 2-12. See Biological Opinion, pp. 68-82.) With the cooperation of the Member Units, Reclamation has operated the Cachuma Project in compliance with the Biological Opinion and implemented the protective measures set forth in the Biological Opinion and FMP.

As provided for in NMFS' BO, a key element of Reclamation's operation and maintenance of the Cachuma Project now involves surcharging Lake Cachuma (increasing its water level) by 3.0 feet. (Biological Opinion, p. 6.) Indeed, many of the flow-related fish support measures established by the Biological Opinion derive from the use of surcharged water. (Id. at pp. 6-10.) When the Biological Opinion was prepared in year 2000, the 3.0 foot surcharge was proposed to be phased in over the succeeding five years and expected to be fully implemented by 2005. (Id. at p. 6.) As noted in the 2007 DEIR, however, Reclamation did not implement a 3.0-foot surcharge in 2005 due to potential impacts to recreational facilities within the Cachuma County Park. (2007 DEIR, p. 2-13.) Instead, Reclamation implemented a 2.47-foot surcharge (it implemented a 3.0 foot surcharge in 2006 with the concurrence of the County of Santa Barbara) and will permanently implement a 3.0 foot surcharge by 2009 pursuant to a Memorandum of Understanding between CCRB, SYRWCD, ID No. 1, and the County of Santa Barbara. (Id.) The environmental impacts of implementing the flow releases and other fish enhancement measures set forth in the BO and FMP were fully analyzed in the FMP/BO Environmental Impact Report/Environmental Impact Statement jointly prepared and certified by COMB and Reclamation pursuant to CEQA and NEPA.

The flow recommendations developed by NMFS assuming a 3.0 foot surcharge are based on the best available science and are designed to maintain existing habitat and provide adequate passage downstream of Bradbury Dam. (Statement of James A. Lecky; NOAA Exhibit No. 1, pp. 2-3, Cachuma Project Hearing, Phase 2.) Although NMFS has recommended further studies regarding issues such as habitat and long-term flow requirements in the Santa Ynez River (Id. at p. 2), NMFS has never proposed or recommended higher flow releases for fish and habitat

protection than those developed through the 3.0 foot surcharge of Cachuma Reservoir, as provided in the BO. Nor has NMFS advocated that such studies must be completed prior to the State Board's adoption of the EIR and modification of Reclamation's water right permits. (See Cachuma Project Hearing, Phase 2, Cross-Examination of NOAA Fisheries, November 12, 2003, p. 682.)

The California Department of Fish and Game ("DFG") has supported the water release regime developed by NMFS. In written comments submitted to COMB dated September 30, 2003 regarding the Draft FMP/BO EIR/EIS, DFG stated, in part:

> The Department supports the recommended management actions identified in the FMP and BO. While the actions identified in the DEIR are expected to produce positive benefits for steelhead in the lower Santa Ynez, the ongoing monitoring and adaptive management process outlined in the FMP and BO will refine these actions and progress should not end there. The Department sees the implementation of these management actions as a starting point with an expectation that there will be further studies of stream flows, passage barriers in the Santa Ynez watershed and exploration other habitat restoration actions that will further enhance the watershed and aid in the restoration of the steelhead population. (DFG, 10/30/2003, p.1.)

As part of the 2003 State Board hearings on the Cachuma Project, DFG suggested that additional protective measures should be undertaken for steelhead within the Santa Ynez River system, but made no scientific showing that such measures would benefit steelhead or its habitat below Bradbury Dam. (See, e.g., Cachuma Project Hearing, Phase 2, Cross-Examination of Department of Fish and Game, October 23, 2003, pp. 529-564.) In several key respects, the 2007 DEIR simply fails to make a scientific showing that Alternatives 5B or 5C provide a biological benefit to steelhead, their critical habitat, or other public trust resources downstream of Bradbury Dam.

The Member Units support the methodology used in the evaluation of alternatives in the DEIR and the criteria developed from work conducted by the Santa Ynez River Technical Advisory Committee, and agree they are appropriate to evaluate the impact of the alternatives on steelhead in the Santa Ynez River. However, we do not agree with the findings reached in the DEIR relative to the comparison of fishery impacts resulting from Alternatives 3B/C and 5B/C. Instead, we believe the application of the methodology and criteria should result in the conclusion that the analyses presented in the 2007 DEIR overstate the potential benefits of Alternatives 5B and 5C. Moreover, the 2007 DEIR analysis does not demonstrate an appreciable difference between Alternatives 3B and 3C, on the one hand, and Alternatives 5B and 5C, on the other, with respect to habitat for steelhead/rainbow trout. Nor does the 2007 DEIR provide conclusions relative to potential impacts or benefits to other public trust resources associated with the Alternatives 5B or 5C. Furthermore, the 2007 DEIR provides no analysis of how

Alternatives 5B and 5C address or are related to the significant issues identified in the 2000 Biological Opinion prepared by NMFS, the federal agency charged with steelhead/rainbow trout protection and recovery. Finally, the 2007 DEIR does not address the critical issue of drought years and the mechanism by which flows are to be released to support fish when the reservoir may be at a critically low level and fish are not expected to be in the lower river. Additional specific comments regarding the fisheries analysis in the DEIR are set forth below.

1. Page-Specific Fishery Comments (2007 DEIR).

- Pages 4-63 to 4-64. The description provided of the scoring criteria is insufficient. This discussion should include a more complete description of the background resulting in the scoring criteria. These criteria were developed over several years through extensive consultation and study with the agreement of the SYRTAC[2] in consideration of the physical nature of the Santa Ynez River and access issues. However, while the background information is incomplete, the Member Units support the use of the criteria and note that they are the same as the criteria used in the EIR/EIS prepared by Reclamation and COMB. We further note that the criteria are consistent with, although not identical to, those used in developing the Biological Assessment (Reclamation 2000), the Biological Opinion (NMFS 2000), and the Santa Ynez River Fish Management Plan (SYRTAC 2000).

- Page 4-67. The 2007 DEIR's evaluation of effects on fish migration would benefit greatly from a straightforward statement regarding the relative benefits of each of the various alternatives. Review of the scores indicates that *all* of the alternatives provide a beneficial effect to steelhead/rainbow trout passage compared to Alternative 2. Average scores for all of the alternatives are 3.5 (Table 4.42) and these alternatives would provide about the same passage opportunity for steelhead/rainbow trout over time. The various alternatives provide one or two more years of additional protection in one scoring category and one or two fewer years of protection in another category, but these differences average out over the period of analysis. Therefore, the very slight advantage in passage days (score of 5) of Alternatives 5B and 5C is inconsequential in the Santa Ynez River.

- Pages 4-67 to 4-68. The differences in habitat improvement for steelhead spawning between Alternatives 5B and 5C and Alternatives 3B and 3C are insignificant. When the combined scores of 4 and 5 are considered, Alternatives 5B and 5C are superior to Alternatives 3B and 3C in only 6 percent of the years. However, this purported improvement is offset by an increased frequency of years receiving a score of 1 (2.6 percent of years as compared with Alternatives 3B and 3C). Increasing the frequency of years with poor habitat may have a greater impact to steelhead/rainbow trout spawning and survival than increasing the number of years with scores of 4 to 5. Overall, however, the differences among the two sets of alternatives are small.

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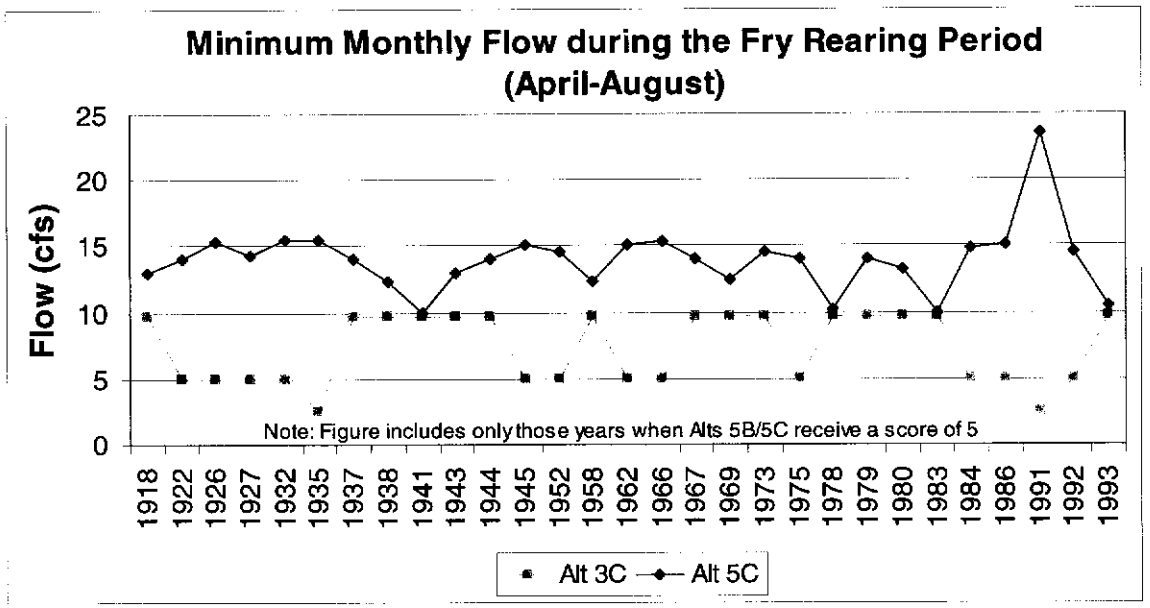
[2] As indicated above, SYRTAC included representatives from DFG, NMFS, Reclamation, CCRB, ID No. 1, and downstream water rights interests.

- Pages 4-68 to 4-70. The text from Page 4-68 through the first paragraph on page 4-71 is unclear and overstates the potential benefit provided by Alternatives 5B and 5C relative to the other alternatives (Page 4-70, last paragraph, line 2). This analysis would benefit from an improved discussion incorporating the steelhead/rainbow trout lifecycle and the relationship of other aspects of habitat on steelhead/rainbow trout production. For the reasons outlined below, the Member Units strongly disagree with the statement on Page 4-69, paragraph 2, line 2 that "Alternatives 5B and 5C generally result in beneficial effects on steelhead/rainbow trout habitat." If this statement is intended to convey the idea that Alternatives 5B and 5C are environmentally superior, it is wrong.

First, the DEIR should note that, while Alternatives 5B and 5C result in an increased frequency of years receiving a score of 5 for fry rearing, all of the alternatives have almost the same number of years receiving scores of 4 or 5, indicating that habitat values are high. During the fry rearing period in years when fry habitat receives a score of 5 under Alternatives 5B or 5C, these alternatives provide an average of 6 cfs more flow than Alternatives 3B and 3C. (See Figure 1 below.) This difference in flow is very significant to the Member Units, but results in only a minor change in habitat for the steelhead. Based on the top-width vs. flow information presented in the Habitat Analysis (SYRTAC 1999a), the difference in top width at flows of 5 and 15 cfs (the range of increase in flows under Alternatives 5B/5C as compared to Alternatives 3B/3C) would range from 4 to 9 feet. (See Figure 2 and Table 1 below.) These changes correspond to an increase in top width of only 6 to 9 percent depending on habitat type. Thus, the increased amount of habitat provided under Alternatives 5B and 5C relative to that under Alternatives 3B and 3C would be small. This small increase in habitat, in spite of relatively large increases in flow occurs because the 10 to 20 cfs summer flows required by Alternatives 5B and 5C, falls far above the breakpoint of the top width vs. flow function. As shown in Table 1 and Figure 2 (replicated from SYRTAC 2000b), top width increases most rapidly as flows increase from 0 to 5 cfs. As flows increase above 5 cfs, the rate at which top width increases drops substantially. Thus, increasing habitat substantially above this breakpoint comes at a much higher water cost.

Figure 1
Comparison of minimum monthly flows for Alternative 3B and 3C and 5B and 5C during the fry rearing period when Alternative 5B and 5C receive a score of 5[3]



[3] Alternatives 3B and 3C result in the same minimum flows during these years. Alternatives 5B and 5C also provide the same minimum flows, except in 1952, when Alternative 5B has a flow of 14.25 and Alternative 5C has a flow of 14.5.

Figure 2
Top Width vs. Flow in the Highway 154 reach. (Note: y-axis is measured in feet)

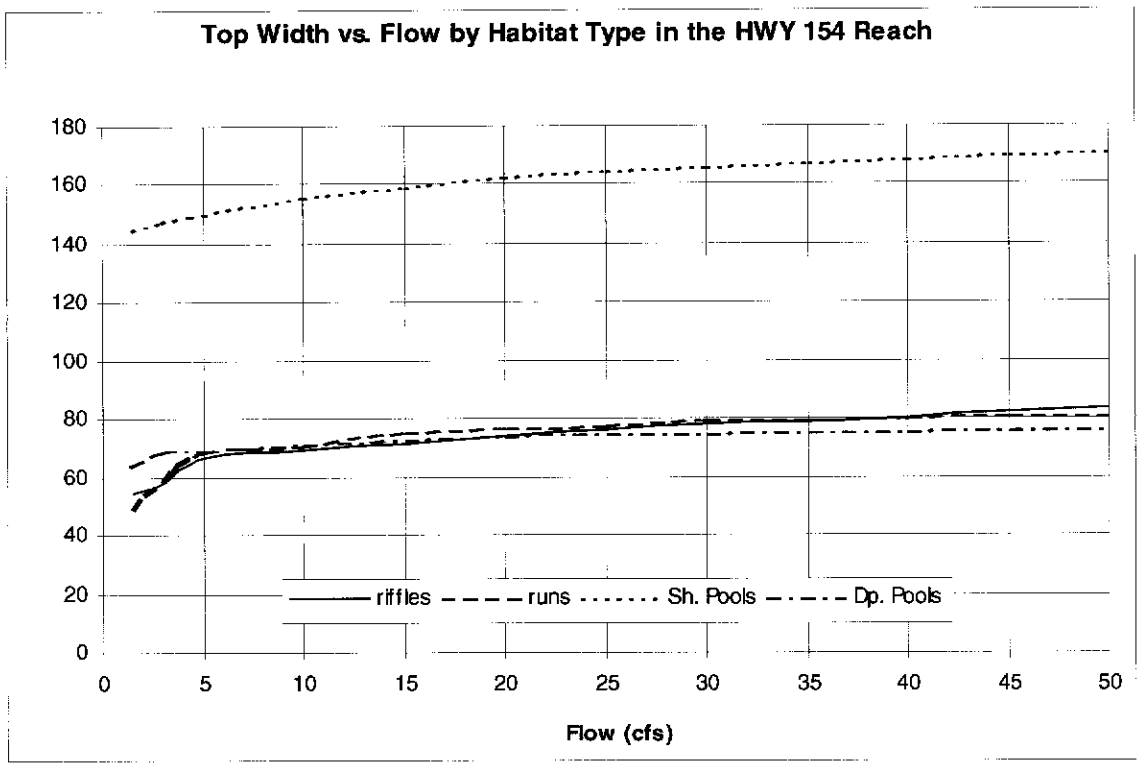
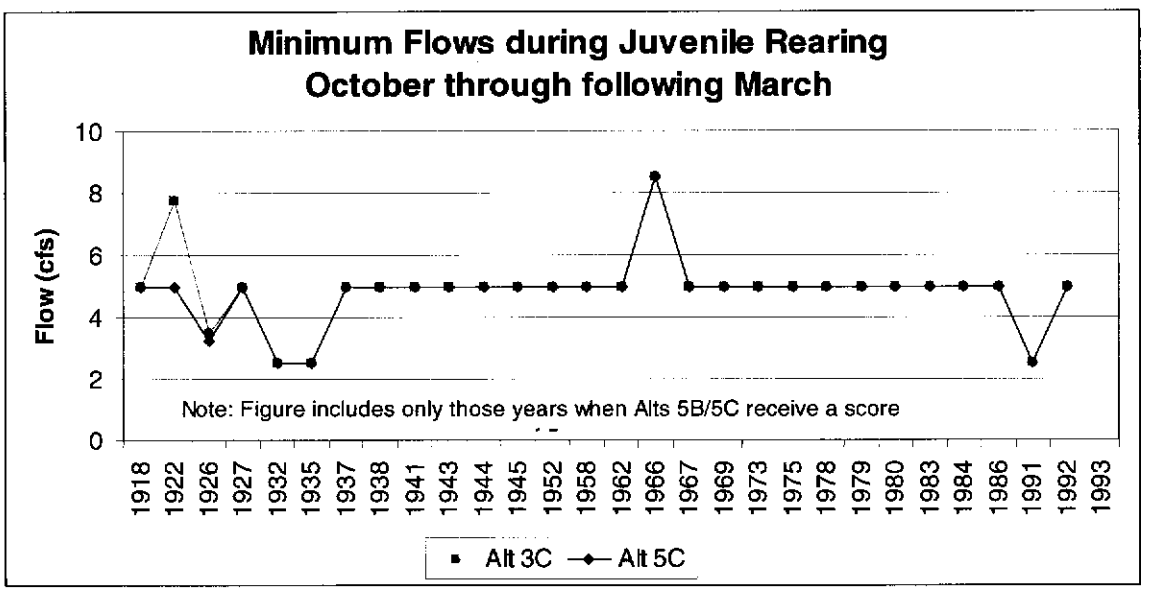


Table 1
Top width by habitat type in the three study reaches

Highway 154	Top Width (ft)				
Discharge (cfs)	Riffle	Run	Glide	Sh. Pools	Dp. Pools
1.5	54	49	Not	145	64
3	58	58	Sampled	147	68
5	66	69		150	69
10	69	70		155	71
15	71	75		159	73
20	74	77		162	74
25	76	78		164	75
30	78	79		166	75
35	79	80		167	75
40	80	80		169	76
45	82	81		170	76
50	83	81		171	76

Second, monitoring data show that the additional 10 to 15 cfs minimum summer rearing flows provided under Alternatives 5B and 5C will not improve *other* aspects of habitat that may limit the production of steelhead/rainbow trout even if the volume of fry rearing habitat is increased. For example, data collected by the SYRTAC and presented at the State Board Phase II hearings show that even flows of 50 cfs do not reduce water temperatures in the Highway 154 reach. (See discussion and Figure 3 below.) Thus, Alternatives 5B and 5C do not provide any temperature benefit to steelhead/rainbow trout.

Third, habitat bottlenecks during the juvenile life stage may affect populations, thus eliminating any minor advantage that could accrue for steelhead during the fry stage. Steelhead fry produced during the year grow into juvenile fish and continue to reside in the river through the fall and into the winter. Thus, any additional fry produced under Alternatives 5B or 5C must pass through potential habitat bottlenecks occurring during the juvenile rearing stage. Alternatives 3B and 3C and Alternatives 5B and 5C provide similar flows in fall and winter. (See Figure 2 above.) Thus, 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 it is unlikely that Alternatives 5B and 5C will provide any additional benefit to steelhead/rainbow trout over Alternatives 3B and 3C. Any slight benefit that might occur would come at a very significant cost to the Member Units in addition to the water supply impacts already incurred through their implementation of the Biological Opinion and FMP.



- Page 4-70. Alternatives 5B and 5C require flow releases that fail to take into account antecedent flow conditions and reservoir storage. As a result, Alternatives 5B or 5C may deplete reservoir storage without producing any noticeable fishery benefit. Alternatives 5B and 5C require flows to be maintained at both San Lucas and Alisal bridges during wet and

above-normal years, defined as inflow to Lake Cachuma exceeding 33,307 acre-feet. In below-normal, dry or critical years (undefined, but assumed to be years with inflow to Lake Cachuma of less than 33,307 acre-feet), the operational criteria for fish water releases would be those under the long-term Biological Opinion (Alternative 3C).

Unlike Alternatives 5B and 5C, the target flows in the NMFS Biological Opinion (NMFS 2000, pp. 7-8) are specifically tied to storage and spill criteria and watershed conditions. Thus, for example, the NMFS Biological Opinion provides that after a spill event, target flows at the Highway 154 bridge are 10 cfs for the spill year and the year after the spill. This requirement was adopted by NMFS to provide higher flows in years where greater biological benefit would be realized. (Id., pp. 3-11.) By contrast, the trigger for the Cachuma releases under Alternatives 5B and 5C is based solely on inflow to Lake Cachuma and does not consider antecedent watershed conditions. Instead, the inflow trigger in Alternatives 5B and 5C assumes that in a wet or above-normal year, there has been enough flow in the lower river to open the sandbar at the estuary and to allow passage of fish into the main stem for spawning. However, if an above-normal year follows a series of drought years, the threshold of an inflow of 33,307 acre-feet to Lake Cachuma could be met and the release of higher flows would be triggered *without the reservoir spilling*. Thus, high fish flow releases could be required when there has not been sufficient flow to breach the sand bar, allow fish passage and support spawning. The result is the release of a high volume of water from Lake Cachuma even though no steelhead are migrating up the lower river to benefit from the higher flows. Considered either from the perspective of water supply or fishery protection, this makes no sense. Notably, no analysis of this potential set of circumstances is included in the DEIR.

- Page 4-70. These paragraphs provide general information on various reaches of the Santa Ynez River monitored by the SYRTAC biological monitoring program. It is not clear how this description applies to a comparison of alternatives.

The Highway 154 reach provides the highest quality habitat for steelhead/rainbow trout on the main stem Santa Ynez River. It is this habitat and the habitat improvement measures on the tributaries that are anticipated to result in increased steelhead/rainbow trout production. By comparison, very limited additional production would be expected from the Refugio and Alisal reaches, because of the limited habitat quantity and quality available, and the presence of bass in the pools in which surviving steelhead are likely to be confined. These bass prey upon juvenile steelhead/rainbow trout and can result in significant over-summer mortality. The limited production opportunity in these reaches is recognized in the Biological Opinion, which provides a flow target of 1.5 cfs at the Alisal bridge in years when spill exceeds 20,000 cfs, but no flow target in other years. Additionally, the Biological Opinion allows for the cessation of such flows in these reaches, once the tributary stream measures have been fully implemented, as the tributary habitat improvements are anticipated to outweigh those for the Refugio and Alisal reaches.

The importance of the Highway 154 reach has long been recognized. The Biological Opinion and the FMP describe the priorities for steelhead/rainbow trout rearing releases habitat

in the Santa Ynez River. These priorities were developed after years of peer-review of the habitat structure of the Santa Ynez River watershed, the dynamics of the river system and the ability of alternations if flow regime to affect water temperature and habitat quality. These priorities are:

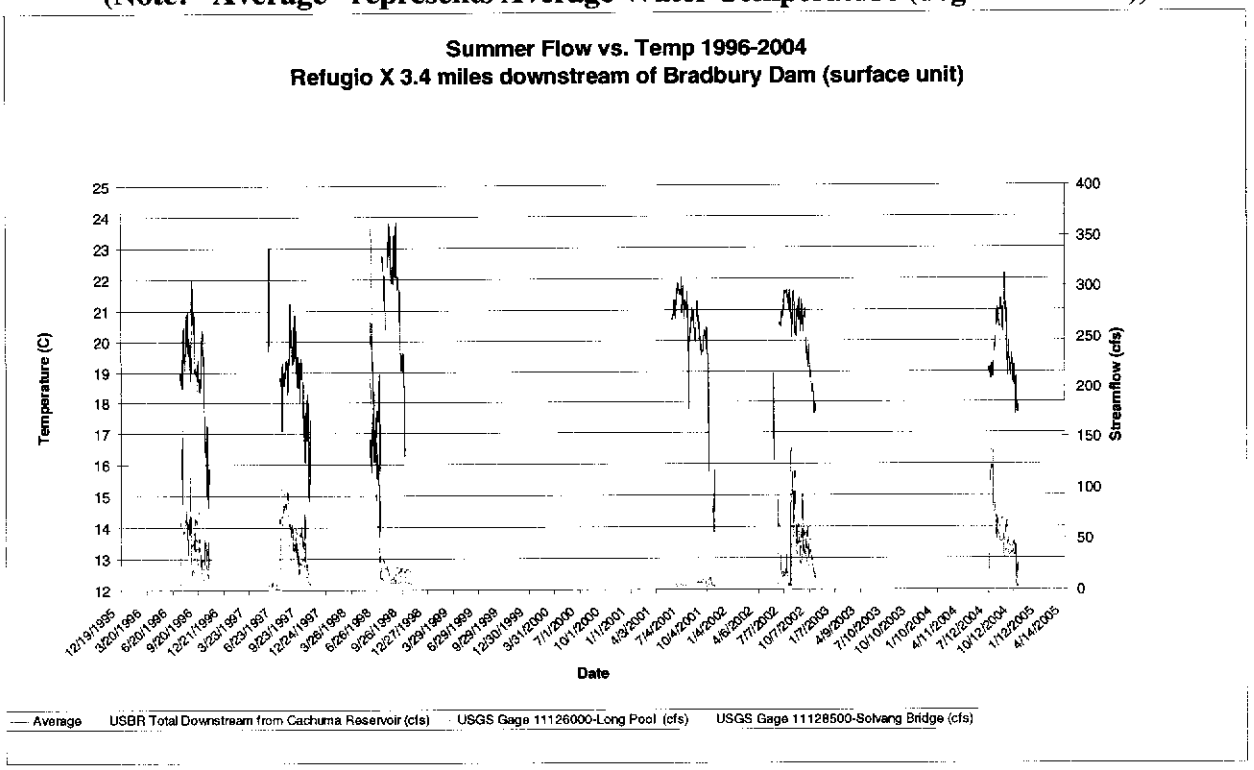
- First priority for flow enhancement will be Hilton Creek;
- Second priority will be the main stem between Hilton Creek and Hwy 154;
- Third priority will be the area between Bradbury Dam and the Hilton Creek confluence, including the stilling basin and Long Pool;
- Fourth priority will be the area downstream from Hwy 154 to the Solvang area.

Based on this, habitat improvements in the main stem between Bradbury Dam and Highway 154 should be given substantially greater weight in the DEIR than those below Highway 154 in evaluating the potential effects of various alternatives on steelhead/rainbow trout.

- Page 4-70. The Member Units agree that water temperature may be a limiting factor for steelhead/rainbow trout in the Santa Ynez River, but water temperatures are unrelated to changes in flow, within the range of base flows considered by the alternatives set forth in the DEIR. The results of flow models prepared for the Contract Renewal EIS/EIR demonstrated that beyond 4.4 miles downstream of Bradbury Dam, temperature is not affected by streamflow at the flow levels considered for rearing releases or even at substantially higher flows. (Woodward Clyde Consultants, et al., 1995; as cited in the Biological Assessment (Reclamation, 1999).) These findings were supported by monitoring data from the SYRTAC fish monitoring program,[4] which show that increased flows of 50 cfs or more did not decrease temperatures relative to those occurring under base flow. (See Figure 3 below.)

[4] Submitted in the Phase 2 hearing testimony, and summarized in the draft *Summary and Analysis of Fishery Habitat Monitoring within the Lower Santa Ynez River Watershed, 1993-2004* (SYRTAC, 2007).

Figure 3
Temperature vs. Flow just downstream of the Highway 154 Reach
(Note: "Average" represents Average Water Temperature (degrees Celsius))



In general, at the upstream end of the Refugio reach, summer water temperature near the surface (as measured one foot below surface) ranged between 19 and 22 degrees Celsius, irrespective of whether flows were increased. This, and additional data collected at the Long Pool and the Highway 154 bridge, indicates that under *either* Alternatives 3B and 3C *or* 5B and 5C temperatures are generally within the range that is usable by steelhead/rainbow trout in the area upstream of Highway 154.

- Page 4-71. The Member Units concur with the statement that additional flow would not necessarily provide favorable rearing conditions in the Alisal reach. As discussed above, the limited habitat potential of this reach was also recognized in the Biological Opinion and FMP which placed this reach at the low level of priority.

2. Additional Fisheries Considerations.

Alternative 3C is consistent with the long term Biological Opinion and the flow management strategy developed in the FMP. The flow regime set forth in Alternative 3C is an integral part of the Biological Opinion and it and the associated tributary actions provided for in the Biological opinion were found to appreciably increase the likelihood of survival and recovery of the steelhead Evolutionary Significant Unit (ESU) recovery. (NMFS 2000, p. 65.) As part of the FMP and Section 7 Endangered Species Act process, stakeholders, including state and

federal agencies, landowners, environmental interest groups, water agencies, cities, county and sport fishing interests, worked diligently to review a wide range of alternatives and to reach a compromise that would protect public trust resources including endangered species. Reclamation and the Member Units are implementing the measures called for in the Biological Opinion and FMP. In addition, the Member Units provide full-time Cachuma Project biological staff who oversee monitoring in the lower watershed and conduct research projects in both the upper and lower watershed. The Member Units also provide outreach and logistical advice and assistance to local landowners, release fish rearing flows at the expense of project yield and conduct public education through newsletters and workshops. The Member Units, working with Reclamation, have implemented a number of habitat enhancement projects not included in the Biological Opinion/FMP. The 2007 DEIR provides no analysis whatsoever of how Alternatives 5B and 5C address or are related to the significant issues and public trust resources identified by NMFS in the Biological Opinion, to the projects that are currently being carried out by staff in the lower River and its tributaries, or to the extensive outreach efforts that are currently underway.

In 2006 the Member Units and Reclamation implemented passage supplementation water releases for steelhead migration for the first time under Biological Opinion operational guidelines. As a result of these releases, the first smolts to be documented moving through the Lower Santa Ynez River since the 1940s were observed. (See Real-Time Decision Group and Cachuma Project Biology Staff, Report on the 2006 Fish Passage Supplementation Events, August 28, 2007 Draft; Attachment "E.")

In addition to the above described efforts, the Member Units are continuing to support the recovery of steelhead in the Santa Ynez River by working with NMFS, the responsible federal agency, and other stakeholders in the efforts to develop a federal Recovery Plan for steelhead in the Southern California ESU. (See Comments from the Member Units to NMFS Regarding the Draft Viability Report, May 2, 2007; Attachment "F.")

3. Technical Comments Regarding Fisheries Analysis.

- Page 4-52, Paragraph 2. The last sentence of paragraph 2 should read "(Alternatives 3B and 3C, respectively)."

- Page 4-65, Paragraph 1. The first sentence should read "NMFS considered 14 days of passage per storm event" not "in a particular year."

- Page 4-67, Paragraph 1. The second line of the first paragraph should read "76-year simulation period" not "52-year simulation period."

- Page 4-70, Paragraph 2. Mileage to the Highway 154 bridge should read "3.2 miles" not "2.9 miles."

C. The 2007 DEIR Attempts to Analyze Impacts Which Have Already Been Analyzed and Mitigated as Part of an Independent Project.

Certain impacts the 2007 DEIR purports to analyze are outside the scope of the CEQA project being considered by the State Board and, therefore, should not factor into evaluating and comparing impacts of the various alternatives. For instance, oak tree impacts related to surcharging Cachuma Reservoir were fully analyzed in the FMP/BO EIR/EIS as part of the federal agency action/project to surcharge the Reservoir in accordance with the NMFS Biological Opinion. Equally important, the analysis and conclusions set forth in the 2007 DEIR regarding oak trees are not supported by substantial evidence. The DEIR incorrectly concludes that a Class I impacts will result to oak trees. However, for the reasons set forth below, these impacts have already been mitigated to a level that is less-than significant. Consequently, oak tree impacts should not be categorized as a Class I impact (unavoidable significant impact), but instead should be revised to reflect a Class II impact (significant environmental impact that can be mitigated).

In 2004, gate extensions were installed on the radial gates of Bradbury Dam to accommodate a 3-foot surcharge of Lake Cachuma as required by the BO. The additional amount of water impounded (approximately 9,200 acre feet) and the higher lake elevation (up to elevation 753 feet) under surcharge are wholly within Reclamation's existing Cachuma Project water right permits that the State Board has already approved. An impact analysis of the flow releases from the surcharged water for the benefit of the steelhead fishery downstream is appropriately evaluated in the State Board's 2003 DEIR. Reclamation, as the NEPA lead agency, evaluated the impacts of higher water elevations during surcharge periods in the joint FMP/BO EIR/EIS, including impacts to oak trees around the perimeter of the lake. As a result, a comprehensive Oak Tree Restoration Program was developed to mitigate those impacts, and is detailed in the FMP/BO EIR/EIS. Reclamation, therefore, properly classified impacts to oak trees as a Class II impact, significant but mitigable. The restoration program is currently being implemented by the Cachuma Member Units, on behalf of Reclamation, to mitigate for losses of any affected oak trees.

When the State Board issued its initial Draft EIR in 2003, CCRB submitted comments regarding the DEIR's overestimate of impacts to oak trees as a result of surcharging Lake Cachuma. Although the 2007 DEIR includes a much improved summary of the mitigation measures undertaken to offset the loss of oak trees around the lake, the information presented is already out of date.

More importantly, the 2007 DEIR still overestimates the impacts to oak trees, for the reasons stated below, by assuming that there will be a 100 percent mortality rate. It states: "These field observations confirm that oak trees within the new maximum lake level will eventually perish due to a combination of root flooding and physical disturbance from wave action." (2007 DEIR, p. 4-76.) This prediction is unsubstantiated and speculative at best. Although historic records indicate that Lake Cachuma has spilled on average every three years, there is no way to predict if and when a spill and surcharge will occur. Given the general

assumption within the scientific community that the overall climate in California is undergoing a warming trend, and the cyclical nature of drought in Southern California, it is entirely possible there may be infrequent surcharge events in the future. In addition, it is impossible to predict the actual number of trees that will perish without periodic surveys around the margins of the lake after it has been surcharged to count actual tree losses over time. That is precisely what Reclamation and the Member Units are doing to ensure a final 2:1 replacement ratio for the actual number of oak trees impacted at the end of a 20 year period.

The water level in Lake Cachuma varies depending upon runoff, evaporation, downstream releases, and diversions to the Member Units. The current maximum lake level under surcharge is 753 feet. The peak lake level is typically reached in April or May, after winter runoff has ended and before significant diversions and/or downstream water rights releases. The median lake level with the 3-foot surcharge and the long-term releases for fish as required under the BO would be 734.6 feet. With surcharging, the lake would reach the new maximum lake level (753 feet) about 9 percent of the time, on average. Hydrologic simulations of reservoir conditions indicate that surcharging would occur, on average, about every three years.

Periodically increasing maximum lake levels will affect the vegetation that currently occurs along the margins of the lake, including impacts to oak trees. However, the loss of trees would not necessarily occur immediately. In fact, oak tree loss in the direct inundation zone would, in most instances, likely occur over a period of 15 to 20 years. Some may persist for a longer period of time, as evidenced by the presence of trees on or directly below elevation 750 feet, which was the current maximum water level for more than 50 years.

The 2007 DEIR acknowledges that potential impacts to oak trees have, in fact, been mitigated through implementation of the Oak Tree Mitigation Program as described in the FMP/BO EIR/EIS. (See FMP/BO EIR/EIS, p. 6-19.) To offset the loss of these trees, Reclamation and the Cachuma Member Units initiated the long-term program, whereby coast live oaks and valley oaks lost due to periodic surcharging are being replaced in a phased manner linked to the incremental loss of oak trees over time. Reclamation, the Member Units and the Santa Barbara County Parks Department determined that the most appropriate location for assuring the survival of newly planted new oak trees should be in protected areas within the Cachuma Recreation area that are not open to the public rather than Cachuma County Park. Therefore, the first two years planting of oak trees and understory plants were installed in Storke Flats. Locations for Year 3 planting may be in the Santa Ynez Point, Bradbury Dam, or Live Oak areas where suitable conditions are present for oak restoration.

Oak tree planting began in 2005 using a phased approach designed to replace oak trees *prior* to impacts incurring. Based on surveys conducted around the perimeter of the lake, it was estimated that about 450 trees might be impacted by surcharging. Under this approach, new trees are being planted at a 5:1 replacement ratio over three years, to initially replace one half of the estimated total number of trees that might be impacted over time (1,125 trees; 375 trees per year). The actual loss of trees will be monitored during surcharge events over the next 10 years.

At the end of 10 years, a final count of trees will be conducted in and above the inundation zone to determine the remaining number of trees that are likely to be eliminated due to future inundation. Based on this information, the total number of estimated trees that could be adversely affected will be revised, and oak trees will be planted to complete the replacement process. This phased approach will be used to ensure a precise count of trees affected by surcharging and allow Reclamation and the Member Units the opportunity to refine and enhance the Oak Tree Restoration Program over time based on actual planting and maintenance experience.

The replacement trees will be maintained up to 10 years after their planting to ensure successful establishment and evidence of being self-sustaining. Maintenance includes watering, weeding, pest control, protection from human disturbance, and replacement planting. The mortality observed by County Parks during oak planting efforts at Cachuma County Park was about 33 percent. This is consistent with other oak tree mitigation programs such as the planting carried out by Reclamation following the seismic modifications to Bradbury Dam. In contrast, the first two years planting of oak trees at Storke Flats utilized state of the art oak tree propagation and maintenance techniques, and has experienced close to a 99 percent survival rate as a result of almost daily maintenance and care given to the trees. Assuming the current projected survival continues at the same rate, the target of 904 replacement trees would be reached within three years and sustainability achieved much sooner than 10 years. Reclamation and the Member Units are fully committed to continuing this high level of maintenance to assure the trees' survivability and self-sufficiency.

The 2007 DEIR first classifies the potential loss of oak trees as a Class I impact until such time that replacement trees become well established and self sustaining, estimated to be about 10 years. It then states that after this time, the loss of oak trees would be considered a less than significant, Class II impact. These two statements are inconsistent and the estimated 10 year period for self-sufficiency is not analyzed further in the DEIR. Given the extensive maintenance program for newly planted trees, and the phenomenal survival rate in the first critical years, it is highly likely that the replacement trees will be self-sustaining much earlier than 10 years. But even if that does not occur, the Oak Tree Restoration Program has a target replacement ratio greater than 1:1 to provide compensation for the loss of mature trees by establishing more trees and wildlife habitat than under current conditions.

Therefore, the effect of the surcharge on oak trees expected to die along the lake shoreline *is mitigable*, and is fully offset by the Oak Tree Restoration Program currently underway. Because the Oak Tree Replacement Program is designed to minimize the time period between tree loss from surcharging and establishment of self-sustaining trees, there is simply no reason to assume, as the 2007 DEIR does, that this extensive mitigation plan will not be effective and mitigate such impacts. For these reasons, the impacts to oak trees must be revised to Class II impacts.

D. The 2007 DEIR Inadequately Analyzes Cumulative Water Supply Impacts.

The cumulative impacts analysis of the 2007 DEIR fails to satisfy CEQA's requirements. (See CEQA Guidelines §§ 151130(a); 15064(b)(1).) For the reasons discussed above in Section IV, a cumulative impacts analysis should be undertaken that uses Alternative 1 (existing water right permits) as the basis for assessing the cumulative impacts to water supply. Notably, the Final EIR/EIS for the FMP/BO sets forth a cumulative water supply impact analysis and, to comply with CEQA, the DEIR should do the same. Moreover, as set forth in Sections III and IV above, the cumulative impacts analysis should use WR Order 89-18 as the baseline to evaluate water supply losses for the various changes that have occurred since 1989.

Analysis should also be performed regarding the capacity of Lake Cachuma in relation to future sedimentation and the cumulative impacts to water supply. For example, the Zaca Creek Fire of 2007 burned substantial acreage above Lake Cachuma. The most current information is that the result of the fire will be sedimentation of the water supply facilities on the Santa Ynez River, including Gibraltar and Jameson reservoirs and, potentially, Lake Cachuma itself, which will decrease their capacity and yield. Sedimentation in Lake Cachuma also occurs without the occurrence of fires. Thus, the reduction in storage capacity is foreseeable and should be evaluated in the DEIR as part of the cumulative impacts analysis.

E. The 2007 DEIR Fails to Discuss how the Adoption of Alternatives 5B or 5C Would Affect the 2002 Settlement Agreement.

As indicated above, the 2002 Settlement Agreement was developed and entered into by the Member Units and the downstream interests, in accordance with WR Order 94-5, as the means to protect downstream water rights and resolve over 50 years of controversy on the Santa Ynez River. (See Settlement Agreement, pp. 1-3.) Importantly, the Settlement Agreement is predicated on water right releases pursuant to WR Order 89-18 and the implementation of protective measures for public trust resources pursuant to the BO and the FMP. (Id., ¶¶ 1.1, 1.2.) Moreover, the parties agreed that the Settlement Agreement would terminate if the State Board, following completion of the hearing required by Order 94-5, were to issue an order for water right releases other than that set forth by Order 89-18 as modified by the technical amendments to WR 89-18 proposed by Reclamation. (Id., ¶ 5.2.) What cannot be overlooked is that Alternatives 5B and 5C would introduce a different operating regime than set forth under WR Order 89-18 and the BO/FMP, and therefore may affect the validity of the Settlement Agreement. The 2007 DEIR fails to evaluate that effect. On the other hand, Alternative 3C provides for operations pursuant to Order 89-18 and the BO/FMP, encompasses the core elements of the Settlement Agreement, and allows the parties to implement its terms. Therefore, such operations, including Reclamation's technical modifications to WR 89-18, should be adopted under Alternative 3C as the only alternative that fully satisfies the objectives of the Cachuma Project to protect public trust resources *and* downstream water rights in accordance with WR Order 94-5.

For the reasons set forth above, CCRB and ID No. 1 believe the 2007 DEIR can be corrected by providing certain clarifications as indicated above, and that Alternative 3C should be adopted as the agency action as specified herein.

Very truly yours,

Gregory K. Wilkinson
Paeter E. Garcia
of BEST BEST & KRIEGER LLP

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