

# 1.0 INTRODUCTION

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## 1.1 PURPOSE

This document, along with the edited version<sup>1</sup> of 2011 2<sup>nd</sup> Revised Draft Environmental Impact Report (2011 2<sup>nd</sup> Revised Draft EIR or 2011 2<sup>nd</sup> RDEIR), represents the Final Environmental Impact Report (Final EIR) for the Consideration of Modifications to the U.S. Bureau of Reclamation's (Reclamation) Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir) (hereafter referred to as the "proposed project"). It has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.), and its implementing guidelines (California Code Regulations, title 14, Section 15000 et seq., [*State CEQA Guidelines*]) as amended.

The State Water Resources Control Board (SWRCB) will consider this Final EIR in its capacity as Lead Agency before it approves or denies the project. The Findings of Fact and any Statement of Overriding Consideration would be made after the SWRCB has considered the information contained in this Final EIR. As required by Section 15132 of the *State CEQA Guidelines*, a Final EIR shall consist of the following:

- The draft EIR or a revision of the draft EIR,
- Comments received on the draft EIR either verbatim or in summary,
- A list of persons, organizations, and public agencies commenting on the draft EIR,
- The responses of the Lead Agency to significant environmental points raised in the review process, and
- Any other added information deemed necessary by the Lead Agency.

The evaluation of and response to public comments is an important part of the CEQA process as it allows for (1) the opportunity to review and comment on the methods of analysis contained within the draft EIR, (2) the ability to detect any omissions which may have occurred during preparation of the draft EIR, (3) the ability to check for accuracy of the analysis contained within the draft EIR, (4) the ability to share expertise, and (5) the ability to discover public concerns.

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<sup>1</sup> The edits to the 2011 2<sup>nd</sup> RDEIR, based on comments received, neither add significant new information nor affect the analyses contained in the 2011 2<sup>nd</sup> RDEIR, but merely clarify or amplify or make insignificant modifications to the 2011 2<sup>nd</sup> RDEIR, consistent with California Code of Regulations, title 14, section 15088.5.

## 1.2 PROCESS

As defined by Section 15050 of the *State CEQA Guidelines*, the SWRCB is serving as Lead Agency and is responsible for preparing the EIR for this project. As such, the SWRCB is responsible for ensuring that the EIR satisfies the procedural and informational requirements of CEQA and for the consideration and certification of the adequacy of the EIR prior to making any decision regarding the project.

The SWRCB issued a Notice of Preparation (NOP) for the EIR on May 19, 1999, to interested local, state, and federal agencies, as well as to environmental groups, landowners, and other parties with interests in the Santa Ynez River Watershed. The SWRCB received comment letters from the following parties:

- U.S. Fish and Wildlife Service
- California Department of Water Resources
- City of Lompoc
- Cachuma Conservation Release Board
- Santa Ynez River Water Conservation District
- Environmental Defense Center
- California Sportfishing Protection Alliance
- Linda Sehgal

In letters dated May 17, 2000, and December 20, 2000, the SWRCB provided Reclamation with refinements to the alternatives described in the original NOP. This resulted in the development of seven variations of the original four alternatives to reflect the Biological Opinion issued by National Marine Fisheries Service (NMFS).

In November 2001, the SWRCB staff provided additional clarification to Reclamation concerning the December 2000 set of alternatives. SWRCB staff clarified that the baseline operations alternative should reflect any changes in Cachuma Project operations that had occurred since NMFS issued the Biological Opinion.

On August 8, 2003, the SWRCB issued the 2003 Draft Environmental Impact Report (2003 Draft EIR or 2003 DEIR) for public review and comment. Comments were due by October 7, 2003.

In comments on the 2003 DEIR, California Trout (CalTrout) argued that the 2003 DEIR should be revised to include consideration of a different project alternative designed to protect fishery resources in the

Santa Ynez River. The proposed alternative was described as Alternative 3A2 in a 1995 Environmental Impact Report/Environmental Impact Statement (EIR/EIS) prepared by Reclamation and the Cachuma Project water supply contractors in connection with the renewal of the water supply contract for the Cachuma Project. In response to CalTrout's comments, the SWRCB developed two new alternatives, Alternatives 5B and 5C, which are modified versions of Alternative 3A2. The SWRCB revised the 2003 DEIR as the 2007 Revised Draft EIR (2007 RDEIR) to analyze those alternatives.

The 2007 RDEIR included sections on background information and alternatives analyzed in the 2003 DEIR to establish a context for the analysis of Alternatives 5B and 5C, but focused on the analysis of the new alternatives. In addition, the 2007 RDEIR was updated to reflect a number of changes, including the surcharging of Cachuma Lake to 2.47 feet, that occurred since the 2003 DEIR was prepared. Finally, the 2007 RDEIR made some changes and corrections in response to comments on the 2003 DEIR. The 2007 RDEIR did not contain, however, a complete response to comments.

In April of 2011, the SWRCB released the 2011 2<sup>nd</sup> RDEIR. This document considered the prior comments on the 2003 DEIR and 2007 RDEIR as well as new information that became available in the period after the public review of the 2007 RDEIR. While the 2011 2<sup>nd</sup> RDEIR did not include written responses to comments on the 2003 DEIR or 2007 RDEIR, it did consider the comments in revising the document.

The 2011 2<sup>nd</sup> RDEIR determined that there would be new significant impacts to water supply for certain alternatives. Further, the 2011 2<sup>nd</sup> RDEIR also identified an environmentally superior alternative in compliance with the *State CEQA Guidelines*.

The 2011 2<sup>nd</sup> RDEIR was released for a 45-day public review on April 1, 2011. In responses to request from reviewing agencies, the SWRCB extended the public review period for an additional 15 days; the extended public review period ended on May 31, 2011.

Upon completion of the public review period, SWRCB staff and consultants reviewed the 15 letters received and prepared written responses. Additionally, the text of the 2011 2<sup>nd</sup> RDEIR was revised to reflect clarifications, information, corrections and new data provided. The findings of the 2011 2<sup>nd</sup> RDEIR did not change based on the information received.

### 1.3 CONTENTS OF THE FINAL EIR

As discussed above, the primary intent of the Final EIR is to provide a forum to raise and address comments pertaining to the analysis contained within the 2011 2<sup>nd</sup> RDEIR. Pursuant to Section 15088 of the *CEQA Guidelines*, the SWRCB, as the Lead Agency for this project, has reviewed and addressed all comments received on the 2011 2<sup>nd</sup> RDEIR as well as the 2003 DEIR and 2007 RDEIR prepared for the proposed project that were submitted during the public review period for each document.

In order to adequately address the comments provided by interested agencies and the public in an organized manner, this Final EIR has been organized as follows:

**Volume I, Comments and Responses to Comments**, provides a list of commenters who provided written comments on the 2003 Draft EIR, 2007 RDEIR and 2011 2<sup>nd</sup> RDEIR, copies of written comments (coded for reference), and the responses to those comments;

**Volume II, the Edited Version of 2011 2<sup>nd</sup> Revised Draft EIR**, which includes the 2011 2<sup>nd</sup> RDEIR with the corrections and additions shown in ~~strikeout~~/underline format that were made to the document in response to comments and corrections provided;

**Volumes III and IV, Appendices**, contain appendices to the 2011 2<sup>nd</sup> RDEIR;

**Volume V, August 2003 Draft EIR**, as originally circulated;

**Volume VI, July 2007 Revised Draft EIR**, as originally circulated; and

**Volume VII, April 2011 2<sup>nd</sup> Revised Draft EIR**, as originally circulated.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS

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### 2.1 INTRODUCTION

Section 15132 of the *State California Environmental Quality Act (CEQA) Guidelines* states that the Final EIR shall consist of “(a) the draft EIR or a revision of the draft; (b) comments and recommendations received on the draft EIR either verbatim or in summary; (c) a list of persons, organizations and public agencies comments on the draft EIR; and (d) the responses of the Lead Agency to significant environmental points raised in the review and consultation process.” This section of the Final EIR contains responses to written comments received during the public review periods for the 2003 DEIR, 2007 RDEIR and 2011 2<sup>nd</sup> RDEIR

### 2.2 PROCESS

As defined by Section 15050 of the *State CEQA Guidelines*, the SWRCB is serving as Lead Agency, and is responsible for preparing the EIR for this project. As such, the SWRCB is responsible for ensuring that the EIR satisfies the procedural and informational requirements of CEQA and for the consideration and certification of the adequacy of the EIR prior to making any decision regarding the project.

On August 8, 2003, the SWRCB issued the DEIR for a 60-day public review and comment; the comment period ended on October 7, 2003. On July 31, 2007, the SWRCB released the 2007 RDEIR for a 60-day public review ending September 28, 2007. The SWRCB released the 2<sup>nd</sup> RDEIR on April 1, 2011 for a 60-day public review which ended May 30, 2011.

The SWRCB received 21 letters with comments pertaining to the 2003 DEIR, 20 letters with comments pertaining to the 2007 RDEIR and 16 letters with comments on the 2011 2<sup>nd</sup> RDEIR. These letters included submissions from state, regional, County, and local agencies, along with private entities. Comments were received by the SWRCB as mailed letters. Each of these letters is responded to in this section of the Final EIR. These letters are reproduced in this section, followed by the SWRCB’s response to each letter. The comments contained in each letter have been numbered in order to provide a corresponding response from the SWRCB. For example, the first comment contained in **Letter No. 1**, from the Cachuma Conservation Release Board, is listed as **Comment 1-1**, and **Response No. 1-1** from the **SWRCB** corresponds to this comment.

Included within this section of the Final EIR are the SWRCB responses to all written comments received during the public review period. The SWRCB’s responses to comments represent a good faith, reasoned effort to address the environmental issues identified by the comments. Under *State CEQA Guidelines* Section 15088(a), the SWRCB is not required to respond to all comments, but only to respond to those comments that raise environmental issues. Case law under CEQA recognizes that the SWRCB need only

provide responses to comments that are commensurate in detail with the comments themselves. In the case of specific comments, the SWRCB has responded with specific analysis and detail. In the case of a general comment, the reader is referred to a related response to a specific comment, if possible. Some comments were submitted with large attachments or appendices, for these letters, the comments are addressed in this section, while the full attachments and appendices are included on disk for reference.

**2.3 LIST OF AGENCIES AND INDIVIDUALS THAT COMMENTED ON THE 2003 DEIR, 2007 RDEIR AND 2011 2<sup>ND</sup> RDEIR**

**2.3.1 List of Commenters on the 2011 2<sup>nd</sup> RDEIR**

1. Palmer Gavit Jackson Trust (Brownstein Hyatt Farber Schreck) dated May 2, 2011
2. City of Lompoc (Somach Simmons & Dunn) dated May 11, 2011
3. County of Santa Barbara dated May 16, 2011
4. Dee Reed dated May 16, 2011
5. Carpinteria Valley Water District dated May 16, 2011
6. Paul Slavik dated May 16, 2011
7. Bureau of Reclamation dated May 16, 2011
8. National Oceanic and Atmospheric Administration/National Marine Fisheries Service dated May 27, 2011
9. Environmental Defense Center on behalf of California Trout (CalTrout) dated May 27, 2011
10. Central Coast Water Authority (CCWA) dated May 27, 2011
11. Santa Ynez Water Conservation District (SYRWD) and SYRWD Improvement District (ID) No. 1 (Law Offices of Young Woodbridge, LLP) dated May 31, 2011
12. California Department of Fish and Game (CDFG) dated May 31, 2011
13. City of Solvang (Baker Manock & Jensen, PC) dated May 31, 2011
14. Cachuma Conservation Release Board (CCRB) dated May 31, 2011
15. City of Goleta dated May 31, 2011
16. Pacific Institute dated May 12, 2011

**2.3.2 List of Commenters on the 2007 RDEIR**

1. Cachuma Conservation Release Board (Best, Best and Krieger) dated September 27, 2007
2. U. S. Bureau of Reclamation, dated September 28, 2007
3. Santa Ynez River Water Conservation District, dated September 28, 2007
4. Santa Ynez River Water Conservation District, Improvement District No. 1 (Hatch & Parent), dated September 27, 2007
5. Carpinteria Valley Water District, dated September 26, 2007
6. City of Lompoc (Somach, Simons & Dunn), dated September 28, 2007
7. City of Solvang, dated September 28, 2007
8. County of Santa Barbara, dated September 28, 2007
9. Montecito Water District, dated September 25, 2007
10. Environmental Defense Center – CalTrout, dated September 28, 2007
11. California Department of Fish and Game, dated September 26, 2007
12. National Marine Fisheries Service, dated December 7, 2007
13. Pacific Institute, dated September 27, 2007
14. Peter B. Movle, dated September 26, 2007
15. Endangered Habitat League, dated August 25, 2007
16. Nancy Crawford-Hall and San Lucas Ranch (Cox, Castle Nicholson), dated September 28, 2007
17. John Williams, Ph.D., dated September 26, 2007
18. Edwin T. Zapel, dated September 27, 2007
19. Native American Heritage Commission, dated August 2, 2007
20. Stanley H. Hatch for Alisal Properties, dated September 25, 2007

**2.3.3 List of Commenters on the 2003 DEIR**

1. Cachuma Conservation Release Board, dated October 6, 2003
2. California Department of Fish and Game, dated October 7, 2003 and September 30, 2003
3. Environmental Defense Center/California Trout, Inc., dated October 7, 2003
4. City of Lompoc (Somach, Simmons & Dunn), dated October 7, 2003
5. City of Solvang, dated October 6, 2003
6. Conception Coast Project, dated September 25, 2003
7. Majorie Lakin Erickson, dated October 5, 2003
8. Marc Guonin, dated October 2, 2003
9. Mike Homes, dated October 1, 2003
10. Cynthia Lara, no date – received October 6, 2003
11. Elizabeth Mason, dated October 7, 2003
12. National Marine Fisheries Service, dated October 7, 2003
13. Santa Barbara County Public Works Department - Flood Control Water Agency, dated September 3, 2003
14. County of Santa Barbara, dated October 6, 2003
15. Santa Barbara Urban Creeks Council, dated October 7, 2003
16. Santa Ynez River Water Conservation District, dated October 7, 2003
17. Santa Ynez River Water Conservation District, Improvement District No. 1, dated October 7, 2003
18. Arve Sjovold, dated September 29, 2003
19. U.S. Bureau of Reclamation, dated October 7, 2003
20. Valerie Weiss, dated October 2, 2003
21. Paul Willis, dated October 3, 2003

**Jane Farwell - Comments to 2nd RDEIR re Cachuma Project (Palmer Gavit Jackson Trust)**

**From:** Stan Hatch <shatchofsb@gmail.com>  
**To:** <JFarwell@waterboards.ca.gov>  
**Date:** 5/2/2011 12:14 PM  
**Subject:** Comments to 2nd RDEIR re Cachuma Project (Palmer Gavit Jackson Trust)  
**CC:** Charles Jackson <jackson4cj@gmail.com>  
**Attachments:** SB-#579080-v1-Jackson\_\_5\_02\_2011\_Letter\_to\_SWRCB\_(Jane\_Farwell)\_re\_Comments\_to\_Second\_Revised\_DEIR-2.doc; SWRCB DEIR Alisal Response-2.doc; Pages from Attach A to SWRCB.#0.pdf; Letter to SWRCB 4-14-2011.pdf

Ms. Farwell:

Please find attached to this E-mail:

(1) the comments of the Palmer Gavit Jackson Trust to the 2nd Revised DEIR prepared for and relating to the Modifications of the USBR's Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) regarding the Cachuma Project on the Santa Ynez River,

Also attached are 3 additional attachments to the comments, consisting of :

(2) a copy of a September 25, 2007 comment to the 1st Revised DEIR from Alisal Properties,

(3) Attachment A, which is a copy of the January 17, 2008 cover letter Filing of Statements of Diversion and Use for the period 2000 - 2006 (a document which one of your predecessors apparently lost) together with the receipt certification showing that it was received by the SWRCB; and

(4) a copy of a recent cover letter (April 14, 2011) filing Statements of Diversion and Use for the period 2000 - 2010 for the Palmer Gavit Jackson Trust (Alisal Ranch) minus enclosures, for your reference.

(1)

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Brownstein | Hyatt  
Farber | Schreck

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May 2, 2011

DIVISION OF WATER RIGHTS

Stanley C. Hatch  
Attorney at Law  
805.682.3426 tel  
805.832-6092 fax  
stanhatch@cox.net

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

**Re: Palmer Gavit Jackson Trust Comments to Second Revised Draft EIR Prepared for and Relating to the Modifications of the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) regarding the Cachuma Project on the Santa Ynez River**

Dear Ms. Farwell:

These comments to the above designated 2nd Revised DEIR are submitted on behalf of the Palmer Gavit Jackson Trust, which is a riparian landowner and diverter of water from the Santa Ynez River below Bradbury Dam in the vicinity of the Alisal Bridge crossing.

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1. There is an uncorrected, major factual error in Section 3.0. There is a list of "Riparian Diverters – Above Narrows" on pp. 3.0-4 and 3.0-5. This list fails to identify the extensive riparian water use associated with the riparian lands owned by the Palmer Gavit Jackson Trust, commonly referred to as "Alisal". This error was noted in a comment by me in a letter dated September 25, 2007 to the 1st Revised DEIR, which also identified the river well production by Alisal and its use. A copy of that letter is attached.

3

*Note:* In researching the matter, it was found that the SWRCB did not, at that time, have any Statements of Diversion and Use on file regarding this particular water use. This was remedied by a filing on January 17, 2008, which included Statements of Diversion and Use for 5 wells for the years 2000 through 2006. I am now informed that these filings were somehow "lost" by the SWRCB staff. The 1-17-08 filings were sent by registered mail and we have the certified Return Receipt signed by a representative of the SWRCB on 1-22-08, a copy of which is also enclosed. This, presumably, explains the failure of the preparers of the 2nd Revised DEIR to make the necessary corrections.

Our office is now filing yet another set of Statements of Diversion and use for the 5 Jackson (Alisal) wells, this time for the years from 2000 through 2010. That filing is dated April 14, 2011, and is again attached, out of an abundance of caution, to this comment letter.

4

We have again contacted Stetson Engineers and have been assured by that firm that all of the hydrologic modeling studies, which are a part of the DEIR, include the Alisal's historic pumping in the baseline data. Consequently, the omission does not appear to impact any factual conclusions in the DEIR.

5

21 East Carrillo Street | Santa Barbara, CA 93101-2706  
Brownstein Hyatt Farber Schreck, LLP | bhfs.com

805.963.7000 tel  
805.965.4333 fax

Consequently, following the format of the DEIR at page 3.0-5, the following should be added to the paragraph to read as indicated:

*"The following statement[s] (sic) have been received by the SWRCB but not yet entered into the electronic Water Rights Information Management System (e-WRIMS):*

**• Jackson Trust.** *Claims a right to divert 1,020 acre-ft/yr for irrigation use on riparian land. The water is diverted from 5 wells located in the Solvang and/or Santa Ynez Subareas of the Santa Ynez River Alluvial Basin."*

2. There is a statement repeated several times in Section 6.0 that is, on its face, over-inclusive:

*"In addition, Alternative 4B would have beneficial impacts related to surface water quality (TDS) in the Santa Ynez River" (last sentence, Section 6.1, page 6.0-2).*

Alternative 4B includes the introduction of State Project Water into the Lompoc Forebay, which WOULD have a beneficial impact on the area BELOW the Lompoc Forebay. However, the provision of State Project Water at that point would have NO positive impact on surface water quality (TDS) in the Santa Ynez River ABOVE the Lompoc Forebay. The two areas need to be isolated and the appropriate impacts assigned to each of the two areas separately. They cannot be included in the same sentence.

3. A similar over-inclusive statement is made in Table 6.2 on page 6.0-6 under "Surface Water Quality" it is stated:

*"TDS levels in the Santa Ynez River below Bradbury Dam would be elevated substantially as compared to the baseline condition."*

If this statement were true, there would no basis for the designation of Class IV impacts under Alt 4B. TDS levels would have to be LOWERED, if a beneficial impact could be expected. To the extent that there is a Class IV impact under Alt 4B BELOW the Lompoc Forebay, it would require a different statement isolating the lower area and the lesser impact from the area above the Lompoc Forebay, where the impact would remain unchanged.

4. In Table 6.2 page 6.0-6 under "Lompoc Groundwater Basin Conditions" it is stated:

*"TDS level would be significantly increased above the baseline condition (TDS levels from 1952 through 1982)."*

On this basis, all Alternatives are listed as having Class IV Beneficial Impacts. The correct conclusion, if the statement is accurate, would be that all the Alternatives would have at least a Class III impact (because conditions would be worse). To the extent that Alt 4B includes better quality State Project water being introduced into the Lompoc Forebay, that lower area would have to be isolated along with its impact in the Table. As stated, however, it appears to be patently wrong.

5. It is noted that there is NO discussion in the DEIR of the impact under Alt 4B of not releasing Below Narrows Account (BNA) water, stored in Cachuma, down the Santa Ynez River, when such water is exchanged for State Project Water delivered directly to the Lompoc Forebay. Presumably, in that situation, there would be less surface flow from Bradbury Dam to the Lompoc Narrows during the period that the BNA flow would

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Ms. Jane Farwell  
May 2, 2011  
Page 3

otherwise have been released. This could possibly have some effect on riparian vegetation and habitat as well as on fish migration, in that the surface flow would be reduced during that limited period of time.

10

Thank you for the opportunity to comment.

Very truly yours,

Stanley C. Hatch, Counsel  
Palmer Gavit Jackson Trust (Alisal)

SCH/gml

Enclosures:

Ltr from Stanley C. Hatch to SWRCB dated September 25, 2007

Ltr from Stephanie Osler Hastings to SWRCB with attachments (Statements of Diversion and Use for 5 wells from 2000 to 2006) dated January 17, 2008

Ltr from Amy Steinfeld to SWRCB with attachments (Refiling Statements of Diversion and Use for 5 wells from 2000 to 2006 and filing Statements of Diversion and Use for 5 wells from 2007 to 2010) dated April 14, 2011

cc: C. J. Jackson (with enclosures)

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CACHUMA PROJECT

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DIVISION OF WATER RIGHTS

Brownstein | Hyatt  
Farber | Schreck

Stanley C. Hatch  
Attorney at Law  
805.682.3426 tel  
805.832.6092 fax  
stanhatch@cox.net

September 25, 2007

State Water Resources Control Board  
Division of Water Rights  
1001 "P" Street  
Sacramento, CA 95814

Attn: Diane Riddle

**Re: Revised DEIR Consideration of Modifications to the USBR's Water Right Permits 11308 and 11310 (applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir). State Clearinghouse #1999051051**

Dear Ms. Riddle:

I represent Alisal Properties, a California Corporation, (hereafter "Alisal") which owns in excess of 10,000 acres of real property located in and contiguous to the Santa Ynez River in Santa Barbara County, East and South of the City of Solvang.

It is noted that, in the section of the DEIR relating to Downstream Water Rights (Sec. 3.1.2), you have listed "Riparian Diverters – Above the Narrows. The list, however, is incomplete in that it fails to include Alisal, which is a diverter in the Above Narrows reach of the River and in the Santa Ynez subarea.

We have contacted Stetson Engineers and have been assured by that firm that all of the hydrologic modeling studies, which are a part of the DEIR, include the Alisal's historic pumping in the baseline data. Consequently, the omission does not appear to impact any factual conclusions in the DEIR.

Alisal claims a continuing riparian right, paramount to all appropriators on the Santa Ynez River, including Permits 11308 and 11310 (Cachuma Project) for beneficial use on its riparian lands.

For your information in correcting this error:

1

Alisal owns significant riparian lands and owns riparian rights to divert Santa Ynez River flow, both surface and subsurface for use on their riparian lands in and adjacent to the Santa Ynez River. Their points of diversion are in the Above Narrows reach of the river in the Santa Ynez subarea. Much of the land owned by Alisal is part of a Mexican land grant called Rancho Nojoqui. Use of water dates back to a time that would justify a claim of pre-1914 appropriative rights appurtenant to the ranch. However, the ranch has for most of the last century relied on its riparian rights in the river and other perennial streams which are all tributaries of the Santa Ynez River, including Alisal Creek and its tributaries, Nojoqui Creek and its tributaries and Quiota Creek. However, the subsurface flow of the Santa Ynez River has been the largest and most reliable year-round flow and has, consequently, been used in varying amounts over the years.

Alisal provides river well production information on a semi-annual basis to the Santa Ynez River Water Conservation District, which has in recent years been imposing a "groundwater charge." Those semi-annual statements, over the past eight years indicate that Alisal's Santa Ynez River water production from sub-surface flow has amounted to a low in Fiscal 2005-06 of 538.57 acre feet to a high in Fiscal 2002-03 of 829.88 acre feet. An excel spreadsheet summarizing that pumping history is attached for your information.

If any other information is required, please let us know.

Stanley C. Hatch  
For Hatch and Parent, PC

Cc: Palmer Jackson, Alisal Ranch

Stanley C. Hatch  
4352 Via Esperanza  
Santa Barbara, CA 93110  
805/682-3426  
[stanhatch@cox.net](mailto:stanhatch@cox.net)

WATER RIGHTS

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U.S. DEPARTMENT OF JUSTICE

# Attachment A

**Brownstein Hyatt  
Farber Schreck** *A Strategic  
California Merger  
with Hatch & Pant*

2011/01/17 11:11

January 17, 2008

STATE WATER RIGHTS

Stephanie Osler Hastings  
805.882.1415 tel  
805.965.4333 fax  
SHastings@bhfs.com

Ms. Victoria Whitney, Deputy Director  
State Water Resources Control Board  
Division of Water Rights  
P.O. Box 2000  
Sacramento, CA 95812-2000

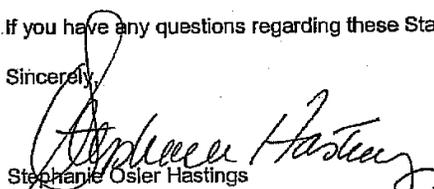
**RE: Filing of Statements of Diversion and Use (Palmer Gavit Jackson Trust)**

Dear Ms. Whitney:

On behalf of the Palmer Gavit Jackson Trust, I am filing the enclosed Statements of Water Diversion and Use describing the diversion and beneficial use of water pursuant to riparian rights from five riparian wells along the Santa Ynez River, County of Santa Barbara, for irrigation of riparian lands, specifically the River Golf Course and the Ranch Golf Course at the Alisal Guest Ranch & Resort, for each of the years 2000-2006. Water has been diverted from the Santa Ynez River pursuant to riparian rights for beneficial use on these lands since 1958.

If you have any questions regarding these Statements, please contact me directly.

Sincerely,

  
Stephanie Osler Hastings

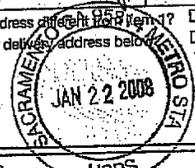
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Enclosures

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21 East Carrillo Street | Santa Barbara, CA 93101-2706 | 805.963.7000 tel  
Brownstein Hyatt Farber Schreck, LLP | bhfs.com | 805.965.4333 fax

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SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<p><input checked="" type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. <input checked="" type="checkbox"/> Print your name and address on the reverse so that we can return the card to you. <input checked="" type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits.</p>	<p>A. Signature <b>X</b> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p>
<p>1. Article Addressed to: Victoria Whitney State Water Resources Control Board P.O. Box 2000 Sacramento, CA 95812-2000</p>	<p>D. Is delivery address correct for item 1? <input type="checkbox"/> Yes If YES, enter delivery address below <input type="checkbox"/> No</p> <p>3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p>	<p>7002 0860 0004 8988 3010</p>
<p>PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540</p>	



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STATE WATER RIGHTS

SENDER - COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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<p>1. Article Addressed to: Victoria Whitney State Water Resources Control Board P.O. Box 2000 Sacramento, CA 95812-2000</p>	<p>3. Service Type  <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
<p>2. Article Number (Transfer from service label)</p>	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

7002 0860 0004 8988 3010 CERTIFIED MAIL REGISTERED MAIL RETURN RECEIPT FOR MERCHANDISE		7002 0860 0004 8988 3010 7002 0860 0004 8988 3010	<p>U.S. Postal Service <b>CERTIFIED MAIL RECEIPT</b> (Domestic Mail Only. No Insurance Coverage Provided)</p> <p style="text-align: center; font-size: 2em; font-weight: bold;">O F F I C I A L U S E</p> <table border="1"> <tr> <td>Postage</td> <td>\$</td> </tr> <tr> <td>Certified Fee</td> <td></td> </tr> <tr> <td>Return Receipt Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td>Restricted Delivery Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td><b>Total Postage &amp; Fees</b></td> <td><b>\$</b></td> </tr> </table> <p style="text-align: right;">Postmark Here</p> <p>Sent To Victoria Whitney Street, Apt. No., or PO Box No. SWRCB City, State, ZIP+4</p> <p>PS Form 3800, April 2002 See Reverse for Instructions</p>	Postage	\$	Certified Fee		Return Receipt Fee (Endorsement Required)		Restricted Delivery Fee (Endorsement Required)		<b>Total Postage &amp; Fees</b>	<b>\$</b>
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**Brownstein | Hyatt  
Farber | Schreck**

*A Strategic  
California Merger  
with Hatch & Parent*

April 14, 2011

Amy M. Steinfeld  
Attorney at Law  
805.882.1409 tel  
805.965.4333 fax  
ASteinfeld@bhfs.com

**ELECTRONIC MAIL AND FEDERAL EXPRESS**

Eloise Berryman  
State Water Resources Control Board  
Division of Water Rights  
1001 I Street, 14th Floor, Sacramento, CA 95814  
P.O. Box 2000  
Sacramento, CA 95812-2000

**RE: Palmer Gavit Jackson Trust, Re-Filing of Initial Statements of Water Diversion and Use for 2000–2006 and 2007–2010 Statements of Diversion and Use**

Dear Ms. Berryman:

It has come to our attention that the State Water Resources Control Board ("State Board") has misplaced 35 Statements of Diversion and Use ("SDU") filed by my office on behalf of the Palmer Gavit Jackson Trust ("Mr. Jackson") for reporting years 2000 through 2006. As such, this correspondence re-files the previously filed SDUs for 2000–2006, and files new SDUs for 2007, 2008, 2009 and 2010.

By way of background, on January 17, 2008, my law firm filed 35 SDUs with the State Board describing the diversion and beneficial use of water pursuant to riparian rights from five riparian wells along the Santa Ynez River, County of Santa Barbara, for irrigation of riparian lands, specifically the River Golf Course, the Ranch Golf Course at the Alisal Guest Ranch & Resort, for each of the years 2000–2006. On January 22, 2008, the State Board confirmed its receipt of these documents by returning a Certified Return Receipt. True and correct copies of the January 17, 2008 filing and Certified Return Receipt are attached for your reference as Attachment A.

The State Board Issues Supplemental SDUs to those parties having filed initial SDUs. However, Mr. Jackson never received the Supplemental SDU forms from the State Board. Additionally, the Supplemental SDU forms are not otherwise made available to water right users, such as by way of the State Board's website. For these reasons, Mr. Jackson did not file Supplemental SDUs in 2009 – three years following his initial 2008 filing of SDUs for years 2000–2006.

In late March of this year, it came to my attention that the State Board did not have record of our January, 2008 filing of Mr. Jackson's initial SDUs. Accordingly, my office immediately contacted the State Board's record department to inquire about the missing SDUs. On March 29, 2011, Pamela Perry confirmed by telephone that the State Board does not have any SDUs on file for Mr. Jackson. On March 30, you instructed us to re-file the SDUs, along with initial SDUs for 2010 as well. True and correct copy of our correspondence with you is attached as Attachment B.

As a result of the fact that Mr. Jackson filed, and the State Board received, initial SDUs for 2000–2006, Mr. Jackson is in full compliance with Water Code Section 5100, *et seq.* and initial SDUs for 2007–2010 should not be required. However, given the fact that the State Board has, subsequent to 2008,

21 East Carrillo Street | Santa Barbara, CA 93101-2706  
Brownstein Hyatt Farber Schreck, LLP | bhfs.com

805.963.7000 *tel*  
805.965.4333 *fax*

SB 577622138008332.0002

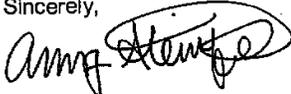
April 14, 2011  
Page 2

modified its SDU forms, as a courtesy to you, and in an abundance of caution, Mr. Jackson has prepared initial SDUs for 2010, as well as for 2007, 2008 and 2009 as well. However, Mr. Jackson's filing of initial SDUs for 2007-2010 at this time shall not constitute, and shall not be deemed to constitute, an admission that Mr. Jackson's SDUs are late or that Mr. Jackson is not otherwise in compliance with Water Code section 5100-5107.

As noted above, this correspondence re-files the previously filed SDUs for 2000-2006 and files new SDUs for 2007, 2008, 2009 and 2010. True and correct copies of initial SDUs for 2007-2010 are attached as Attachment C. We respectfully request that you accept the enclosed filings, enter the 2000-2010 SDUs into the State Board's system and assign Mr. Jackson a State Board SDU identification number to ensure that Mr. Jackson will properly receive notification to file future Supplemental SDUs. Upon receipt of the State Board's Supplemental SDU forms, Mr. Jackson will file them with the State Board.

Thank you for your assistance in this matter. Please feel free to contact me with any questions.

Sincerely,



Amy M. Steinfeld

Enclosures

cc: Charles Jackson

SB 577624 v3:008332.0002

2.4 COMMENTS AND WRITTEN RESPONSES

2.4.1 Written Responses to Comments on the 2011 2<sup>nd</sup> RDEIR

1. Palmer Gavit Jackson Trust (Brownstein Hyatt Farber Schreck) dated May 2, 2011

**Response 1-1:**

The comment notes that the Palmer Gavit Jackson Trust submitted comments on the 2011 2<sup>nd</sup> RDEIR, 2007 RDEIR and 2003 DEIR. Additionally the comment notes that copies of prior water rights filings are provided with the comments.

The Final EIR provided responses to all the comments received. Further, the information on prior water rights applications is noted.

**Response 1-2:**

The comment notes that the comments are submitted on behalf of the Palmer Gavit Jackson Trust, which is a landowner and diverter of water from the Santa Ynez River below Bradbury Dam in the vicinity of the Alisal Bridge crossing.

The comment is noted.

**Response 1-3:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR does not include information on the riparian water use associated with lands owned by the Palmer Gavit Jackson Trust and that the Trust filed a Statement of Diversion and Use for five (5) wells for the year 2000 to 2006 on January 17, 2008.

The information provided has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 1-4:**

The comment notes that the Palmer Gavit Jackson Trust has filed another Statement of Diversion and Use for the five (5) wells noted in comment 1-3 above.

The information provided has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 1-5:**

The comment states that the Palmer Gavit Jackson Trust has researched the technical information contained in the hydrologic modeling for the EIR and that the studies include the historic pumping as part of the baseline data.

The comment is noted.

**Response 1-6:**

The comment provides suggested language to acknowledge the Palmer Gavit Jackson Trust diversions

The language has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 1-7:**

The comment suggest that the introduction of State Water Project water in to the Lompoc Forebay under Alternative 4B would have beneficial impacts only to the portions of the Santa Ynez River below the Lompoc Forebay.

The 2011 2<sup>nd</sup> RDEIR has been clarified to note this information.

**Response 1-8:**

The comment suggest that the comparison of Alternative 4B in Table 6.2 on page 6.0-6 should be corrected to reflect that if State Water Project water was introduced into the Lompoc Basin, only the area below the Lompoc Forebay would see lowered TDS levels resulting in a beneficial impact for that portion of the Subbasin.

The 2011 2<sup>nd</sup> RDEIR has been corrected to reflect this information.

**Response 1-9:**

The comment suggests that if TDS levels are increased above the basin line level, impacts would not be Class IV (beneficial) but at least Class III (less than significant for all alternatives except Alternative 4B).

The EIR has been corrected to reflect this information.

**Response 1-10:**

The comment suggests that the EIR does not provide a discussion under Alternative 4B of releasing Below Narrows Account (BNA) water, stored in Cachuma, down the Santa Ynez River, when such water is exchanged for State Water Project Water delivered directly to the Lompoc Forebay.

The EIR does address the release of BNA waters stored in Cachuma Reservoir. **Section 4.2.2.3** of the 2011 2<sup>nd</sup> RDEIR (under Comparison of Alternatives). Specifically, the 2011 2<sup>nd</sup> RDEIR states:

*Releases for water rights under Alternative 4B would also be less than under the baseline operations because releases from the BNA would not be made from the dam. Instead, SWP water would be delivered for artificial groundwater recharge to the Lompoc Forebay pursuant to an exchange agreement.*

For Alternative 4B, the average annual releases for water rights and fish would be 6,741 acre-feet per year (afy), which would be less than the 7,385 afy for the baseline.

The 2011 2<sup>nd</sup> RDEIR further states that;

*Downstream of Alisal Road, low-flows under Alternative 4B would be less frequent and would have less volume than other alternatives because BNA releases to the river would not be made from the dam under Alternative 4B. BNA releases from the dam involve high release rates (e.g., 75-100 cfs) to reach the Lompoc Plain.*

Finally, the 2011 2<sup>nd</sup> RDEIR notes (see **Section 4.2.2.7**) that:

*The frequency and amount of low-flows downstream of the dam (to Alisal Road) under the project alternatives are similar to one another and greater than under baseline operations. However, moderate flows (50-100 cfs) would occur less frequently under Alternative 4B than under baseline operations because BNA releases to the river are not being made from the dam.*

The 2011 2<sup>nd</sup> RDEIR determined that impacts related to releases under Alternative 4B would be Class III (less than significant).

  
**SOMACH SIMMONS & DUNN**  
A PROFESSIONAL CORPORATION  
ATTORNEYS AT LAW  
500 CAPITOL MALL, SUITE 1000, SACRAMENTO, CA 95814  
OFFICE: 916-446-7979 FAX: 916-446-8100  
SOMACHLAW.COM

2011 MAY 12 AM 8:32

May 11, 2011

DIV. OF WATER RIGHTS

VIA E-MAIL

Jane Farwell  
Environmental Scientist  
State Water Resources Control Board  
Division of Water Rights  
P.O. Box 2000  
Sacramento, CA 95812-2000

Re: Comments on Second Revised Draft Environmental Impact Report Prepared in Connection with Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir) (SCH #1999051051)

Dear Ms. Farwell:

The City of Lompoc (City) appreciates the opportunity to submit the following comments on the State Water Resources Control Board's (SWRCB) Second Revised Draft Environmental Impact Report (2d RDEIR) regarding the operations of the Cachuma Project. The City has participated for decades in proceedings before the SWRCB on the Cachuma Project in order to protect the quantity and quality of its downstream water rights. As part of the most recent proceedings, the City submitted comments by letter dated October 7, 2003 on the August 2003 Draft Environmental Impact Report and by letter dated September 28, 2007 on the Revised Draft Environmental Impact Report for the Cachuma Project. Consistent with the SWRCB's notice of release of the 2d RDEIR, the City's comments are related to the revised chapters, particularly the Revised Chapter 6.0, Comparison of Alternatives and the conclusions reached therein. It is the City's understanding that these comments, as well as the previous comments submitted by the City, including the technical comments from Timothy Durbin and Paul Bratovich, will be responded to in the Final EIR.

1

Although the SWRCB has addressed some of the issues previously raised by the City, the 2d RDEIR continues to include alternatives that are neither reasonable nor feasible. As noted on page 3.0-18 of the 2d RDEIR, the City does not consider Alternative 4B to be a viable alternative. Alternative 4B relies on State Water Project (SWP) water in exchange for water available for recharge to the Lompoc Plain from the Below Narrows Account (BNA). To implement this alternative, an agreement on a secure delivery of SWP water for recharge would be necessary, even when the SWP deliveries are curtailed. (See 2d RDEIR at p. 3.0-17.) The requirement of such an agreement serves to harden the demand for SWP water at a time when the State is looking to diversify regional water supply portfolios to improve water supply reliability and reduce dependence on the Delta. (See Wat. Code, § 10608.)

2

Jane Farwell  
Re: Comments on 2drDEIR  
May 11, 2011  
Page 2

2011 MAY 12 AM 8:32

Furthermore, in the Biological Opinion issued by the National Marine Fisheries Service (NMFS) for the Cachuma Project Operations, NMFS expressed concern that salmonids may incorrectly imprint on SWP water and thus included a reasonable and prudent measure in the Biological Opinion requiring Reclamation to avoid mixing CCWA water (SWP water) in the Santa Ynez River downstream of Bradbury Dam when steelhead smolts could be imprinted with it. (See Biological Opinion at Appendix D, p. 68.)

3

In addition, the full range of environmental impacts of Alternative 4B is currently unknown. Further environmental review on the construction elements of Alternative 4B would be necessary. Without a full assessment of the impacts associated with Alternative 4B, Lompoc questions the SWRCB's conclusion that Alternative 4B represents an environmental superior alternative. In fact, for the reasons stated herein, in addition to the comments previously submitted, the City contends that Alternative 4B is not a reasonable alternative for consideration by the SWRCB.

4

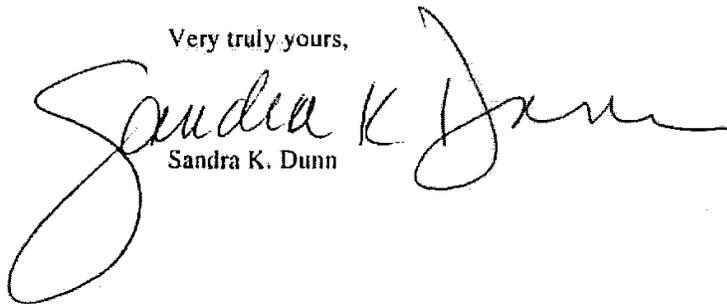
The City of Lompoc entered the Settlement Agreement between Cachuma Conservation Release Board, Santa Ynez River Water Conservation District, Santa Ynez River Water Conservation District, Improvement District No. 1 and the City of Lompoc Relating to the Operation of the Cachuma Project as a means of resolving its long-standing dispute over the operations of Cachuma and as a practical means of protecting its downstream water rights. Alternative 3C, which incorporates the Settlement Agreement, is the alternative which best meets the objective of protecting downstream water rights, protecting public trust resources, and avoiding significant water supply impacts. As such, Alternative 3C is the most environmentally superior of all the alternatives.

5

In addition to the comments submitted herein, the City of Lompoc incorporates by reference the comments of the Santa Ynez River Water Conservation District and the Santa Ynez River Water Conservation District, Improvement District No. 1. The City appreciates the SWRCB's consideration of these and previously submitted comments.

6

Very truly yours,



Sandra K. Dunn

SKD:sb  
Atch.

cc: Ron Stassi  
Susan Segovia  
Gene Margheim  
Donald B. Mooney  
Attached Service List

**Cachuma Project Hearing**  
**Phase-2 Hearing** 2011/01/12 AM 8:32  
**Final Service List**  
**(Last Updated 01/20/11)**

**Service by Electronic Mail:**

<p>Cachuma Conservation Release Board          Kevin M. O'Brien          Downey Brand LLP          621 Capitol Mall, Floor 18          Sacramento, CA 95814  <a href="mailto:kobrien@downeybrand.com">kobrien@downeybrand.com</a>  <a href="mailto:tkuntz@downeybrand.com">tkuntz@downeybrand.com</a></p>	<p style="text-align: right;">PUBLIC NOTICE RIGHTS</p> <p>City of Solvang          Mr. Christopher L. Campbell          Baker, Manock &amp; Jensen          5260 N. Palm Avenue, Suite 421          Fresno, CA 93704  <a href="mailto:clc@bmj-law.com">clc@bmj-law.com</a></p>
<p>Santa Ynez River Water Conservation          District, Improvement District No. 1          Mr. Gregory K. Wilkinson          Best, Best &amp; Krieger, LLP          3750 University Avenue, Suite 400          Riverside, CA 92501  <a href="mailto:gkwilkinson@bbklaw.com">gkwilkinson@bbklaw.com</a></p>	<p>City of Lompoc          Ms. Sandra K. Dunn          Somach, Simmons &amp; Dunn          500 Capitol Mall, Suite 1000          Sacramento, CA 95814  <a href="mailto:sdunn@somachlaw.com">sdunn@somachlaw.com</a></p>
<p>Santa Ynez River Water          Conservation District          Mr. Ernest A. Conant          Law Offices of Young Wooldridge          1800 - 30th Street, Fourth Floor          Bakersfield, CA 93301  <a href="mailto:econant@youngwooldridge.com">econant@youngwooldridge.com</a></p>	<p>California Trout, Inc.          c/o Ms. Karen Kraus          Environmental Defense Center          906 Garden Street          Santa Barbara, CA 93101  <a href="mailto:kkraus@edcnet.org">kkraus@edcnet.org</a></p>

**Service by fax or U.S. Mail:**

<p>U.S. Bureau of Reclamation          Ms. Amy Aufdemberg          2800 Cottage Way, Room E-1712          Sacramento, CA 95825          Fax: (916) 978-5694  <a href="mailto:AMY.AUFDEMBERGE@sol.doi.gov">AMY.AUFDEMBERGE@sol.doi.gov</a></p>	<p>Christopher Keifer          NOAA Office of General Counsel          Southwest Region          501 West Ocean Blvd., Ste 4470          Long Beach, CA 90802-4213  <a href="mailto:Christopher.Keifer@noaa.gov">Christopher.Keifer@noaa.gov</a></p>
<p>Santa Barbara County Parks          Ms. Terri Maus-Nisich          Director of Parks          610 Mission Canyon Road          Santa Barbara, CA 93105  <a href="mailto:tmaus@co.santa-barbara.ca.us">tmaus@co.santa-barbara.ca.us</a></p>	<p>Department of Fish and Game          Office of General Counsel          Nancee Murray          1416 Ninth Street, 12th Floor          Sacramento, CA 95814  <a href="mailto:Nmurray@dfg.ca.gov">Nmurray@dfg.ca.gov</a></p>

**2. City of Lompoc (Somach Simmons & Dunn) dated May 11, 2011**

**Response 2-1:**

The comment notes that the City of Lompoc (City) submitted comments on both the 2003 DEIR and 2007 RDEIR, as well as comments on the 2011 2<sup>nd</sup> RDEIR, and that it is the City's understanding that all submitted comments will be considered, including the technical comments from Timothy Durbin and Paul Bratovich, and responded to in the Final EIR.

All comments received on the 2003 DEIR, 2007 RDEIR and 2011 2<sup>nd</sup> RDEIR have been reviewed and considered in preparing the Final EIR and responded to.

**Response 2-2:**

The comment suggests that the City does not consider Alternative 4B to be a viable alternative. For 4B to be implemented, the comment notes that the City would need to implement an agreement for delivery of State Water Project (SWP) water, which would serve to harden the demand for SWP water at a time when the State of California is looking to diversify regional water portfolios to improve water supply reliability.

The comment is noted and the information has been added to **Section 6.0** of the 2011 2<sup>nd</sup> RDEIR.

**Response 2-3:**

The comment suggests that the Biological Opinion issued by the National Marine Fisheries Service (NMFS) for the Cachuma project expresses concern that salmonids may incorrectly imprint on SWP water and therefore NMFS included a reasonable and prudent measure to avoid mixing Central Coast Water Authority Water (CCWA) (SWP water) in the Santa Ynez River downstream of Bradbury Dam when steelhead smolts could be imprinted.

This information has been added to **Section 6.3** of the 2011 2<sup>nd</sup> RDEIR.

**Response 2-4:**

The comment suggests that the full range of impacts of Alternative 4B is currently unknown and that construction-related impacts would require further environmental review. The comment states that Alternative 4B is therefore not a reasonable alternative for consideration by the SWRCB.

The comment is noted. Further, the 2011 2<sup>nd</sup> RDEIR ((see **Section 6.0**) notes that Alternative 4B, although it may be the environmentally superior alternative under CEQA, may not be feasible for a number of reasons, such as construction of a pipeline and outlet works to discharge SWP water into the Santa Ynez River, and should not be considered further.

**Response 2-5:**

The comment notes that the City is party to the Settlement Agreement and that Alternative 3C incorporates the Settlement Agreement. Further, the comment notes that 3C is the environmentally superior alternative.

The comment is correct in that the Settlement Agreement has been incorporated as part of Alternative 3C in the 2011 2<sup>nd</sup> RDEIR. The prior 2003 DEIR and 2007 RDEIR embodied the components of alternative 3C but did not specify or call out the Settlement Agreement. The supporting technical studies were reviewed as part of the 2011 2<sup>nd</sup> RDEIR preparation and it was determined that while specific components of the Settlement Agreement may not be fully reflected, there would be no substantial changes to the technical findings.

**Response 2-6:**

The comment notes that the City incorporates by reference the comments of the Santa Ynez River Water Conservation District (SYRWD) and SYRWD, Improvement District (ID) No. 1.

The comment is noted. These comments are listed as comment letter number 11 to the 2011 2<sup>nd</sup> RDEIR and responses have been provided for each comment.

COUNTY OF SANTA BARBARA  
EXECUTIVE OFFICE  
105 EAST ANAPAMU STREET, ROOM 406  
SANTA BARBARA, CA 93101  
805-568-3400  
FAX: 805-568-3414

2011 MAY 16 PM 1:30  
WATER RIGHTS

FACSIMILE TRANSMITTAL SHEET

TO:	FROM:
Ms. Jane Farwell Division of Water Rights	Chandra Wallar
COMPANY:	DATE:
State Water Resources Control Board	5/16/11
FAX NUMBER:	TOTAL NO. OF PAGES INCLUDING COVER:
916-341-5400	5

NOTES/COMMENTS:

Ms. Farwell,

Attached please find the County's comment regarding the 2<sup>nd</sup> Revision Draft EIR for the Cachuma Lake Project. You will also receive a hard copy in the mail.

1

Thank you.

# COUNTY OF SANTA BARBARA

Chandra L. Wallar  
County Executive Officer



105 East Anapamu Street, Suite 406  
Santa Barbara, California 93101  
805/568-3400 • Fax 805/568-3414  
cwallar@countyofsb.org  
www.countyofsb.org

EXECUTIVE OFFICE

May 16, 2011

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

Fax: 916-341-5400

Re: Cachuma Project 2<sup>nd</sup> Revised Draft Environmental Impact Report (EIR)

Dear Ms. Farwell:

Thank you for the opportunity to comment on the 2nd Revised Draft EIR for potential modifications to Bureau of Reclamation water right permits for the Cachuma Project. At this time, the County is submitting comments from the Planning and Development Department, Fire Department, and Parks Department.

2

The County looks forward to continued dialogue on future projects. If you should have further questions, please do not hesitate to contact my office directly or Jeff Hunt, Director of Long Range Planning Division, at (805) 568-2072.

Sincerely,

Chandra L. Wallar  
County Executive Officer

cc: Glenn Russell, Director, Planning and Development Department  
Richard Todd, Division Chief/Fire Marshal, Fire Department  
Brian Roney, Interim Director of Parks Department

Enclosures:  
Planning and Development Department letter, May 12, 2011  
Fire Department letter, April 22, 2011  
Parks Department letter, May 13, 2011

Terrri Maus-Nisich  
Assistant County Executive Officer  
tmaus@countyofsb.org

Jason Stilwell  
Assistant County Executive Officer  
jstil@countyofsb.org

Sharon Friedrichsen  
Assistant to the County Executive Officer  
sfried@countyofsb.org



### County of Santa Barbara Planning and Development

Glenn S. Russell, Ph.D., Director  
Dianne Black, Director of Development Services  
Jeff Hunt, Director of Long Range Planning

May 12, 2011

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

Re: Cachuma Project 2<sup>nd</sup> Revised Draft Environmental Impact Report (EIR)

Dear Ms. Farwell:

Thank you for the opportunity to comment on the 2nd Revised Draft EIR for potential modifications to Bureau of Reclamation water right permits for the Cachuma Project. The Planning and Development Department offers the following comments for your consideration:

#### Section 6.0 Comparison of Alternatives

Table 6-1 *Summary of Impacts of Different Alternatives* presents Class I (short-term/temporary) and Class II (long-term) impacts for oak trees for all Alternatives analyzed in the Draft EIR (3B, 3C, 4B, 5B and 5C). The County commends the State Water Resources Control Board for their commitment and efforts to develop an oak tree replacement program to mitigate for the loss of oak trees under the various Alternatives.

The County has made similar commitments to the conservation and regeneration of oak woodlands through the adoption of policies in the County Comprehensive General Plan and guidelines which govern deciduous and live oak removals under Chapter 14 of the Grading Code. The Conservation Element, Oak Tree Protection in the Inland Rural Areas of Santa Barbara County, Supplement to the Mapped Areas and Communities contains policies and actions which promote oak tree protection in County inland rural areas. The oak tree protection goal for this document states,

Santa Barbara County shall promote the conservation and regeneration of oak woodlands in the County over the long term, and, where feasible, shall work to increase the native oak population and extent of woodland acreage. The highest priority for conservation, protection and regeneration shall be for valley oak trees, valley oak woodlands and valley oak savanna.<sup>1</sup>

Additionally, the goal of Appendix A. Grading Ordinance Guidelines for Native Oak Tree Removal is to "...sustain and, where possible, enhance the native oak resources of Santa Barbara County. Specifically, the program seeks to ensure that there is no net loss of native oak trees and

<sup>1</sup> County of Santa Barbara Conservation Element, Oak Tree Protection in the Inland Rural Areas of Santa Barbara County, Supplement to the Mapped Areas and Communities Section, adopted April 15, 2003.

123 E. Anapamu Street  
Santa Barbara, CA 93101  
Phone: (805) 568-2000  
FAX: (805) 568-2030

624 W. Foster Road  
Santa Maria, CA 93455  
Phone: (805) 934-6250  
FAX: (805) 934-6258

3

4

State Water Resources Control Board Cachuma Project 2nd Revised Draft Environmental Impact Report  
Page 2

that, if possible and with the help of incentives, the number and extent of remaining valley, blue, and live oak trees grow greater.<sup>2</sup> These guidelines govern deciduous and live oak removals, replacing the County of Santa Barbara Environmental Thresholds and Guidelines Manual as a standard in Chapter 14 for addressing significant environmental damage and significant environmental impact associated with native oak tree removal of protected and unprotected size, as defined in the Appendix, for agricultural and non-agricultural practices not requiring a discretionary permit.

4

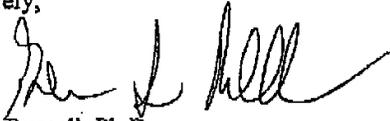
**Recommendation**

The County encourages the State Water Resources Control Board to consider the native oak tree removal guidelines which require oak tree *replanting* ratios of 10:1 for coast live oaks and 15:1 for deciduous oaks for all Alternatives analyzed in the Draft EIR.

5

The County looks forward to continued dialogue on the Cachuma Project. If you should have further questions, please do not hesitate to contact my office directly, or Jeff Hunt, Director of Long Range Planning Division, at (805) 568-2072.

Sincerely,



Glenn Russell, Ph.D.  
Director of Planning and Development

<sup>2</sup> County of Santa Barbara, Chapter 14 Grading Code, Appendix A. Grading Ordinance Guidelines for Native Oak Tree Removal (Preamble).



**Fire Department**  
 "Serving the community since 1926"

Michael W. Dyer  
 Fire Chief  
 County Fire Warden

Christian J. Hahn  
 Deputy Fire Chief

HEADQUARTERS

4410 Cathedral Oaks Road  
 Santa Barbara, CA 93110-1042  
 (805) 681-5500 FAX: (805) 681-5563

April 22, 2010

Ms. Jane Farwell  
 Division of Water Rights  
 Santa Water Resources Control Board  
 PO Box 2000  
 Sacramento, CA 95812-2000

Dear Ms. Farwell:

SUBJECT: State Water Board NOA-Cachuma Project 2<sup>nd</sup> Revised DEIR

Fire Department staff has reviewed the above referenced project and has no comments on the project as presented at this time.

6

Please notify the Fire Prevention Division of any changes to the project proposal. Further intensification of use or change in the project description may require additional review.

As always, if you have any questions or require further information, please call 805-681-5523 or 805-681-5500.

In the interest of life and fire safety,

  
 Richard Todd  
 Division Chief/Fire Marshal

RJ: mkb

*Serving the cities of Buellton, Goleta and Solvang and the Communities of Casmalia, Cuyama, Gaviota, Hope Ranch, Los Alamos, Los Olivos, Mission Canyon, Mission Hills, Orcutt, Santa Maria, Sisquoc, Vandenberg Village*



**Brian Roney**  
Interim Director of Parks  
(805) 568-2461

**Nicole Koon**  
Fiscal Officer, Business Manager  
(805) 568-2477

**Juan Beltranena, AIA, AICP**  
Capital Projects Manager  
(805) 568-2470

**Park Administration**  
610 Mission Canyon Road  
Santa Barbara, CA 93105  
Tel: (805) 568-2461  
Fax: (805) 568-2459

**North County  
Park Operations**  
300 Goodwin Road  
Santa Maria, CA 93455  
Tel: (805) 934-6123  
Fax: (805) 934-6213

**South County  
Park Operations**  
4568 Calle Real, Building B  
Santa Barbara, CA 93110  
Tel: (805) 681-5650  
Fax: (805) 681-5657

**Cachuma Lake  
Recreation Area**  
2225 Hwy 154  
Santa Barbara, CA 93105  
Tel: (805) 686-5055  
Fax: (805) 686-5075

**Reservations**  
South County: (805) 568-2465  
North County: (805) 934-6211  
Cachuma: (805) 686-5050  
Jalama: (805) 934-6211

www.sbparcs.org  
sbparcs@co.santa-barbara.ca.us

Equal Opportunity Employer

May 13, 2011

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

RE: Cachuma Project 2<sup>nd</sup> Revised Draft EIR

Dear Ms. Farwell:

County Parks would like to provide the following comment on the Revised Draft EIR for your consideration:

County Parks has previously provided comments on the development of this environmental document in 2003 and 2007. [The following general comment can be added and that is the continued consideration of the protection of recreation facilities and park operations at Cachuma when weighing the project and alternatives.] The original creation of the Cachuma Recreation Area that surrounds the lake, as part of the Cachuma Project, remains an important resource for the residents of the County and the regional area. County policies with regard to Cachuma Lake include three critical areas: ensuring water quality and supply, protection of resources and the provision of recreational amenities and opportunities. We believe that working collaboratively all can be achieved.

County Parks, therefore, recommends that the consideration of project alternatives and the appurtenant impact and mitigation analysis consider the importance of on going cooperation between the agencies, i.e. County of Santa Barbara, Cachuma Operations Maintenance Board (COMB) and the Bureau of Reclamation. Through this cooperation much progress has already been achieved in securing the recreational resources at Cachuma for present and future users as the lake is surcharged. We anticipate that this on going cooperation can achieve the desired goals of all the agencies.

Thank you for the opportunity to comment and we look forward to continued dialogue on the project.

Sincerely,

Brian Roney  
Interim Director of Parks

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3. County of Santa Barbara dated May 16, 2011

**Response 3-1:**

The comment states that the comments from the County of Santa Barbara (County) are submitted.

Comment noted.

**Response 3-2:**

The comment states that the County is submitting comments from County departments including Planning and Development, Fire and Parks.

Comment noted. Responses to each of the departments' comments are provided.

**Response 3-3:**

The comment is from the County Planning and Development Department and notes that the County commends the SWRCB for commitment and efforts to develop an oak tree mitigation program to address the loss of oak trees under the various alternatives.

Comment is noted.

**Response 3-4:**

The comment notes that the County has made commitments to conserve and regenerate oak tree woodlands through the adoption of policies in the County's General Plan and associated guidelines.

The 2011 2<sup>nd</sup> RDEIR (see **Section 4.13.3.2, Local Plans**) notes that the County's General Plan Conservation Element includes a subsection for the protection of oak trees in inland rural areas of the County. This component of the Conservation Element includes goals and policies for protecting oak trees.

The comment is noted.

**Response 3-5:**

The comment suggests the SWRCB should consider the County guidelines that require oak tree replanting of ratios of 10:1 for coast live oaks and 15:1 for deciduous oaks.

The 2011 2<sup>nd</sup> RDEIR (**Section 4.8.2.2**) states:

*Oak woodlands are recognized as a significant plant community by both Santa Barbara County and the state. Of the 3,147 acres of lakeshore margin impacted by the surcharge, approximately 24.1 percent supported oak woodlands. The complexity of restoring lost oak woodland functions—including the interactions of soil, understory species and the oaks, as well as intricate weave of invertebrate and animal species that rely on these woodlands for nesting, roosting, foraging and other life-cycle needs—has resulted in efforts by Santa Barbara County and the state to require*

*analysis of these impacts, in addition to the loss of individual oak trees. This analysis was not included in the 2007 RDEIR, and sufficient data is not available to provide a detailed analysis in this document. Given those limitations, and acknowledgement that the Cachuma Project is on federal lands rather than directly under the jurisdiction of the county or state, a reasonable default has been to acknowledge that the loss of approximately 755 acres of oak woodlands along the lake margin should be compensated for by developing an integrated Oak Woodland Restoration Plan that, at minimum, achieves the identified ratio of 2:1 replacement of each individual oak lost after 20 years.*

The 2011 2<sup>nd</sup> RDEIR further notes that:

*Of the 1,881 oaks planted thus far, a total of 122 have died. This represents a current survival ratio of 2.4:1 (based on a loss of 734 trees to date). The initial intention was to plant replacement trees at a 5:1 ratio, providing a buffer for losses to occur over the 20-year monitoring time frame. To achieve that planting ratio, based on the documented loss of 612 oaks on the shoreline and 122 mitigation oaks that died, a total of 3,670 oaks would have to be planted. If subsequent surveys find that additional oaks identified as at risk have also declined, this number could increase.*

*Maintenance and watering of the mitigation oaks is anticipated to continue until 2013, approximately eight years into the required monitoring cycle. Once regular watering is discontinued, loss of additional oaks can be anticipated. Because of the time lag between loss of mature oaks and growth of replacement planting, the level of significance for this impact remains at Class I, until such time as the replacement planting ratio of self-sustaining oaks is achieved.*

Finally, the 2011 2<sup>nd</sup> RDEIR states that:

*Depending upon the rate of loss of oak trees due to surcharging and the rate of growth of new trees, the lag time between tree loss and establishment of self-sustaining trees may be very small. Eventually, the loss of trees would be mitigated to a less than significant level.*

The 2011 2<sup>nd</sup> RDEIR also provides mitigation (see Mitigation Measures RP-1 and RP-2) to compensate for the loss of oak trees.

No changes have been made to the EIR.

**Response 3-6:**

The comment notes that the Santa Barbara County Fire department staff has reviewed the 2011 2<sup>nd</sup> RDEIR and have no further comment.

The comment is noted.

**Response 3-7:**

The comment notes that Santa Barbara County Parks has submitted comments on the prior 2003 DEIR and 2007 RDEIR.

The comment is noted. Responses to previous comments submitted have been addressed and are provided in other sections of this document.

**Response 3-8:**

The comment notes that County Parks supports continued consideration of the protection of recreational facilities.

The comment is noted.

**Response 3-9:**

The comment notes that the Cachuma Recreation Area that surrounds Lake Cachuma is an important resource for the residents of Santa Barbara County and the regional area.

The comment is noted.

**Response 3-10:**

The comment notes that Santa Barbara County has developed policies with regard to Lake Cachuma for ensuring water quality and supply, protection of resources, and providing recreational amenities and opportunities.

The 2011 2<sup>nd</sup> RDEIR **Section 4.13.3.2** Local Plans provides a discussion of the relationship of the Project with local plans including those of the County of Santa Barbara. This includes discussions on water resources, ecological resources, and oak trees. The 2011 2<sup>nd</sup> RDEIR **Section 4.10, Recreation** addresses the recreation activities associated with Lake Cachuma and the County's role.

**Response 3-11:**

The comment suggests the consideration of alternatives include the ongoing cooperation between agencies involved with the activities and operation of Lake Cachuma and continued cooperation in securing recreational resources as the lake is surcharged.

SWRCB recognizes the involvement of the agencies in the activities and operations associated with Lake Cachuma. The 2011 2<sup>nd</sup> RDEIR reflects the most current understanding of the relationship among the agencies. The comment is noted.

**Jane Farwell - Cachuma Revised EIR Comments**

**From:** Dee Reed <dpreed@verizon.net>  
**To:** Jane Farwell <JFarwell@waterboards.ca.gov>  
**Date:** 5/16/2011 1:49 PM  
**Subject:** Cachuma Revised EIR Comments

2011 MAY 16 PM 2:13

BUREAU OF WATER RIGHTS

Ms. Jane Farwell,

RE: Second Revised Draft EIR in Connection with Bureau of Reclamation Permits 11331 and 11332

Comments:

- 1. The amount of time allowed for review and submittal of comments on this EIR was inadequate.
- 2. A large portion of the plan is based upon the premise that there is an endangered steelhead species in our local watershed. This premise has not been properly documented (in fact there is evidence to the contrary) but the bureaucracies who want to spend millions of dollars on bridges et al to allow nonexistent fish to swim unimpeded continue to propagate this myth.
- 3. I do not believe that the inherent rights of property owners in our area are considered in proper proportion to the rights of these nonexistent fish.

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In Summary: The entire plan should be scrapped and some realistic plans generated that put people first!

Dee (Schmidt) Reed  
Rancho Sierra Grande  
300 S. Refugio Rd.  
Santa Ynez, CA 93460

**4. Dee Reed dated May 16, 2011**

**Response 4-1:**

The comment suggests that the amount of time allowed for review and submittal of comments for the 2011 2<sup>nd</sup> RDEIR was inadequate.

The 2011 2<sup>nd</sup> RDEIR was released for review on April 1, 2011 with comments due on May 16, 2011. Further, the SWRCB received a request for extension and extended the review period for an additional 15 days (through May 31, 2011).

The *CEQA Guidelines* (Section 15105(a)) states:

*The public review period for a draft EIR shall not be less than 30 days nor should it be longer than 60 days except under unusual circumstances. When a draft EIR is submitted to the State Clearinghouse for review by state agencies, the public review period shall not be less than 45 days, unless a shorter period, not less than 30 days, is approved by the State Clearinghouse.*

The review period initially provided for 45 days for review and comment beginning when the 2011 2<sup>nd</sup> RDEIR was submitted to the State Clearinghouse; the period was later extended by 15 days (for a total of 60 days). As such, the review period was in compliance with the requirements of the *State CEQA Guidelines*.

Furthermore, the recirculation limited review to specific sections of the 2011 2<sup>nd</sup> RDEIR (**Sections 3.0, 4.3, and 6.0**) thus limiting the amount of material that required review. All other sections were subject to adequate review previously.

Therefore, adequate time was provided for individuals and agencies to review the document and submit comments.

**Response 4-2:**

The comment suggests that the need for the EIR is based on the premise that there is an endangered steelhead species in the local watershed and that this premise has not been properly documented.

The SWRCB does not agree with this comment. In August 1997, NMFS designated the steelhead species, *O. mykiss*, inhabiting the lower Santa Ynez River below Bradbury Dam, as endangered under the federal Endangered Species Act of 1973, as amended (ESA). Also, the steelhead, as well as other natural resources, are recognized by the State of California as a public trust resource under the Public Trust Doctrine.

The Public Trust Doctrine is an ancient legal doctrine under which some waters, tidelands and wildlife resources of the state are held in trust for all of the people, and the state acts as the Trustee to protect these resources for present and future generations. In California, this Doctrine has been recognized to extend to the protection of navigable surface waters, to non-navigable tributaries of those waters, to aquatic resources, and to birds and other wildlife.

The state has a continuing duty to manage public trust resources for the benefit of the people of the state, traditionally by balancing three traditional interests: fishing, navigation, and commerce. To those three traditional uses, the courts have added the right of the public to pass over public trust lands and waters free from restrictions by private landowners, and also protection of ecological units and recreation.

Contrary to the unsupported assertions of the commenter, there is adequate evidence in the record supporting the existence of steelhead in the watershed.

**Response 4-3:**

The comment suggests that the inherent rights of property owners are considered in proper proportion to the rights of fish.

On page ES-1 of the 2011 2<sup>nd</sup> DEIR, the document states the proposed project consists of potential modifications to Reclamation's existing water right permits to provide appropriate protection of downstream water rights and public trust resources on the Santa Ynez River. Therefore, property rights have been considered in proper proportion to the fish. Also, please see response to **Comment 4-2** above.

**Response 4-4:**

The comment suggests the entire plan should be scrapped and plans that put people first should be generated.

The SWRCB does not agree with this comment. The mandate of the SWRCB is to balance humans' needs with those of the environment. To that end, the proposed project consists of potential changes to Reclamation's water right permits that supply municipal and agricultural needs, among others, to the residents of the Santa Ynez Valley, and the public trust resources below Bradbury Dam on the Santa Ynez River.

**Jane Farwell - Cachuma RDEIR comment letter from CVWD**

---

**From:** Charles Hamilton <Charles@cvwd.net>  
**To:** "JFarwell@waterboards.ca.gov" <JFarwell@waterboards.ca.gov>  
**Date:** 5/16/2011 3:11 PM  
**Subject:** Cachuma RDEIR comment letter from CVWD  
**CC:** Norma Rosales <Norma@cvwd.net>, Robert McDonald <Bob@cvwd.net>  
**Attachments:** Farwell051611.doc

---

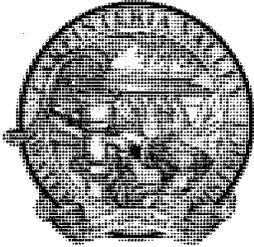
Ms. Jane Farwell  
Division of Water Rights  
SWRCB  
PO Box 2000  
Sacramento, CA 95812-2000

Dear Ms. Farwell,

Please find the attached comment letter from Carpinteria Valley Water District relative to the Cachuma RDEIR to be submitted by fax.

1

Regards, Charles



# Carpinteria Valley Water District

1301 Santa Ynez Avenue • Carpinteria, CA 93013  
Phone (805) 684-2816 • Fax (805) 684-3170

## BOARD OF DIRECTORS

*June Van Wingerden*  
President  
*Matthew Roberts*  
Vice President  
*Lynne Ducharme*  
*Robert Lieberknecht*  
*Alonzo Orozco*

## GENERAL MANAGER

*Charles B. Hamilton*

2011 MAY 16 PM 3:48

DIVISION OF WATER RIGHTS

May 16, 2011

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

Dear Ms. Farwell,

Thank you for the opportunity to comment on the Second Revised Draft Environmental Impact Report related to the Cachuma Reservoir as set forth in Mr. Charles L. Lindsay's letter of April 1, 2011.

Following are comments and information relative to Section 4.3, pertaining to the Carpinteria Valley Water District:

### Section 4.3.1.1 (Carpinteria Valley Water District statistics)

Population Served (estimate):	15,694	2010
Service Connections:	4,283	March 2011
Water:	4,164	
Fire:	119	
Service area:	11,280 acres	
Open Space:	5,230 acres	
Agriculture:	3,400 acres	
Residential:	1,160 acres	
Commercial, Industrial, Institutional:	700 acres	
Source of Supply:	Cachuma (allocation):	2,813 AF / year
	Groundwater (pumping capacity) <sup>1</sup> :	2,422 AF / year
	State Water (allocation) <sup>2</sup> :	2,200 AF / year
Water Use:	Cachuma (10-year average):	3,100 AF / year
	Groundwater (7-year average):	1,150 AF / year
	State Water <sup>3</sup> (7-year average):	140 AF / year
	State Water <sup>4</sup> (7-year average):	350 AF / year

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<sup>1</sup> Various wells with a 50% duty factor  
<sup>2</sup> Includes 200 AF drought buffer  
<sup>3</sup> Deliveries to CVWD service area only  
<sup>4</sup> Exchange with ID#1

Water Sales: 7-year average: 4,120 AF / year  
 M&I (7-year average): 2,160 AF / year  
 Irrigation (7-year average): 1,960 AF / year

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**Table 4-10 (Water Supply and Demand)**

No comments.

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**Table 4-15 Water Deliveries**

The table below represents all sources of supply and differs from the table in the draft EIR.

Carpinteria Valley Water District Water Sales (in acre feet) 1982 - 2010							DIFFERENCE	
	Residential	Commercial	Irrigation	Public Authority	Industrial	TOTAL	DRAFT EIR	TOTAL - DEIR
1982-83	1,251	636	2,406	122	159	4,574		
1983-84	1,358	680	2,829	109	150	5,127		
1984-85	1,360	739	2,991	133	162	5,385		
1985-86	1,432	737	2,663	136	150	5,118		
1986-87	1,545	763	3,116	136	149	5,708		
1987-88	1,624	769	3,102	146	156	5,797		
1988-89	1,506	773	3,395	135	153	5,961		
1989-90	1,584	830	3,825	134	150	6,522	6,398	124
1990-91	1,129	600	2,864	97	108	4,798	4,768	30
1991-92	1,162	598	2,057	101	109	4,028	4,028	0
1992-93	1,357	648	2,123	107	120	4,354	4,330	24
1993-94	1,388	672	2,198	115	134	4,508	4,331	177
1994-95	1,383	704	2,075	122	133	4,416	4,470	-54
1995-96	1,367	728	2,077	106	125	4,403	4,413	-10
1996-97	1,798	400	2,193	159	138	4,689	4,688	1
1997-98	1,577	350	1,708	121	124	3,880	3,880	0
1998-99	1,699	381	2,080	144	139	4,443	4,443	0
1999-00	1,768	399	2,255	123	128	4,673	4,672	1
2000-01	1,642	378	1,796	116	121	4,053		
2001-02	1,683	400	2,036	124	126	4,369		
2002-03	1,642	397	1,877	127	136	4,178		
2003-04	1,705	408	2,144	144	133	4,535		
2004-05	1,594	380	1,869	123	125	4,090		
2005-06	1,477	362	1,821	117	119	3,897		
2006-07	1,599	407	2,226	138	125	4,495		
2007-08	1,613	398	2,210	162	120	4,502		
2008-09	1,507	369	1,967	145	110	4,099		
2009-10	1,452	349	1,796	149	79	3,825		
source: CVWD records								
Averages							Reported	Sum
1982-2010	1,507	545	2,346	128	131	4,658	4,201	292
1989-2000	1,474	574	2,314	121	128	4,610	Actual	%
2000-2010	1,591	385	1,974	134	119	4,204	4,584	6%

4

The Draft EIR differs by ~6% over the 1990-91 to 1999-2000 period (292 ÷ 4,610).

4

**Tables 4-19 (Demand) and 4-20 (Supplies in Critical Drought)**

No comments for **Table 4-19**. Line 6 in **Table 4-20** should read as follows:

5

“6. Surplus (Line 4 - Line 5).”

**Table 4-25b (Non-Cachuma sources during 3-year drought)**

The local groundwater value of 8,400 Afy presented for CVWD is incorrect. The correct number is 2,442 Afy of production of groundwater from District wells, i.e. non-Cachuma sources during a 3-year drought. **Table 4-25b** appears to include a mix of single and 3-year totals.

6

Please contact me if you have any questions.

Sincerely,



Charles B. Hamilton  
General Manager

CC: Norma Rosales, Assistant General Manager  
Bob McDonald, District Engineer

5. **Carpinteria Valley Water District dated May 16, 2011**

**Response 5-1:**

The comment notes that the Carpinteria Valley Water District (CVWD) has submitted comments on the 2011 2<sup>nd</sup> RDEIR.

The comment noted.

**Response 5-2:**

The comment provides statistical data on the CVWD's service and service area.

The information provided has been incorporated, as appropriate, into the 2011 2<sup>nd</sup> RDEIR.

**Response 5-3:**

The comment notes that the CVWD has no comment on **Table 4-10, Water Supply and Demand-Carpinteria Valley Water District**, in the 2011 2<sup>nd</sup> RDEIR.

The comment noted.

**Response 5-4:**

The comment that **Table 4-15, Annual Water deliveries by the Member Units to Their Customers**, in the 2011 2<sup>nd</sup> RDEIR has information that is different from the CVWD's records.

**Table 4-15** has been updated in the 2011 2<sup>nd</sup> RDEIR based on the information provided.

**Response 5-5:**

The comment notes that the CVWD has no comment on **Table 4-19, Member Units Demand**, and an editorial correction on **Table 4-20, CVWD Supply and Demand in Critical drought Year (1951) Under Alternative 5B**.

The comment is noted and the correction to **Table 4-20** has been made to the 2011 2<sup>nd</sup> RDEIR.

**Response 5-6:**

The comment notes that **Table 4-25b, Member Units' Supply from Sources Other Than Cachuma Project during Critical - Three-Year Drought Period (1949-1951)**, is in error for CVWD and provided the correct data.

**Table 4-25b** was updated to reflect the correct information. Other tables were updated to reflect the new information. There were no changes in the findings or level of significance determined in the 2011 2<sup>nd</sup> RDEIR based on the corrected information.

**From:** Paul Slavik <paul@qcranch.com>  
**To:** <jfarwell@waterboards.ca.gov>  
**Date:** 5/16/2011 11:31 AM  
**Subject:** Second Revised EIR Bureau of Reclamation 11331 and 11332  
**Attachments:** Cachuma 2011 EIR Cover letter.pdf; Comments to 2011 2nd Revised EIR.pages

Attached are comments in two related documents in response to the above referenced EIR. I encourage the full review of these documents. Hard copies are being sent concurrently.

1

Thank you.

**PAUL SLAVIK**  
PO Box 867  
SANTA YNEZ, CA 93460

2011 MAY 16 PM 2:14

May 16, 2011

DIVISION OF WATER RIGHTS

Ms. Jane Farwell  
Division of Water Rights  
State Water Resources Control Board  
PO Box 2000  
Sacramento, CA 95812-2000

RE: Second Revised Draft EIR in Connection with Bureau of Reclamation Permits  
11331 and 11332

The project alternatives in set forth in this draft EIR are largely driven and controlled by the current biological opinion regarding Southern California steelhead populations in the Santa Ynez River watershed. This biological opinion is designed to create an endless supply of bureaucratic process and publicly funded projects and while creating no meaningful change in steelhead populations.

2

The focus of these current recovery efforts ignore known scientific data developed by the same agencies now responsible for implementing this biological opinion. There is total disregard for successful and cost effective fisheries management practices employed elsewhere and previously employed in the Santa Ynez River. More critically, the current biological opinion ignores the 2005 U. S. Geological Survey study that fish in the lower Santa Ynez River watershed are hybridized hatchery descendants which do not qualify for listing under the Endangered Species Act.

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Fish and Game agencies throughout the country utilize steelhead stocking programs with absolute predictable results. Conservation hatchery programs preserve the desirable genetic traits while restoring the fisheries in immediate terms. The "Field of Dreams" strategy currently used in the Santa Ynez River is scientifically proven to be a dead end road on many levels. Most distressing is that the State of California did extensive studies of this and determined that native steelhead will reproduce at a rate of 1:1 while hatchery fish reproduce at a rate of 15:1 (Hallock, Van Woert, Shapavalov 1961).

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Today, despite spending hundreds of millions of dollars in the Southern California region alone, annual counts of returning steelhead in the Santa Ynez River range from 0 to 16 with and an average of 3.1 fish. When people are made aware of this fact pattern, the common reaction is shock at the massive and well organized misappropriation of public and private resources. The typical response to this is that we need to stop following mandates created by individuals and government agencies that have a vested interest in the process and no accountability as to results. This has been and continues to be a complete betrayal of the public trust interests and private property rights.

5

State Water Resources Control Board  
May 16, 2011  
Page 2

Attached are comments and reference materials cited relative to the 2009 Draft  
Southern California Steelhead Recovery Plan that have application to this draft EIR.  
Please take the time to review this in its entirety as it is critical this process not be  
allowed to continue to the detriment of the environment, the economy and the quality of  
life throughout the State of California.

Sincerely,



Paul Slavik

15 PM 2:11  
6  
2011-05-16 2:11 PM  
6

6. Paul Slavik dated May 16, 2011

**Response 6-1:**

The comment states that comments to the 2011 2<sup>nd</sup> RDEIR are provided.

The comment noted.

**Response 6-2:**

The comment opines that the project alternatives are largely driven by the Biological Opinion<sup>2</sup> regarding Southern California steelhead populations in the Santa Ynez River. Further, the comment suggests the Biological Opinion will ultimately create no meaningful change in the steelhead population.

The comment is correct that the alternatives considered in the EIR reflect the Biological Opinion and consultation conducted by NMFS. The Biological Opinion is a federal action which involves the proposed operation and maintenance of the Cachuma Project to further address fish needs in the mainstem Santa Ynez River from Bradbury Dam to the Pacific Ocean including Hilton Creek, Salsipuedes Creek, El Jaro Creek Quiota Creek, Nojoqui Creek, Alisal Creek and associated riparian areas. The Biological Opinion addresses actions involving the surcharging the reservoir in some years to provide additional water for fish downstream, water rights releases, water releases for anadromous migration support, water releases for summer rearing, the upgrade of road crossing blocking or hindering anadromous fish passage in the watershed below the dam, and facility maintenance and monitoring activities, among others. The scope of the consultation for the Biological Opinion is 50 years.

While the federal action is separate from the consideration by the SWRCB of the modifications of the Reclamation's water rights permits (Nos. 11308 and 11310) by the SWRCB, it establishes conditions that cannot be ignored in assessing the project's potential impacts.

The comment is noted.

**Response 6-3:**

The comment suggests that the current recovery efforts ignore known scientific data developed by NMFS. Specifically, the comment identifies in a 2005 U.S. Geological Survey study in the lower Santa Ynez River that indicates the steelhead are hybridized hatchery descendants which do not qualify for listing under the Endangered Species Act.

NMFS issued a final determination in January 2006 (see Fed Reg., Vol. 71, No. 3 pp. 834 to 861) to list 10 Distinct Population Segments (DPSs) of West Coast steelhead (*O. mykiss*) under the ESA. In the proposed

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<sup>2</sup> National Marine Fisheries Service, Southwest Region Biological Opinion – U.S. Bureau of Reclamation operation and maintenance of the Cachuma Project on the Santa Ynez in Santa Barbara County, California.

rule, NMFS noted that the *Alsea* decision (*Alsea Valley Alliance v. Evans* (9th Cir. Feb. 24, 2004) 358 F.3d 1181) required listing of an entire Distinct Population Segment (DPS) and “evolutionary significant unit” (ESU), in contrast to prior steelhead-only listings, and stated the scientific principles and working assumptions that were used to determine whether particular resident groups were part of an *O. mykiss* ESU that included anadromous steelhead. (69 FR 33102, at 33113) NMFS proposed that where resident (rainbow trout) and anadromous (steelhead) *O. mykiss* occur in the same stream, they are not “substantially reproductively isolated” from one another and are therefore part of the same ESU.

The 2011 2<sup>nd</sup> RDEIR identifies and incorporates the most recent technical information available. This includes the 2009 Draft Southern California steelhead Recovery Plan prepared by NMFS. This plan outlines the recovery process necessary to accomplish the recovery of southern steelhead (*O. mykiss*) and its removal from the federal list of Endangered and Threatened Wildlife in the Southern California Distinct Population Segment (DPS) (formerly Evolutionarily Significant Unit). The Santa Ynez River is one of the four major rivers (along with the Santa Maria, Ventura, and Santa Clara rivers) included in the Monte Arido Highlands Biogeographic Population Group and is considered to be a Core 1 population. Core 1 populations are those identified as a high priority for recovery actions.

Also, critical habitat was designated for the Santa Ynez River in September 2, 2005, (50 Federal Register 52488) and includes approximately 48 miles of the river and its tributaries downstream of Bradbury Dam.

As to the question of whether the steelhead qualify for listing under the Endangered Species Act, that question is more appropriately directed to NMFS, as the SWRCB cannot and does not second-guess the listing decisions of the agencies responsible for the ESA.

**Response 6-4:**

The comment suggests that public agencies throughout the country utilize steelhead stocking programs and that studies have noted that native steelhead will reproduce at a rate of 1:1 while hatchery steelhead reproduce at a rate of 15:1.

The comment refers to studies on the Sacramento River that found stocking hatchery-reared yearling steelhead is a valid method of supplementing natural steelhead production in the Sacramento River.<sup>3</sup> Natural reproduction by steelhead during the study period was on the order of 1 to 1 (i.e., for each adult one other was produced), while artificial propagation produced about 15 fish for each one spawned. The study noted that the rate of reproduction holds true only for the limited numbers of steelhead spawned at Coleman hatchery. The study also noted that a great increase in artificially spawned adults would

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<sup>3</sup> California Department of Fish and Game, Fish Bulletin No. 114, An Evaluation of Stocking Hatchery-Reared Steelhead Rainbow Trout (*Salmo Gairdnerii Gairdnerii*) in the Sacramento River System, 1961.

depress the survival rates of both hatchery and wild fish, but there is no evidence to indicate at what level this might become significant.

While hatchery programs may demonstrate higher reproduction, studies have shown that native stocks have adapted to diverse natural habitats, which improves survival over a wide range of conditions. The capacity of steelhead to persist when faced with environmental change is, in part, a function of their evolutionary history. The combined evolutionary histories of many wild stocks of steelhead determine the genetic capacity of the species to cope with environmental change.

The comment is noted.

**Response 6-5:**

The comment suggests that, despite spending hundreds of millions of dollars in the Southern California region, the annual counts of returning steelhead in the Santa Ynez River range from 0 to 16 with an average of 3.1 fish.

The SWRCB does not agree with this comment. The 2011 2<sup>nd</sup> RDEIR (see **Section 4.7.1.2**) provides information regarding studies conducted from 1993 to 2010 to document *O. mykiss* in the mainstem Santa Ynez River downstream of Cachuma Lake. Distribution of *O. mykiss* varies seasonally, but use of refugia pools primarily in the Highway 154, Refugio and Alisal reaches increases during wet years. Following the addition of flow into Hilton Creek since 2000, young-of-the-year and juvenile *O. mykiss* were observed downstream as far as the Alisal reach, which suggests that the high reproduction rates observed in Hilton Creek are contributing to expanding the distribution of *O. mykiss* into available habitats. Greater numbers of adult *O. mykiss* were seen in the Refugio and Alisal reaches during years when Lake Cachuma spilled (1995, 1998, 2001, 2005, 2006, 2008) than in other years.

Adult *O. mykiss* have been documented migrating into Hilton Creek in all years that SYRTAC observations have been made (SYRTAC 1997, 1998, 2000, 2009), but numbers were low in years with low winter runoff until the Hilton Creek Water System (HCWS) was completed in 2000. Actual spawning with production of young-of-the-year was documented in 1995, 1997, and 1998 and yearly since 2000, producing between 400 and 900 young-of-the-year annually.

Surveys from 1993 to 2000 show that Quiota Creek, especially in the upper reach, supports *O. mykiss*. Over 100 young-of-the-year were observed in August 1994, and another 100 young-of-the-year and 20 to 30 juvenile/adults were observed in a tributary to Quiota Creek in August, 1994 (SYRTAC 1997.) A visual survey in February 1995 documented spawning activity, redds and two adults (one 16-inch female and 6- to 8-inch male) approximately 2 miles upstream of the confluence with the Santa Ynez River (SYRTAC 1997). Observations from nine road crossings in late 1998 document approximately 100 young-of-the-year

from about 1.5 to 3 miles upstream of the confluence. Both adult and juvenile *O. mykiss* are consistently observed in Quiota Creek (SYRTAC 2009).

Fish surveys were conducted in February 1995, when access to private property was available for migrant trapping and an electrofishing survey. (SYRTAC 1997.) Twenty resident *O. mykiss* juveniles and adults were found in Alisal Creek upstream of Alisal Reservoir. (SYRTAC 1997.)

*O. mykiss* of all size classes also have been found in the Salsipuedes-El Jaro Creek system. During summer months when water temperatures are warm, typically they are found in pools and deep runs. In 1997, an average rainfall year, snorkel surveys in lower Salsipuedes found young-of-the-year (33), juveniles (172), and small adults (16), while surveys in upper Salsipuedes and El Jaro found young-of-the-year (56 in upper Salsipuedes, 45 in El Jaro) as well as juveniles and adults (10 in upper Salsipuedes, 62 in El Jaro) (SYRTAC 1998.) Also in 1997, a trap installed in lower Salsipuedes Creek captured 34 upstream migrants. In 1998, only one upstream migrant was captured, and 40 migrants were captured in 1999.

**Response 6-6:**

The comment states that attached to the comment letter are comments and reference materials cited relative to the 2009 Draft Southern California Steelhead Recovery Plan that may have application to the EIR.

The comment suggests that the Southern California steelhead ESU does not qualify for protection under the ESA based on the molecular genetic study of Jennifer Nielsen and others (Nielsen *et al* 2003),<sup>4</sup> although incorrectly referenced in the comment as “Genetic influence of hatchery-origin fish to natural populations of rainbow trout in the Santa Ynez River, California.” The question of applicability of the ESA to the steelhead population found in the Santa Ynez River is beyond the scope of this environmental document and is irrelevant to the analysis of environmental impacts of the surcharging of the Cachuma Project. See also Response to 2011 2<sup>nd</sup> RDEIR **Comment 6-3**.

However, in reference to the Nielsen *et al* 2003 study, nuclear DNA (nDNA) markers and mitochondrial DNA (mtDNA) were used to genetically examine rainbow trout populations in the upper Santa Ynez River, which are above the Bradbury Dam. The degree to which these populations may represent anadromous (i.e., steelhead) or resident (i.e., rainbow trout) fish was not evaluated. A conclusion of this study found that populations of rainbow trout upstream of Juncal Dam in the upper Santa Ynez River, and in Alder Creek immediately downstream from Juncal Dam, appear to have been influenced genetically by introduced hatchery fish. In addition, the mtDNA results are consistent with the

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<sup>4</sup> Nielsen, J. L., C. E. Zimmerman, J. B. Olson, T.C. Wiacek, E. J. Kretschmer, G. M. Greenwald, and J. K. Wenburg. 2003. Population genetic structure of Santa Ynez River rainbow trout – 2001 based on microsatellite and mtDNA analyses. Final report submitted to U.S. Fish and Wildlife Service, California/Nevada Operations Office, Sacramento, California, November 11, 2003.

hypothesis that introduced rainbow trout of hatchery origin have made a genetic contribution to sampled populations upstream of Juncal Dam and in Alder Creek.

Greenwald and Campton<sup>5</sup> made a subsequent study to the Nielsen *et al* report and concluded that rainbow trout in the upper Santa Ynez River upstream of Gibraltar Dam appear to have largely been derived genetically from native populations but hatchery-origin fish appear to have also made significant genetic contributions (20 – 50 percent) to populations upstream of Juncal Dam and in Alder Creek immediately downstream from that dam. Despite the suspected genetic introgression from introduced rainbow trout upstream of Juncal Dam and in Alder Creek, those populations and others throughout the upper Santa Ynez River still retain significant, native genetic complements. The rainbow trout in the upper Santa Ynez River upstream of Gibraltar Dam appear to have largely been derived genetically from native populations.

In regard to the steelhead population in the lower Santa Ynez River, Garza and Clemento<sup>6</sup> studied population samples from Salsipuedes and Hilton Creeks below Cachuma Dam for multiple consecutive years and evaluated temporal genetic variation and estimation of effective population size. Substantial temporal stability was evident from the multiple analyses in both populations and effective sizes were low and consistent with census size estimates. However, it was unclear whether these hatchery trout reproduce or hybridize with native fish in Hilton Creek and reproduction of hatchery fish in the Santa Ynez River appears to be largely or totally absent. In addition, Garza and Clement (2007) found that introgression and reproduction between hatchery fish and native populations was essentially absent from all Santa Ynez River populations. This result indicates that hatchery trout are different enough in life history and physiology that they do not successfully reproduce with naturally spawning fish.

The 2011 2<sup>nd</sup> RDEIR acknowledges and includes discussion of the 2009 Recovery Plan and incorporates information relative to the project as applicable. The commenter is directed to **Section 2.6** of the 2011 2<sup>nd</sup> RDEIR.

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<sup>5</sup> Greenwald, G.M. and D.E. Campton. 2005. Genetic influence of hatchery-origin fish to natural populations of rainbow trout in the Santa Ynez River, California. A synopsis and supplemental evaluation of: Nielsen, Jennifer L., Christian E. Zimmerman, Jeffrey B. Olson, Talia C. Wiacek, Eric J. Kretschmer, Glenn M. Greenwald, and John K. Wenburg. 2003. Population genetic structure of Santa Ynez River rainbow trout – 2001 based on microsatellite and mtDNA analyses. Final report submitted to U.S. Fish and Wildlife Service under Intra-agency Agreement No. 11440-1-4000 between the U.S. Fish and Wildlife Service (Ventura, CA) and the U.S. Geological Survey (Anchorage, AK). California-Nevada Operations Office (CNO), U.S. Fish and Wildlife Service, Sacramento, California. 20 pp.

<sup>6</sup> Garza, John Carlos and Anthony Clemento. 2007. Population genetic structure of *Oncorhynchus mykiss* in the Santa Ynez River, California. Final report for project partially funded by the Cachuma Conservation Release Board. October 2007.

**Jane Farwell - Reclamation Comments on April 2011 2nd RDEIR for Water Rights Permits**

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**From:** "Gruenhagen, Ned M" <NGruenhagen@usbr.gov>  
**To:** "JFarwell@waterboards.ca.gov" <JFarwell@waterboards.ca.gov>  
**Date:** 5/31/2011 5:06 PM  
**Subject:** Reclamation Comments on April 2011 2nd RDEIR for Water Rights Permits  
**CC:** "Woodley, Richard J" <RWoodley@usbr.gov>, "Jackson, Michael P." <MJackson@usbr.gov>, "Colella, Robert F" <RColella@usbr.gov>  
**Attachments:** Comments Revised Environmental Impact Report.pdf

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Greetings,

Reclamation has attached a copy of the document with comments that were previously submitted. No further comments have been added during the extension.

1

Thank you,

Ned

Ned M. Gruenhagen, Ph.D.  
Wildlife Biologist  
U.S. Department of Interior, Bureau of Reclamation  
South-Central California Area Office  
1243 N Street  
Fresno, CA 93721  
Tel. (559) 487-5227  
Mobile (559) 284-2735  
Fax (559) 487-5397



## United States Department of the Interior

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

IN REPLY REFER TO:

**MAY 16 2011**

MP-460  
WTR-4.10

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

Subject: Comments on Second Revised Draft Environmental Impact Report Prepared in Connection with Consideration of Modifications to Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (SCH #1999051051), Cachuma Project, California

Dear Ms. Farwell:

The Bureau of Reclamation appreciates the opportunity to provide comments to the State Water Board on the subject revised Draft Environmental Impact Report (2011 DEIR). Reclamation has reviewed the 2011 DEIR and hereby submits comments on the document pursuant to the California Environmental Quality Act.

### Comments

Reclamation concurs with the State Water Board that alternative 3C (existing Cachuma Project operations) is the environmentally superior alternative that meets the project objectives, and Reclamation supports this alternative as the preferred alternative and proposed project.

2

Reclamation further agrees that Alternative 4B (State Water Project Discharge to Lompoc Forebay) is no longer a viable alternative because the City of Lompoc has twice rejected State Water Project water as a new supply and the City of Lompoc has entered into a Settlement Agreement with the downstream water right interests and the Member Units that resolves their water quality issues. The Settlement Agreement is incorporated into Alternative 3C and current Cachuma Project operations, as is the National Marine Fisheries Service's biological opinion for southern California steelhead.

3

Please refer any questions regarding these comments to Mr. Bob Colella of our Water Rights staff at 916-978-5256, or to Ms. Rena Ballew of Reclamation's South-Central California Area Office at 559-487-5504.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard J. Woodley". The signature is fluid and cursive, with the first name being the most prominent.

**Richard J. Woodley**  
**Regional Resources Manager**

**7. Bureau of Reclamation dated May 16, 2011**

**Response 7-1:**

The comment notes that Reclamation comments on the 2011 2<sup>nd</sup> RDEIR are provided. Also, no further comments have been added during the extension of the comment period.

Comment is acknowledged.

**Response 7-2:**

The comment states that Reclamation concurs with the SWRCB that Alternative 3C (existing Cachuma Project operations) is the environmentally superior alternative and supports this alternative as the preferred alternative.

Comment is noted.

**Response 7-3:**

The comment states that Reclamation agrees that Alternative 4B is no longer a viable alternative because the City of Lompoc (City) has twice rejected SWP water as a new supply. Also, the City has entered into the Settlement Agreement with downstream water right interests and the Member Units that resolves their water quality issues. The comment further states the Settlement Agreement is incorporated into Alternative 3C and current Cachuma Project operations, as is NMFS's Biological Opinion for Southern California steelhead.

The comment is noted.

SF A011331  
A011332



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, California 90802-4213

MAY 27 2011

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WATER RIGHTS

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

Re: Second Revised Draft Environmental Impact Report (April 2011) – Consideration of Modifications to the U.S. Bureau of Reclamation’s Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir) (SCH#1999051051)

Dear Ms. Farwell:

NOAA’s National Marine Fisheries Service (NMFS) appreciates the opportunity to comment on the State Water Resources Control Board’s (State Water Board) Second Revised Draft Environmental Impact Report (2<sup>nd</sup> RDEIR). [As previously expressed in letters dated September 21, 2010, and October 26, 2010, NMFS requests that the State Water Board not finalize this action pending release and incorporation of the new biological opinion for the operations and maintenance of the U.S. Bureau of Reclamation’s (Reclamation) Cachuma Project and the Southern California Steelhead Recovery Plan. The intent of this request is to ensure that the Final EIR adequately considers and characterizes the anticipated effects of the Cachuma Project on the environment.] Further, as the State Water Board Hearing Officer noted in his determination granting NMFS’ request to participate as a party in Phase II of the Cachuma Project Hearing, “in light of [NMFS’] unique role as the agency that listed the Southern California steelhead ESU [now Distinct Population Segment (DPS)] as endangered, authored the Biological Opinion, and is responsible for preparing a recovery plan for the species,” NMFS’ participation will help the State Water Board “ensure that the record includes the evidence necessary for the [State Water Board] to properly evaluate impacts on fisheries consistent with the [State Water Board’s] public trust responsibilities”.<sup>1</sup>

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<sup>1</sup> Ruling by Peter Silva, State Water Board Hearing Officer, May 29, 2003.



The State Water Board's notice of release of the 2<sup>nd</sup> RDEIR for public review requests that reviewers limit their comments to Sections 4.3 and 6.0. NMFS provides the following general and specific comments and addresses the State Water Board's request under the heading for each type of comment.

### **General Comments**

Because NMFS' biological opinion (dated September 8, 2000) is referenced in Sections 4.3 and 6.0, and it is an integral underpinning of those sections and throughout the 2<sup>nd</sup> RDEIR, NMFS' general comment that pertains to the biological opinion relates to Sections 4.3 and 6.0 as well as analysis throughout the 2<sup>nd</sup> RDEIR. In a similar manner, NMFS' general comments that pertain to the Southern California Steelhead Recovery Plan and NMFS' previous requests for studies to inform the State Water Board's analysis are relevant to the comparison of alternatives in Section 6.0 as well as analysis throughout the 2<sup>nd</sup> RDEIR. Each of these general comments is presented as follows.

**Biological Opinion for the Cachuma Project.**—The relevance of NMFS' biological opinion to the subject 2<sup>nd</sup> RDEIR is emphasized in the State Water Board's project description on page 1.0-2.

*Development of revised release requirements and other conditions, if any, in the Reclamation water rights permits (Applications 11331 and 11332) for the Cachuma Project. These release requirements will take into consideration the National Marine Fisheries Service's Biological Opinion (emphasis added)...*

In addition, the State Water Board describes each of the alternatives considered in the 2<sup>nd</sup> RDEIR in reference to operations considered under NMFS' September 2000 biological opinion (e.g., 2<sup>nd</sup> RDEIR at 3.0-7 to 3.0-9, 4.3-12, 4.3-14, 4.3-21, and 6.0-6 to 6.0-8). Moreover, the State Water Board describes the impacts to an important public trust resource, endangered Southern California steelhead (*Oncorhynchus mykiss*), in reference to NMFS' September 2000 biological opinion (e.g., 2<sup>nd</sup> RDEIR at 4.7-26 ("The requirements of the biological opinion represent the consensus of minimal flows needed in order to support the continued survival of *O. mykiss* in the Santa Ynez River") and 4.7-41 ("The flow levels used in the scoring system were based . . . on the flow levels that NMFS determined would result in no jeopardy to steelhead (NMFS, 2000)"), which is reflected in the comparison of alternatives in Section 6.0 (RDEIR at 6.0-2 and 6.0-7). Therefore, the formulation and evaluation of alternatives within the 2<sup>nd</sup> RDEIR are based on the presumption that the flow releases (i.e., magnitude, frequency, timing, rate of change, and duration) proposed by Reclamation and considered in the September 2000 biological opinion, continue to ensure that Reclamation's Cachuma Project is not likely to jeopardize the continued existence of endangered steelhead or result in the destruction or adverse modification of critical habitat, pursuant to Section 7 of the Federal Endangered Species Act (ESA). However, as supported by NMFS' administrative record and for reasons stated in NMFS' October 26, 2010, letter to the State Water Board, reinitiation of ESA formal consultation for the Cachuma Project, including a new biological opinion, is required (50 CFR § 402.16).

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NMFS expects Reclamation to submit a revised description of the proposed operations and maintenance of the Cachuma Project, including flow releases, and analyses of effects to endangered steelhead and designated critical habitat as required under 50 CFR § 402.14(c). As stated in NMFS' October 26, 2010, letter to the State Water Board, NMFS anticipated issuing a new biological opinion by December 2011, based on discussions with Reclamation. NMFS is presently coordinating with Reclamation to define a schedule for the reinitiated consultation, including development and submittal of required work products to support the process. Such work products include the annual monitoring data and summaries as required by the previous (September 2000) biological opinion. Although the 2<sup>nd</sup> RDEIR (page 2.0-21) indicates that such data and reports were submitted to NMFS in February 2010, the 2<sup>nd</sup> RDEIR is not accurate in this regard.

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Accordingly, NMFS recommends that the State Water Board defer completion of the Final EIR until NMFS and Reclamation have completed reinitiated ESA Section 7 consultation for the operations and maintenance of the Cachuma Project and a new biological opinion has been issued. Should the State Water Board finalize the EIR before NMFS concludes reinitiated consultation and prepares the new biological opinion, NMFS would be concerned that the CEQA process, including the assessment of possible effects upon public trust resources, would not be adequately informed.

**Southern California Steelhead Recovery Plan.**—At the time of issuance of its September 2000 biological opinion, NMFS had not begun its recovery planning process for Southern California steelhead. That process was in early stages at the time of the initial Draft EIR for the Cachuma Project and related Cachuma water rights hearings. Since that time, NMFS has (1) developed and published a series of Technical Memoranda intended to provide the scientific foundation for recovery planning; (2) developed a draft recovery plan that has been subjected to scientific peer review, co-manager review, and public review; and, (3) is in the process of finalizing and publishing the recovery plan. The Southern California Steelhead Recovery Plan will identify a set of recovery goals and measurable objectives for both the species (i.e., the DPS) as a whole and individual watersheds such as the Santa Ynez River. This plan will also identify the types of recovery actions necessary to recover steelhead within individual watersheds, as well as the DPS as a whole. The Santa Ynez River is identified as one of a number of core steelhead populations that must be restored to viable levels to ensure recovery of the species. The goals and objectives, and the specific recovery actions for the Santa Ynez River identified in the draft recovery plan include measures beyond those identified in the September 2000 biological opinion, based on the additional information that has been developed since issuance of the subject biological opinion.

4

As NMFS explained in its October 26, 2010, letter to the State Water Board (as well as NMFS' December 7, 2007, and September 21, 2010, letters to the State Water Board), "NMFS believes the scientific information resulting from forthcoming ESA processes and products, [including] the Southern California Steelhead Recovery Plan (Recovery Plan) . . . , will provide meaningful scientific information that better informs the State Water Board's Final EIR." Accordingly, NMFS recommends that the State Water Board consider in the Final EIR the information described above that has been and is being developed in NMFS' recovery planning process and defer completion of the Final EIR until completion of the Recovery Plan.

**NMFS' Previous Requests for Studies.** —NMFS' October 7, 2003, letter recommended that the following “six studies be undertaken and incorporated into the Final EIR and the [State Water Board’s] deliberations before making any final decision on the Public Trust interests in the steelhead resources of the Santa Ynez River.” NMFS reiterated its request for these studies in its February 16, 2004, Closing Brief in Phase II of the State Water Board’s Cachuma Project Hearings. These studies do not appear to have been completed to date.

5

- Steelhead Spawning and Rearing Habitat Assessment
- Fish Passage Investigation for Bradbury Dam and Cachuma Reservoir
- Fish Flows to Support Migration, Spawning and Rearing above Bradbury Dam
- Channel Forming Flows in the Lower Mainstem Santa Ynez River
- Alternative Flow Regime for Lower Mainstem Santa Ynez River
- Watershed Analysis

### Specific Comments

Although the State Water Board’s notice of release of the 2<sup>nd</sup> RDEIR for public review requests that reviewers limit their comments to Sections 4.3 and 6.0, several other sections of the 2<sup>nd</sup> RDEIR warrant additional specific comments. Some of these specific comments overlap with NMFS’ general comment above. In addition, one of these specific comments relates to a new section in the 2<sup>nd</sup> RDEIR related to climate change. NMFS requests that the State Water Board consider all of NMFS’ specific comments on the 2<sup>nd</sup> RDEIR, which are presented as follows under the specific section numbers of the 2<sup>nd</sup> RDEIR.

6

#### 4.7.1.1 Species Accounts – Steelhead/Rainbow Trout (*Oncorhynchus mykiss*)

In addition to citing the estimated annual run size of the steelhead population of the Santa Ynez River, the Final EIR should also note the steelhead and rainbow trout recreational fisheries associated with the Santa Ynez River. Historical records indicate there were large numbers of adult steelhead returning to the Santa Ynez River as recently as 1953 (when Bradbury Dam was completed), and the large number of returns supported a substantial recreational fishery. For example, the U.S. Fish and Wildlife Service reported<sup>2</sup> that in 1941, 4,375 anglers took 262,000 trout, including adult steelhead in Santa Barbara County, with the greatest number from the Santa Ynez River and the Sisquoc River (tributary to the Santa Maria).

7

#### 4.7.1.3 Status of Fish Habitat

The discussion and related Table 4-36A (Stream River Miles and Percentage of Potential *O. mykiss* Habitat Quality Assessment) deal only with the Lower Santa Ynez River, and the relatively small (with the exception of Salsipuedes Creek) tributaries of the Lower Santa Ynez River watershed. Because the project for which the 2<sup>nd</sup> RDEIR has been prepared affects public trust resources, including fishery resources, above and below Bradbury Dam, this section of the

8

<sup>2</sup> U.S. Secretary of the Interior. 1948. Cachuma Unit of the Santa Barbara County Project, California. Letter from the Secretary of the Interior transmitting A Report and Finding on the Cachuma Unit of the Santa Barbara County Project, California. April 1, 1948.

2<sup>nd</sup> RDEIR should also address the status of the fish habitat above Bradbury Dam. NMFS has previously provided the State Water Board with a map of the potential steelhead spawning and rearing habitat within the Santa Ynez River watershed, along with an estimate of potential stream mileage above and below Bradbury Dam. This documentation indicates that only 29% of the potential steelhead spawning and rearing habitat exists below Bradbury Dam, while the remaining 71% exists above Bradbury Dam. It should be noted that the areas above Bradbury Dam generally provide higher quality habitat for spawning and year-round rearing, and are encompassed within the Los Padres National Forest, affording this habitat additional protection.

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#### **4.7.2 Potential Impacts of the Alternatives (Southern California Steelhead and Other Fishes)**

As noted above in NMFS' general comments, these alternatives are based in whole or in part on the September 2000 biological opinion for Reclamation's Cachuma Project which requires reinitiation of consultation and issuance of a new biological opinion under the ESA. Furthermore, none of these alternatives are based upon the series of fishery related investigations NMFS previously recommended in its October 7, 2003, letter on the first Draft EIR or the February 16, 2004, Closing Brief in Phase II of the State Water Board's Cachuma Project Hearings. Therefore, NMFS is concerned that the alternatives presented in the 2<sup>nd</sup> RDEIR may not adequately address possible effects to endangered Southern California steelhead, or appropriately protect this public trust resource.

9

#### **4.12 Climate Change**

The 2<sup>nd</sup> RDEIR includes a new section addressing the potential impact of climate change that was not considered in earlier versions of the DEIR. However, other than a few general references to effects on streamflow and aquatic organisms in general, this section does not deal with specific impacts to steelhead or the resident form of *O. mykiss*. Projected climate change may affect *O. mykiss* in a variety of ways, varying in range and intensity, across various landscape scales and ecosystem types. The biological response is also complex, and as with many species, including Pacific anadromous salmonids, uncertain. While Southern California steelhead have evolved a suite of effective adaptations to a highly variable environment (including multiple paths for completing their life-cycle), the rapid rate of projected climate change presents another challenge to their persistence. This suggests several core principles for guiding the protection and management of Southern California steelhead populations:

10

- Widen opportunities for fish to be opportunistic (*i.e.*, exploit a variety of habitat types)
- Maximize the connectivity of habitat (*i.e.*, within and between habitats)
- Promote the capability of populations and metapopulations to evolve (*i.e.*, the ability of a population to evolve novel functions, through genetic change and natural selection, that help individual populations survive and reproduce)
- Maintain the management capacity to detect and respond effectively to ecosystem changes as they occur

The over-arching recovery strategy and viability criteria outlined in the draft Southern California Steelhead Recovery Plan apply these core principles to the current climate regime, and should be applied to the projected future climate regime. For the Santa Ynez River, the restoration of ecologically meaningful passage flows and the provision of access to the upstream spawning and rearing habitats, which exhibit both the most diverse and stable habitat conditions within the Santa Ynez River watershed, appears to represent the most effective means of addressing the potential adverse effects of climate change on the anadromous and resident forms of *O. mykiss* within the Santa Ynez River.

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#### **4.13 Relationship to Other Plans**

##### **4.13.1.1 Bureau of Reclamation – Cachuma Lake Resource Management Plan**

The 2<sup>nd</sup> RDEIR indicates that the fish-stocking program for Cachuma Lake will comply with the requirements of the NMFS Recovery Plan Outline for Southern California Coast Steelhead, and the subsequent Recovery Plan. Neither the Recovery Plan Outline (2007) nor the Draft Recovery Plan are regulatory documents, and neither of these documents provide detailed guidance on fish-stocking practices. However, the Draft Recovery Plan identifies the stocking of non-native fishes (including non-indigenous hatchery reared *O. mykiss*) in coastal watersheds as a potential threat to native steelhead and related resident *O. mykiss*; this threat stems from potential competition and transmission of diseases. Non-native trout that are stocked above dams, such as Bradbury Dam, which present an impassable barrier to upstream migrating fish, can nevertheless pass downstream during periods when the reservoir is spilling, or in some cases when water is released. As a result, the fish-stocking program for Cachuma Lake has the potential to introduce non-native fishes into currently anadromous waters, as well as mix non-native fishes with residualized steelhead existing in tributaries to Cachuma Lake.

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##### **4.13.2.1 California Department of Fish and Game**

The 2<sup>nd</sup> RDEIR does not discuss the Steelhead Restoration and Management Plan for California (1996). This plan emphasizes the importance of the steelhead fishery of the Santa Ynez River and included the following statements relevant to the proposed action:

- *DFG will seek a permanent flow regime from Bradbury Dam to restore the steelhead resource to a reasonable level and maintain it in good condition. This includes adequate streamflows for adult and juvenile migration, and mainstem spawning and rearing habitat. USBR recontracting, and [State Water Board] continued jurisdiction hearings ... may present good opportunities to rectify past actions which have resulted in the near extirpation of the Santa Ynez River steelhead and diminishment of public trust resources. ... steelhead runs have been nearly eliminated by water development and actions to restore this public trust resource need to be implemented.*
- *The feasibility of providing adult and juvenile passage around Bradbury Dam should be investigated and implemented accordingly. Nearly all historic spawning and rearing habitat is located upstream of Bradbury Dam ...*

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Additionally, the 2<sup>nd</sup> RDEIR made no reference to the California Fish and Game Code sections, which are relevant to the Consideration of Modifications to the U.S. Bureau of Reclamation's Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam. Although NMFS does not presume to speak for the California Department of Fish and Game on this subject, NMFS believes that these sections include, but are not limited to, California Fish and Game Codes 5937 (release of water below a dam to maintain fish in good condition), 1601-1603 (diversion or obstruction of natural flows), and 6900-6903.5 (Salmon, Steelhead Trout, and Anadromous Fisheries Program Act).

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### 6.3. Environmentally Superior Alternative

The conclusions regarding the environmentally superior alternative are based on the critical assumption that the September 2000 biological opinion provides a level of protection adequate to protect the public trust interests in the Santa Ynez River steelhead resources. As previously discussed in the general comments, the September 2000 biological opinion is currently subject to reinitiated consultation, and the Southern California Steelhead Recovery Plan process is not complete yet. Both of these processes will provide information that the State Water Board should consider in the Final EIR to protect the public trust interests in the Santa Ynez River steelhead resources.

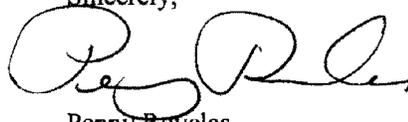
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In summary, NMFS believes that the State Water Board should address all of the issues identified in this letter before the Final EIR is entered into the record for the State Water Board's Consideration of Modifications to the U.S. Bureau of Reclamation's Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir).

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Should you have a question regarding this letter, please contact Darren Brumback at (562) 980-4060.

Sincerely,



Penny Ruvelas  
Southern California Office Supervisor  
for Protected Resources Division

cc: Michael Jackson, U.S. Bureau of Reclamation  
Kate Rees, Cachuma Operations and Maintenance Board  
Edmund Pert, CA Department of Fish and Game  
Mary Larson, CA Department of Fish and Game  
Roger Root, U.S. Fish and Wildlife Service  
Administrative file: 151422SWR2010PR00316

**Cachuma Project Phase 2 Hearing  
Final Service List  
(updated 05/13/2011)**

*(Based on 01/05/2004 list, updated 07/26/2007, updated 06/08/2010, updated 01/20/2011,  
updated 05/13/2011)*

**The parties whose email addresses are listed below agreed to accept electronic service, pursuant to the rules specified in the hearing notice.**

<p>Cachuma Conservation Release Board Mr. Kevin O'Brien Downey Brand LLP 621 Capitol Mall, Floor 18 Sacramento, CA 95814 <a href="mailto:kobrien@downeybrand.com">kobrien@downeybrand.com</a> <a href="mailto:tkuntz@downeybrand.com">tkuntz@downeybrand.com</a></p> <p><i>updated 01/20/2011</i></p>	<p>City of Solvang Mr. Christopher L. Campbell Baker, Manock &amp; Jensen 5260 N. Palm Avenue, Suite 421 Fresno, CA 93704 <a href="mailto:clc@bmi-law.com">clc@bmi-law.com</a></p>
<p>Santa Ynez River Water Conservation District, Improvement District No. 1 Mr. Gregory K. Wilkinson Best, Best &amp; Krieger, LLP 3750 University Avenue, Suite 400 Riverside, CA 92501 <a href="mailto:gkwilkinson@bbklaw.com">gkwilkinson@bbklaw.com</a></p>	<p>City of Lompoc Ms. Sandra K. Dunn Somach, Simmons &amp; Dunn 500 Capitol Mall Suite 1000 Sacramento CA 95814 <a href="mailto:sdunn@somachlaw.com">sdunn@somachlaw.com</a></p> <p><i>updated 06/08/2010</i></p>
<p>Santa Ynez River Water Conservation District Mr. Ernest A. Conant Law Offices of Young Wooldridge 1800 – 30<sup>th</sup> Street, Fourth Floor Barkersfield, CA 93301 <a href="mailto:econant@youngwooldridge.com">econant@youngwooldridge.com</a></p>	<p>California Trout, Inc. c/o Ms. Karen Kraus Environmental Defense Center 906 Garden Street Santa Barbara, CA 93101 <a href="mailto:kkraus@edcnet.org">kkraus@edcnet.org</a></p>

**The parties listed below did not agree to accept electronic service, pursuant to the rules specified by this hearing notice.**

<p>U.S Bureau of Reclamation Ms. Amy Aufdemberg 2800 Cottage Way, Room E-1712 Sacramento, CA 95825 Fax (916) 978-5694 <a href="mailto:AMY.AUFDEMBERGE@sol.doi.gov">AMY.AUFDEMBERGE@sol.doi.gov</a></p>	<p>Santa Barbara County Parks Ms. Terri Maus-Nisich Director of Parks 601 Mission Canyon Road Santa Barbara, CA 93105 <a href="mailto:tmaus@co.santa-barbara.ca.us">tmaus@co.santa-barbara.ca.us</a></p>
<p>Dan Hytrek NOAA Office of General Counsel Southwest Region 501 West Ocean Blvd., Suite 4470 Long Beach, CA 90802-4213 <a href="mailto:Dan.Hytrek@noaa.gov">Dan.Hytrek@noaa.gov</a></p> <p><i>updated 05/13/2011</i></p>	<p>Department of Fish and Game Office of General Counsel Nancee Murray 1416 Ninth Street, 12<sup>th</sup> Floor Sacramento, CA 95814 <a href="mailto:Nmurray@dfg.ca.gov">Nmurray@dfg.ca.gov</a></p>

8. National Oceanic and Atmospheric Administration/National Marine Fisheries Service dated May 27, 2011

**Response 8-1:**

The comment states, as expressed in prior correspondence, NMFS is requesting that the SWRCB not finalize the EIR pending release and incorporation of the new Biological Opinion for operation and maintenance of the Cachuma Project and the Southern California Steelhead Recovery Plan.

The SWRCB understands that NMFS is in dialogue with the Reclamation and that the current Biological Opinion may be revisited. Further, the SWRCB is aware that NMFS has published a draft Southern California Steelhead Recovery Plan, and that sometime in the future they may finalize that plan.

The SWRCB does not concur that the completion of this EIR process should be deferred until finalization of the Southern California Steelhead Recovery Plan or the completion of the revised Biological Opinion. CEQA does not require an exhaustive study of a particular subject in order for an EIR to be informative to the decision making body. As required by NMFS, the Cachuma Project will fully comply with the provisions of a revised Biological Opinion just as the Project has operated in compliance with the September 2000 Biological Opinion. Further, the 2011 2<sup>nd</sup> Revised EIR reflects the draft Southern California Steelhead Recovery Plan. SWRCB may consider amending Reclamation's permits requiring compliance with any new or revised Biological Opinion, but Reclamation's responsibilities with regard to the terms contained in any Biological Opinion are not dependent upon those terms being incorporated into Reclamation's permits.

The operation of Bradbury Dam by the Cachuma Operations and Maintenance Board (COMB), who operates the Cachuma Project on behalf of Reclamation, is a separate action from the SWRCB's consideration of water rights. These actions have historically proceeded in parallel and undergone separate environmental reviews. The 2011 2<sup>nd</sup> RDEIR reflects the most current data available from COMB and others.

Given the above reasons, the SWRCB does not believe there is adequate reason to delay the Cachuma Project EIR.

**Response 8-2:**

The comment states that NMFS will assist the State Water Board to ensure that the administrative record includes necessary evidence to properly evaluate project impacts on fisheries consistent with the public trust responsibilities of the State Water Board.

This comment is noted.

**Response 8-3:**

The comment suggests that NMFS's September 2000 Biological Opinion concerning the Southern California steelhead ESU will be taken into consideration in regulating water release requirements from the Cachuma Reservoir. The comment continues that, as supported by NMFS's administrative record and the October 26, 2010 correspondence, NMFS considers the September 2000 Biological Opinion insufficient for the Cachuma Project to not jeopardize the continued existence of the endangered steelhead in the Santa Ynez River. Therefore, re-initiation of formal consultation under the ESA is required. A new NMFS biological opinion was expected in December 2011; however, NMFS is currently coordinating with Reclamation to define a schedule for the reinitiated consultation including development and submittal of required work products to support the process. The comment recommends that completion of the EIR process be deferred until a new Biological Opinion can be completed.

The comment is noted.

The Southern California Steelhead Recovery Plan has not been finalized as of November 2011 and it is our understanding that NMFS has only recently begun formal consultation with Reclamation for a revised Biological Opinion. NMFS is correct that the statement on Page 2.0-21 concerning receipt of the Compliance Report from Reclamation in May 2010 is inaccurate. The latest Compliance Report, containing data for the years of 2003 through 2009, was completed in January 2011.

Based on the above information, the SWRCB does not concur that the completion of this EIR process should be deferred until finalization of the Southern California Steelhead Recovery Plan or the completion of the revised Biological Opinion. CEQA does not require an exhaustive study of a particular subject in order for an EIR to be informative to the decision making body. As required by NMFS, the Cachuma Project will fully comply with the provisions of a revised Biological Opinion just as the project has operated in compliance with the September 2000 Biological Opinion. SWRCB may consider amending Reclamation's permits requiring compliance with any new or revised Biological Opinion, but Reclamation's responsibilities with regard to the terms contained in any Biological Opinion are not dependent upon those terms being incorporated into Reclamation's permits.

**Response 8-4:**

The comment states that NMFS had not started the Southern California Steelhead recovery process when the 2000 Biological Opinion was issued. In addition, the comment states that NMFS has published several technical memoranda and developed a draft recovery plan subsequent to the preparation of the Biological Opinion. NMFS recommends that the State Water Board consider the additional documents mentioned above in the preparation of the 2011 2<sup>nd</sup> RDEIR.

Section 2.6 Draft Steelhead Recovery Plan of the 2011 2<sup>nd</sup> RDEIR summarizes in considerable detail the contents and objectives and the July 2009 Draft Southern California Steelhead Recovery Plan. In addition, this same section references two of the technical memoranda (NOAA-NMFS, SW Fisheries Center Technical Memo No 394, and NOAA-NMFS, SW Fisheries Center Technical Memo No 407) referred to in this comment.

The SWRCB does not concur that the completion of this EIR process should be deferred until finalization of the Southern California Steelhead Recovery Plan or the completion of the revised Biological Opinion. CEQA does not require an exhaustive study of a particular subject in order for an EIR to be informative to the decision making body. As required by the NMFS, the Cachuma Project will fully comply with the provisions of a revised Biological Opinion just as the project has operated in compliance with the September 2000 Biological Opinion. SWRCB may consider amending Reclamation's permits requiring compliance with any new or revised Biological Opinion, but Reclamation's responsibilities with regard to the terms contained in any Biological Opinion are not dependent upon those terms being incorporated into Reclamation's permits.

**Response 8-5:**

The comment references the earlier NMFS October 7, 2003 comment letter in which six steelhead studies are recommended to be undertaken by the SWRCB. The comment states that these studies do not appear to have been completed.

The information intended to be gathered by the six studies requested by NMFS, including steelhead spawning and rearing habitat assessment, fish passage for Bradbury Dam, fish flows to support migration above Bradbury Dam, watershed analysis, channel flows and alternative flow regimes for the lower Mainstem Santa Ynez River is essentially the same information that will be gathered through actions included in the Fish Management Plan. Results of the Fish Management Plan actions are contained in the Reclamation's Compliance Report as well as the Draft Southern California Steelhead Recover Plan and the technical memoranda produced by NMFS. The SWRCB has relied on the Santa Ynez River Adaptive Management Committee to independently undertake these specific studies.

**Response 8-6:**

The comment suggests that NMFS has commented on sections of the EIR rather than limiting its comments to just **Sections 4.3** and **6.0**. One of the specific comments relates to a new section in the 2011 2<sup>nd</sup> RDEIR related to climate change.

The comment is noted.

**Response 8-7:**

The comment recommends that the 2011 2<sup>nd</sup> RDEIR note the historical sizes of the steelhead and rainbow trout recreational fisheries on the Santa Ynez River.

The comment is noted. Historical records prior to the construction of Bradbury Dam in 1953 indicate that recreational fisheries were supported by large annual steelhead returns. Because these historical large annual steelhead returns no longer occur, the proposed action cannot have an impact on recreational fisheries that currently do not exist. It is acknowledged that the common goal of steelhead recovery in the Santa Ynez River could one day again permit recreational fisheries, however, this is not an objective of the NMFS recovery plan or of the SWRCB project.

**Response 8-8:**

The comment references **Section 4.7.1.3, Status of Fish Habitat** and states that the EIR should address fish habitat above Bradbury Dam. The comment states that previous data provided to the SWRCB by NMFS depicted potential steelhead spawning and rearing habitat above Bradbury Dam, where 71 percent of the potential habitat is located.

The project analyzed in the 2011 2<sup>nd</sup> RDEIR is potential modifications to the Reclamation's existing water rights permits to provide appropriate protection of water rights and public trust resources on the Santa Ynez River downstream of Bradbury Dam. The purpose of the EIR is not to evaluate the impacts of the Cachuma Project on the fishery (including the impact of the dam and reservoir on fish passage) and develop measures to mitigate those impacts (such as fish ladders, trap and haul, etc.). That was the purpose of the public trust hearing. The purpose of the EIR is to evaluate any incidental environmental impacts of the public trust measures proposed during the hearing. The hearing record doesn't support the imposition of passage requirements at the present time. Instead, NMFS and DFG recommended that the feasibility of passage should be studied. Conducting a study of the feasibility of providing for passage, by itself, will not have an environmental impact, and therefore it was not necessary to evaluate the potential impacts of such a study in the EIR.

The Santa Ynez River reaches upstream of Bradbury, Gibraltar, and Juncal dams are not included as *O. mykiss* critical habitat, however, populations of *O. mykiss* that exist upstream of the introduced dam barriers are largely or entirely descended from relic *O. mykiss* populations historically ascending the watersheds (Boughton and Goslin, 2006<sup>7</sup>). Nielsen (1998<sup>8</sup>) found that the native fish found upstream of

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<sup>7</sup> Boughton, D. A. and M. Goslin. 2006. *Potential steelhead over-summering habitat in the south-central/southern California coast recovery domain: Maps based on the envelope method*. NOAA- NMFS, SW Fisheries Center Technical Memo No 391. Santa Cruz, CA.

the Bradbury Dam appear to be historically descended from anadromous *O. mykiss*, despite extensive stocking with hatchery fish over the years. Thus, hatchery fish do not appear to have significantly interbred into the wild strain, potentially as a result of different life cycle patterns. Finally, the Draft Recovery Plan emphasizes restoring access to the approximately 40 river miles upstream of the barriers in the Santa Ynez River in order to promote ecological traits such as capacity to migrate long distances and withstand warmer temperatures. There are no project actions that affect upstream resources and no current plans to construct fish passage around these barriers; further analysis is not a part of the 2011 2<sup>nd</sup> RDEIR. No further discussion is needed.

**Response 8-9:**

The comment suggests that the alternatives discussed in **Section 4.7.2, Potential Impacts of the Alternatives** of the 2011 2<sup>nd</sup> RDEIR were based on the September 2000 Biological Opinion for the Cachuma project, which requires re-initiation of consultation and issuance of a new biological opinion under the ESA. The comment also states that none of the alternatives are based on the series of fishery-related investigations previously recommended by NMFS in their October 7, 2003 comment letter. The comment expresses NMFS's concern that these alternatives may not adequately address possible effects to endangered Southern California steelhead.

The alternatives considered in the 2011 2<sup>nd</sup> RDEIR all incorporate the requirements of the September 2000 Biological Opinion, which is designed to protect the endangered Southern California steelhead. Consequently, the SWRCB is of the opinion that the public trust resource would be protected under the implementation of the proposed project.

**Response 8-10:**

The comment suggests that Chapter 4.12 Climate Change of the 2011 2<sup>nd</sup> RDEIR does not deal with specific impacts to steelhead or resident *O. mykiss*.

While there is no specific impact assessment of climate change on steelhead or resident *O. mykiss*, 2011 2<sup>nd</sup> RDEIR **Section 4.12.3.2, Impact Assessment** addresses in general the potential effects on Biodiversity and Habitat.<sup>9</sup> Individual species and habitats will have very different responses to climate change. The SWRCB concurs with NMFS that the biological response to climate change will be complex and uncertain.

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<sup>8</sup> Nielsen, J. L. 1998. Molecular genetic population structure in steelhead/rainbow trout (*Oncorhynchus mykiss*) from the Santa Ynez River, 1994-1997. Final Technical Report submitted to ENTRIX, Walnut Creek, CA November 20, 1998. 32pp.

<sup>9</sup> Association of Fish and Wildlife Agencies, Voluntary Guidance for States to Incorporate Climate Change into Wildlife Action Plans & Other Management Plans, September 2009. 7.

**Response 8-11:**

The comment suggests that the effective means to address impacts of climate change on steelhead and resident *O. mykiss* is the restoration of fish passage above Bradbury Dam to provide access to upstream spawning and rearing habitats.

The SWRCB acknowledges NMFS's view that the restoration of ecologically meaningful passage flows and the provision of access to upstream spawning and rearing habitats would be an effective means of addressing the potential adverse effects of climate change. This comment is noted.

**Response 8-12:**

The comment references **Section 4.13.1.1, Bureau of Reclamation** of the 2011 2<sup>nd</sup> RDEIR and the Cachuma Lake Resource Management Plan fish-stocking program for Cachuma Lake and expresses NMFS's concern about impacts from non-native fish introductions, including hatchery reared *O. mykiss*.

The SWRCB acknowledges that the NMFS Recovery Plan for Southern California Steelhead and the Cachuma Lake Resource Management Plan fish-stocking program for Cachuma Lake are not regulatory documents, however, the documents do incorporate recommendations for management of the species. The SWRCB does not have responsibility for fish stocking in Cachuma Lake.

Reclamation's fish stocking program is described in the Cachuma Lake Resource Management Plan DEIS and Reclamation has apparently not issued the Record of Decision on this project. It would be more appropriate for NMFS to comment on their concerns regarding the Cachuma Lake Resource Management Plan DEIS directly to Reclamation.

**Response 8-13:**

The comment references **Section 4.13.2.1, California Department of Fish and Game (CDFG)** of the 2011 2<sup>nd</sup> RDEIR, stating that there is no reference to the 1996 Steelhead Restoration and Management Plan for California, in which CDFG seeks a permanent flow regime from Bradbury Dam to restore the steelhead resource and to investigate the feasibility of steelhead passage around Bradbury Dam.

The 1996 Steelhead Restoration and Management Plan for California states that "Restoration of California's anadromous fish populations is mandated by The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act of 1988 (SB 2261). SB2261 states that it is a policy of the state to significantly increase the natural production of salmon and steelhead by the end of the century, and directs CDFG to develop a program that strives to double naturally spawning anadromous fish populations by the year

2000.”<sup>10</sup> A task of CDFG to be undertaken as part of this program for the Santa Ynez River is to develop guidelines for maintaining instream flows to protect fisheries resources downstream of water diversions in Central Coast watersheds and to protest water right applications unless sufficient bypass flows are established that will maintain habitat conditions in streams, tributaries, and lagoons.

**Response 8-14:**

The comment references 2<sup>nd</sup> RDEIR **Section 4.13.2.1, California Department of Fish and Game (CDFG)**, stating that there is no reference to the California Fish and Game Code sections which are relevant to the State Water Board proposed project. The comment identifies section 5937 “release of water below a dam to maintain fish in good condition, sections 1601-1603 “diversion or obstruction of natural flows” and sections 6900-6903.5 “Salmon, Steelhead Trout and Anadromous Fisheries Program Act.”

The SWRCB fully intends to comply with all state provisions including those mentioned in the comment. Fish and Game Code section 5937 requires the owner of a dam to allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, to allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. This is one of the objectives of the Cachuma Project, therefore, compliance with Fish and Game Code Section 5937 is a component of the project. Sections 6900-6903.5 are known as the Salmon, Steelhead Trout, and Anadromous Fisheries Program Act (Act). This Act describes that the protection of the naturally spawning salmon and steelhead must be accomplished primarily through the improvement of stream habitat. The improvement of stream habitat is a project objective of the Cachuma Project. Sections 1601-1603 references the need for an agreement with the CDFG before any diversion or obstruction may be placed within stream course. However, there have been no violations of this statute for the Cachuma Project.

**Response 8-15:**

The comment questions whether an environmentally superior alternative can be selected when the 2000 Biological Opinion is being subjected to reinitiated consultation between NMFS and Reclamation and the Southern California Steelhead Recovery Plan has yet to be completed. The comment concludes that the SWRCB will benefit in its efforts to protect the public trust resources from the renewed consultation and the final Recovery Plan information.

The SWRCB agrees that the updated information that will come from the reinitiated consultation and the finalization of the Recovery Plan would be helpful in planning for future actions to protect the public trust resources. Indeed, the SWRCB will follow Reclamation in adopting the requirements of a revised

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<sup>10</sup> California Department of Fish and Game, Steelhead Restoration and Management Plan for California, February 1996, page iii.

Biological Opinion. However, the SWRCB does not need obtain that additional information to complete the current CEQA process because the 2000 Biological Opinion is the guiding principle from which the project objections and alternatives are derived. While the 2000 Biological Opinion may not incorporate all possible actions for the protection of steelhead, the requirements of that document have provided and continue to provide protection that did not exist prior to the proposed action.

The 2011 2<sup>nd</sup> RDEIR (see **Section 6.3**) identifies Alternative 3C and Alternative 4B as the environmentally superior alternatives as they have the fewest significant impacts. These alternatives would not result in any significant and unavoidable impacts (Class I) to water supply but would result in temporary significant and unavoidable (Class I) impacts to oak trees. The 2011 2<sup>nd</sup> RDEIR also notes that although Alternative 4B would have slightly more beneficial impacts, it would require the import of SWP water, which would require an agreement between the City and DWR, would have impacts related to steelhead, and would require construction of a pipeline and outlet works to discharge SWP water into the Santa Ynez River.

The 2011 2<sup>nd</sup> RDEIR states that Alternatives 3B, 5B, and 5C would result in significant and unavoidable (Class I) impacts to water supply that could not be mitigated as well as significant impacts (Class I and Class II) to oak trees and, therefore, would not be the environmentally superior alternative.

As Alternative 3C is the No Project Alternative, Alternative 4B would be the environmentally superior alternative as the *State CEQA Guidelines*<sup>11</sup> require that another alternative other than the No Project Alternative be identified among the other alternatives if the No Project Alternative is environmentally superior. However, Alternative 4B would require additional measures beyond those that can be considered at this time and may have additional potentially significant (either Class I or II) impacts related to the construction of a pipeline and outlet works, and to steelhead smolts imprinting on SWP water. Therefore, although identified as the environmentally superior alternative, Alternative 4B is not considered a feasible alternative and should not be considered.

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<sup>11</sup> California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6(e)(2).

**Response 8-16:**

The comment suggests all issues in NMFS's comment letter be addressed prior to certification of the Final EIR.

This Final EIR provides response to all prior comments on the 2003 DEIR, 2007 RDEIR and the 2011 2<sup>nd</sup> RDEIR. In addition to the responses to NMFS's comment letter provided above, the SWRCB reiterates it does not concur that the completion of this EIR process should be deferred until finalization of the Southern California Steelhead Recovery Plan or the completion of the revised Biological Opinion. CEQA does not require an exhaustive study of a particular subject in order for an EIR to be informative to the decision making body. SWRCB may consider amending Reclamation's permits requiring compliance with any new or revised Biological Opinion, but Reclamation's responsibilities with regard to the terms contained in any Biological Opinion are not dependent upon those terms being incorporated into Reclamation's permits.



May 27, 2011

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

**Re: April 2011 2<sup>nd</sup> Revised Draft Environmental Impact Report for Consideration of Modifications to U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust and Downstream Water Rights on the Santa Ynez River – Bradbury Dam (Cachuma Reservoir)**

Dear Ms. Farwell:

The Environmental Defense Center (EDC) submits these comments regarding the State Water Resources Control Board (SWRCB) April 2011 2<sup>nd</sup> Revised Draft Environmental Impact Report ("2011 RDEIR" or "RDEIR") evaluating potential modifications to the U.S. Bureau of Reclamation's (BOR) water rights permits to protect the public trust and downstream water rights on the Santa Ynez River on behalf of our client, California Trout (CalTrout). CalTrout is a non-profit river conservation organization with a substantial interest in the public trust resources of the Santa Ynez River, including the endangered southern California steelhead.

We reiterate our October 4, 2010 request that the SWRCB hold any further action on this EIR pending completion by the National Marine Fisheries Service (NMFS) of 1) its Southern California Steelhead Recovery Plan; and 2) a reinitiated Section 7 consultation with the Bureau of Reclamation regarding the Cachuma Project. Both items will identify significant new information critical to the SWRCB's public trust decision in this matter. As you know, we have been quite anxious about the lengthy delay in these proceedings. However, since we now find ourselves at the point where this important information should soon be available to inform the Board's final decision, we believe it is worth waiting the extra time. We prefer that the SWRCB take more time now to avail itself of the best available science and resources rather than dealing with the uncertainty and disruption that will certainly be associated with the reconsideration or reopening of a decision that fails to deal with all relevant information.

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906 Garden Street Santa Barbara, CA 93101 Phone (805) 963-1622 FAX (805) 962-3152  
[www.EnvironmentalDefenseCenter.org](http://www.EnvironmentalDefenseCenter.org)

Notwithstanding that general point, we are now submitting our comments on the 2011 RDEIR, and with respect to that document we are troubled that it perpetuates the prior revised draft EIRs' method of understating water supply, overstating demand, and simply ignoring feasible mitigation measures.<sup>1</sup>In multiple instances, the RDEIR relies on outdated and incomplete information, failing to fulfill the SWB's responsibility to engage in "a reasoned and good faith effort to inform decision makers and the public" about the true scope of potential impacts from the project Alternatives.<sup>1</sup>In addition, the 2011 RDEIR continues to narrowly focus and mischaracterize the project's public trust objective. It is unclear how this EIR will serve as evidence for the SWRCB's ultimate hearing decision if it is inconsistent with the SWRCB's overall public trust responsibility for the Bureau of Reclamation's water rights permits.

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As requested by the SWRCB, our specific comments on the 2011 RDEIR pertain to information that is new or has been changed from the 2007 RDEIR in Section 4.3 (Water Supply) and Section 6.0 (Comparison of Alternatives). We have also provided comments on Section 4.12 (Climate Change Impacts) and Section 7.0 (Cumulative Impacts) because significant new information regarding these impact areas also requires recirculation of the EIR.<sup>1</sup>In addition, because the 2011 RDEIR does not provide responses to our prior comments,<sup>2</sup> we presume our prior comments are not addressed and incorporate them herein by reference.

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**I. The 2011 RDEIR Overstates Potential for Water Supply Impacts (Section 4.3)**

7

The 2011 RDEIR continues to understate supply, overstate demand, and ignore feasible mitigation measures. As a result it erroneously identifies potential Class I water supply impacts and fails to meet CEQA's requirement of good-faith disclosure of environmental impacts to decision makers and the public.<sup>3</sup>We incorporate our previous comments regarding water supply impacts on the 2003 and 2007 draft EIRs here by reference and, in addition, have the following comments:

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*a. The RDEIR improperly omits desalinated water for critical drought years*

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The RDEIR allocates 0 AFY desalinated water during critical droughts, stating that the desalination plant is "reserved for emergency use only . . . [c]urrently in storage

<sup>1</sup> *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (1<sup>st</sup> Dist. 2001) 91 Cal. App. 4<sup>th</sup> 1344, 1367.

<sup>2</sup> Kraus, Karen M. (EDC) and Brian Trautwein (EDC). 2003. Letter to Mr. Andy Fecko (SWRCB) RE Draft Environmental Impact Report for Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 1131 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradury Dam (Cachuma Reservoir). Oct 7. ("EDC October 2003 Comment Letter"); Kraus, Karen M. (EDC) and Brian Trautwein (EDC). 2007. Letter to Ms. Diane Riddle (SWRCB) RE Revised Draft Environmental Impact Report Regarding Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 1131 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradury Dam (Cachuma Reservoir). Sep 28. ("EDC September 2007 Comment Letter")

<sup>3</sup> CEQA Guidelines § 15002(a)(1).

mode.” (2011 RDEIR Table 4-12 at 4.3-5.) This zero allocation during critical drought years is inexplicable, as this is precisely the purpose for which the desalination plant was built.

The plant is currently in long-term storage, but awaiting the next drought when it will be needed and utilized. According to the City of Santa Barbara:

The facility has since been incorporated into the City's long-term supply plan as a way of reducing shortages due to depleted surface supplies during drought.<sup>4</sup>

The facility is normally in long-term storage mode and is expected to be recommissioned when the demand (less a maximum acceptable shortage of 10%) cannot be met using all of the other available supplies.<sup>5</sup>

The desalination plant has all necessary permits, including permits from the U.S. Army Corps of Engineers, City of Santa Barbara and California Coastal Commission (CCC).<sup>6</sup> The State Lands Commission (SLC) determined the project does not require a SLC permit.<sup>7</sup> The Regional Water Quality Control Board (RWQCB) issued Waste Discharge Requirements Order No. 99-40 to approve and regulate discharges the desalination plant and other sources.<sup>8</sup> An EIR was certified by the City and project approvals complied with CEQA.<sup>9</sup>

The desalination plant is not intended to be operated continuously.<sup>10</sup> The vast majority of the infrastructure including intake facility and pipelines, the discharge pipeline, the actual desalination plant site and foundation, and about half the reverse osmosis treatment modules were specifically retained to be ready for the next significant drought. City water supply modeling assumed the desalination plant would be needed during water shortages in 6 out of 75 years.<sup>11</sup>

Thus, there is no reasonable basis for the RDEIR to identify a 0 AFY allocation for the City of Santa Barbara's desalination plant during critical drought years, especially

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<sup>4</sup> Santa Barbara City Public Works Department.

<http://www.santabarbaraca.gov/Government/Departments/PW/DesalSum.htm>. Last viewed May 13, 2011.

<sup>5</sup> City of Santa Barbara Public Works Department.

<http://www.santabarbaraca.gov/Resident/Water/Supply/WaterSupplySources.htm#Desal>. Last viewed May 11, 2011.

<sup>6</sup> California Coastal Commission (CCC). 1996. Staff Report: City of Santa Barbara Conversion of temporary desalination facilities to permanent facilities. Sep 26. [Attached] See p. 4.

<sup>7</sup> *Id.*

<sup>8</sup> Regional Water Quality Control Board. 1999. Waste Discharge Requirements Order No. 99-40; NPDES No. CA004814. (hereafter “Waste Discharge Order 99-40”) [Attached]; See also, Regional Water Quality Control Board. 1999a. Staff Report For Regular Meeting of July 9, 1999. (discussing Item 8, Reissuance of Waste Discharge Requirements, NPDES Permit No. CA 0048143, for the City of Santa Barbara's Waste Discharge Requirements Order No. 99-40) [Attached]

<sup>9</sup> CCC 1996 at 1 and 11.

<sup>10</sup> Waste Discharge Order at 2.

<sup>11</sup> CCC 1996 at 8.

multiple drought years. The desalination plant is able to be operational within 6 to 12 months of a decision to reinstate production. (2011 RDEIR at 4.3-28.) The very purpose of the desalination plant is to offset water supply shortfalls during those years. This zero allocation is also undercut by the fact that the RDEIR otherwise assumes the plant *will be* operated during droughts and *will cause indirect environmental impacts* discussed in detail in the RDEIR. (2011 RDEIR at 4.3-28 – 4.3-29.) These assumptions are inconsistent and mutually exclusive of each other. The RDEIR must identify, consistent with the City of Santa Barbara’s own statements, that the desalination plant will be made available in critical drought years.

Table 4-12 of the RDEIR states that the desalination plant has an “assumed capacity” of 3,125 AFY. (2011 RDEIR Table 4-12.) The RDEIR subsequently states that the plant has a 3,000 AFY capacity. (2011 RDEIR at 4.3-28.) The City’s website indicates the plant has a current capacity of 3,125 AFY: “A portion of the reverse osmosis filtration capacity was subsequently sold, leaving a current capacity of 3,125 AF.”<sup>12</sup> However, this is the lowest production scenario identified by the City of Santa Barbara. The City identified 4 scenarios for operation of the desalination plant which range from 3,125 to 10,000 AFY.<sup>13</sup> The desalination facility, when operational, has a capacity of 7,500 acre feet per year and an infrastructure sufficient to allow production of up to 10,000 acre feet per year on the site.<sup>14</sup> To reinstate operation at the fully permitted rate of 10,000 AFY, the City would need to purchase and install just over half the reverse osmosis treatment modules, but there is no evidence to suggest this is infeasible. (2011 RDEIR at 4.3-28.)

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The desalination plant is intended to serve water to, and will mitigate water supply impacts in, the City of Santa Barbara and other local water districts.<sup>15</sup> This means that the desalination plant can offset water shortages that may occur in the City of Santa Barbara and shortages in other local districts. The RDEIR must acknowledge this important drought-time water supply and evaluate the degree to which 7,500 – 10,000 AFY of desalinated water offsets any critical drought period water supply shortages identified in the RDEIR.

*b. Other available sources of water are ignored or undervalued*

The 2011 RDEIR identifies the Goleta Water District (GWD) pumping 3,600 AFY groundwater during a critical drought. (2011 RDEIR at Table 4-13, 4.3-6.) However, GWD now has more water banked in the ground and is extracting less than the safe yield (2,350 versus 3,410). (2011 RDEIR at 4.3-4.) During droughts, the GWD has identified use of groundwater as a first priority to increase reliability of supplies.<sup>16</sup> The

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<sup>12</sup> City of Santa Barbara Public Works Department. Viewed May 11, 2011 at <http://www.santabarbaraca.gov/Resident/Water/Supply/WaterSupplySources.htm#Desal>.

<sup>13</sup> CCC 1996 at 7.

<sup>14</sup> CCC 1996 at 5. See also, California Coastal Commission. 1996. Coastal Development Permit. Oct 15.

[Attached]

<sup>15</sup> CCC 1996 at 7.

<sup>16</sup> Bachman, S. 2011. Goleta Water District Water Supply Management Plan. Apr. (See p. 17) Viewed May 13, 2011 at

GWD seeks to maintain its groundwater above 1972 levels as a supplemental supply but may pump groundwater to below those levels during a drought.<sup>17</sup> As of 2009, GWD had banked 43,253 AF.<sup>18</sup> The GWD has the right to pump this entire amount.<sup>19</sup> Under the terms of the Wright Settlement, the GWD has rights to 2,350 AFY of groundwater, but as noted above the GWD can and has also stored additional water underground for later use.<sup>20</sup> The GWD groundwater use is limited by the SAFE Ordinance; however, these restrictions do not apply when there are reduced deliveries from Cachuma.<sup>21</sup> Thus, the District could theoretically pump 6,000 AFY of stored water for seven years. This would offset the GWD's projected 5,968 AFY shortfall in a single critical drought year (and in seven consecutive drought years with the same annual shortfall of 5,968 AF). In one drought scenario modeled by the GWD, it pumped 4,500 AFY for 6 consecutive years without using the entire drought buffer, and the GWD believes this modeling overestimated effects of drought-time pumping on the groundwater basin.<sup>22</sup> Current pumping capacity is physically limited by well infrastructure to 300 AFY per month or 3,600 AFY<sup>23</sup> (assuming 75% well efficiency at Airport, San Antonio, San Marcos, El Camino and university wells based on 2008 well use). (2011 RDEIR at 4.3-6.) However, there is no evidence that it is infeasible to increase this capacity by adding new wells to mitigate water supply impacts during droughts. Indeed, the GWD analyzed scenarios in which it increased groundwater pumping to 900 AF per month (10,800 AFY) and this pumping increased drought-time water supply reliability.<sup>24</sup>

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Thus, it may be possible that GWD's banked groundwater could help offset GWD's and other agencies' projected shortfalls, mitigating some or all of the water supply effects identified in the 2011 RDEIR for Alternatives 5B/5C.

As noted in our comments on the 2007 RDEIR, the GWD has other secondary water supplies, including El Capitan Mutual Water Company, stored injection wells, and a bedrock well.<sup>25</sup> These sources remain unaccounted for in the 2011 RDEIR.

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Similarly, the 2011 RDEIR still does not identify the Cold Springs Tunnel for the City of Santa Barbara supply;<sup>26</sup> up to 500 AFY from the Bureau's Glen Annie Reservoir (part of the Cachuma Project located in Goleta); or 500 AFY from Laurel Canyon Reservoir (in the City of Santa Barbara). While the RDEIR identifies that Mission Tunnel infiltration averages 1,125 AFY, the report understates the infiltration rate during a

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[http://www.goletawater.com/assets/documents/water\\_supply/Water\\_Supply\\_Management\\_Plan\\_Final\\_3-31-11.pdf](http://www.goletawater.com/assets/documents/water_supply/Water_Supply_Management_Plan_Final_3-31-11.pdf). (hereafter "GWD Water Supply Management Plan")

<sup>17</sup> *Id.* at 17.

<sup>18</sup> *Id.* at 33.

<sup>19</sup> *Id.* at 34.

<sup>20</sup> *Id.* at 33.

<sup>21</sup> *Id.* at 33.

<sup>22</sup> *Id.* at 34.

<sup>23</sup> *Id.* at 33.

<sup>24</sup> *Id.* at 45.

<sup>25</sup> See EDC September 2007 Comment Letter at 11-12.

<sup>26</sup> Ferguson, Bill (City of Santa Barbara Public Works). 2007. Email to Das Williams (Santa Barbara City Councilmember). Sep14. (Stating that the City owns the Cold Spring Tunnel and the rights to a portion of the Tunnel's 60 gpm of water.) (Attached to EDC September 2007 Comment Letter.)

critical three-year drought. Even with a 500 AFY minimum during critical droughts, this pumping could provide more than 1,577 AFY during a three year drought (i.e. it would not infiltrate at its minimum of 500 AFY for each of the three years but would start off higher (closer to the 1,100 average) and would drop off until it hit a low of 500 AFY, e.g., yr 1: 1,100 AF, yr 2: 700 AF, yr 3: 500 AF = 2300 AF).<sup>27</sup>

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It is also unknown how much the RDEIR reduced Tecolote Tunnel supplies during critical droughts. Tecolote Tunnel infiltration averages 2,000 AFY (2011 RDEIR at Table 4-16) and was modeled to average 1,620 AFY in 1947-1951, about a 20% reduction. (2011 RDEIR Hydrologic Modeling Technical Memorandum #1. Stetson Engineers. December 22, 2000. Revised December 22, 2001. "Impacts of EIR Alternatives Using the Santa Ynez River Hydrology Model." Table 8B: "Surface Water Budget for Cachuma Reservoir.") Tecolote Tunnel's 2,000 AFY is included in the average annual Cachuma Yield 25,115 AFY in 2011 RDEIR Table 4-16. During critical drought years the RDEIR reports a shortage of Cachuma water for all alternatives ranging from 8,835 AFY under Alt 2 to 11,533 under Alt 5B. (2011 RDEIR at Table 4-17.) It is not clear, however, if the 2011 RDEIR uses 1,620 AFY for Tecolote Tunnel infiltration, if it excludes Tecolote Tunnel infiltration, or if it reduces it by more than 20% - e.g., proportionally to the critical drought reduction in Cachuma yield. If one of the latter two options were followed, this would further understate supplies and overstate impacts.

13

Lastly, the GWD's reclaimed water plant's capacity is apparently at least 1,500 AFY. (2011 RDEIR at 4.3-4.)<sup>28</sup> According to the GWD, there is currently about 2,000 AFY of unused recycled water production capacity, but infrastructure and a current lack of customers limits utilization of full capacity.<sup>29</sup> However, the RDEIR identifies only a maximum of 1,060 and an average of 1,000 AFY. (2011 RDEIR at 4.3-4 – 4.3-6.) The RDEIR should clarify (1) the correct maximum capacity of the plant, and (2) why the reclaimed water plant's full capacity is not utilized in the analysis. The RDEIR should identify feasible actions (e.g., infrastructure improvements, customer identification) that would enable full use of Goleta's reclaimed water plant capacity to mitigate project impacts.

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Similarly, Table 4-12 of the RDEIR identifies the City of Santa Barbara's reclaimed water capacity as 800 AFY based on "current connected demand." However, the NPDES Permit for the City's El Estero wastewater treatment plant authorizes 1,793 AFY.<sup>30</sup> The RDEIR does not provide any basis to assume less than full production of these recycled water plant facilities. If there is a reasonable basis to do so, it should be disclosed in the RDEIR. For example, is additional infrastructure, or additional customers, necessary to distribute reclaimed water in Goleta and Santa Barbara? If so, the RDEIR should require that Members build the infrastructure to take full advantage of

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<sup>27</sup> See EDC September 2007 Comment Letter at 10-11.

<sup>28</sup> See also, Cooley, Heather et al. 2011. Comments on the 2<sup>nd</sup> Revised Draft EIR for the Cachuma Water Rights Hearing. May 12. (pp. 11-12.) [Attached]

<sup>29</sup> GWD Water Supply Management Plan at 15 - 16.

<sup>30</sup> Waste Discharge Order 99-40 at para. 7 (identifying Recycled Water Production Capacity of 1.6 MGD, which equals 1,793 AFY).

existing plant capacities to offset drought time reductions in Cachuma supply as a feasible mitigation measure. If not, the RDEIR should use the full capacity AFY and clarify that this reclaimed water can offset reductions in potable supplies used for irrigation in GWD.

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*c. The RDEIR relies on unreasonably speculative assumptions and cherry-picks data for State Water Project deliveries*

Only by cherry picking data and assuming conditions far worse than have ever been recorded does the RDEIR find significant water supply impacts during critical drought periods. Specifically, the RDEIR assumption that the one-in-one hundred year worst-case “Minimum” State Water Project (“SWP”) water supply scenario (1977) will coincide with the worst water supply conditions ever modeled for the Cachuma Project (1951) substantially inflates actual water supply impacts. This is an unreasonable worse than worst-case scenario that misinforms the public and decision-makers and runs afoul of CEQA’s requirements for impact assessment and disclosure.

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The “Minimum” possible SWP deliveries identified are 7% (not 6% as reported in the RDEIR).<sup>31</sup> More importantly, when the Cachuma conditions were modeled to be at their worst in 1951, modeled SWP deliveries were 65% – not 6% or even 7%.<sup>32</sup> The analysis of water supply impacts during the critical three-year drought period (1949-1951) assumed SWP deliveries averaged 32% for those three years. (2011 RDEIR at 4.3-22) However, modeled SWP deliveries for those three years ranged from 59% in 1949 to 54% in 1950 to 65% in 1951 – not 32%. Assuming occurrence of the worst case scenario for Cachuma water supplies coinciding with the SWP “Minimum” delivery assumes a statistically remote and unlikely event with a return interval of one in several hundred years to as much as one in several thousand years: beyond the expected life of Cachuma Reservoir.<sup>33</sup> While the RDEIR notes the discrepancy as “conservative,” it fails to provide any basis for using such a speculative, remote scenario to analyze potential impacts. (2011 RDEIR at 4.3-15.)

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Furthermore, it appears the RDEIR analysis of water supply impacts may add an artificial, extra dry year to the 1949-1951 drought – a dry year that never occurred. (2011 RDEIR Hydrologic Modeling Technical Memorandum #1. Stetson Engineers. December 22, 2000. Revised December 22, 2001. “Impacts of EIR Alternatives Using the Santa Ynez River Hydrology Model.” Page 17.) This assumption adds another layer of

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<sup>31</sup> State of California (The State Water Project Delivery Reliability Report 2007, pp. 44, Table 6.4 noting a “Minimum” 6% SWP delivery figure; and The State Water Project Delivery Reliability Report 2009, pp. 43, Table 6.3 noting a “Minimum” 7% SWP delivery, and Figure 6.1 showing 7% delivery a is one-in-one hundred year event). It is unclear why the 2011 RDEIR refers to both the 2007 and 2009 Reliability Reports. The 2009 Report is the most current information and should be used instead of the 2007 Report. We refer to the 2009 Report in this comment letter.

<sup>32</sup> The State Water Project Delivery Reliability Report 2009, pp. 86, Table B-3.

<sup>33</sup> The return interval for the water shortage conditions assumed in the RDEIR is estimated as one in 8,000 years as follows: The 7% delivery figure is a 1 in a hundred event. The worst case Cachuma water supply scenario used is 1949-1951, the worst conditions modeled during the 80-year record. The chance of these two events coinciding is estimated as one in a hundred multiplied by one in 80, or one in 8,000.

speculation to the impact analysis and results in an unreasonable overstatement of water supply impacts.

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*d. Water demand projections are overestimated*

As with prior iterations, the 2011 RDEIR continues to overstate demand. The Pacific Institute has reviewed the water supply impact analysis in the 2011 RDEIR, including the demand projections, and that assessment is attached and incorporated by reference in its entirety.<sup>34</sup> These comments are also referenced throughout this letter.

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First, the RDEIR still fails to incorporate Pacific Institute's assessment that 5,000-7,000 AFY could be conserved cost-effectively, allowing the Cachuma contractors to reduce water demand without loss of service or quality of life.<sup>35</sup> Technological advancements that have occurred since this analysis was done indicate that the conservation potential is now even greater.<sup>36</sup>

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The RDEIR states that Pacific Institute's assessment was disputed by the Member Units, but fails to acknowledge or refute Pacific Institute's detailed response to the Member Units' testimony.<sup>37</sup> Notably, the Member Units' testimony contains numerous factual errors and omissions explicitly identified in the Pacific Institute's 2007 analysis, and it fails to identify any technical basis to discount the Pacific Institute's conclusions regarding water savings.<sup>38</sup> If the SWRCB does not incorporate these savings into the RDEIR's demand projections, then the measures identified by Pacific Institute should be imposed as mitigation, as discussed below.

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Second, the 2011 RDEIR demand projections are outdated and fail to include new State-mandated water conservation and efficiency requirements.<sup>39</sup> These requirements include: 1) The Water Conservation Act of 2009 (SBx7-7), requiring all water suppliers to reduce per capita water demand by 20% by the end of the year 2020; and 2) SB 407, requiring replacement of old plumbing fixtures when alterations or improvements are made to single family homes beginning in 2014. These mandatory requirements will necessarily result in reduced per capita demand and must be reflected in the RDEIR's demand projections. For example, as discussed by the Pacific Institute, other demand projections developed by two of the Cachuma contractors (Goleta Water District and City of Santa Barbara) do factor in the SBx7-7 20% mandate reduction and collectively estimate 2,100 AFY less in demand than the demand projections identified by those same contractors in the 2011 RDEIR.<sup>40</sup>

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<sup>34</sup> Cooley, Heather et al. 2011. Comments on the 2<sup>nd</sup> Revised Draft EIR for the Cachuma Water Rights Hearing. May 12. [Attached]

<sup>35</sup> Cooley et al 2011 at 6-7.

<sup>36</sup> Cooley et al 2011 at 7.

<sup>37</sup> Cooley, Heather and Peter Gleick. 2007. Comments on the Revised Draft EIR for the Cachuma Water Rights Hearing. Sept. 27. (Submitted as attachment to EDC September 2007 Comment Letter)

<sup>38</sup> *Id.* See also Cooley et al 2011 at 7.

<sup>39</sup> Cooley et al 2011 at 4-6.

<sup>40</sup> Cooley et al 2011 at 6 (see also, Table 1).

*e. Identification of Class I water supply impacts are incorrect as RDEIR assumes mitigation will eliminate impacts*

Despite concluding that there are significant, unmitigated impacts for Alternatives 5B/5C, the RDEIR states that:

[A]s a mitigation measure, any drought contingency measures identified in the Member Units' urban water management plans shall be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year.

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(2011 RDEIR at 4.3-31.) Accordingly, the RDEIR itself assumes that drought-related impacts will be mitigated.

However, the identification of mitigation measures is lacking because the formulation of mitigation measures should not, and need not, be deferred until the future.<sup>41</sup> The statement that “any drought contingency measure shall be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year” is too vague and open-ended to satisfy CEQA’s criteria for specifying performance standards. (2011 RDEIR at 4.3-31.) The RDEIR should identify the specific contingency measures, the minimum amounts to be conserved, when the measures must be implemented, and by which agencies.

*f. The RDEIR fails to include other feasible mitigation measures*

An EIR must describe feasible measures which could minimize significant adverse impacts.<sup>42</sup> The Pacific Institute has assessed the potential among all the Member Units for improving water use efficiency and concluded that 5,000 to 7,000 AFY could be cost-effectively conserved.<sup>43</sup> The Pacific Institute has recently affirmed that these conclusions remain valid, pertinent, and that the potential for conservation likely exceeds 5,000 to 7,000 AFY due to technological improvements since 2003.<sup>44</sup>

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Pacific Institute also has stated that during a critical drought “it is not uncommon for communities to cut water use by 10-20% through behavioral measures, such as reducing or even eliminating outdoor irrigation and taking shorter showers.”<sup>45</sup> Notably, these types of measures were not included in the measures that comprise the 5,000 to 7,000 AFY, but they could also help reduce the severity of future water shortages.<sup>46</sup>

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<sup>41</sup> CEQA Guidelines § 15126.4(a)(B).

<sup>42</sup> CEQA Guidelines § 15126.4(a)(1).

<sup>43</sup> Haasz, Dana and Peter Gleick. 2003. Comments on the Draft EIR for the Cachuma Water Rights Hearing: Report to the Environmental Defense Center. Oct. 1 (Attachment 18 to EDC’s October 2003 comment letter)

<sup>44</sup> Cooley et al 2011 at 7.

<sup>45</sup> Cooley et al 2011 at 7.

<sup>46</sup> Id.

The 2011 RDEIR fails to discuss the measures identified by Pacific Institute, stating only that the feasibility of “fully mitigating” all impacts is uncertain because the information provided by the Pacific Institute was disputed by the Member Units. (2011 RDEIR at 4.3-29.) However, feasible measures must be considered even if they will not fully eliminate impacts.<sup>47</sup> Moreover, the RDEIR fails to acknowledge or refute Pacific Institute’s detailed response to the Member Units’ testimony.<sup>48</sup> The Member Units’ testimony contains numerous factual errors and omissions and fails to identify any technical basis to discount the Pacific Institute’s conclusions regarding water savings.<sup>49</sup>

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Thus, to the extent water supply impacts remain as identified, or similar to those, in the 2011 RDEIR, the 2011 RDEIR must identify as mitigation the 5,000 to 7,000 AFY in conservation measures. The GWD, for example, intends to increase conservation measures beginning next year, corroborating that such conservation is feasible to mitigate identified impacts.<sup>50</sup>

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In addition, the following mitigation strategies have also been overlooked in the RDEIR:

- i. The RDEIR erroneously presumes members’ water rates are sufficiently strong incentive to conserve water*

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The RDEIR states that the Member Units water rates “are some of the highest in the state and constitute a strong incentive to conserve water.” (2011 RDEIR at 4.3-30.) However, the Pacific Institute clarifies that, while some of the Members’ rates are high, they do not “consistently include designs that encourage efficiency improvements.”<sup>51</sup> The majority of the Member Units could significantly improve their rate structures and thus greatly improve incentives to conserve water.<sup>52</sup> The RDEIR should identify the modification of rate structures as a feasible mitigation strategy.

- ii. The RDEIR fails to consider the potential for reducing agricultural water use as a feasible mitigation strategy*

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Although urban water use is the majority of total water demand for the Member Units, agricultural use is still a significant portion of demand – approximately 10% (5,300 AF).<sup>53</sup> Agricultural water use can be reduced through increased efficiency without

<sup>47</sup> Pub. Res. Code § 21002 (“public agencies shall not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects” (emphasis added)); CEQA Guidelines § 15370 (“mitigation” includes “minimizing,” “reducing or eliminating,” and “compensating for the impacting by replacing or providing substitute resources.”)

<sup>48</sup> Cooley, Heather and Peter Gleick. 2007. Comments on the Revised Draft EIR for the Cachuma Water Rights Hearing. Sept. 27.

<sup>49</sup> *Id.* See also Cooley et al 2011 at 7.

<sup>50</sup> GWD Water Supply Management Plan at 19.

<sup>51</sup> Cooley et al 2011 at 9-10.

<sup>52</sup> *Id.*

<sup>53</sup> Cooley et al 2011 at 8.

reducing crop yields or area irrigated.<sup>54</sup> Pacific Institute has estimated agricultural demand could be reduced by as much as 17% in California “by adopting efficient irrigation technologies, improved irrigation scheduling, and regulated deficit irrigation.”<sup>55</sup> Recycled water can also be used to meet agricultural water demand (see below). The RDEIR should identify the potential to decrease agricultural demand for potable water, through increased efficiency and the use of recycled water, as feasible mitigation.

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*iii. The RDEIR fails to consider recycled water, rainwater harvesting as feasible mitigation strategies*

The Member Units currently meet very little of their demand with recycled water programs or rainwater harvesting, while in other districts this is becoming an increasingly important component of water supply portfolios.<sup>56</sup> The 2011 RDEIR does not discuss the potential for the Member Units to expand water recycling and rainwater harvesting in the future as a method to mitigate identified water supply impacts. Some Member Units are operating recycled water facilities (Goleta Water District, City of Santa Barbara), but they are not operating at full capacity. At a minimum, if additional infrastructure is necessary so that Members can take full advantage of existing plant capacities to offset drought time reductions in Cachuma supply, this should be required as a feasible mitigation measure. In addition, the RDEIR should require that a comprehensive feasibility study be conducted to evaluate ways to expand the use of recycled water, including the development of a regional project and a groundwater recharge project.<sup>57</sup> This could be done in conjunction with the water conservation studies described below (and in our prior comments) to ascertain additional water savings beyond the 5,000-7,000 AFY already identified by the Pacific Institute.<sup>58</sup>

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*iv. The RDEIR fails to consider use of WR 89-18 releases as feasible mitigation strategy*

WR 89-18 releases currently occur for the purpose of maximizing the amount of water captured by downstream users. (2011 RDEIR at 2.0-9-10.) As we have repeatedly pointed out in our prior comments, the SWB has never evaluated the WR 89-18 release schedule to consider modifications to benefit steelhead and other public trust resources. Modifying WR 89-18 to coordinate releases for steelhead could fully maximize the amount of water available for both public trust uses and water supply, thus mitigating potential impacts to water supply.

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Consideration of modifications to WR 89-18 is consistent not only with CEQA’s mandate to consider feasible mitigation measures, but also with the public trust doctrine

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

<sup>56</sup> Cooley et al 2011 at 10-13.

<sup>57</sup> Cooley et al 2011 at 12.

<sup>58</sup> EDC September 2007 Comment letter at 35-36. See also, discussion above regarding recycled water programs.

and Water Code Section 275, which requires the Board to take all appropriate actions to prevent the waste unreasonable use, and unreasonable method of use of water.

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## II. The 2011 RDEIR Fails to Evaluate Alternatives In Light of Potential Climate Change Impacts (Section 4.12)

The 2011 RDEIR includes a new section discussing climate change. (2011 RDEIR Section 4.12.) Comments were not solicited by the SWRCB on this portion of the RDEIR. However, information in this section discussing project implications resulting from climate change is significant new information that required recirculation of the EIR and should also have been identified for public comment.<sup>59</sup>

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Certainly, the Cachuma Project must be evaluated in light of climate change impacts, including increased susceptibility to hazardous conditions.<sup>60</sup> For example:

With the Santa Ynez River teetering near the southern limit of the steelhead's geographic range, increasing environmental changes attributable to global warming (e.g., an increase in frequency and intensity of wildfires) could have major consequences to the Bureau of Reclamation's proposed actions in the Revised Draft Environmental Impact Report (RDEIR).<sup>61</sup>

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Although the RDEIR identifies potential new and increased impacts resulting from climate change – for example, aquatic ecosystem changes and increased risks of wildfires (2011 RDEIR at 4.12-11) – as explained by Dr. William Trush in his comments, it fails to evaluate how, and to what extent, the proposed actions can or will maintain and recover steelhead in light of anticipated climate change effects.<sup>62</sup> As one example, Dr. Trush describes how a steelhead population sustained only 3 miles below Bradbury Dam (i.e., the scenario envisioned by each of the project Alternatives) “would be small, fragile, highly susceptible to disturbances, and would have extremely low resiliency in the event of more frequent and more intense wildfires, as well as other global warming effects.”<sup>63</sup> However, no analyses have been conducted in the RDEIR to determine whether the proposed mainstem releases will provide sufficient spawning success in tributary watersheds, and protect and grow outmigrating pre-smolts and smolts once they leave tributaries and head down the mainstem channel.<sup>64</sup> Dr. Trush provides examples of these and other quantitative analyses that could and should be conducted to

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<sup>59</sup> CEQA Guidelines § 15088.5(a).

<sup>60</sup> CEQA Guidelines § 15126.2(a).

<sup>61</sup> Trush, William. 2011. Commentary on Global Warming Considerations regarding the April 2011 2<sup>nd</sup> Revised Draft Environmental Impact Report for Consideration of Modifications to U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust and Downstream Water Rights on the Santa Ynez River – Bradbury Dam (Cachuma Reservoir). May 14. [Attached]

<sup>62</sup> *Id.*

<sup>63</sup> Trush 2011 at 4.

<sup>64</sup> Trush 2011 at 3.

assess steelhead resiliency.<sup>65</sup> Dr. Trush’s full comments are attached and incorporated by reference in their entirety.

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Thus, contrary to the assertions in the RDEIR, it is feasible to predict and evaluate the project implications resulting from climate change, as well as how such changes would influence the implementation of the proposed project. The RDEIR impact analysis cannot be deferred to a point “if and when” the potential effects of climate change occur. (2011 RDEIR at 4.12-22.) This ignores CEQA’s mandate to analyze potential hazards “both as such hazards currently exist *or may occur in the future*.”<sup>66</sup> It also fails CEQA’s requirement of “adequacy, completeness, and a good-faith effort at full disclosure.”<sup>67</sup>

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The RDEIR also attempts to circumvent its legal obligations to analyze these impacts with a clearly deficient mitigation measure – “the local managing partner will update the Fish Management Plan and Biological Opinion to periodically manage the potential effects of climate change if and when they occur.” (2011 RDEIR at 4.12-22.) Mitigation measures under CEQA must be *known, specific, feasible, effective and enforceable*.<sup>68</sup> CEQA also prohibits deferred mitigation.<sup>69</sup> This nebulous requirement meets none of these criteria.

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The RDEIR must be updated to analyze how, and to what extent, the proposed actions will impact steelhead and other public trust resources in light of anticipated climate change effects. This is significant new information that will require recirculation of the RDEIR for public review and comment because of 1) a new significant impact or substantial increase in the severity of environmental impacts would result; and 2) the 2011 RDEIR is fundamentally inadequate and conclusory in its current discussion of this issue.<sup>70</sup>

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### **III. The 2011 RDEIR Erroneously Finds That All Alternatives Are Beneficial For Steelhead (Section 6.0)**

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The RDEIR finds that “All of the alternatives would result in beneficial (Class IV) impacts to . . . steelhead movement, migration and habitat.” (2011 RDEIR at 6.0-2.) This finding is incorrect because 1) none of the RDEIR Alternatives have been evaluated in light of climate change impacts; 2) none of the RDEIR Alternatives have been evaluated for impacts from WR 89-18 releases; 3) none of the RDEIR Alternatives

<sup>65</sup> Trush 2011 at 4.

<sup>66</sup> California Natural Resources Agency. 2009. Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. Dec. (p. 42, emphasis added)

<sup>67</sup> CEQA Guidelines § 15003(i); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692.

<sup>68</sup> Pub. Res. Code § 21081.6(b); CEQA Guidelines, §§ 15091(d), 15126.4(a)(2); *Federation of Hillside and Canyon Assns v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 (agency must ensure that mitigation measures identified in the EIR will actually be implemented); *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645; *Napa Citizens*, supra, 91 Cal.App.4th 342.

<sup>69</sup> CEQA Guidelines § 15126.4(a)(1)(B).

<sup>70</sup> CEQA Guidelines §15088.5.

properly considers the lagoon life history phases for steelhead; and 4) Alternative 4B causes a steelhead imprinting/migration impact that has not been mitigated. The RDEIR's faulty finding about beneficial impacts undercuts its conclusion about the environmentally superior alternative, as discussed in Section IV below.

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*a. No Alternatives have been evaluated in light of climate change impacts*

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As discussed in Section II above, the RDEIR includes only a cursory review of potential increased impacts resulting from climate change and, moreover, fails to review any of the Alternatives for potentially significant increased impacts that may occur due to climate change affects.

*b. No Alternatives have been evaluated for impacts from WR 89-18 releases*

Water rights releases under WR 89-18 result in a number of significant, adverse impacts to steelhead, which we have identified in our prior comments on the EIR.<sup>71</sup> The 2000 Biological Opinion identifies WR 89-18 releases as an issue of concern in the Santa Ynez River, and NMFS has recently affirmed that these releases are of concern for steelhead.<sup>72</sup>

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The 2011 RDEIR Alternatives all maintain the established WR 89-18 releases, which have never been evaluated for impacts to public trust resources, and the RDEIR itself continues to disregard potential adverse effects of WR 89-18 releases on steelhead or other public trust resources.

*c. No Alternatives properly consider the lagoon life history phases for steelhead*

The lagoon is critically important for steelhead migration and for steelhead rearing.<sup>73</sup> In this regard, we have previously identified flaws in the impact analysis for steelhead including that it fails to consider the importance of the lagoon for smolt rearing.<sup>74</sup> In addition, the migration analysis fails to consider whether the mouth of the lagoon would actually be open.<sup>75</sup> The 2011 RDEIR continues these errors. New information recently presented to the public regarding the Santa Ynez River lagoon identifies the changes in hydrology – including construction and operation of upstream dams – and resulting physical impacts the lower River, on lagoon processes and habitat function.<sup>76</sup> This information is relevant to the environmental setting. Analysis of the

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<sup>71</sup> See, e.g., EDC September 2007 Comment Letter at 19-20.

<sup>72</sup> McInnis, Rodney R. (Regional Administrator, NMFS. 2010. Letter to Michael Jackson (Bureau of Reclamation). Jul 21. [Attached]

<sup>73</sup> See, e.g., EDC October 2003 Comment Letter at 10 and EDC September 2007 Comment Letter at 20-21.

<sup>74</sup> EDC October 2003 Comment Letter at 10; See also, Keegan 2003 (Attachment 19 to EDC October 2003 Comment Letter).

<sup>75</sup> EDC September 2007 Comment Letter at 21; See also, Williams 2007 (Attached to EDC September 2007 Comment Letter).

<sup>76</sup> Revell, David, Phil Williams (PWA). 2010. Assessment of Restoration Actions for the Santa Ynez River Estuary: Summary of Findings and Potential Restoration Actions. Aug 23. [Attached]

project alternatives in light of this information would likely identify new significant, and substantially increased, environmental impacts. The new information also demonstrates that the RDEIR alternatives – by relying primarily on the 2000 BO – do not achieve the EIR’s public trust objective. The RDEIR should be recirculated with this new information so that the public may have an opportunity to review and comment.

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*d. Alternative 4B may cause steelhead migration/imprinting and other impacts that are not mitigated*

The 2000 Biological Opinion prohibits releases of SWP water into the River below Bradbury Dam when smolts are present due to concerns that steelhead could imprint on SWP water and become disoriented during subsequent migrations.<sup>77</sup> Alternative 4B delivers SWP water into the River at Lompoc. Steelhead are present in the River below Lompoc, including the Lagoon, and may be adversely affected if reared in, or attempting to migrate in, water containing substantial portions of SWP water. Although, the RDEIR assesses the impact of flow rates and durations on steelhead migration, it fails to consider and analyze the impact of Alternative 4B’s SWP releases on steelhead migration. This impact is potentially significant, and unmitigated.

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Alternative 4B also causes another impact that other alternatives do not cause: impacts to the Santa Ynez River from construction of a lengthy pipeline to deliver SWP water to Lompoc and construction and maintenance of four outlet works in the Santa Ynez River’s banks. (2011 RDEIR at 6.0-3.) Table 6-2 identifies this unique impact of Alternative 4B as a Class II impact to sensitive wildlife species. (2011 RDEIR at 6.0-7.) The RDEIR also finds that Alternative 4B would remove approximately 200 square feet of riparian vegetation at each of four outlets constructed on river banks causing a Class II impact. (2011 RDEIR at 4.8-16.<sup>78</sup>) The RDEIR proposes to mitigate this loss by replacing riparian vegetation at a 2:1 ratio. (2011 RDEIR at 4.8-22.<sup>79</sup>) However, the mitigation measure for this impact is insufficient pursuant to CEQA. Under CEQA, mitigation measures cannot be deferred without performance standards which are needed ensure the

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<sup>77</sup> 2000 Biological Opinion at 71, Reasonable and Prudent Measure #5 (“Reclamation shall avoid mixing CCWA water in the Santa Ynez River downstream of Bradbury dam when steelhead smolts could become imprinted with it.”).

<sup>78</sup> RDEIR Section 4.8.2.4 states “Alternative 4B would involve the construction of four outlets on the east bank of the Santa Ynez River to discharge SWP water for recharge into the riverbed. The outlets would consist of steel pipes extending to the base of the riverbank. A concrete or rip-rap spillway or apron would be constructed under each outlet to prevent bank erosion. About 200 square feet of riparian vegetation would be permanently displaced at each location. Vegetation that would be removed consists of mulefat and willow scrub, and possibly several mature willow or cottonwood trees, depending upon the final locations of the outlets. No mature oak trees or wetlands would be removed. The permanent removal of riparian vegetation from the four discharge outlets is considered a potentially significant, but mitigable impact (Class II). The impact can be mitigated by avoiding mature woodland habitat and by restoring any riparian scrub disturbed during construction.”

<sup>79</sup> Mitigation Measure RP-2 states: “In the event that Alternative 4B is pursued, the facilities associated with Alternative 4B shall be designed and constructed to ensure avoidance of significant riparian vegetation. Any riparian vegetation displaced by construction activities and the new facilities on the riverbank shall be replaced on site at a 2:1 ratio.”

measures' success.<sup>80</sup> In this case the RDEIR defers preparation of a plan to replace lost riparian vegetation and does not identify (1) locations for replacement habitat, (2) methods of replacement, (3) plant types to use, (4) planting maintenance and irrigation methods, (5) requirements for replacing plants that may die, or (6) performance standards to ensure success such as (a) survival percentages, (b) percentages cover by native species, or (c) growth standards for different riparian plant species. Therefore, while Sections 4.8 and 6.0 and Table 6-2 identify Alternative 4B's unique potentially significant impact of the SWP pipeline and outlets, they fail to include legally adequate mitigation that would support the RDEIR's finding that the impact to riparian vegetation will be adequately mitigated, i.e., Class II. Because the mitigation measure is insufficient, the RDEIR must find this impact significant (Class I). Given that the Alternative 4B pipeline's significant impact on riparian vegetation and sensitive species is (1) not adequately mitigated and (2) is entirely avoided by all other alternatives, Alternative 4B cannot be considered the environmentally superior alternative (see below).

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**IV. The 2011 RDEIR Fails To Correctly Identify The Environmentally Superior Alternative (Section 6.0)**

The 2011 RDEIR finds that Alternatives 3C and 4B meet the project objectives for protecting public trust resources and protecting senior water rights. Because Alternative 3C is the No Project Alternative, the RDEIR concludes that Alternative 4B is the environmentally superior alternative. This conclusion is incorrect for the reasons we have stated in our previously submitted comments, which we incorporate here by reference, and for the following reasons highlighted by recent data and the new information in the 2011 RDEIR:

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*a. Alternatives 3C and 4B do not meet the critical project objective of protecting public trust resources*

The RDEIR finds that Alternatives 3C and 4B meet the objective of "protecting public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible . . ." (2011 RDEIR at 6.0-3.) First, this characterization of the project objectives for public trust resources is inconsistent with the May 29, 2003 Notice from the SWRCB Hearing Officer that consideration of public trust issues "is *not* limited to public trust resources *below* Bradbury Dam." (Emphasis added.) The RDEIR's narrow focus on steelhead and other public trust resources *below* Bradbury Dam is inconsistent with the properly framed project objective of protection of public trust resources *above and below* Bradbury Dam. As we have identified in our prior comments, the RDEIR simply fails to analyze impacts in light of this objective, which is the primary basis for the SWRCB's consideration of this matter. It is unclear how this EIR will serve as evidence for the SWRCB's ultimate hearing decision if it is inconsistent with the SWRCB's overall public trust responsibility for the Bureau of Reclamation's water rights permits.

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<sup>80</sup> CEQA Guidelines § 15126.4(a)(B); *Sundstrom v. County of Mendocino* (1<sup>st</sup> Dist. 1988) 202 Cal. App. 3d 296.

Second, as discussed above, this finding is necessarily predicated on the RDEIR's prior incorrect finding that these Alternatives would result in beneficial impacts to steelhead movement, migration and habitat. (2011 RDEIR at 6.0-2.) As a result, the RDEIR has no reasonable basis to conclude that any of the Alternatives, including Alternatives 3C and 4B, would meet the public trust resources objective.

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As a further example to highlight this, Alternatives 3 and 4 both simply implement the 2000 Biological Opinion. These flow schedules have been implemented pursuant to the Biological Opinion for 11 years and pursuant to the Fish Management Plan for multiple years prior to 2000. The steelhead population has not significantly improved during this time. Its numbers remain critically low in the Santa Ynez River. According to documents received from CCRB in response to a September 2010 Public Records Act request, the highest number of anadromous steelhead recorded since records have been kept subsequent to construction of Bradbury Dam in 1954 is 16.<sup>81</sup> This number starkly contrasts with identified historic runs of 9,000-30,000.<sup>82</sup> Thus, the Biological Opinion, and by extension Alternatives 3 and 4, are, at best, merely maintaining this highly depressed steelhead population on life support and are not adequate to protect public trust resources.

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In this regard, it is also noteworthy that NMFS and the Bureau of Reclamation have reinitiated the Endangered Species Act Section 7 consultation because of "evidence generally indicating the Project is affecting endangered steelhead in a manner and extent not previously considered" in the 2000 BO.<sup>83</sup> This further underscores our points that the the 2000 BO is inadequate to protect public trust resources, and that the SWRCB should hold any further action on this EIR pending completion of the reinitiated consultation.

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*b. CalTrout 3A2 modified is an environmentally superior alternative that should be analyzed in the RDEIR*

Under CEQA, the SWRCB cannot adopt an alternative if there is another feasible alternative that fulfills most of the basic project objectives and avoids or substantially lessens a significant impact.<sup>84</sup> In our October 2003 and September 2007 comment letters, EDC identified a new alternative that could feasibly protect steelhead without causing significant adverse impacts.<sup>85</sup> CalTrout's Alternative 3A2 Modified for Dry Years is more capable of fulfilling the public trust objective and has been identified as the most

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<sup>81</sup> Cachuma Conservation and Release Board. 2010. Requested Data from the Lower Santa Ynez River Steelhead / Rainbow Trout Monitoring and Habitat Restoration Program. Jul 28. [Attached] (See p. 3, Table 2 and Figure 3.) In addition, only 9 to 11 steelhead have been captured on the Santa Ynez River this year. Robinson, Tim (CCRB). 2011. Personal Communication to Brian Trautwein (EDC). May 11.

<sup>82</sup> See, e.g., CalTrout Ex. CT-90 at 2-4, discussing historic steelhead abundance on the Santa Ynez River.

<sup>83</sup> McLinnis, Rodney (Regional Administrator, NMFS). 2009. Letter to Michael Jackson (BOR). Nov 9 (Attached to McLinnis 2010.)

<sup>84</sup> Pub. Res. Code §§ 21002, 21002.1(b), 21081; CEQA Guidelines §§15002(a)(3), 15021(a)(2), 15091(a), 15092(b)(2)(A); see also, *Mountain Lion Foundation v. Fish and Game Commission* (1997) 16 Cal.App.4<sup>th</sup> 105, 134.

<sup>85</sup> EDC October 2003 comment letter at 23-31; EDC September 2007 Comment letter at 30-36.

protective standard based on available information.<sup>86</sup> This Alternative must therefore be evaluated in the RDEIR. Water supply and demand projections should be corrected and analyzed consistent with the analysis of the Pacific Institute and our comments above regarding water supply impacts to properly assess water supply impacts, as well as how this Alternative comports with (1) the water supply impacts of measures designed to protect public trust resources; and (2) the extent to which any water supply impacts can be minimized through the implementation of water conservation measures.” (2011 RDEIR at 6.0-3.)

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CalTrout has also previously recommended, and continues to recommend, additional studies to augment this core Alternative: 1) a “demonstration flow assessment” to confirm the efficacy of any adopted instream flow schedule;<sup>87</sup> 2) a study of modifications to WR 89-18 to maximize the beneficial use of Cachuma Project water;<sup>88</sup> and 3) additional water conservation studies to identify additional water savings beyond the 5,000-7,000 AFY identified by the Pacific Institute.<sup>89</sup>

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In addition, to comply with the SWRCB’s obligation to consider public trust resources in the Santa Ynez River, and the May 29, 2003 Notice from the SWRCB Hearing Officer that consideration of public trust issues “is not limited to public trust resources *below* Bradbury Dam,” the RDEIR must also evaluate alternatives that consider public trust resources *above* Bradbury Dam. As discussed in our prior comment letters, fish passage around Bradbury Dam must be considered, and a study of such passage must be conducted to fulfill the public trust objective.<sup>90</sup>

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**V. The 2011 RDEIR Fails To Consider Potential Future Projects in Cumulative Impacts Analysis (2011 RDEIR Section 7.0)**

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The 2011 RDEIR fails to identify and evaluate significant new information about potential future projects in its Cumulative Impacts analysis that may result in cumulatively considerable impacts. These projects include: 1) The City of Solvang’s Water System Master Plan Update;<sup>91</sup> and 2) the Alisal Ranch project near Solvang.<sup>92</sup>

Solvang’s Water System Master Plan Update includes installing additional River wells and increased pumping of Santa Ynez River water. This project is expected to reduce flows in the River, which may necessitate increased releases from Bradbury Dam to meet the target flows established by the 2000 Biological Opinion and discussed in this RDEIR. This pumping could also potentially impact South Coast water supplies. These

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<sup>86</sup> See discussion in EDC September 2007 Comment letter at 31.

<sup>87</sup> EDC September 2007 Comment letter at 35.

<sup>88</sup> EDC September 2007 Comment letter at 35.

<sup>89</sup> EDC September 2007 Comment letter at 35-36. See also, discussion above regarding recycled water programs.

<sup>90</sup> See EDC September 2007 Comment letter at 32-34.

<sup>91</sup> City of Solvang. 2011. Notice of Preparation. Jan 4. [Attached]

<sup>92</sup> County of Santa Barbara. 2011. Santa Barbara County Zoning Administrator Staff Report: Alisal Ranch Reservoir. Jan 3. [Attached]

and other potential significant impacts are discussed in detail in comments submitted by EDC to the City of Solvang regarding the project.<sup>93</sup>

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The Alisal Ranch project includes construction of a new irrigation reservoir on property near Solvang. Among other concerns, this project may lead to “diminished surface flows or complete drying of streams which, in turn, may result in adverse effects to steelhead or habitat for the species.”<sup>94</sup>

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The RDEIR Alternatives must be considered together with these projects and evaluated for significant cumulative impacts to steelhead and other public trust resources in the Santa Ynez River.

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#### VI. Conclusion

As detailed above, numerous errors persist in the 2011 RDEIR that render it inadequate under CEQA and as evidence for the SWRCB in the Cachuma hearing proceedings.

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Thank you for the opportunity to comment on this document. Please contact Karen Kraus at (805) 658-2688 if you have any questions.

Sincerely,



Karen M. Kraus  
Staff Attorney



Brian Trautwein  
Environmental Analyst

#### Attachments

cc: Cachuma Project Hearing Service List  
(5/13/11)

<sup>93</sup> Trautwein, Brian (EDC) and Karen Kraus (EDC). 2011. Letter to Mr. Brad Vidro (City of Solvang) RE: Notice of Preparation of a Draft Environmental Impact Report for City of Solvang Water System Master Plan Update. Feb 4. [Attached]

<sup>94</sup> Ruvelas, Penny (NMFS). 2011. Letter to Santa Barbara County Planning Commission. Apr 8. [Attached] See also, Root, Roger (FWS). 2010. Letter to Tammy Weber RE Draft Mitigated Negative Declaration For the Proposed Alisal Ranch Reservoir, Solvang, Santa Barbara County, California. Dec 22. [Attached]

### **List of Attachments**

Cachuma Conservation and Release Board. 2010. Requested Data from the Lower Santa Ynez River Steelhead / Rainbow Trout Monitoring and Habitat Restoration Program. Jul 28.

California Coastal Commission. 1996. Coastal Development Permit. Oct 15.

California Coastal Commission (CCC). 1996a. Staff Report: City of Santa Barbara Conversion of temporary desalination facilities to permanent facilities. Sep 26.

City of Solvang. 2011. Notice of Preparation. Jan 4.

Cooley, Heather et al. 2011. Comments on the 2<sup>nd</sup> Revised Draft EIR for the Cachuma Water Rights Hearing. May 12.

County of Santa Barbara. 2011. Santa Barbara County Zoning Administrator Staff Report: Alisal Ranch Reservoir. Jan 3.

McInnis, Rodney R. (Regional Administrator, NMFS). 2010. Letter to Michael Jackson (Bureau of Reclamation). Jul 21.

Regional Water Quality Control Board. 1999. Waste Discharge Requirements Order No. 99-40; NPDES No. CA004814.

Regional Water Quality Control Board. 1999a. Staff Report For Regular Meeting of July 9, 1999.

Revell, David, Phil Williams (PWA). 2010. Assessment of Restoration Actions for the Santa Ynez River Estuary: Summary of Findings and Potential Restoration Actions. Aug 23.

Root, Roger (FWS). 2010. Letter to Tammy Weber RE Draft Mitigated Negative Declaration For the Proposed Alisal Ranch Reservoir, Solvang, Santa Barbara County, California. Dec 22.

Ruvelas, Penny (NMFS). 2011. Letter to Santa Barbara County Planning Commission. Apr 8.

Trautwein, Brian (EDC) and Karen Kraus (EDC). 2011. Letter to Mr. Brad Vidro (City of Solvang) RE: Notice of Preparation of a Draft Environmental Impact Report for City of Solvang Water System Master Plan Update. Feb 4.

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Trush, William. 2011. Commentary on Global Warming Considerations regarding the April 2011 2<sup>nd</sup> Revised Draft Environmental Impact Report for Consideration of Modifications to U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust and Downstream Water Rights on the Santa Ynez River – Bradbury Dam (Cachuma Reservoir). May 14.

Cachuma Project Phase 2 Hearing  
Final Service List  
(updated 05/13/2011)

*(Based on 01/05/2004 list, updated 07/26/2007, updated 06/08/2010, updated 01/20/2011,  
updated 05/13/2011)*

**The parties whose email addresses are listed below agreed to accept electronic service, pursuant to the rules specified in the hearing notice.**

<p>Cachuma Conservation Release Board Mr. Kevin O'Brien Downey Brand LLP 621 Capitol Mall, Floor 18 Sacramento, CA 95814 <a href="mailto:kobrien@downeybrand.com">kobrien@downeybrand.com</a> <a href="mailto:tkuntz@downeybrand.com">tkuntz@downeybrand.com</a></p> <p><i>updated 01/20/2011</i></p>	<p>City of Solvang Mr. Christopher L. Campbell Baker, Manock &amp; Jensen 5260 N. Palm Avenue, Suite 421 Fresno, CA 93704 <a href="mailto:clc@bmi-law.com">clc@bmi-law.com</a></p>
<p>Santa Ynez River Water Conservation District, Improvement District No. 1 Mr. Gregory K. Wilkinson Best, Best &amp; Krieger, LLP 3750 University Avenue, Suite 400 Riverside, CA 92501 <a href="mailto:gkwilkinson@bbkllaw.com">gkwilkinson@bbkllaw.com</a></p>	<p>City of Lompoc Ms. Sandra K. Dunn Somach, Simmons &amp; Dunn 500 Capitol Mall Suite 1000 Sacramento CA 95814 <a href="mailto:sdunn@somachlaw.com">sdunn@somachlaw.com</a></p> <p><i>updated 06/08/2010</i></p>
<p>Santa Ynez River Water Conservation District Mr. Ernest A. Conant Law Offices of Young Wooldridge 1800 – 30<sup>th</sup> Street, Fourth Floor Bakersfield, CA 93301 <a href="mailto:econant@youngwooldridge.com">econant@youngwooldridge.com</a></p>	<p>California Trout, Inc. c/o Ms. Karen Kraus Environmental Defense Center 906 Garden Street Santa Barbara, CA 93101 <a href="mailto:kkraus@edcnet.org">kkraus@edcnet.org</a></p>

**The parties listed below did not agree to accept electronic service, pursuant to the rules specified by this hearing notice.**

<p>U.S Bureau of Reclamation Ms. Amy Aufdemberg 2800 Cottage Way, Room E-1712 Sacramento, CA 95825 Fax (916) 978-5694 <a href="mailto:AMY.AUFDEMBERGE@sol.doi.gov">AMY.AUFDEMBERGE@sol.doi.gov</a></p>	<p>Santa Barbara County Parks Ms. Terri Maus-Nisich Director of Parks 601 Mission Canyon Road Santa Barbara, CA 93105 <a href="mailto:tmaus@co.santa-barbara.ca.us">tmaus@co.santa-barbara.ca.us</a></p>
<p>Dan Hytrek NOAA Office of General Counsel Southwest Region 501 West Ocean Blvd., Suite 4470 Long Beach, CA 90802-4213 <a href="mailto:Dan.Hytrek@noaa.gov">Dan.Hytrek@noaa.gov</a></p> <p><i>updated 05/13/2011</i></p>	<p>Department of Fish and Game Office of General Counsel Nancee Murray 1416 Ninth Street, 12<sup>th</sup> Floor Sacramento, CA 95814 <a href="mailto:Nmurray@dfg.ca.gov">Nmurray@dfg.ca.gov</a></p>

9. Environmental Defense Center on behalf of California Trout (CalTrout) dated May 27, 2011

**Response 9-1:**

The comment notes that the Environmental Defense Center (EDC) previously requested in October 2010 that the SWRCB postpone any further action on the Cachuma Project EIR pending completion by NMFS of its Southern California Steelhead Recovery Plan and reinitiated Section 7 consultation with Reclamation regarding the Cachuma Project.

The SWRCB understands that the NMFS is in dialogue with Reclamation and that the current Biological Opinion may be revisited. Further, the SWRCB is aware that the NMFS has published a draft Southern California Steelhead Recovery Plan, and that sometime in the future they may finalize that plan.

The SWRCB does not concur that the completion of this EIR process should be deferred until finalization of the Southern California Steelhead Recovery Plan or the completion of the revised Biological Opinion. CEQA does not require an exhaustive study of a particular subject in order for an EIR to be informative to the decision making body. SWRCB may consider amending Reclamation's permits requiring compliance with any new or revised Biological Opinion, but Reclamation's responsibilities with regard to the terms contained in any Biological Opinion are not dependent upon those terms being incorporated into Reclamation's permits.

The 2011 2<sup>nd</sup> Revised EIR reflects the draft Southern California Steelhead Recovery Plan. The operation of Bradbury Dam by Reclamation is a separate action from the SWRCB's consideration of water rights. As EDC is aware, these actions have historically proceeded in parallel and undergone separate environmental reviews. The 2011 2<sup>nd</sup> RDEIR reflects the most current data available from the Cachuma Operations and Maintenance Board (COMB – who operates the Cachuma Project on behalf of Reclamation) and others.

Given the above reasons, the SWRCB will not delay the Cachuma Project EIR further.

**Response 9-2:**

The comment expresses general concern regarding the methods utilized to estimate water supply, demand, and feasible mitigation measures.

The 2011 2<sup>nd</sup> RDEIR provides a full discussion of the methodologies used to analyze impacts to water supply and demands. The 2011 2<sup>nd</sup> RDEIR utilized information on water supply provided by the Member Units that was current at the time of the EIR preparation. The data used has been reviewed by the Member Units and they have concurred with its use. Further, where significant impacts are identified, feasible mitigation measures have been studied.

The comment is noted.

**Response 9-3:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR relies on outdated and incomplete information.

The 2011 2<sup>nd</sup> RDEIR incorporates the most current information and utilizes a wide variety of data sources. Further, based on comments to the 2003 DEIR and 2007 RDER, the 2011 2<sup>nd</sup> RDEIR incorporates information identified in those comments. The comment does not provide any specific information regarding which information presented in the 2011 2<sup>nd</sup> Revised DEIR is outdated or incomplete information.

The comment is noted.

**Response 9-4:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR narrowly focuses and mischaracterizes the project's public trust objective.

The 2011 2<sup>nd</sup> RDEIR clearly states the project objectives (see **Section 3.1.1**) which include protecting public trust resources below Bradbury Dam.

The comment is noted.

**Response 9-5:**

The comment notes that, as requested, specific comments are provided on **Sections 4.12, 4.3, 6.0, and 7.0** of the 2011 2<sup>nd</sup> RDEIR.

The comment is noted.

**Response 9-6:**

The comment notes that, in addition to comments on the 2011 2<sup>nd</sup> RDEIR sections mentioned in response to 2011 2<sup>nd</sup> RDEIR **Comment 9-5**, previous comments on the 2003 DEIR and 2007 RDEIR regarding water supply are incorporated by reference.

Previous comments on the 2003 DEIR and 2007 RDEIR are addressed in Sections 2.4.2 and 2.4.3 of Volume I of the Final EIR with the responses to the other comments on those DEIRs.

The comment is noted

**Response 9-7:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR continues to understate water supply, overstate demand and ignore feasible mitigation measures.

The 2011 2<sup>nd</sup> RDEIR provides a full discussion of the methodologies used to analyze impacts to water supply and demands. Further, where significant impacts are identified, feasible mitigation measures have been identified.

The comment is noted.

**Response 9-8:**

The comment suggests that previous comments on the 2003 DEIR and 2007 RDEIR regarding water supply impacts are incorporated by reference.

Previous comments on the 2003 DEIR and 2007 RDEIR are addressed in Sections 2.4.2 and 2.4.3 of Volume I of this Final EIR.

The comment is noted

**Response 9-9:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR allocates no desalinated water during critical droughts. The comment provides additional information regarding the City of Santa Barbara's (City) desalination plant.

Information on the status of the City's desalination plant has been included in the 2011 2<sup>nd</sup> RDEIR, However, while the plant may be available in the long-term, City staff projects no need for desalinated water within at least the next 5 years.<sup>12</sup> In the current Long-Term Water Supply Plan, any utilization of the plant would be deferred until at least the sixth year of a drought, and is considered the lowest priority of potential supplies.<sup>13</sup> As such, the City has not included desalination in its latest projects for water supply during a 6-year critical drought period for the next 20 years (through 2030).<sup>14</sup>

**Response 9-10:**

The comment provides information on Goleta Water District's (GWD's) pumping and banking of groundwater, and suggests that GWD may be able to increase current pumping capacity by adding new wells.

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<sup>12</sup> City of Santa Barbara, Public Works Department, Water Resources Division, Water Supply Management Report, 2010 Water Year, December 2010.

<sup>13</sup> City of Santa Barbara, Long-term Water Supply Plan 2011, June 14, 2011, p. 22 and 23.

<sup>14</sup> City of Santa Barbara, Long-term Water Supply Plan 2011, June 14, 2011, p. 23 and Figure 9.

Information on GWD's pumping of groundwater and implications on the local groundwater for the Goleta Groundwater Basin have been included in the 2011 2<sup>nd</sup> RDEIR. However, the 2011 Final Groundwater Management Plan does not provide for increased pumping and only suggests that future wells be located, and that further study will be required.<sup>15</sup>

GWD has indicated that it has an adjudicated entitlement to a portion of the total annual yield of the Goleta Groundwater Basin in the amount of 2,350 afy.<sup>16</sup> Other entities are entitled to use the remaining portion of the safe yield, including La Cumbre Mutual Water Company, which is entitled to 1,000 afy. Other overlying landowners are entitled to use the balance of the total annual safe yield.

GWD recognizes that its banked water could assist in offsetting water supply shortfalls and has indicated that the banked groundwater, referred to by the SAFE Ordinance as the "Drought Buffer," represents a significant water supply and reliability asset.<sup>17</sup> However, GWD notes that it is important to recognize that SAFE requires this banked groundwater to be maintained for its customers during times of drought. As such, the Drought Buffer cannot be used as a supplement supply for new or additional groundwater pumping.

The GWD Water Supply Management Plan recommends that the groundwater-State Water hybrid management strategy be used by GWD to manage its various water sources.<sup>18</sup> This hybrid strategy is described below in priority order:

1. Cachuma water sources are used first until their entitlement is exhausted for the year, in the following order: Carry-over Water, spill Water, and Cachuma Entitlement.
2. However, if there is a local drought such that Cachuma deliveries are reduced below 100 percent in any month, then groundwater is pumped at its capacity as a supplement to Cachuma water. This extends the availability of Cachuma water later into the water year and allows longer pumping of the limited capacity groundwater wells.
3. Any CCWA banked water is then used. CCWA considers that the first State Water used is banked water, so this accounting is done automatically as State Water is used.

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<sup>15</sup> Bachman, Steve, Ph.D., Final Groundwater Management Plan, Goleta Groundwater Basin, prepared for Goleta Water District and La Cumbre Mutual Water Company, May 2011, pp. 5-14 through 5-16.

<sup>16</sup> Correspondence from John McInnes, General Manager, Goleta Water District to Jane Farwell, SWRCB, Water Rights Section, August 29, 2011.

<sup>17</sup> Correspondence from John McInnes, General Manager, Goleta Water District to Jane Farwell, SWRCB, Water Rights Section, August 29, 2011.

<sup>18</sup> Bachman, Steve, Ph.D., Goleta Water District, Water Supply Management Plan, April 2011, p. 20.

4. Determine the average spring groundwater elevations from the Index Wells. Use the following logic sequence:
  - a. If groundwater elevations are higher than -26.2 ft. msl (1972 groundwater elevation), pump groundwater at its capacity of 300 acre-feet per month. Then supplement State Water as needed to fully meet demand.
  - b. If groundwater elevations are lower than -84.6 ft. msl (historical low elevation), use State Water to meet demand.
  - c. If groundwater elevations are between -26.2 ft. and -84.6 ft. msl, use the following logic sequence:
    - i. If Cachuma deliveries are at 100%, use State Water to meet demand.
    - ii. If Cachuma deliveries have been reduced, use groundwater first at its capacity, supplemented by State Water to meet demand.

As Cachuma supplies would have to be reduced below 100 percent in any given month to utilize groundwater pumping, use of increased pumping has not been included in the EIR.

**Response 9-11:**

The comment suggests that GWD has other secondary water supplies, including El Capitan Mutual Water Company, stored injection wells, and a bedrock well, and that these sources were not accounted for in the 2011 2<sup>nd</sup> RDEIR.

GWD does not identify the secondary supplies noted by the commenter in their 2011 Water Supply Management Plan. The 2011 Water Supply Management Plan recognizes a modified approach using groundwater first along with Cachuma water when Cachuma deliveries are reduced.<sup>19</sup> Therefore, the supplies should not be included in the analysis.

**Response 9-12:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR does not consider the Cold Spring Tunnel, water from Glen Annie Reservoir, or Laurel Canyon Reservoir for the City of Santa Barbara (City) supply.

The City's other supplies beyond Cachuma Reservoir are from Gibraltar Reservoir, Mission Tunnel, Groundwater, SWP water and recycled water. Information on the 2009-2010 supplies delivered from these additional sources has been included in the 2011 2<sup>nd</sup> RDEIR. The City does not receive water from Cold Spring Tunnel, water from Glen Annie Reservoir, or Laurel Canyon Reservoir.

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<sup>19</sup> Bachman, Steve, Ph.D., Goleta Water District, Water Supply Management Plan, April 2011, p. 17.

**Response 9-13:**

The comment questions how the infiltration from the Tecolote Tunnel was used in the 2011 2<sup>nd</sup> RDEIR analysis.

As outlined in Technical Memo No. 1 from Stetson Engineers (see Appendix E), Tecolote Tunnel infiltration is not shown but is considered a component of the Project yield. As shown on Tables 8A and 8B in Technical Memo No. 1, the Tecolote Tunnel infiltration (2,050 afy for the period 1918 to 1993 [Table 8A], and 1,620 afy for the period 1947 to 1951 [Table 8B]).

**Response 9-14:**

The comment suggests that GWD's reclaimed (recycled) water can be used as a supplemental supply and the 2011 2<sup>nd</sup> RDEIR should identify feasible mitigations that would enable full use.

As described by GWD,<sup>20</sup> currently the recycled water facility operated by Goleta Sanitary District has a total theoretical production capacity of 3,000 afy; however, distribution system infrastructure and customer demand limit the ability to achieve full use. The existing recycled water system is able to serve GWD's current recycled water customer base and deliver on average 1,000 afy. However, during peak hours of usage, the distribution system reaches capacity limitations. In addition, the system experiences storage limitations, and additional reservoirs would be required to use the full plant capacity. Long range improvements to the recycled water plant are included in GWD's 2011 Infrastructure Improvement Plan; however, funding is not currently available for these projects. Moreover, GWD has limited ability to legally compel existing customers to convert from the use of potable water to recycled water. In many cases, the costs associated with conversion are prohibitive, especially when recycled water mains need to be extended or booster stations enhanced. GWD has instituted economic incentives by offering a reduced rate for recycled water irrigation and connection, and new projects being developed along or near existing infrastructure are required to use recycled water and make feasible distribution system improvements consistent with State law. (Wat. Code Section 13550 et seq.)

**Response 9-15:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR has under-considered the use of recycled water by the City of Santa Barbara (City).

At full capacity, the City currently recycles 1400 afy of water available from the El Estero Wastewater Treatment Plant; current demand is approximately 800 afy plus 300 afy of process water.<sup>21</sup> The 2011 2<sup>nd</sup>

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<sup>20</sup> Correspondence from John McInnes, General Manager, Goleta Water District to Jane Farwell, SWRCB, Water Rights Section, August 29, 2011.

<sup>21</sup> City of Santa Barbara, Urban Water Management Plan, 2010 Update – Adopted June 2011, p. 28.

RDEIR uses this current demand for recycled water for the City. This amount is supported by information in the City's 2010 Urban Water Management Plan Update that shows historic demand of 718 af in 2005 and 697 in 2010, with projected demand to increase to 875 af in 2015, 950, af in 2020, 1,025 af in 2025 and 1,100 af in 2030.<sup>22</sup>

**Response 9-16:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR used selected data to complete analysis of water supplies and that consideration of SWP water was underestimated.

The analysis of water supplies in the 2011 2<sup>nd</sup> RDEIR utilized a range of considerations including historic drought conditions. Further, the 2011 2<sup>nd</sup> RDEIR used updated projections for the availability of SWP water as provided in the State Water Project Delivery Reliability Report 2009 published in August 2010.

**Response 9-17:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR uses incorrect information regarding the minimum estimates of SWP Table A deliveries.

The 2011 2<sup>nd</sup> RDEIR uses the minimum estimates of Table A deliveries as published in the State Water Project Delivery Reliability Report 2009. As shown on Table 6.3 of the 2009 SWP Reliability Report, the minimum Table A SWP delivery would be 7 percent; this is a revision to the prior 2007 SWP Reliability Report which indicated 6 percent.<sup>23</sup>

The 2011 2<sup>nd</sup> RDEIR uses the most recent multiple year dry year SWP Table A delivery from the Delta as reported in the State Water Project Delivery Reliability Report; as a conservative approach, deliveries of 32 percent during the 6-year drought from 1987 to 1992 were used for the 2029 update studies.<sup>24</sup>

While the comment expresses concern over consideration of the worst case for Cachuma water supplies coinciding with the SWP "Minimum" delivery as statistically remote and unlikely, considering the possibility is a conservative approach to assessing impacts to water supply. The probability of both events occurring simultaneously is low but not unreal, and as such cannot be considered speculative. This approach provides a conservative assessment of water supply and identification of potentially significant impacts.

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<sup>22</sup> City of Santa Barbara, Urban Water Management Plan, 2010 Update – Adopted June 2011, Table 6.

<sup>23</sup> State of California, Department of Water Resources, The State Water Project Delivery Reliability Report 2009, Final, August 2010, Table 6.3.

<sup>24</sup> State of California, Department of Water Resources, The State Water Project Delivery Reliability Report 2009, Final, August 2010, Table B.2.

**Response 9-18:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR's analysis of water supply impacts may include an artificial, additional dry year to the 1949 to 1951 drought.

As shown in Technical Memo No. 1 (Appendix E to the 2011 2<sup>nd</sup> RDEIR), the analysis considered the period 1949 to 1951 (See Table 13a, page 17 of Tech Memo No. 1). As such, the analysis did not consider an extra dry year, only the three-year period from 1949 to 1951.

**Response 9-19:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR continue to overstate demand and incorporates comments by the Pacific Institute on water supply impact analysis by reference.

The data related to demand is based on information provided by each of the Member Units. EDC is referred to the responses to the Pacific Institute comments. (See response to **Comments 16-1 through 16-19**).

**Response 9-20:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR fails to incorporate the Pacific Institute's assessment of water conservation features.

EDC is referred to **Responses 16-1 through 16-19**.

**Response 9-21:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR fails to acknowledge information provided by the Pacific Institute to refute Member Unit's testimony in the 2007 RDEIR.

EDC is directed to responses to comments to the Pacific Institute's September 27, 2007 letter. (See response to letter number 13 on the 2007 RDEIR [Section 2.3.2 of this Final EIR].)

**Response 9-22:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR fails to include new State mandated water conservation and efficiency standards set forth in SBx7-7.

The 2011 2<sup>nd</sup> RDEIR acknowledges that the Member Units must address the requirements of SBx7-7 (Sen. Bill No. 7x (2009-2010 7<sup>th</sup> Ex. Sess.) (hereafter SBx7-7)) in the preparation of their 2010 Urban Water Management Plans (UWMPs). (See **Section 4.3.3** of the 2011 2<sup>nd</sup> RDEIR.) The methods by which the Member District's comply with SBx7-7 are not within the purview of the SWRCB but rather are subject to review and approval by the Department of Water Resources. Methods of water conservation by local agencies cannot be addressed by the operation of the Cachuma Project nor is that an issue of water rights.

As long as the ultimate use of the water under the water rights permits is for beneficial use, the SWRCB does not directly implement or enforce SBx7-7.

The comment is noted.

**Response 9-23:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR concludes that proposed mitigation will reduce all significant impacts to less than significant.

While the 2011 2<sup>nd</sup> RDEIR identifies that the Member Units shall implement drought contingency measures identified in the Member Units' urban water management plans, there is no guarantee that they will. Further the SWRCB lacks any authority to require that any such measures be implemented.

As stated in the *CEQA Guidelines* (see Section 15091(a)(2), "No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are: ... (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency."

As such, while mitigation has been identified, the SWRCB must rely on the Member Units to implement it. If the mitigation is not implemented by the other agencies, the impacts would remain significant.

**Response 9-24:**

The comment suggest that the EIR should contain other feasible mitigation measures such as those regarding water conservation suggested by the Pacific Institute in their 2007 RDEIR comment letter.

The 2011 2<sup>nd</sup> RDEIR contains all feasible mitigation measures including those that should be implemented by other agencies. EDC is directed to the responses to comments to the Pacific Institute's September 27, 2007 letter. (See responses to letter number 13 to the 2007 RDEIR [Section 2.3.2 of this Final EIR]).

**Response 9-25:**

The comment suggests the Pacific Institute provided information in their 2007 RDEIR comment letter regarding methods to increase water conservation.

EDC is directed to the responses to comments to the Pacific Institute's September 27, 2007 letter. (See responses to letter number 13 to the 2007 RDEIR [Section 2.3.2 of this Final EIR].)

**Response 9-26:**

The comment suggest that the 2011 2<sup>nd</sup> RDEIR fails to discuss mitigation measures identified by the Pacific Institute in their 2007 RDEIR comment letter, and fails to acknowledge the comments.

The SWRCB has responded to all comments. EDC is directed specifically to the responses to comments to the Pacific Institute's September 27, 2007 letter. (See responses to letter number 13 to the 2007 RDEIR [Section 2.3.2 of this Final EIR]).

**Response 9-27:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR does not identify as mitigation the 5,000 to 7,000 afy in conservation measures, stating as an example that GWD intends to increase conservation measures beginning in 2012.

The 2011 2<sup>nd</sup> RDEIR, (see **Section 4.3.3**) states "any drought contingency measures identified in the Member Units' urban water management plans shall be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year." It is not appropriate for the SWRCB to dictate to the Member Units how to achieve conservation goals, and compliance with the requirements of recent legislation and preparation of UWMPs are the responsibility of the local agencies and fall under the purview of the Department of Water Resources.

Further, GWD's program to attempt to increase water conservation and recycling is discussed in the prior response to **Comment 9-14**.

**Response 9-28:**

The comment suggests the 2011 2<sup>nd</sup> RDEIR should address the modification of Member Units' water rate structures to encourage water conservation.

The 2011 2<sup>nd</sup> RDEIR, see **Section 4.3.3**) states "any drought contingency measures identified in the Member Units' urban water management plans shall be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year." It is not appropriate for the SWRCB to dictate to the Member Units how to achieve conservation goals, and compliance with the requirements of recent legislation and preparation of UWMPs are the responsibility of the local agencies and fall under the purview of the Department of Water Resources.

**Response 9-29:**

The comment suggests the 2011 2<sup>nd</sup> RDEIR should include feasible mitigation measures to reduce water use by agricultural users.

The 2011 2<sup>nd</sup> RDEIR (see **Section 4.3.3**) includes mitigation that “any drought contingency measures identified in the Member Units’ urban water management plans shall be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year.” It is not appropriate for the SWRCB to dictate to the Member Units how to achieve conservation measures. Also, compliance with the requirements of recent legislation and preparation of UWMPs are the responsibility of the local agencies and fall under the purview of the Department of Water Resources.

**Response 9-30:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR include information on the use of recycled water or rainwater harvesting to supplement water supplies and increase water conservation.

The water supply analysis in the 2011 2<sup>nd</sup> RDEIR recognizes the use of the recycled and reclaimed water where identified by the Member Units as a reliable source of water. For example, 800 afy of recycled water is considered for the City of Santa Barbara (see Table 4-12) and 1,000 afy of recycled water is considered for GWD (see Table 4-13).

As previously noted in response to **Comment 9-14**, local agencies have limited ability to legally compel existing customers to convert from the use of potable water to recycled water. In many cases, the costs associated with conversion are prohibitive, especially when recycled water mains need to be extended or booster stations enhanced. All agencies and water providers are required to implement future improvements consistent with State law (Water Code section 13550 et seq.) to achieve a 20 percent reduction in per capita water use by 2020.

**Response 9-31:**

The comment suggests that the SWRCB has not evaluated the releases provided for under WR 89-18 as part of the mitigation strategy to benefit steelhead and other public trust resources.

The SWRCB has considered prior information on the impacts and benefits to steelhead and public trust resources in the evaluation of modifications to WR 89-18 and required a number of studies to be completed in Order WR 94-5.<sup>25</sup> The required studies include a report on the riparian vegetation monitoring program in and along the margins of the Santa Ynez River below Bradbury Dam and a study report, or compilation of other existing materials, which clearly describes the impacts, or lack thereof, of the Cachuma Project on downstream diverters as compared to conditions which would have existed in the absence of the Cachuma Project.

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25 State Water Resources Control Board, In the Matter of Permits 11308 and 11310 Issued pursuant to Applications 11331 and 11332, Water Rights (WR) Order 94-5, Order Continuing Reserved Jurisdiction and Issuing Amended Permits, adopted November 17, 2004.

In 1993, some of the parties entered into two Memoranda of Understanding (MOUs) for cooperation in research related to the protection of fish and fish habitat for the portion of the Santa Ynez River below Bradbury Dam. A report regarding this work has been prepared by the Santa Ynez River Technical Advisory Committee under the MOUs. In 1994, a new Memorandum of Understanding (1994 MOU) was executed which acknowledges that three to five years may be needed to complete data collection and studies for presentation of information on fish and fish habitat for the portion of the Santa Ynez River below Bradbury Dam in order to jointly resolve some of the outstanding issues before the SWRCB in 1994.

The 1994 MOU, which expired on March 14, 1995, provides for the establishment of a Fish Reserve Account, consisting of an amount of water equivalent to the amount of water stored in the Cachuma Project above elevation 750 feet and any water captured by virtue of any modifications made to the flashboards of Bradbury Dam. Water in the Fish Reserve Account is to be used for the maintenance of fish below Bradbury Dam and to carry out necessary studies provided for in the study plan as provided in the 1994 MOU. In the event the Fish Reserve Account is insufficient for purposes of the 1994 MOU, Reclamation may make releases, per the 1994 MOU, from the minimum pool of the Cachuma Project, up to an amount that shall not exceed 2,000 afy without further consultation with the parties to the 1994 MOU.

The required studies have been completed and made available for review.

**Response 9-32:**

The comment suggests that information contained in the 2011 2<sup>nd</sup> RDEIR on climate change is significant new information and should have been identified for public comment.

The 2011 2<sup>nd</sup> RDEIR (see **Section 4.12**) contains information regarding climate change issues that have been completed by the California Department of Water Resources (DWR) and other entities. DWR has issued a number of technical studies and memoranda that discuss potential impacts on water supply, and how increased water-use efficiency can reduce annual urban and agricultural demand. Information contained in the 2011 2<sup>nd</sup> RDEIR has been available for public review as part of the DWR 2009 California Water Plan Update,<sup>26</sup> and does not constitute new information.

*CEQA Guidelines* Section 15088.5 provides that a lead agency is required to recirculate an EIR when significant new information is added to the EIR. As used in this section, the term “information” can include changes in the project or environmental setting as well as additional data or other information.

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<sup>26</sup> California Natural Resources Agency, California Water Plan Update 2009, Vol. 4, Reference Guide, 2009 California Climate Adaptation Strategy (2009).

CEQA court decisions on recirculation confirm that the standard for recirculation under CEQA is stringent, and recirculation is *not* required when *any* arguably significant new information is added to an EIR. (*Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1993) 6 Cal. 4th 1112, 1129 (*Laurel Heights II*)). Instead, recirculation is only required when the addition of new information to a Draft EIR deprives the public of a meaningful opportunity to comment on substantial adverse project impacts or feasible mitigation measures or alternatives that are not adopted. (14 Cal. Code Regs. Section 15088.5(a); *Laurel Heights II* 6 Cal. 4th at 1129.) New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement.

In this case, the “new” information added to the 2011 2<sup>nd</sup> RDEIR in response to the many submitted comments does not show a new environmental impact or a substantial increase in the severity of an environmental impacts previously identified. Also, the comments and responses do not demonstrate that there is a feasible alternative or mitigation measure considerably different from the alternatives and mitigation measures evaluated in the 2007 RDEIR and the 2011 2<sup>nd</sup> RDEIR that would clearly reduce environmental impacts.

Court decisions also confirm that recirculation is not required when the responses to comments or other changes in an EIR merely clarify, amplify or make insignificant modifications to the analysis in the Draft EIR. (14 Cal. Code Regs. Section 15088.5(b); *Marin Mun. Water District v. KG Land Cal. Corp.* (1991) 235 Cal. App. 3d 1652.) The various clarifications and additional information made in this EIR have no implications on the alternatives considered as described in the 2011 2<sup>nd</sup> RDEIR.

The inclusion of the information on climate change provides a context for the overall project in light of recent concerns that have been expressed regarding the implications on climate change on water and biological resources. The inclusion of the discussion on climate change does not identify any new significant impacts or alternatives that should be evaluated, nor does it identify any new mitigation measures. The SWRCB is not required to address climate change because the agency has no authority to shape the alternatives considered in any way that could mitigate for environmental damage related to climate change. The Project, as considered in the 2011 2<sup>nd</sup> RDEIR, has no features that would result in an increase in emissions that could affect climate change. Further, the surcharging of Lake Cachuma in itself would not increase or decrease greenhouse gases.

**Response 9-33:**

The comment suggests that in light of commentary in the 2011 2<sup>nd</sup> RDEIR regarding opinions of the status of steelhead in the Santa Ynez River, the Cachuma Project must be evaluated in light of climate change.

The 2011 2<sup>nd</sup> RDEIR provides information on the potential effects of climate change to the extent such effects are not speculative, as required by CEQA. (See *CEQA Guidelines* Section 15145.) The analysis of the Project's impact on global climate change is considered too speculative. Under CEQA, the lead agency must only evaluate the significance of direct physical environmental effects and the "reasonably foreseeable" indirect physical changes caused by a project. Speculative changes are not reasonably foreseeable and therefore need not be analyzed. In addition, when a lead agency finds, after "thorough investigation," that the evaluation of an impact is too speculative, the agency is not responsible for further analysis of it. On this basis, the trial courts in *Center for Biological Diversity v. City of Perris* and *Santa Clarita Oak Conservancy v. City of Santa Clarita* upheld the cities' determinations that climate change analysis was too speculative in those cases and therefore not required by CEQA. Further, the superior court in *Center for Biological Diversity v. County of San Bernardino* held that in the absence of express direction from the state, any analysis of a particular project's impact on climate change as a global phenomenon would also be too speculative.

Separately, the 2011 2<sup>nd</sup> RDEIR considers potential additional greenhouse gas emissions due to the project, but because the application to address changes in water rights under State Water Board Order WR 89-18 will not lead directly to any activities that would emit greenhouse gases, there is no requirement for a more detailed discussion of greenhouse gases in the EIR.

**Response 9-34:**

The comment suggests **Section 4.12, Climate Change** in the 2011 2<sup>nd</sup> RDEIR does not evaluate how the proposed actions can or will maintain and recover steelhead in light of anticipated climate change effects. The comment continues that no analyses were conducted to determine whether the proposed mainstem releases will provide sufficient spawning success in tributary watersheds.

While there is no specific impact assessment of climate change on resident *O. mykiss*, 2011 2<sup>nd</sup> RDEIR **Section 4.12.3.2, Impact Assessment** addresses in general the potential effects on Biodiversity and Habitat<sup>27</sup>. Individual species and habitats will have very different responses to climate change. The SWRCB concurs with NMFS **Comment 8-10** that the biological response will be complex and uncertain. CEQA does not require a lead agency to engage in speculation as to potential future environmental impacts. (See *State CEQA Guidelines*, Section 15145.)

The influence of global climate change on future environmental condition of Cachuma Lake cannot be predicted with any accuracy. The U.S. Fish and Wildlife Service has indicated that an abundance and

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<sup>27</sup> Association of Fish and Wildlife Agencies, Voluntary Guidance for States to Incorporate Climate Change into Wildlife Action Plans & Other Management Plans, September 2009. Page 7.

distribution of fish and wildlife will also change.<sup>28</sup> However, it can be difficult to estimate with precision which species will be affected by environmental change, and exactly how they will be affected. Provision of specific efforts to protect the public trust resource would be speculative at this time, and CEQA does not require a lead agency to engage in speculation as to potential future environmental impacts

The 2011 2<sup>nd</sup> RDEIR provides information on the potential effects of climate change to the extent such effects are not speculative, as required by CEQA. (See *CEQA Guidelines* Section 15145.) The analysis of the Project's impact on global climate change is considered too speculative. Under CEQA, the lead agency must only evaluate the significance of direct physical environmental effects and the "reasonably foreseeable" indirect physical changes caused by a project. Speculative changes are not reasonably foreseeable and therefore need not be analyzed. In addition, when a lead agency finds, after "thorough investigation," that the evaluation of an impact is too speculative, the agency is not responsible for further analysis of it. On this basis, the trial courts in *Center for Biological Diversity v. City of Perris* and *Santa Clarita Oak Conservancy v. City of Santa Clarita* upheld the cities' determinations that climate change analysis was too speculative in those cases and therefore not required by CEQA. Further, the superior court in *Center for Biological Diversity v. County of San Bernardino* held that in the absence of express direction from the state, any analysis of a particular project's impact on climate change as a global phenomenon would also be too speculative.

**Response 9-35:**

The comment suggests that the effect of climate change cannot be deferred; doing so ignores CEQA's mandate to analyze potential hazards as such hazards currently exist or may occur in the future.

See responses to **Comments 9-33** and **9-34**.

**Response 9-36:**

The comment suggests that the SWRCB is attempting to circumvent its obligation under CEQA to present mitigation measures for the Project resulting from climate change that are known, specific, feasible, effective and enforceable,

Please see response to **Comment 9-34** above. Provision of specific efforts to protect the public trust resource from the unknown specific effects of climate change would be speculative at this time.

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<sup>28</sup> US Fish and Wildlife Service, Climate Change in the Pacific Region, <http://www.fws.gov/pacific/Climatechange/challenges.html>.

**Response 9-37:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR must analyze the effects of climate change on steelhead and other public resources. Further, the comment suggests this is significant new information that will require recirculation of the RDEIR.

See response to **Comments 9-33** and **9-34**.

**Response 9-38:**

The comment suggests that the statement in the 2011 2<sup>nd</sup> RDEIR, that all of the alternatives would result in beneficial impacts to steelhead movement, is incorrect because none of the alternatives have been properly evaluated in light of climate change impacts, impacts from Order WR 89-18 releases, or lagoon life history phases for steelhead, and because Alternative 4B will cause a steelhead imprinting/migration impact that has not been mitigated.

The comment opines that the 2011 2<sup>nd</sup> RDEIR Alternatives analysis is incorrect because there was no comparison of the alternatives in regard to climate change. Because climate change is a gradual process which may cause multiple undermined effects, it is not possible to speculate on the specific efforts that Reclamation or the SWRCB would implement in an effort to meet the project objectives of protecting both the public trust resources and the senior water rights holders from changes in water quality and quantity.

The SWRCB is of the opinion that the project alternatives would have benefits to steelhead movement, migration and their habitat because the alternatives all consider the operation of the Cachuma Project in compliance with the Biological Opinion specifically designed for the protection of the public trust resource.

While it is the opinion of the commenter Order WR 89-18 releases have an impact on the public trust resource, this has been addressed in the Settlement Agreement that requires water rights releases to be scheduled in accordance with existing provisions of Order WR 89-18 (Condition 5) to assure that such releases are similar to the historical practices, such that these releases operate conjunctively with the fish water releases required to meet target flows described in the NMFS Biological Opinion. In addition, SWP deliveries of low-total dissolved solids water will be maximized during periods of Order WR 89-18 water rights releases, consistent with limitations in the NMFS Biological Opinion. The SWRCB is not of the opinion that Order WR 89-18 water releases will have an impact on the 2011 2<sup>nd</sup> RDEIR alternatives.

The Santa Ynez River lagoon is not designated as critical habitat for either *O. mykiss* or the tidewater goby. However, lagoons are considered important habitat elements for *O. mykiss* and potentially provide critical rearing habitat for juveniles and smolts. Lagoon anadromous *O. mykiss* consist primarily of juveniles who over summer in the estuary of their natal creek, growing quickly and emigrating to the

ocean at a larger size than those fish that rear in freshwater habitats. Alternatives 3B, 3C, 4B, 5B, and 5C are anticipated to have a slight beneficial effect on lagoon residents due to increases in flow to the lagoon during emergency winter operations and passage releases.

There is some concern about the use of SWP water, as contemplated under Alternative 4B. SWP water cannot be delivered to the lake when water is being released from the dam. However, SWP water can be mixed with water being released from the dam and simultaneously discharged to the river due to configuration of the outlet works; though no release occurs April through June if flow is continuous in the river. SWP water may be commingled with Cachuma water, but must not exceed 50 percent of the total rate of releases to the river at any time. With these provisions, no significant impacts were associated with Alternative 4B, other than those associated with temporary habitat removal and localized impacts to fish during construction of the four proposed outlets near Lompoc. No improper imprinting of steelhead smolt is expected as a consequence of this Alternative as SWP water releases are curtailed during releases for steelhead passage.

**Response 9-39:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR includes only a cursory review of the potential increased impacts resulting from climate change, and fails to review any of the alternatives for potentially significant increased impacts that may occur due to the effects of climate change.

See response to **Comments 9-33, 9-34 and 9-38.**

**Response 9-40:**

The comment suggests that water rights releases under Order WR 89-18 result in significant, adverse impacts to steelhead and that the 2011 2<sup>nd</sup> RDEIR alternatives all maintain those releases, which have never been evaluated for impacts to public trust resources.

Water releases under the Biological Opinion were fully evaluated in the Final EIS/EIR for the "Lower Santa Ynez River Fish Management Plan (Plan) and the 2000 Biological Opinion for Southern Steelhead Trout." The actions evaluated include various flow and non-flow measures to be implemented by Reclamation and the Cachuma Project Member Units to protect and enhance habitat for the endangered southern steelhead trout along the Santa Ynez River downstream of Bradbury Dam. Reclamation issued a Record of Decision on November 18, 2004.

While it is the opinion of the commenter the Order WR 89-18 releases have an impact on the public trust resource, this has been addressed in the Settlement Agreement that requires water rights releases to be scheduled in accordance with existing provisions of Order WR 89-18 (Condition 5) to assure that such releases are similar to the historical practices, such that these releases operate conjunctively with the fish

water releases required to meet target flows described in the NMFS Biological Opinion. In addition, SWP deliveries of low-total dissolved solids water will be maximized during periods of Order WR 89-18 water rights releases, consistent with limitations in the NMFS Biological Opinion. The SWRCB is not of the opinion that Order WR 89-18 water releases will have an impact on the 2011 2nd RDEIR Alternatives.

As the Biological Opinion is a non-discretionary requirement for the operation of Bradbury Dam and the Cachuma Project, the 2011 2<sup>nd</sup> RDEIR includes water releases as stipulated therein to be part of the alternatives considered, specifically Alternatives 2, 3B and 3C. Alternatives 5B and 5C provide for modified operations as described in Alternative 3A2 the 1995 Cachuma Project Contract Renewal EIR/EIS prepared by Reclamation and as described in the responses to comments on the 2003 DEIR.

**Response 9-41:**

The comment suggests that none of the 2011 2<sup>nd</sup> RDEIR alternatives properly consider the lagoon life history phases for steelhead, which are important for smolt rearing. The comment provides information on restoration actions for the Santa Ynez River Estuary and claims this is new information relevant to the environmental setting. The comment concludes that the new information requires the 2011 2<sup>nd</sup> RDEIR to be recirculated.

The analysis of impacts on the lagoon is included in **Section 4.7.2.6, Impacts on Resident Fish along the River** of the 2011 2<sup>nd</sup> RDEIR. Alternatives 3B, 3C, 4B, 5B, and 5C are anticipated to have a slight beneficial effect on lagoon residents due to increases in flow to the lagoon during emergency winter operations and passage releases, which would likely slightly increase dissolved oxygen levels and reduce the salinity in the upper portion of the lagoon. The increase in flow under Alternatives 3B, 3C, 4B, 5B, and 5C, relative to Alternative 2, may have a beneficial effect on steelhead and other marine species that enter the lagoon to spawn (such as Pacific herring). A re-evaluation is not warranted.

**Response 9-42:**

The comment suggests that steelhead could become imprinted on SWP water if SWP water is released when smolts are present, resulting in disorientation during migration. The comment claims that the impact from release of SWP water under Alternative 4B is potentially significant and has not been mitigated.

The SWRCB concurs that the Reclamation must avoid mixing SWP water in the Santa Ynez River downstream of Bradbury Dam when steelhead smolts could be subject to imprint and become disoriented during subsequent migrations; hence, SWP deliveries are curtailed during releases for steelhead passage. Because there is no SWP release during times when smolts are present, the potential improper imprinting by smolt would be avoided and no impact on the species would occur.

**Response 9-43:**

The comment suggests that the impacts from the construction of a pipeline and outlets to deliver SWP water to Lompoc has not been evaluated. The comment claims that although the 2011 2<sup>nd</sup> RDEIR states that mitigation would replace riparian vegetation, the lack of performance standards for such mitigation is a deferral of analysis. The comment concludes that the construction of such pipeline is a significant impact because the proposed mitigation is legally inadequate, and therefore, Alternative 4B cannot be considered the environmentally superior alternative.

This comment is correct that Alternative 4B includes the construction of a pipeline for delivery of SWP water. A 20-inch diameter pipeline would be connected to the CCWA pipeline at an existing blowoff valve along McLaughlin Road near its terminus at the Santa Ynez River (**Figure 3-1**). The pipeline would be buried in or within existing agricultural roads. It would convey up to 20 cfs and 3,500 af over a four-month period in the summer and fall when BNA releases traditionally occur. As the new pipeline would be placed within the existing agricultural roads, impacts to riparian resources are limited.

The 2011 2<sup>nd</sup> RDEIR **Section 4.8.2.4** analyzes the impacts to riparian vegetation under Alternative 4B. The analysis states that the placement of the proposed outlets will avoid direct impacts to mature riparian woodlands and the temporary impacts to riparian scrub will be mitigated by restoring the impacted habitat through implementation of Mitigation RP-2 at a ratio of 2:1. The performance standards for success of this mitigation are a requirement of the CDFG streambed alteration agreement, which typically requires that restoration success be achieved within five years. Because this impact can be mitigated to less than significant by the stated mitigation measure, Alternative 4B would not result in a significant impact as the comment claims.

**Response 9-44:**

The comment suggests Alternative 4B is incorrectly identified in the 2011 2<sup>nd</sup> RDEIR as the environmental superior alternative.

The 2011 2<sup>nd</sup> RDEIR (see **Section 6.3**) identifies Alternative 3C and Alternative 4B as the environmentally superior alternatives as they have the fewest significant impacts. These alternatives would not result in any significant and unavoidable impacts (Class I) to water supply but would result in temporary significant and unavoidable (Class I) impacts to oak trees. The 2011 2<sup>nd</sup> RDEIR also notes that although Alternative 4B would have slightly more beneficial impacts, it would require the import of SWP water, which would require an agreement between the City and DWR, would have impacts related to steelhead, and would require construction of a pipeline and outlet works to discharge SWP water into the Santa Ynez River.

The 2011 2<sup>nd</sup> RDEIR states that Alternatives 3B, 5B, and 5C would result in significant and unavoidable (Class I) impacts to water supply that could not be mitigated as well as significant impacts (Class I and Class II) to oak trees and, therefore, would not be the environmentally superior alternative.

As Alternative 3C is the No Project Alternative, Alternative 4B would be the environmentally superior alternative as the *CEQA Guidelines*<sup>29</sup> require that another alternative other than the No Project Alternative be identified among the other alternatives if the No Project Alternative is environmentally superior. However, Alternative 4B would require additional measures beyond those that can be considered at this time and may have additional potentially significant (either Class I or II) impacts related to the construction of a pipeline and outlet works, and to steelhead smolts imprinting on SWP water. Therefore, although identified as the environmentally superior alternative, Alternative 4B is not considered a feasible alternative and should be considered.

**Response 9-45:**

The comment states that the 2011 2<sup>nd</sup> RDEIR finding that Alternatives 3C and 4B meet the project objective of protecting public trust resources is not accurate because the objective does not address the public trust resources above and below Bradbury Dam.

The SWRCB does not concur with this comment. The 2011 2<sup>nd</sup> RDEIR project is the potential modifications to Reclamation's water rights Permits 11308 and 11310, to provide appropriate protection of water rights and public trust resources on the Santa Ynez River downstream of Bradbury Dam. The Cachuma Project is responsible for the public trust resources below the Bradbury Dam. The public trust resources above the dam have not been included in the Project objectives as there are no project activities that currently affect those resources. Please also see **Response 8-8** above.

**Response 9-46:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR cannot find that any of the alternatives would result in beneficial impacts to steelhead movement, migration and habitat. The comment concludes that Alternatives 3C and 4B would not meet the public trust resources objective.

The SWRCB does not concur with this comment. Protection of the public trust resource is one of the project objectives and this objective is realized through the implementation of the requirements of the 2000 Biological Opinion, which NMFS developed specifically for the protection of the Southern California steelhead in the Santa Ynez River. The SWRCB acknowledges that re-consultation between NMFS and Reclamation has been initiated.

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<sup>29</sup> California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6(e)(2).

**Response 9-47:**

The comment suggests that Alternatives 3 and 4 merely implement the 2000 Biological Opinion and that, despite a minimum of 11 years of implementation, there has been not concomitant improvement to the steelhead population in the Santa Ynez River during this time. The comment concludes that Alternatives 3 and 4 would maintain the current highly depressed steelhead population, but are inadequate to protect public trust resources.

The SWRCB does not concur with this assessment. The requirements of the 2000 Biological Opinion were developed by NMFS specifically for the protection of the Southern California steelhead in the Santa Ynez River. The SWRCB acknowledges that the results of this implementation have not been appreciable improvement the steelhead population as anticipated. However, the populations have not shown a dramatic decline in numbers. As a consequence of not reaching the desired goals, NMFS and the Reclamation have initiated re-consultation on this public trust resource. SWRCB may consider amending Reclamation's permits requiring compliance with any new or revised Biological Opinion, but Reclamation's responsibilities with regard to the terms contained in any Biological Opinion are not dependent upon those terms being incorporated into Reclamation's permits.

**Response 9-48:**

The comment suggests that NMFS and Reclamation have reinitiated the Endangered Species Act Section 7 consultation based on a conclusion that the 2000 Biological Opinion is inadequate to protect the public trust resources. The comment continues that SWRCB should not continue with the EIR until completion of the reinitiated consultation.

The SWRCB concurs that with the statement that NMFS and Reclamation have reinitiated the Endangered Species Act Section 7 consultation. SWRCB does not, however, agree that the EIR should be discontinued until the reinitiated consultation is completed. CEQA does not require an exhaustive study of a particular subject in order for an EIR to be informative to the decision making body, and SWRCB action pursuant to this process will not preclude or affect Reclamation's future compliance with any such new Biological Opinion.

**Response 9-49:**

The comment suggests that under CEQA, the SWRCB cannot adopt an alternative if another feasible alternative exists that fulfills most of the basic project objectives and avoids or substantially lessens a significant impact. EDC suggests CalTrout's Alternative 3A2 Modified for Dry Years is more capable of fulfilling public trust objectives and suggests this alternative must be evaluated in the RDEIR. Finally, the comment suggests the water supply and demand projections should be reanalyzed.

As noted previously in response to the 2011 2<sup>nd</sup> RDEIR **Comment 9-44**, the 2011 2<sup>nd</sup> RDEIR (see **Section 6.3**) identifies Alternative 3C and Alternative 4B as the environmentally superior alternatives as they have the fewest significant impacts. These alternatives would not result in any significant and unavoidable impacts (Class I) to water supply but would result in temporary significant and unavoidable (Class I) impacts to oak trees. The 2011 2<sup>nd</sup> RDEIR also notes that although Alternative 4B would have slightly more beneficial impacts, it would require the import of SWP water, which would require an agreement between the City and DWR, and have impacts related to steelhead, and the construction of a pipeline and outlet works to discharge SWP water into the Santa Ynez River.

In comments on the 2003 DEIR, California Trout (CalTrout) argued that the 2003 DEIR should be revised to include consideration of a different project alternative designed to protect fishery resources in the Santa Ynez River. The proposed alternative was described as Alternative 3A2 in a 1995 Environmental Impact Report/Environmental Impact Statement (EIR/EIS) prepared by Reclamation and the Cachuma Project water supply contractors in connection with the renewal of the water supply contract for the Cachuma Project. In response to CalTrout's comments, the SWRCB developed two new alternatives, Alternatives 5B and 5C, which are modified versions of Alternative 3A2. The SWRCB revised the 2003 DEIR as the 2007 Revised Draft EIR (2007 RDEIR) to analyze those alternatives. Therefore, Alternatives 5B and 5C are comparable to the recommended Alternative 3A2.

The 2011 2<sup>nd</sup> RDEIR states that Alternatives 3B, 5B, and 5C would result in significant and unavoidable (Class I) impacts to water supply that could not be mitigated as well as significant impacts (Class I and Class II) to oak trees and, therefore, would not be the environmentally superior alternative.

All water supply and demand information was updated based on comments on the 2003 DEIR and 2007 RDEIR, including by the Pacific Institute. The analysis reflects the independent review of water supply and demand, and conservation measures that can be feasibly implemented.

As Alternative 3C is the No Project Alternative, Alternative 4B would be the environmentally superior alternative as the *CEQA Guidelines*<sup>30</sup> require that another alternative other than the No Project Alternative be identified among the other alternatives if the No Project Alternative is environmentally superior. However, Alternative 4B would require additional measures beyond those that can be considered at this time and may have additional potentially significant (either Class I or II) impacts related to the construction of a pipeline and outlet works, and to steelhead smolts imprinting on SWP water. Therefore, although identified as the environmentally superior alternative, Alternative 4B is not considered a feasible alternative and should be considered.

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<sup>30</sup> California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6(e)(2).

**Response 9-50:**

The comment recommends additional studies to augment Alternative 3A2.

The alternatives identified in the 2011 2<sup>nd</sup> RDEIR (as well as the 2003 DEIR and 2007 RDEIR) reflect input from a variety of stake holders in the extremely long hearing process for the consideration of modification of Reclamation's water right Permits 11308 and 11310. As stated in the *CEQA Guidelines* (see Section 15126.6), an 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. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The lead agency (in this case the SWRCB) is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. The SWRCB considered a number of reasonable alternatives to the proposed regulation in the 2011 2<sup>nd</sup> RDEIR. The Board is not required to "consider in detail each and every conceivable variation of the alternatives stated." (*Residents Ad Hoc Stadium Com. v. Board of Trustees* (1979) 89 Cal.App.3d 274, 287-288.)

The alternatives included in the 2011 2<sup>nd</sup> RDEIR are:

- 2 Baseline Condition Operations under Orders WR 89-18 and WR 94-5 and the Biological Opinion interim flow requirements.
- 3B. Operations under the Biological Opinion assuming Reclamation achieves a 3.0-foot surcharge, except that releases for fish rearing and passage would be provided with a 1.8-foot surcharge.
- 3C. Existing operations under the Biological Opinion and Settlement Agreement assuming Reclamation achieves a 3.0-foot surcharge.
- 4B. Operations under the Biological Opinion assuming Reclamation achieves a 3.0-foot surcharge and the discharge of SWP water to the river near Lompoc in exchange for water available for groundwater recharge in the Below Narrows Account established by Order WR 73-37, as amended by Order WR 89-18.
- 5B. Operations under the proposed CalTrout Alternative 3A2 during wet and above-normal water year types, with operations under the Biological Opinion during below-normal, dry and critical water year types, assuming Reclamation achieves a 3.0-foot surcharge, except that releases for fish rearing and passage will be provided with a 1.8-foot surcharge.
- 5C. Operations under the proposed CalTrout Alternative 3A2 during wet and above-normal water year types, with operations under the Biological Opinion during below-normal, dry and critical water year types, assuming Reclamation achieves a 3.0-foot surcharge.

The alternatives meet the requirements of CEQA and are adequate to foster informed decision making and public participation.

**Response 9-51:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR must include analysis not only below, but above Bradbury Dam, and should include an alternative evaluating a fish passage around Bradbury Dam.

The 2011 2<sup>nd</sup> RDEIR addresses the Project's potential impacts below Bradbury Dam to water rights, and impacts to public trust resources. As previously noted, the operation of Bradbury Dam is dictated by the Biological Opinion, and the 2011 2<sup>nd</sup> RDEIR includes alternatives that reflect the Biological Opinion (Alternatives 2, 3B and 3C) as well as alternatives that provide for modified operations (Alternative 5B and 5C).

See also Response to 2011 2<sup>nd</sup> RDEIR **Comment 8-8**.

**Response 9-52:**

The comment suggests that 2011 2<sup>nd</sup> RDEIR fails to consider other projects such as the City of Solvang's Water System Master Plan Update and the Alisal Ranch project near Solvang.

The 2011 2<sup>nd</sup> RDEIR addresses cumulative impacts including those to downstream water rights users in **Section 8.0**. Both the City of Solvang's existing permit (Permit 15878) and Alisal Ranch's Statements of Division (Palmer Gavit Jackson Trust) are noted in the 2011 2<sup>nd</sup> RDEIR (see **Section 3.1.2**).

The City of Solvang's (City) existing permit 15878 provides for up to 5 cfs (3,620 afy) to be diverted via underflow from the Santa Ynez River. The City is considering an increase from its existing use of 1,053 afy to 1,980 afy and is currently completing environmental documentation on that request.

The Palmer Gavit Jackson Trust claims a right to divert 1,020 afy for irrigation use on riparian land. The water is diverted from five (5) wells located in the Solvang and/or Santa Ynez Subareas of the Santa Ynez River Alluvial Basin. The Trust has filed another Statement of Diversion (April 14, 2011) for the five (5) wells for the years 2000 through 2010.

**Response 9-53:**

The comment suggests that the City of Solvang's proposed Water System Master Plan includes installation of additional wells and increased pumping that could necessitate increased releases from Bradbury Dam to meet established target flows.

The 2011 2<sup>nd</sup> RDEIR addresses cumulative impacts including those to downstream water rights users in **Section 8.0**. Both the City of Solvang's existing permit (15878) and Alisal Ranch's Statements of Division (Palmer Gavit Jackson Trust) are noted in the 2011 2<sup>nd</sup> RDEIR (see **Section 3.1.2**).

The City of Solvang's request to modify their existing water rights permit would actually decrease from 5 cfs (3,620 afy) to 2.73 cfs (1,980 afy) the amount of water that could be diverted. Although the City has historically diverted 1.45 cfs (1,053 afy), the 2011 2<sup>nd</sup> RDEIR considered full allocation and diversion (5 cfs) as that is the maximum amount of the City's right to divert per Permit 15878. As such, a reduction in the overall authorized diversion rate by the City would result in potentially fewer impacts.

**Response 9-54:**

The comment suggests that future diversions from Alisal Ranch and the construction of a new irrigation reservoir may lead to diminished surface water flows in the Santa Ynez River that could potentially result in adverse effects to steelhead or habitat.

The 2011 2<sup>nd</sup> RDEIR addresses cumulative impacts including those to downstream water rights users in **Section 8.0**. Both the City of Solvang's existing permit (Permit 15878) and Alisal Ranch's Statements of Division (Palmer Gavit Jackson Trust) are noted in the 2011 2<sup>nd</sup> RDEIR (see **Section 3.1.2**).

The operation of Bradbury Dam is governed by the current and any future Biological Opinion, which regulates downstream flows. Alisal Ranch (the Palmer Gavitt Jackson Trust) claims a right to divert 1,020 afy for irrigation use on riparian land. The water is diverted from five (5) wells located in the Solvang and/or Santa Ynez Subareas of the Santa Ynez River Alluvial Basin. The Trust has filed a Statement of Diversion (April 14, 2011) for the five (5) wells for the years 2000 through 2010. As with other downstream water rights holder, this information has been considered in the Santa Ynez River Model and is articulated in the various Technical Memoranda (see Appendix E to the 2011 2<sup>nd</sup> RDEIR).

**Response 9-55:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR must consider the City of Solvang and Alisal Ranch projects as part of the cumulative analysis.

The 2011 2<sup>nd</sup> RDEIR identifies in **Section 7.0** cumulative impacts to downstream users including existing water pumpers and diverters, and natural resources.

**Response 9-56:**

The comment suggests that based on the comments submitted, the 2011 2<sup>nd</sup> RDEIR is inadequate under CEQA.

The SWRCB has reviewed the comments submitted and provided responses. Changes have been made where appropriate. The comment is noted.

**Jane Farwell - Coments on 2nd Revised Draft Santa Ynez River EIR from the Central Coast Water Authority**

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**From:** William Brennan <WJB@ccwa.com>  
**To:** <JFarwell@waterboards.ca.gov>  
**Date:** 5/27/2011 3:55 PM  
**Subject:** Coments on 2nd Revised Draft Santa Ynez River EIR from the Central Coast Water Authority  
**Attachments:** DOC052711.pdf

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Dear Ms. Farwell:

I have attached a copy of the Central Coast Water Authority comments on the Second Revised Draft Environmental Impact Report prepared in connection with consideration of modifications to the United States Bureau of Reclamation's Water Rights Permits 11308 and 11210 (Applications 11331 and 11332) to protect public trust values and downstream water rights on the Santa Ynez river below Bradbury Dam (Cachuma reservoir), dated April 2011 (SCH#1999051051). A signed original follows in the mail.

1

Sincerely,

*Bill Brennan*  
Executive Director  
Central Coast Water Authority  
work(805) 688-2292 extension 215  
fax (805) 686-4700  
cell (805) 448-5050  
wjb@ccwa.com



May 27, 2011

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

Re: Second Revised Draft Environmental Impact Report Prepared in Connection with Consideration of Modifications to United States Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir), dated April 2011 (SCH#1999051051)

L. J. Lavagnino  
Chairman

Richard Shaikewitz  
Vice Chairman

William J. Brennan  
Executive Director

Brownstein Hyatt  
Farber Schreck  
General Counsel

*Member Agencies*

City of Buellton

Carpinteria Valley  
Water District

City of Guadalupe

City of Santa Barbara

City of Santa Maria

Goleta Water District

Montecito Water District

Santa Ynez River Water  
Conservation District,  
Improvement District #1

*Associate Member*

La Cumbre Mutual  
Water Company

Dear Ms. Farwell:

The Central Coast Water Authority (CCWA) is a joint powers agency that contracts with the State of California, through the Department of Water Resources (DWR), for water supplies from the State Water Project (SWP). Our mission is to treat and deliver potable SWP water to 27 project participants (mostly retail water districts and municipal water systems) in Santa Barbara and San Luis Obispo Counties. As such, we have a contractual relationship to provide SWP water to the Carpinteria Valley Water District, the Montecito Water District, the City of Santa Barbara, the Goleta Water District and the Santa Ynez River Water Conservation District, Improvement District number one (ID#1), commonly referred to as the Cachuma Member Units, which hold the entitlement to the Cachuma Project water.

We do not, however, have any contracts, agreements, objectives or responsibilities to deliver SWP water to the Santa Ynez River other than to state that we have, when feasible, attempted to coordinate SWP water deliveries with WR 89-19 releases from Lake Cachuma. CCWA considers this arrangement an accommodation to the Cachuma Member Units and will only make the deliveries if one or more its project participants make a request to deliver water in an alternate manner and/or location that does not otherwise affect our contractual responsibilities. Any such arrangement cannot have any cost or service impacts to the remainder of our project participants throughout both counties.

There are a number of jurisdictional and operational issues that the Second Revised Draft Environmental Impact Report should take into account, as well as some technical and factual inaccuracies that should be corrected before the report is finalized. [It is also important to note that CCWA cannot accept responsibilities that are outside its mission and contractual authority, that benefit non-project participants, or that cause financial and contractual impacts to CCWA's project participants.

Those issues aside, CCWA has concerns with the EIR's conclusion that Alternative 4B is the environmentally superior alternative for the reasons stated in this letter. Our hydraulic analysis of Alternative 4B (incorporating a 20 inch pipeline connection to the CCWA pipeline in the vicinity of Rucker Road) shows that such a connection reduces the CCWA pipeline water pressure to a degree that CCWA would be unable to meet its downstream contractual delivery requirements.

To evaluate Option 4B, CCWA staff reviewed the engineering and as-built records of the CCWA pipeline, the various CCWA participant water supply contracts and conducted a hydraulic analysis of the pipeline near the proposed turnout.

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255 Industrial Way  
Buellton, CA 93427-9565  
(805) 688-2292  
FAX: (805) 686-4700



The section of the CCWA pipeline associated with the proposed new turnout in Alternative 4B is between two storage tanks that vent to atmosphere, is approximately 127,538 feet long and has a diameter of 39 inches, until just upstream of the proposed turnout where the diameter reduces to 36 inches. This section of the CCWA pipeline also includes the Vandenberg Air Force Base turnout. All water delivered through this section is via gravity flow.

The CCWA Participant Water Supply Contracts require CCWA to provide up to 28 cfs of water supply to participants located downstream of the affected area during the proposed four month window of operation outlined in Alternative 4B.

The CCWA analysis focused on the section of the CCWA pipeline between the two tanks. CCWA staff reviewed the Flow Capacity Study prepared by Penfield Smith in 2005, which utilized the Hazen Williams Equation as the basis for estimating flow capacity for the CCWA pipeline. Operating data was used by Penfield Smith to calibrate the Hazen Williams Flow Coefficients to produce acceptable modeling results. The CCWA hydraulic analysis utilized the calibrated flow model results and hydraulic grade line analysis, and confirms that CCWA can deliver up to 28 cfs of water supply downstream of Tank 7 as required in the Participant Water Supply Contracts. However, if the proposed Lompoc turnout and pipeline were added and operated as suggested, CCWA would no longer be able to deliver SWP water at the rates required by contract. Essentially, there is no additional capacity in the CCWA pipeline as constructed, above its current level of operation.

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CCWA also notes that Alternative 4B should include a more comprehensive description of the necessary facilities for the proposed turnout and pipeline and a meaningful environmental analysis for the construction and operation of a turnout and dechloramination facility; the likely need for a new separately sited pumping facility; new transient pressure analysis of the pipeline and the probable need to upgrade several sections of pipeline to a different pressure class; delivery and storage of hazardous chemicals; placement of discharge dissipation and spreading facilities in the Santa Ynez River with associated mitigation for endangered species; and the recognition that a separate EIR would be necessary for such an effort.

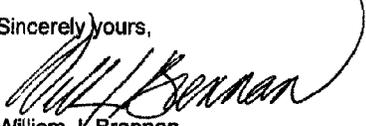
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Additionally, we found some factual inconsistencies, misunderstandings and possible misapplication of some data. We believe that these items are addressed in the comments of others so we will not reiterate them here.

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Thank you for the opportunity to respond to the Second Revised Draft Environmental Impact Report. If you or your staff have questions regarding our comments, you may contact me at (805) 688-2292 extension 215 or [wjb@ccwa.com](mailto:wjb@ccwa.com).

Sincerely yours,

  
William J. Brennan  
Executive Director

WJB/lfw

**10. Letter No. 10: Central Coast Water Authority (CCWA) dated May 27, 2011**

**Response 10-1:**

The comment notes that the comments from the Central Coast Water Authority (CCWA) have been submitted.

The comment is noted.

**Response 10-2:**

The comment describes the CCWA and its mission.

The comment is noted.

**Response 10-3:**

The comment notes that the CCWA does not have any contracts, agreements, objectives or responsibilities to deliver SWP water to the Santa Ynez River; however, CCWA has attempted to coordinate SWP water deliveries with Order WR 89-18 releases from Cachuma Lake. CCWA will only make deliveries if one of the project participants makes a request for water delivery that does not interfere with CCWA's other contractual responsibilities.

The comment is noted.

**Response 10-4:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR should take into consideration several jurisdictional and operational issues as well as correct some technical and factual inaccuracies before the EIR is finalized.

The comment is noted.

**Response 10-5:**

The comment notes that the CCWA cannot accept responsibilities that are outside of its mission and contractual authority.

The comment is noted.

**Response 10-6:**

The comment expresses concern with the identification of Alternative 4B as the environmentally superior alternative, and states that a new pipeline would reduce water pressure such that CCWA would be unable to meet its downstream contractual delivery requirements.

The information provided has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 10-7:**

The comment notes that the CCWA has reviewed the engineering and as built records of the existing pipeline, the various CCWA participant water supply contracts, and conducted a hydraulic analysis of the pipeline near the location where a turnout for a new pipeline would be located.

The comment is noted.

**Response 10-8:**

The comment notes that CCWA participant contracts require it to provide up to 28 cfs of water supply to downstream participants located downstream of the dam during certain operation periods outlined in Alternative 4B. Based on the analysis conducted by CCWA, there is no additional capacity in the existing pipeline above its current level of operation, and if a turnout and pipeline were added and operated as suggested in Alternative 4B, CCWA would not be able to deliver SWP water at the rates required. Additionally, the comment states a separate EIR will need to be prepared for the construction of a pipeline.

The comment is noted and the additional information has been included in the 2011 2<sup>nd</sup> RDEIR EIR.

SWRCB concurs that should the CCWA desire to deliver SWP water to other downstream participants in the future, it would need to address the environmental impacts associated with the construction and operation of facilities, including turnouts and pipelines, at that time. As deliveries of SWP water are not part of the alternatives considered under the Project, and given that there are no reasonably foreseeable plan to construct any such facilities, it is not appropriate or feasible for the impacts of such a project to be evaluated in this 2011 2<sup>nd</sup> RDEIR.

**Response 10-9:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR contains some inconsistencies and possible misapplication of some data; however, no specific information was provided as the commenter believes these items were addressed in comments of others.

The comment is noted.

**Jane Farwell - SYRWCD and SYRWCD, I.D. No. 1, Joint Comments on Cachuma 2nd RDEIR**

**From:** Erin Lindsey <elindsey@youngwooldridge.com>  
**To:** <JFarwell@waterboards.ca.gov>, <kobrien@downeybrand.com>, "Kuntz, Terri" <tkuntz@DowneyBrand.com>, <clc@bmj-law.com>, <gkwilkinson@bbklaw.com>, <sdunn@somachlaw.com>, <kkraus@edcnet.org>, <AMY.AUFDEMBERGE@sol.doi.gov>, <tmaus@co.santa-barbara.ca.us>, <Dan.Hytrek@noaa.gov>, <Nmurray@dfg.ca.gov>  
**Date:** 5/31/2011 1:49 PM  
**Subject:** SYRWCD and SYRWCD, I.D. No. 1, Joint Comments on Cachuma 2nd RDEIR  
**CC:** Ernest Conant <econant@youngwooldridge.com>, Steve Torigiani <storigiani@youngwooldridge.com>, <bwales@syrwcd.com>, <cdahlstrom@syrwd.org>, <krees@cachuma-board.org>, <Bradv@cityofsolvang.com>, <johnk@cityofbuellton.com>, <r\_stassi@ci.lompoc.ca.us>  
**Attachments:** SYRWCD & I.D. No. 1 Joint Comments on 2nd RDEIR.pdf

Ms. Farwell,

Attached are the joint comments of Santa Ynez River Water Conservation District and Santa Ynez River Water Conservation District, Improvement District No. 1, on the Second Revised Draft EIR, prepared in connection with consideration of modifications to U.S. Bureau of Reclamation's Water Right Permits to protect public trust values and downstream water rights on the Santa Ynez River below Cachuma Reservoir (SCH#1999051051).

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Thank you,

Erin Lindsey

Erin Lindsey, Legal Assistant  
 The Law Offices of Young Wooldridge, LLP  
 1800 30th Street, 4th Floor  
 Bakersfield, CA 93301  
 Tel.: (661) 327-9661 ext. 161  
 Fax: (661) 327-0720  
 Email: [elindsey@youngwooldridge.com](mailto:elindsey@youngwooldridge.com)

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**SANTA YNEZ RIVER WATER CONSERVATION DISTRICT**

**P.O. Box 719 – 3669 Sagunto Street, Suite 108  
Santa Ynez, California 93460**

**-AND-**

**SANTA YNEZ RIVER WATER CONSERVATION DISTRICT,  
IMPROVEMENT DISTRICT NO. 1**

**P.O. Box 157 – 3622 Sagunto Street  
Santa Ynez, California 93460**

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May 31, 2011

*VIA MAIL & EMAIL*  
(*JFarwell@waterboards.ca.gov*)

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

Re: Comments on the Second Revised Draft Environmental Impact Report Prepared in Connection with Consideration of Modifications to United States Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir), dated April 2011 (SCH#1999051051)

Dear Ms. Farwell:

**I. INTRODUCTION**

The Santa Ynez River Water Conservation District ("SYRWCD") and the Santa Ynez River Water Conservation District Improvement District No. 1 ("I.D. No. 1") appreciate the opportunity to comment on the above-referenced 2nd Revised Draft

Environmental Impact Report (“2<sup>nd</sup> RDEIR”) prepared by the State Water Resources Control Board (“State Water Board”).<sup>1</sup>

SYRWCD and I.D. No. 1 encompass most of the Santa Ynez River Watershed downstream of Lake Cachuma and Bradbury Dam. One of the primary functions of both districts is to protect the downstream rights of their landowners and residents in and to the use of Santa Ynez River water below Bradbury Dam, including groundwater supplies and water released from Lake Cachuma. SYRWCD is responsible for ordering water rights releases in accordance with your Order WR 73-37, as amended by Order WR 89-18, and does so in collaboration with the United States Bureau of Reclamation (“Reclamation”). I.D. No. 1, in addition to relying upon appropriate water rights issued by the State Water Board to serve water within its service area, also holds a contract for approximately 10.31 percent of the yield of the Cachuma Project. Since the 2<sup>nd</sup> RDEIR considers modifications to the Reclamation’s Cachuma water right permits and other related actions to protect public trust resources “and downstream water rights”<sup>2</sup> in the Santa Ynez River below Bradbury Dam, the 2<sup>nd</sup> RDEIR is of utmost importance to the SYRWCD and I.D. No. 1 and their constituents.

SYRWCD and I.D. No. 1 both commented on the 2003 DEIR and 2007 RDEIR previously issued by the State Water Board.<sup>3</sup> The State Water Board’s notice accompanying the release of the 2<sup>nd</sup> RDEIR states that the comments made on those prior DEIRs will be combined and responded to in the Final EIR (“FEIR”). The notice also requests that reviewers limit their comments to Sections 4.3 and 6.0 of the 2<sup>nd</sup> RDEIR. Accordingly, in general, SYRWCD and I.D. No. 1 do not repeat their prior comments in detail, except in so far as they may be germane to Sections 4.3 and 6.0. However, because the 2<sup>nd</sup> RDEIR contains new information in other sections and because of our concern that the 2<sup>nd</sup> RDEIR accurately and comprehensively consider the potential effects of a State Water Board water rights decision regarding Reclamation’s permits, SYRWCD and I.D. No. 1 have also included comments of a more technical nature in a technical appendix enclosed with this letter (“Technical Comments”).

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<sup>1</sup> On May 16, 2011, the State Water Board notified representatives of SYRWCD and I.D. No. 1 that their May 13, 2011 requests for extension of time to submit comments on the 2<sup>nd</sup> RDEIR were granted, and that their comments were due by 5 p.m. on May 31, 2011.

<sup>2</sup> Consistent with the Notice of Preparation (“NOP”) and 2<sup>nd</sup> RDEIR (2<sup>nd</sup> RDEIR, p. 1.0-2, 3.0-1), as used herein protection of “downstream water rights” includes maintenance of percolation of water from the Santa Ynez River stream channel as such percolation and subsurface storage would occur from unregulated flow (if the project not been constructed), in order that the operation of the Cachuma Project shall not reduce natural recharge and storage of groundwater from the Santa Ynez River below Bradbury Dam.

<sup>3</sup> Where appropriate, SYRWCD’s September 28, 2007 comments on the 2007 RDEIR (“2007 RDEIR Comments”) are referred to below.

## II. BACKGROUND

SYRWCD was formed in 1939 to protect the water rights and supplies of its landowners and residents. Its boundaries encompass most of the lands within the watershed downstream of Lake Cachuma. The water rights of SYRWCD's constituents are not before the State Water Board. However, the predecessor to the State Water Board<sup>4</sup> recognized from the very beginning, in Decision 886, that Cachuma Project operations can have adverse impacts on the downstream water rights of SYRWCD's constituents and that such rights must be protected. (See, e.g., D-886, pp. 29, 33; D-1486, p. 15, fn. 11.) Thus, SYRWCD has historically been involved in Cachuma Project proceedings before the State Water Board.

I.D. No. 1 was formed in 1959 and holds a contract with Reclamation, through the Santa Barbara County Water Agency for an annual supply of approximately 10.31 percent of the Cachuma Project's yield. In addition, I.D. No. 1 produces water from Santa Ynez River subflow and the Santa Ynez Upland groundwater basin. It also holds a contractual entitlement of 2,000 acre feet of water per year from the State Water Project ("SWP") of which ID No.1 is allocated 500 AF with the remaining balance contractually transferred to the City of Solvang. The City of Solvang is located within I.D. No. 1's service area and also produces water from Santa Ynez River underflow. I.D. No. 1 and the City of Solvang have also participated in all of the proceedings involved in the present RDEIR.

In WR 94-5, the State Water Board ordered Reclamation to submit reports or data compilations developed pursuant to a 1994 MOU<sup>5</sup> to address and resolve outstanding fish and fish habitat issues related to the portion of the Santa Ynez River below Bradbury Dam. (WR 94-5, Finding Nos. 10 & 11, Order No. 3(b).) At the same time, the Board also ordered Reclamation to submit information developed and conclusions reached during negotiations among Lompoc and the Cachuma Member Units relating to water quantity and quality issues raised with respect to the Lompoc Plain. (WR 94-5, Finding No. 15, Order No. 3(d).)

As directed by WR 94-5, the parties to the 1994 MOU conducted studies and worked together to develop and implement a Fish Management Plan ("FMP"). The FMP protects and provides habitat enhancements for steelhead in the Santa Ynez River below Bradbury Dam through a combination of measures including releases of water stored behind the Dam in Lake Cachuma. In 1997 during development of the FMP, the

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<sup>4</sup> For simplicity, hereinafter "State Water Board" will be used to refer to the State Water Resources Control Board and its predecessors.

<sup>5</sup> In addition to Reclamation and representatives for all the downstream water right interests, Lompoc, the Cachuma Member Units ("Member Units"), California Department of Fish and Game, and the United States Fish and Wildlife Service were parties to the 1994 MOU. (WR 94-5, Finding No. 11.)

National Marine and Fisheries Service (“NMFS”) listed the Southern California Evolutionary Significant Unit of steelhead as an endangered species under the federal ESA. The parties to the 1994 MOU worked with NMFS to develop a Biological Opinion (“BO”), issued September 11, 2000, that provided for steelhead protection consistent with the FMP. The FMP, which was first presented to the State Water Board in 1999 and finalized in 2000, provides for releases below the Bradbury Dam as described in Alternative 3C in the 2003 DEIR, the 2007 RDEIR, and the 2<sup>nd</sup> RDEIR.

The release regime provided for in the FMP and the BO also formed the basis for negotiations among downstream water right interests and the Cachuma Member Units relating to resolution of their outstanding water quantity and quality issues. The compromise reached by these various interests is set forth in the “Settlement Agreement between Cachuma Conservation Release Board, Santa Ynez River Water Conservation District, Santa Ynez River Water Conservation District Improvement District No. 1, and the City of Lompoc, relating to Operation of the Cachuma Project,” dated December 17, 2002 (“Settlement Agreement”). The Settlement Agreement is the first and only time, since proceedings commenced before the State Water Board, in which all parties -- Reclamation, the Cachuma Member Units and all downstream interests -- agreed on a mechanism for operation of the Cachuma Project that protects downstream water right interests and is consistent with the FMP’s and BO’s protections for steelhead and other public trust resources.<sup>6</sup>

The provisions of the Settlement Agreement were described in detail in the most recent hearing on the Cachuma Project (MU Exhibit 220; R.T. 202-218). The actual changes to Reclamation’s permits that are required to continue implementation of the Settlement Agreement were described by Ms. Struebing (R.T. 218-220; DOI Exhibit 10) and are particularly described as technical amendments to WR 89-18 in Exhibit “C” to the Settlement Agreement.<sup>7</sup> As described by Ms. Struebing, only minor modifications to WR 89-18 are requested from the State Water Board to provide for continued implementation of the Settlement Agreement. One modification involves resolution of the issue of when a lower percolation curve will be used in lieu of an upper percolation curve for calculation of Below Narrows Account (“BNA”) credits. In 1989, the State Water Board requested the parties to resolve the issue and return to the Board (see discussion of Ali Shahroody at MU Exhibit 220, p. 8-10; R.T. 208-211). The technical

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<sup>6</sup> The background leading up to the Settlement Agreement, its terms and conditions, and how those terms and conditions integrate into operation of the Cachuma Project are particularly described in detail in testimony of Charles Evans, William Mills and Ali Shahroody (MU Exhibits 219 and 220; R.T. 198-218) as well as in Section 3.1.1 of the Santa Barbara Countywide Integrated Regional Water Management Plan, dated May 2007. (The Plan is incorporated herein by this reference and available at <http://www.countyofsb.org/pwd/water/irwmp.htm>.) The testimony and exhibits referred to herein are from the record relating to Phase II of the 2003 Cachuma Hearing.

<sup>7</sup> As mentioned on page 10 of CCRB’s and I.D. No. 1’s comments on the 2007 RDEIR, the Settlement Agreement was previously evaluated under CEQA.

changes to WR 89-18 proposed by Reclamation resolve the issue and provide for credits based on the upper percolation curve for recharge on the Lompoc Plain in return for drought protection water for the Cachuma Member Units. The other requested changes to WR 89-18 proposed by Reclamation involve minor changes to observation and monitoring procedures necessary to update the water rights order to make it consistent with operational changes that were, in fact, implemented in 1989 (see discussion of Ali Shahroody at MU Exhibit 220, pp. 10-13; R.T. 211-212).

Consistent with the foregoing, SYRWCD and I.D. No. 1 support continued implementation of Alternative 3C including the minor modifications to WR 89-18 presented by Reclamation in the technical amendments in Exhibit "C" to the Settlement Agreement. We agree with the conclusion reached in the 2<sup>nd</sup> RDEIR that Alternative 3C is the environmentally superior alternative.

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### III. COMMENTS ON THE 2<sup>ND</sup> RDEIR

#### A. Project Description

SYRWCD and I.D. No. 1 previously commented that the 2007 RDEIR did not include a consistent project description. (2007 RDEIR Comments, p. 7.) The 2<sup>nd</sup> RDEIR appears to have addressed our main concerns, which were that the 2007 RDEIR did not identify a consistent project, that it did not sufficiently address Alternative 3C as the preferred alternative, and that it failed to include the technical amendments in Exhibit "C" of the Settlement Agreement in its description of Alternative 3C. (*Id.*) The 2<sup>nd</sup> RDEIR solves these issues. *Inter alia*, it describes the Settlement Agreement in detail and indicates that the agreement is part of Alternative 3C and, as such, is among the proposed project alternatives. (2<sup>nd</sup> RDEIR, pp. 3.0-9, 3.0-10 [Table 3-1], 3.1-14-16, 4.1-2.) More specifically, the 2<sup>nd</sup> RDEIR clarifies that Alternative 3C includes, among other key elements, "releases for downstream water rights pursuant to Order WR 89-18" as "modified by the Settlement Agreement." (*Id.*, p. 3.0-11 [Table 3-2].) In light of these clarifications and other statements in the 2<sup>nd</sup> RDEIR to the same effect, SYRWCD and I.D. No. 1 anticipate that if Alternative 3C is adopted in a final water rights decision, the State Water Board will also incorporate the technical amendments to WR 89-18 provided in Exhibit "C" to the Settlement Agreement and advanced by Reclamation in its testimony to the State Water Board.

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#### B. Project Objectives

SYRWCD and I.D. No. 1 previously commented that the 2007 RDEIR did not include a clear statement of objectives, or clearly acknowledge that providing for continued protection of downstream water rights should be included as at least one of the project objectives. (2007 RDEIR Comments, p. 9.) The 2<sup>nd</sup> RDEIR has included protection of senior water right holders' water quantity and quality in the project objectives. (2<sup>nd</sup> RDEIR, p. 3.0-2.) Moreover, as acknowledged in the NOP and elsewhere in the 2<sup>nd</sup> RDEIR, protection of prior rights includes:

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“... 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.” (2<sup>nd</sup> RDEIR, pp. 1.0-2, 3.0-1.)

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Thus, in general, the 2<sup>nd</sup> RDEIR appears to have addressed SYRWCD’s and I.D. No. 1’s concerns relating to the project objectives.

**C. No-Project Alternative**

SYRWCD and I.D. No. 1 previously commented that the 2007 RDEIR did not consistently describe a single no project alternative. (2007 RDEIR Comments, p. 10.) In contrast, the 2<sup>nd</sup> RDEIR indicates that Alternative 3C is the only no project alternative. However, Alternative 2 is still referred to as no project at least once in the document. (2<sup>nd</sup> RDEIR, § 6.1, p. 6.0-2.) This appears to be an oversight and, therefore, we assume any lingering references to Alternative 2 as a no project alternative will be deleted or deemed deleted.

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As provided in the 2<sup>nd</sup> RDEIR (p. 3.0-15), the CEQA Guidelines provide that when the project is the revision of an existing, ongoing operation, the “no project” alternative will be the continuation of the existing operation into the future. (CEQA Guidelines, § 15126.6(e)(3)(A).) Further, the no project analysis should discuss what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. (*Id.*, § 15126.6(e)(2).)

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Alternative 3C is now appropriately characterized as the no project alternative, and it describes the provisions of the Settlement Agreement as well as the technical amendments set forth in Exhibit “C.” As detailed above, the Settlement Agreement resulting from the State Water Board’s WR Order 94-5 (Finding No. 15, Order No. 3(d)), settled a long-standing dispute between and among the downstream water right interests and the Cachuma Member Units relating to Cachuma Project operations, and it did so in a manner compatible with the release requirements in the Biological Opinion and FMP (Alternative 3C).

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The 2<sup>nd</sup> RDEIR recognizes that the terms of the Settlement Agreement have been implemented, are part of ongoing Cachuma Project operations, and that the potential environmental impacts of implementing the Settlement Agreement (including Exhibit “C”) are adequately studied and considered in the 2<sup>nd</sup> RDEIR. However, it should be noted that Paragraph 5.2 of the Settlement Agreement allows for possible termination if, following completion of the hearing required by Order 94-5, the State Water Board “does not require that downstream water rights releases continue to be made consistent with WR 89-18, as modified by this Agreement, without material change.” Thus, while

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Alternative 3C may be appropriately considered as the no project alternative – since both the Settlement Agreement and Biological Opinion are part of ongoing operations and it is reasonably foreseeable they will continue if no other alternative is selected – the State Water Board should make the minor technical amendments to WR 89-18 proposed by Reclamation to ensure that Cachuma Project operations will continue as provided in the Settlement Agreement.

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**D. Alternatives**

**1. Alternative 3C is the Environmentally Superior Alternative Among all the Alternatives, and is the Only Feasible Alternative That Meets All of the Project Objectives, Without Causing Significant Unavoidable (Class I) Impacts to the Member Units' Water Supply**

SYRWCD's and I.D. No. 1's prior comments pointed out that the 2007 DEIR did not identify an environmentally superior alternative. (2007 RDEIR Comments, p. 12.) Under CEQA, 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).) The 2<sup>nd</sup> RDEIR addresses our comment in this regard. It concludes that Alternative 3C with technical changes to WR 89-18, as provided in Exhibit "C" to the Settlement Agreement, is the environmentally superior alternative. (2<sup>nd</sup> RDEIR, p. 6.0-3.) SYRWCD and I.D. No. 1 concur. Alternative 3C is the only alternative that: does not require further CEQA review, meets all the project objectives – protection of public trust resources and downstream water rights quality and quantity, and does not cause significant unavoidable impacts to the Member Units' vital water supplies.

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**2. Alternative 4B Is of Doubtful Utility and Is Subject to Several Unknown Contingencies**

SYRWCD previously commented that implementation of Alternative 4B is not realistic. (2007 RDEIR Comments, p. 13.) The comments also noted that former Alternative 4A was not included in the 2007 RDEIR because the City of Lompoc decided not to pursue a SWP water supply, and that Alternative 4B should not be included for similar reasons. (*Id.*) Finally, it was pointed out that, "in lieu of Alternative 4B, Lompoc has entered into a Settlement Agreement with the downstream water right interests and the Cachuma Member Units, which Reclamation has endorsed, that provides for modifications to WR 89-18 in light of the Biological Opinion to the satisfaction of Lompoc and all downstream water right interests. The Settlement Agreement resolves Lompoc's claims and protests relative to the operation of the Cachuma Project, including with respect to water quality, as provided in Paragraph 3 of the Agreement." (2007 RDEIR Comments, p. 14.) Nothing has changed in this regard. (See, e.g., 2<sup>nd</sup> RDEIR, p. 3.0-18.)

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The 2<sup>nd</sup> RDEIR also concludes that Alternative 4B is the environmentally superior alternative among the alternatives (not including 3C). (2<sup>nd</sup> RDEIR, p. 6.0-3.) SYRWCD and I.D. No. 1 have concerns with this conclusion. We commented previously (2007 RDEIR, p. 14) that since Alternative 4B will result in fewer releases from the dam, there will be less conjunctive operation of downstream water rights releases with fish water releases as required under the Biological Opinion and the Settlement Agreement. Fewer releases will also cause adverse water quality impacts above the Narrows in the Santa Rita Area (2<sup>nd</sup> RDEIR, p. 4.5-14). The 2<sup>nd</sup> RDEIR suggests mitigating these impacts with additional water releases from the dam, the source of which is unidentified. This impact should be described as at least a Class III impact on water quality and perhaps water supply. Finally, Alternative 4B relies on the availability of SWP water, the reliability of which is lower now than when we commented previously (2<sup>nd</sup> RDEIR, pp 2.0-11-15, 3.0-17-18). Thus, while Alternative 4B is appropriate to consider for CEQA purposes, it is not environmentally superior to Alternative 3C.

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Finally, although Central Coast Water Authority (“CCWA”) was consulted when Alternative 4B was conceived, recent information (see, CCWA Comments on 2<sup>nd</sup> RDEIR) indicates that implementation of Alternative 4B will reduce the CCWA pipeline water pressure so much that CCWA would not be able to meet its contractual commitments without extensive improvements to its pipeline system. This also would compromise ID No. 1’s exchange agreement and the mixing requirements of CCWA water with downstream water rights releases under the Settlement Agreement. Finally, there is no incentive for project participants to pursue this costly alternative, since through the Settlement Agreement they have already resolved their differences without additional costs for capital improvements or operations.

### 3. The 1.8-Foot Surcharge Alternatives

As SYRWCD and I.D. No. 1 previously commented, Alternatives 3B and 5B each assume operations under the Biological Opinion with a 1.8-foot surcharge, yet the 2<sup>nd</sup> RDEIR readily acknowledges that Reclamation has already increased the surcharge of Lake Cachuma from 0.75 to 2.47 and now can implement a 3.0-foot surcharge. (2<sup>nd</sup> RDEIR, p. 2.0-25.) Thus, operation under a 0.75 or 1.8-foot surcharge is no longer reasonably foreseeable. In addition, CEQA does not provide the State Water Board with independent approval power with respect to implementation of the Biological Opinion. Thus, SYRWCD and I.D. No. 1 believe neither a 0.75 nor a 1.8-foot surcharge is likely to be implemented at any time in the future. (*Kenneth Mebane Ranches v. Superior Court* (1994) 10 Cal.App.4<sup>th</sup> 276, 292; Public Resources Code §§ 21004, 21081(a)(3); CEQA Guidelines, §§ 15040(b) & (e), 15091(a)(3), 15126.6(a), 15364.) Furthermore, as noted below, the 2<sup>nd</sup> RDEIR concludes that Alternatives 3B and 5B, both of which assume only a 1.8 foot surcharge, could result in significant and unavoidable impacts to the Member Units’ vital water supplies. (2<sup>nd</sup> RDEIR, p. 4.3-26.)

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4. Alternatives 5B and 5C Are Environmentally Inferior Alternatives

(a) The 2<sup>nd</sup> RDEIR Correctly Concludes that Alternatives 5B and 5C Cannot Meet All the Project Objectives Without Causing Significant and Unavoidable (Class I) Impacts to the Member Units' Water Supplies

SYRWCD and I.D. No. 1 previously commented that the 2007 RDEIR did not adequately evaluate the potential impacts of Alternatives 5B and 5C on the Member Units' water supplies. (2007 RDEIR Comments, p. 18.) Significantly, the 2<sup>nd</sup> RDEIR appears to have recognized these comments and concludes that Alternatives 5B and 5C will have significant unavoidable impacts on those supplies. (2<sup>nd</sup> RDEIR, p. 6.0-2.) Specifically, Alternatives 5B and 5C (and 3B):

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“would result in potential shortages in supply during dry years that could require new sources of water, which could result in **significant and unavoidable (Class I)** impacts attributable to increased groundwater pumping, temporary water transfers, and desalinization.” (*Id.*)

Therefore, the final EIR should acknowledge that Alternatives 5B and 5C are environmentally inferior to Alternative 3C, which meets all project objectives without causing significant unavoidable adverse affects on the Member Units' water supplies.

(b) The 2<sup>nd</sup> RDEIR Fails to Adequately Evaluate the Impacts of Alternatives 5B and 5C on Downstream Water Rights (including the ANA)

SYRWCD and I.D. No. 1 also previously commented that the 2007 RDEIR did not adequately address the potential impact of Alternatives 5B and 5C on water quality or quantity downstream of Bradbury Dam, including in particular the ANA.<sup>8</sup> (2007 RDEIR Comments, pp. 14-18.) In this regard, we provided detailed Tables 1, 2, and 3 which were model (SYRHM) runs quantifying, among other things, the significant additional loss of ANA credits that will result from implementation of Alternative 5C in contrast to Alternative 3C, during drought periods. (*Id.* at pp. 16-17.) The 2<sup>nd</sup> RDEIR similarly fails to adequately analyze whether Alternatives 5B and 5C will result in significant adverse impacts on downstream water quantity or quality due to, among other things, reduction of ANA credits, particularly during drought years. The 2<sup>nd</sup> RDEIR does state that “[n]o significant difference in management of ANA releases is expected to occur under the project alternatives compared to baseline (Alternative 2) operations.” (2<sup>nd</sup>

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<sup>8</sup> SYRWCD's comments on the 2007 RDEIR included extensive comments related to Alternatives 5B and 5C (2007 RDEIR Comments, pp. 14-21), which for the most part appear to still be relevant to the 2<sup>nd</sup> RDEIR. However, rather than repeating all of those comments herein, SYRWCD incorporates and makes them a part hereof by this reference.

RDEIR, p. 4.4-6.) However, the 2<sup>nd</sup> RDEIR nowhere actually quantifies the reduction of ANA releases or analyzes the management implications of these reductions, or explains why such reduction is or is not significant. Without this analysis and explanation, it is unclear from the 2<sup>nd</sup> RDEIR how the State Water Board could conclude that Alternative 5B or 5C meets all the project objectives and does not cause depletion of the ANA.

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As discussed above, protection of downstream water rights is an objective of the project. Therefore, to be considered, Alternatives 5B and 5C must protect those downstream water rights. (CEQA Guidelines, § 15126.6(a).) But, the record fails to include any substantial evidence that they will do so. Further, the 2<sup>nd</sup> RDEIR does not explain what impacts Alternatives 5B and 5C will have on the Settlement Agreement.

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It cannot be over emphasized that the Settlement Agreement, as reflected in Alternative 3C which includes the technical amendments proposed by Reclamation, resolved a long-standing dispute and resulted in a contractual agreement to protect downstream water rights between downstream interests and the Member Units, in concert with the requirements of the Biological Opinion and the Fish Management Plan. The Settlement Agreement was entered into only after careful analysis, peer-review and study for many years and was subjected to thorough cross-examination in the State Water Board hearings. By way of contrast, there is no substantial evidence demonstrating that Alternatives 5B or 5C will protect downstream water rights. Nor have Alternatives 5B and 5C been subjected to peer-review or cross-examination.

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Finally, as discussed below, Alternatives 5B and 5C will not avoid or lessen significant impacts to fishery resources in any way that is not already accomplished by Alternative 3C. Alternatives that do not avoid or lessen significant impacts caused by the proposed project should not be considered. (CEQA Guidelines, § 15126.6(a).)

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(c) Implementation of Alternatives 5B and 5C Would Require Significant Additional Releases that Result in Class I Impacts to Water Supplies, but Achieve Little or No Fishery Benefits

Although Alternatives 5B and 5C cause adverse impacts on downstream water rights and the Member Units' water supplies, there is no substantial evidence that either alternative provides any additional benefits to steelhead in comparison to Alternative 3C. We concur with CCRB's position that the analysis in the 2<sup>nd</sup> RDEIR should integrate all lifestages and habitat relationships of steelhead/rainbow trout in the Lower River and account for habitat bottlenecks when evaluating the alternatives. (CCRB Comments on 2<sup>nd</sup> RDEIR, Section G.) Any benefits to steelhead/rainbow trout associated with Alternatives 5B and/or 5C compared to 3C during spawning and fry rearing lifestages are negated by limited habitat availability for all alternatives during the juvenile lifestage. It is the juveniles that pass through this lifestage that become adults. Thus, in view of the potential limitations to juvenile rearing common to all alternatives, Alternative 5B or 5C would not be expected to increase production relative to Alternative 3C.

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Further, we concur with and incorporate by reference CCRB's position that the 2<sup>nd</sup> RDEIR fails to adequately analyze whether the additional higher flows of Alternatives 5B and 5C will affect interactions between individually benefited species such as resident bass and anadromous trout. (CCRB Comments on 2<sup>nd</sup> RDEIR, Section H.) It is well established, for example, that bass prey on fry and juvenile steelhead/rainbow trout. It is possible that increases in largemouth bass populations will increase the rates of predation on fry and juvenile trout. In other words, any benefit from flow for trout could be negated by the benefit also provided to bass. However, the 2<sup>nd</sup> RDEIR does not discuss the species interactions (e.g., predation) that could result from Alternatives 5B and 5C. Furthermore, even in the absence of active predation, there is no guarantee that additional pool habitat would be occupied with additional steelhead/rainbow trout. Competition and carrying capacity limitations also can affect the habitat available for native fish. These factors also are not considered in the alternatives analysis.

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The California Constitution does not equate beneficial use with reasonable use (*Joslin v. Marin Mun. Water Dist.* (1967) 67 Cal.2d 132, 143), and prohibits unreasonable and wasteful uses of water. (Article X, § 2; *see also*, Water Code §§ 100, 275; *United States v. Gerlach Live Stock Co.* (1950) 339 U.S. 725, 751.) The courts have also confirmed that the State Water Board must prohibit unreasonable methods of diversion and use of water. (*People ex rel. SWRCB v. Forni* (1976) 54 Cal.App.3d 743; *Elmore v. Imperial Irr. Dist.* (1984) 159 Cal.App.3d 185, 198-199; *Imperial Irr. Dist. v. SWRCB* (1986) 186 Cal.App.3d 1160, 1162-69; *Imperial Irr. Dist. v. SWRCB* (1990) 225 Cal.App.3d 548, 559-562.) As explained above and in Sections G and H of CCRB's comments on the 2<sup>nd</sup> RDEIR, Alternatives 5B and 5C would result in significant unavoidable impacts to the Member Units' water supplies, in contrast to Alternative 3C which also provides equivalent benefits to fish. Thus, particularly when compared to Alternative 3C, Alternatives 5B and 5C are not reasonable alternatives and should not be further considered.

#### IV. TECHNICAL COMMENTS

Enclosed herewith and made a part of this letter by reference is a document entitled "Technical Comments" which includes comments of a more technical nature.

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#### V. CONCLUSION

For the reasons set forth above, SYRWCD and I.D. No. 1 believe that the 2<sup>nd</sup> RDEIR resolves many of the issues raised by the 2007 RDEIR. Importantly, the 2<sup>nd</sup> RDEIR includes the clarification that Alternative 3C incorporates the Settlement Agreement. It also includes updated information on water supply, biological resources, oak trees and recreation, and corrections and clarifications in response to prior comments. As provided above, however, while the 2<sup>nd</sup> RDEIR is much improved, SYRWCD and I.D. No. 1 believe further clarification would be helpful on several matters including the minor technical amendments to WR 89-18 proposed by Reclamation and the downstream impacts to water rights and water quality caused by Alternatives 5B and 5C. By contrast

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to Alternatives 5B and 5C, the impacts of Alternative 3C are known and can be accurately forecast because Alternative 3C has been part of Cachuma Project ongoing operations for several years. Alternative 3C is the only alternative that was developed after significant study and compromise, by all stakeholders, pursuant to the directions of WR 94-5. It is also the only alternative that meets all of the project objectives; that will avoid causing significant unavoidable (Class I) impacts to the Member Units' water supplies; and is the environmentally superior alternative among all of the alternatives that comprise the proposed project.

In conclusion, SYRWCD and I.D. No. 1 greatly appreciate your consideration of these comments and suggestions, and your efforts in preparing the 2<sup>nd</sup> RDEIR. Should you have any questions or require clarification regarding any of our comments, please contact the undersigned.

Sincerely,

*SANTA YNEZ RIVER WATER  
CONSERVATION DISTRICT*



Bruce A. Wales  
General Manager

*SANTA YNEZ RIVER WATER  
CONSERVATION DISTRICT,  
IMPROVEMENT DISTRICT NO. 1*



Chris Dahlstrom  
General Manager

Enclosure (Technical Comments)

cc: Cachuma Project Hearing, Phase-2 Hearing Final Service List  
USBR  
CCRB  
City of Solvang  
City of Buellton  
City of Lompoc  
SYRWCD, Board of Directors  
SYRWCD I.D. No. 1, Board of Trustees  
Stetson Engineers  
Ernest A. Conant, District Counsel to SYRWCD  
Gregory K. Wilkinson, Special Water Rights Counsel to I.D. No. 1

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Appendix to SYRWCD and ID No. 1 Letter

Dated May 31, 2011

**TECHNICAL COMMENTS**

2<sup>nd</sup> RDEIR

This document is appended to and incorporated by reference in Comments on the Second Revised Draft Environmental Impact Report prepared in connection with Consideration of Modifications to United States Bureau of Reclamation's Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir), dated April 2011 (SCH#1999051051).

Prepared by

Santa Ynez River Water Conservation District (SYRWCD) and  
Santa Ynez River Water Conservation District Improvement District (ID No. 1)

May 31, 2011

The following comments are organized by section in the 2<sup>nd</sup> RDEIR.

**1.0 INTRODUCTION**

1. Page 4, para 3, line 5: Change “maintained” to “allowed to remain.” Maintaining dewatered storage is not a goal of WR 89-18. 23
2. Page 4, para 4, line 1: Delete “slightly.” As shown on Table 2-3 and discussed on page 10, releases under WR 89-18 were substantially higher than under WR 73-37, especially for the Below Narrows area. 24
3. Page 8, para 4, line 3: Surcharging for the fish water conservation pool is the amount of water stored above the operating full level (750.0’) against the flashboards while the spillway gates are fully shut. There is no dam overflow, otherwise the integrity of Bradbury Dam would be at risk. Suggest replacing definition of surcharging to: “Surcharging is a term used to describe the operations at Bradbury Dam in which the water level of Lake Cachuma is allowed to rise above the elevation of the top of the spillway gates (750.0’) in order to store more water for fishery releases. Flashboards have been installed on the spillway gates to allow surcharging up to 753.0’.” 25
4. Page 8, para 4, lines 5 and 6: There is only one surcharge level above which (750’) water can be surcharged. Surcharge level is not raised or lowered depending on reservoir capacity. Once the amount of water is surcharged above 750.0’, that amount of water stored as fish conservation pool can be carried to a lower level when the reservoir is drawn down to meet other demands. 26
5. Page 8, para 4, line 6: The proper term is “spillway gate.” Change “spillgate” to “spillway gates” globally in the document. 27

**2.0 OVERVIEW OF THE CACHUMA PROJECT**

1. Page 1, para 1, last line: Replace with “. . . a capacity of 250 cfs.” Typically the maximum outlet releases are operated between 150 and 200 cfs. 28
2. Page 1, para 2, line 3: Replace with “A survey conducted in 2008 indicated that the reservoir capacity has been further reduced to 186,636 a.f. at elevation 750.0 feet (MNS, 2008).” This comment also applies to Page 4.2-5, paragraph 3, third sentence. 29
3. Page 6, Table 2-1: Explain ID No. 1 is receiving its Cachuma Project entitlement through an exchange with South Coast Project Member Units. 30

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|---|----|
| 4. <u>Page 6, Table 2-4</u> : Explain the numbers in this table also include SWP water that ID No. 1 provides to the City of Solvang under a separate agreement. Please clarify whether this table also includes turnback water.  | 31 |
| 5. <u>Page 9, para 3, line 9</u> : Change “These releases” to “Typically, these releases.” Change “rate of 135 to 150 cfs” to “rate of about 150 cfs.”  | 32 |
| 6. <u>Page 9, para 3, line 10</u> : Change sentence to read “At that time, the releases are reduced for several weeks to months, to rates such as 50 to 70 cfs, depending upon percolation rates.”  | 33 |
| 7. <u>Page 15, para 5, line 2</u> : Delete “frequency and.” Modified Storm Operations only affects the magnitude of flood flows.  | 34 |
| 8. <u>Page 15, para 5, line 4</u> : Change to “Reclamation consults with the Santa Barbara County Flood Control District, the Member Units and downstream interests as appropriate.”  | 35 |
| 9. <u>Page 15, bullet, line 4</u> : Change “Reclamation may avoid spills, which are uncontrolled and may cause flooding” to “Reclamation may attenuate (along with pre-releases and/or gateholding) the peaks of large flows that may cause flooding.” Modified Storm Operations is exercised only with high flows when large spills and flooding are expected. The purpose of the operation is to reduce peak flows and not to avoid spills as suggested.  | 36 |
| 10. <u>Page 16, Section 2.3, para 2</u> : Change to “The reservoir has spilled 22 times since Bradbury Dam was completed. The most recent spills occurred in 1998, 2000, 2001, 2005, 2006, 2008 and 2011.”  | 37 |
| 11. <u>Page 18, para 3, line 4</u> : Change “prepared by the SYRTAC” to “based on a Draft Fish Management Plan prepared by the SYRTAC.”   | 38 |
| 12. <u>Page 18, para 3, lines 5-9</u> : Conservation measures in the Biological Assessment are getting confused with Conservation Recommendations in the Biological Opinion. The former are project actions and the latter are discretionary suggestions. Suggest changes as follows: add “and conservation measures” to sentence starting with “The modifications to project operations” on line 5. Delete the phrase on line 7 starting with “while the conservation measures . . . “ Delete the last sentence here and put at the end of para 4. The Biological Opinion formed the basis for the Final Fish Management Plan. | 39 |
| 13. <u>Page 19, para 3, line 1</u> : Change “SYRTAC” to “AMC.” This is factually correct.   | 40 |
| 14. <u>Page 25, last para</u> : To accurately reflect what occurred, delete the existing paragraph and replace as follows: “In the Biological Opinion, NMFS authorized a ramping schedule for the rampdown of releases made to satisfy downstream water rights. These ramping rates, which are a refinement of rates recommended by the SYRTAC and used since 1994, are   | 41 |

detailed in <b>Table 2-6, <u>Rampdown Schedule for Releases Made to Satisfy Downstream Water Rights</u></b> . These have been used since 2000.”	41
15. <u>Page 30, para 2, lines 1 and 2</u> : Replace with “as with long-term target flows . . .” Delete “interim and.” The Baseline Alternative (Alternative 2) does not have a Fish Passage Account.	42
16. <u>Pages 18 through 41, Sections on BO and FMP</u> : The 2nd RDEIR should mention that CEQA and NEPA environmental reviews already have been completed for the BO and FMP. The 2nd RDEIR should discuss the “Final Program and Project Specific Environmental Impact Report/Environmental Impact Statement for Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion” (Cachuma Operation and Maintenance Board and Bureau of Reclamation, February 2004) (FMP/BO EIR/EIS).	43
17. <u>Page 45, item 5</u> : Suggest deleting “Conjunctive” from the heading of this item. The Below Narrows Account is dedicated for the recharge of the Lompoc groundwater basin. As practiced since 1989, the upper percolation curve (Curve A) has been used to determine the BNA credits without switching to the lower percolation curve (Curve B). The Settlement Agreement confirms the continued use of the upper curve as the basis to determine the BNA credits, except it provides for a separate accounting for possible use of a portion of the remaining BNA water in the reservoir by the Member Units in case of a drought situation. Suggest merging the two sentences by removing the part after “Order WR 89-18” in the first sentence and modifying the second sentence to read as: “the parties agree to remain on ‘Curve A’ so that more water is available for the Below Narrows area and some BNA water is made available to the Cachuma Member Units during shortage years.”	44
<b>3.0 PROPOSED PROJECT (ALTERNATIVES)</b>	
1. <u>Page 4, 2<sup>nd</sup> bullet, line 7</u> : Change “Santa Ynez River Alluvial Basin” to “Lompoc Basin.”	45
2. <u>Page 9, 2<sup>nd</sup> para from bottom, line 6</u> : After “Opinion” add “and Settlement Agreement.”	46
3. <u>Page 15, para 4, line 1</u> : The analysis of Alternative 3C, from its inception as an alternative in the 2003 DEIR, has included provisions of the 2002 Settlement Agreement. Neither the 2003 DEIR nor the 2007 RDEIR described the elements of the Settlement Agreement as they were analyzed in Alternative 3C. The 2nd RDEIR does not provide any revisions to Alternative 3C. Suggest changing the first sentence to read as: “In this 2 <sup>nd</sup> Revised DEIR, Alternative 3C has been clarified to show the inclusion of provisions of the 2002 Settlement Agreement reached between CCRB, ID No. 1, SYRWCD, and the City of Lompoc.”	47
4. <u>Page 15, item 3</u> : Suggest deleting “Conjunctive” from the heading of this item.	48

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#### 4.0 ENVIRONMENTAL ANALYSIS OF ALTERNATIVES (FLOW-RELATED ACTIONS)

##### Section 4.1 OVERVIEW OF IMPACT ASSESSMENT

The following comments are provided with respect to Alternatives 3C, 4B, 5B and 5C.

###### Alternative 3C

Alternative 3C incorporates provisions of the 2002 Settlement Agreement, including: FMP/BO fish releases, mixing of SWP water with water rights releases, conjunctive operation of water rights releases with fish water, San Lucas Creek check point, and the upper percolation curve for computation of ANA and BNA. Also it is worth noting that provisions of the Settlement Agreement are being implemented currently and, as such, it represents the No Project Alternative (Alternative 3C).

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###### Alternative 4B

- Impacts from Alternative 4B not adequately discussed in 2nd RDEIR
  - There would be fewer days of water rights releases under Alternative 4B compared to the Settlement Agreement (Alternative 3C) which provides for an average annual release of 65 days (spill years excluded) conjunctively with fish water releases. Accordingly, Alternative 4B would increase impacts on the Project water supply and the ANA. Those impacts are not discussed in the 2nd RDEIR.
  - The 2nd RDEIR discusses important updates on the reliability of the SWP water, including analysis of the State Water Project Delivery Reliability Report 2009. This new information indicates greater shortages of water supply from the SWP water system during droughts than indicated in previous DEIRs (6% delivery or 94% shortage during a critical drought year). However, the implication of these greater shortages in SWP water is not discussed in the 2nd RDEIR in relation to Alternative 4B.
  - In the absence of BNA releases at Bradbury Dam, flows in the lower Santa Ynez River above the Narrows would have, on average, a higher salinity in summer months under Alternative 4B compared to the current operation. This should be identified as a Class III impact to surface water quality.

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**Alternatives 5B and 5C**

- Both Alternatives 5B and 5C would cause significant reductions in the ANA with adverse implications for effectively managing the account for the benefit of downstream water users, especially under drought conditions (see Tables 1 through 3 in the 2007 comment letter).
    - During a prolonged drought, supply of water from riparian wells for agricultural and municipal users, as well as individual domestic users, would be greatly impacted under Alternatives 5B and 5C. Impacts would be more likely to occur in the lower reaches of the Above Narrows area.
    - The loss of ANA water under Alternatives 5B and 5C could result in too little ANA water for the District to transport BNA water to the Lompoc Plain, thus tending to "strand" the Lompoc water in Cachuma Reservoir. The inability to deliver the BNA water would tend to increase the salinity of groundwater on the Lompoc Plain.
  - Alternatives 5B and 5C would cause significant reductions to Cachuma Project yields. The 2nd RDEIR does discuss these impacts now relative to the 2007 RDEIR.
  - There is no discussion in the 2nd RDEIR as to how Alternatives 5B and 5C avoid or lessen significant impacts caused by the No Project Alternative.
1. Page 1, para 1, line 3: After "other species," add "(2) releasing water rights water and other actions under the Settlement Agreement, and (3) . . ."
  2. Page 2, para 2, line 2: Replace "NOP" with "Biological Opinion."

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**Section 4.2 SURFACE WATER HYDROLOGY**

1. Page 6, para 4, lines 3-8: Add a footnote that the Bureau of Reclamation did a study that revised the peak flood estimates of 1907 and 1969 to 55,000 and 88,000 cfs, respectively. Strike last line.

Reference: U.S. Bureau of Reclamation. Ostensaa, Dean A., Levish, Daniel R., and O'Connell, Daniel R. H. 1996. Paleoflood Study for Bradbury Dam, Cachuma Project, California, Seismotectonic Report 96-3. Seismotectonic and Geophysics Section, Technical Service Center, Bureau of Reclamation, Denver, Colorado.
2. Page 8, para 2: The following modifications are suggested:

Line 1: Change "in 1993" to "in 1998."

Line 2: Delete "frequency and."

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- Line 7: After “flood,” add “, as well as gateholding which holds back the increase in inflows.” 55
3. Page 8, para 3: Change “Section 3.22” with “Section 3.2.2.” Change ‘baseline conditions that existed in August of 2003” with “baseline conditions that existed in September of 2000.” 56
4. Page 8, para 4, second sentence: Delete “The first action undertaken was the raising of the reservoir surcharge level from the previous elevation of 750.75 feet to an interim elevation of 751.8 feet.” This action never occurred. The Final EIR/EA for the Biological Opinion and Fish Management Plan was completed in February 2004 and the plan was to proceed to the 753.0 feet surcharge (skipping the 751.8 feet surcharge). 57
5. Page 9, para 1, last sentence: Change “9,200” to “8,942” and “198,200” to “195,578” based on MNS (2008). 58
6. Page 11, Table 4-1: Add footnote for Alternative 3C as follows: “As modified by the Settlement Agreement for 3C.” 59
7. Page 13, Peer Review subsection: Change “Santa Ynez River Technical Advisory Committee” to “Santa Ynez River Water Quality Technical Advisory Committee” and make global change in this subsection, changing “SYRTAC” to SYRWQTAC.” (This was handled appropriately in Stetson 4.6.2.2 (Page 4.6-6).) 60
8. Page 18, para 2, lines 5 and 6: It is important to differentiate between the account balance and credits accrued under ANA. The ANA account balance (carryover) has tended to be larger because of the conjunctive operation of the ANA with the BNA since 1989 (WR 89-18). The releases have been more targeted to convey the BNA water to the Lompoc area while recharging the Above Narrows Groundwater Basin. There were no increases in the ANA credits as a result of the amendments to Order WR 73-37 in 1989. However, the amendments under WR 89-18 reduced the amount of loss from the BNA in spill years and provided some additional BNA credits associated with the percolation capacity in the Lompoc forebay. Chart 4-31 shows that there is a noticeable break between the pre- and post-1989 conditions for the BNA. 61
9. Page 18 para 2, lines 6 and 7: The statement that “Dewatered storage [in the Above Narrows] has not dropped below the 10,000-af threshold” is incorrect. Chart 4-30 shows that the dewatered storage was below 10,000 af at least in several years since 1991. Chart 4-30 shows that except for periods of extreme drought (1986-1991) and very wet winters (1997-98 and others), dewatered storage generally remains between 12,000 – 15,000 acre-feet. This could be substituted for the incorrect entry. 62

10. Page 18, para 2: Last sentence in paragraph 2 is incorrect. The Accumulated Drought Water Credit (ADWC) is for the benefit of the Cachuma Member Units during drought periods and is not released to downstream users. The 3,200 af is not an annual amount. The release of 25 acre-feet is deducted from the ANA and does not provide an additional water supply to downstream users. It provides additional water to Member Units by reducing the fish water releases from the reservoir. Suggest deleting the last sentence in paragraph 2.

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#### Section 4.3 WATER SUPPLY CONDITIONS

1. Page 8, Table 4-14 – change “Alternative 3C” to “Alternative 5B” and delete “with reserves set aside” in the comment column for Cachuma Project in Table 4-14. Although the Cachuma Project supply to the Member Units for the critical drought year (1951) should have been based on Alternative 3C, that is not the case in Table 4-10 through 4-14. Also, the critical drought year supply should include reserves set aside for an additional drought year and that is not the case either in Tables 4-10 through 4-14. The yield from the 4 and 6 cfs well fields for critical drought (1951) is estimated to be 1,450 acre-feet, not 2,215 acre-feet shown in Table 4-10 and 4-18 (refer to the Technical Memorandum (Stetson, 2003) attached as Exhibit B, to comments submitted by CCRB and ID #1 on 2003 DEIR).

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2. Page 9, Table 4-15: See ID No.1’s Technical Comment No. 12 from the 2003 DEIR.

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3. Page 26, Indirect Environmental Impact of Water Supply Shortages: ID No. 1 has concerns regarding the increased releases for flow targets at Alisal Bridge under Alternative 5B and 5C. Since 2005, the long-term BO flow targets (same as Alternative 3C) of 1.5 cfs have been in effect at Alisal Bridge from 2005 through 2009 and most recently will be in effect for 2011 through at least 2012. These flow targets at Alisal Bridge have had adverse impacts to ID No. 1’s water supply including:

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- Unanticipated increased releases from Cachuma Project which will impact Member Units supplies during droughts (see comments on 2007 RDEIR);
- Due to the Surface Water Treatment Rule, several of the District’s Santa Ynez River wells become inoperable due to the increased flows in the river. Water cannot be produced from wells when surface water in the river channel occurs within 100-150 feet of these wells, unless the water receives the required filtration in a treatment plant and meets the standards of the Surface Water Treatment Rule.

These impacts under Alternative 3C will be made even worse under Alternatives 5B and 5C because the flow targets at Alisal Bridge are increased under these alternatives.

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4. Page 26 Section 4.3.2.7: See ID No.1's Technical Comment Nos. 19 and 20 from the 2003 DEIR.

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**Section 4.4 ABOVE NARROWS ALLUVIAL AQUIFER**

1. Page 1, para 1: Change "fluctuate" to "change" in the second sentence. The third sentence is inaccurate. With the exception of the Highway 154 and Alisal reaches which extend 10 miles below the dam, the alluvial deposits are wide and deep in the Above Narrows area downstream of Alisal Bridge. The pumping in the basin is not heavy and with subflow condition and high transmissivity, fluctuations in water levels are small. However, changes in groundwater storage and groundwater levels occur in response to dry and wet cycles. Delete the third sentence.

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2. Page 1, para 2: Change the second sentence to read as: "The Above Narrows Alluvial Groundwater Basin is usually recharged after the onset of 'wet' conditions." Change the word "full" to "recharged" at the end of the third sentence. The basin may not reach a full level due to degradation.

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3. Page 1, para 3: Insert "phreatophytes" after "pumping" in the first sentence. The analogy in the second sentence is incorrect because there are surface and subsurface contributions from tributaries, as well as return flows, which tend to keep the upper reaches of the alluvial basin watered. Although the dam is blocking the natural flow (including subflow) of the Santa Ynez River to replenish the upper reaches of the Above Narrows Groundwater Basin, historically water rights releases have kept the upper basin replenished. Delete the last two sentences in paragraph 3.

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4. Page 2, para 2: Change "fluctuate" to "change" in the first sentence referring to Chart 4-9. Chart 4-9 shows end-of-year dewatered storage in the Above Narrows Alluvial Basin. SYRWCD has not tried to maintain the dewatered storage between 10,000 and 13,000 af in the Above Narrows Alluvial Basin, nor has it tried to maintain the dewatered storage within a narrow range as alluded in this paragraph. SYRWCD releases water to meet the rights of water users downstream of Bradbury Dam. Delete or modify the 2<sup>nd</sup> and 3<sup>rd</sup> sentences in this paragraph.

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5. Page 2, para 3, last sentence: Change "fluctuates" to "changes" in connection with the annual changes in water quality.

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6. Page 2, para 4: Add the following sentence at the end of this paragraph. "Losses through phreatophytes also contribute to the concentration of total dissolved solids in the basin."

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7. Page 2, para 7, line 1: Change sentence to: "Groundwater levels in the Above Narrows Alluvial Groundwater Basin change in response to groundwater pumping, runoff from tributaries below Cachuma Reservoir and spills and releases from Bradbury Dam."

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8. Page 4, para 3: This section on the Groundwater Management Efforts and Programs should be updated, as suggested below:

"In cooperation with water purveyors in the District, SYRWCD prepared a report outlining various water resources management alternatives (Stetson, 1992). Groundwater management efforts were initiated by SYRWCD and local purveyors in the Lompoc Basin in 1985. Through cooperative funding efforts with the USGS, the Basin water resources were evaluated, a comprehensive monitoring program was prepared and implemented, and a groundwater model was developed (Bright et al.; 1992, 1997). The City of Lompoc initiated an AB 3030 Plan recently. Working with the City of Buellton, SYRWCD completed an AB 3030 Plan for the Buellton Uplands Basin in 1995. A similar effort for the Santa Ynez Uplands Basin was terminated because most of the Basin is outside of the District."

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9. Page 6, para 1, lines 3 and 4: Change sentence to "These charts also show that there is no significant difference in the year-to-year variation in dewatered storage in the aquifer, except during droughts." See on Chart 10, for example, the periods in the early 1950's and 1990's.

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10. Page 6, para 2, lines 1 and 2: As commented above, SYRWCD does not manage (nor does the District actively engage in the management of) the dewatered storage in the Above Narrows Groundwater Basin through the ANA releases from Cachuma Lake. SYRWCD releases water to meet the rights of water users downstream of Cachuma Lake. The District manages the timing and rate of of water rights releases once credits are sufficient to do so, based in part on dewatered storage along the River and on the Lompoc Plain. Change sentence to "It should be noted that SYRWCD manages water rights releases in order to provide water supplies to users along the River and on the Lompoc Plain to fulfill their senior water rights."

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11. Page 6, para 2: The new check point at San Lucas Creek as opposed to the old checkpoint at San Lucas Bridge on the Santa Ynez River should render approximately the same result without the changed conditions. The Accumulated Drought Water Credits are derived from the BNA and would not result in additional releases. However, conjunctive use of water rights releases with fish water, including ramping rates, and 65-day average annual water rights releases as provided in the Settlement Agreement would result in additional releases to the downstream area for the benefit of fish and project water supply. Suggest to modify the sentence to read as: "In addition, use of the upper percolation curve subject to Accumulated Drought Water Credits, conjunctive use of water rights releases (spill years excluded) with fish water, 65-day average annual water rights releases and release of 25 af/month during no flow periods as described in the Settlement Agreement will result in some additional ANA and BNA releases to the downstream areas which also benefit the fish and project water supply."

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Change "(1913-1993)" to "(1918-1993)."

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12. Page 6, para 2, lines 10 through 12: The last two sentences in para 2 are incorrect. It is not clear why the period 1999 through 2010 was selected to calculate ADWC, because the Settlement Agreement was not signed until December 2002. It would have been more relevant if the calculation was performed for the period 2003 through 2010. The amount of ADWC for the Cachuma Member Units totaled to 892 acre-feet for 2003-2010. The years of accumulation are designated to be 2005, 2006 and 2008 during the eight-year period. The last sentence in para 2 is erroneous and it should be deleted.
13. Page 6, para 2, lines 2 and 3 (second sentence): Change sentence to "Significant differences in management of ANA releases are expected to occur among project alternatives compared to Alternative 3C ("No Project Alternative"). See Section III.D.4(b) of SYRWCD/ ID No. 1 letter to which these comments are appended.

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#### **Section 4.5 SURFACE WATER QUALITY**

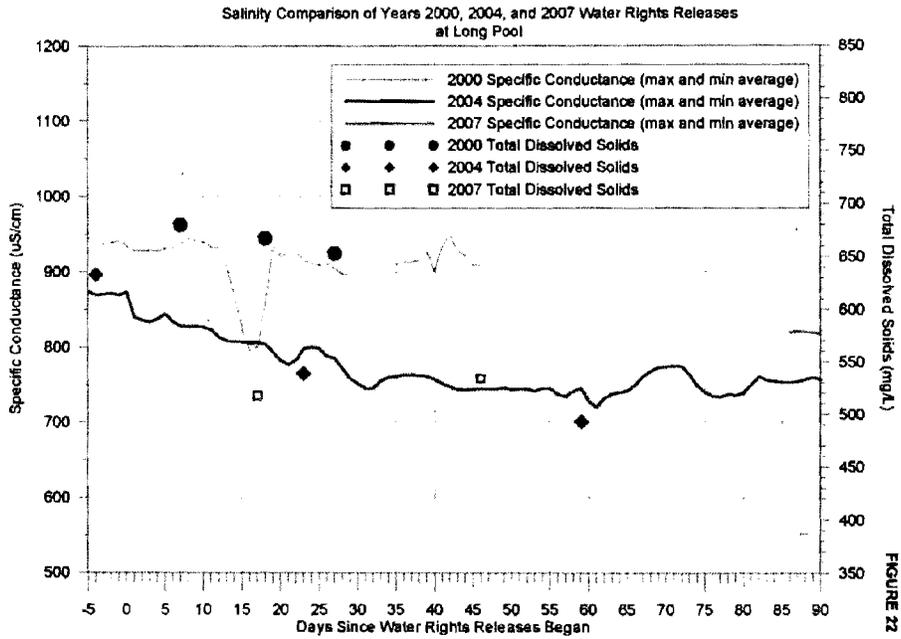
1. Page 11, para 5, lines 7-14: Delete. Trends in salinity cannot be estimated from sample data at Solvang and the Narrows because samples are collected at different flow rates. Ideally, continuous EC data should be used to determine trends in salinity. Suggest adding the following paragraphs:

"Continuous EC for salinity was measured during water rights releases in 2000, 2004 and 2007. In 2000, very little SWP water was mixed in with the releases but SWP water was mixed continuously during the 2004 and 2007 releases. These years have available specific conductance data as well as water quality samples. Figures 22 through 24 from the report "Water Quality in the Lower Santa Ynez River 2007 Water Rights Releases" (Stelson, 2008) show salinity data at the USGS Long Pool, Solvang and Lompoc Narrows gages, respectively. The effect of SWP water is clearly noticeable at the Long Pool gage when SWP was mixed in water rights releases for about five days in year 2000. During this short period of SWP mixing, salinity dropped to the 2004 and 2007 levels. Overall, the 2004 and 2007 water rights releases were about 110 to 130 mg/L lower in total dissolved solids concentration than the year 2000 water rights releases at the Long Pool gage. The reduction in salinity due to SWP water mixing would result in a reduction of about 1,700 to 2,400 tons of salt loading in the lower Santa Ynez River for the total amount of 11,600 acre-feet of water rights releases in 2007."

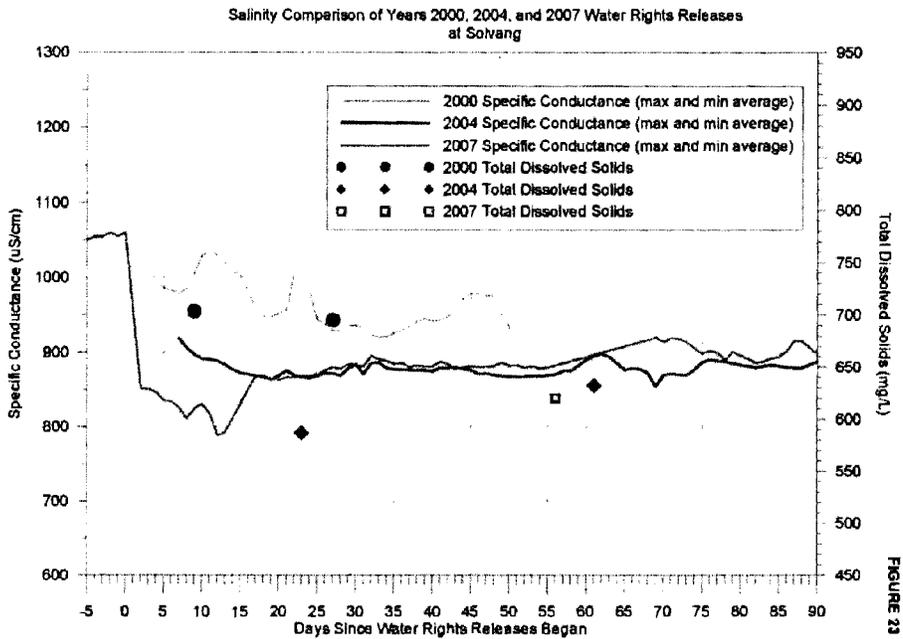
82

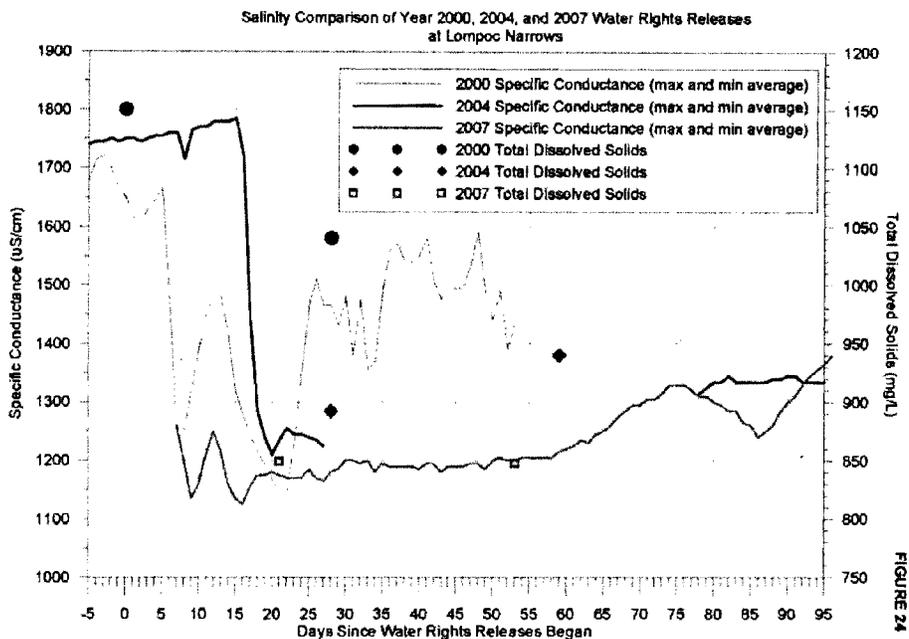
"Other locations downstream of Bradbury Dam also show improvements in water quality in the 2004 and 2007 water rights releases compared to year 2000. Figures 23 and 24 show that the 2004 and 2007 water rights releases were about 100 to 150 mg/L lower in total dissolved solids concentration than the 2000 water rights releases at both Solvang and the Lompoc Narrows. Figure 24 shows that the 2007 water rights releases have the lowest salinity at the Lompoc Narrows compared to the releases in 2000 and 2004."

“Stetson (2008), from which this information is taken, also is cited on pg.4.5-12 and should be included in Section 10 (References).”



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2. Page 12, para 3, last two sentences: Delete the last two sentences beginning with “Under the recent . . .”. Trends in salinity cannot be estimated from sample data at Solvang and the Narrows because samples are collected at different flow rates. Also remove the trendlines in Charts 4-32a and 4-32b (Appendix B) for the same reason.
3. Page 14, para 1: The potential increase in TDS under Alternative 4B for the Santa Rita sub-unit upstream of the Lompoc Forebay should be disclosed as Class III impact.

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**Section 4.6 LOMPOC GROUNDWATER BASIN**

1. Page 3, para 2: Change “VAFB” to VAFB and/or the Federal Penitentiary.” VAFB’s wells have been transferred to and are now used by the prison farm.
2. Page 4, para 4, last sentence: This is potentially misleading. The seawater is in water bearing materials originally deposited in a marine environment and the sentence could be interpreted to mean seawater intrusion. Sentence is not necessary and should be deleted.

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## 6.0 COMPARISON OF ALTERNATIVES

1. Page 2, para 2: Delete “(No Project).” Alternative 3C is described as the No Project Alternative throughout the rest of the document.
2. Page 4, Table 6-1 and Table 6-2: Add “X” under Alt 4B in the row Surface Water Quality (Class III Impacts). As discussed in Section 4.5.2.3 “Impacts of Alternative 4B” Class III impacts are described for the potential to slightly increase in TDS in fish water releases from the dam under this alternative. More importantly, the section states “This increase in TDS under Alternative 4B would also impact salinity in the alluvial groundwater basin immediately upstream of the Lompoc Narrows, which is the Santa Rita sub-unit.” Although not disclosed in this section, this impact should also be described as a Class III impact on surface water quality under Alternative 4B in Table ES-2.
3. Page 6, Table 6-2: Under “Lompoc Groundwater Basin Conditions”, change the word “increased” to “decreased”.

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**11. Santa Ynez Water Conservation District (SYRWD) and SYRWD Improvement District No. 1 (ID No. 1) (Law Offices of Young Woodbridge, LLP) dated May 31, 2011**

**Response 11-1:**

The comment notes that comments are submitted on behalf of both Santa Ynez Water Conservation District (SYRWCD) and Santa Ynez Water Conservation District Improvement District No. 1 (I.D. No. 1).

The comment is noted.

**Response 11-2:**

The comment notes that both SYRWCD and I.D. No. 1 submitted comments on the 2003 DEIR and the 2007 RDEIR.

This Final EIR contains responses to all comments received on the 2003 DEIR, 2007 RDEIR and the 2011 2<sup>nd</sup> RDEIR.

The comment is noted.

**Response 11-3:**

The comment notes that the SWRCB requested that commenters limit comments to **Sections 4.3** and **6.0** of the 2011 2<sup>nd</sup> RDEIR. SYRWCD and I.D. No. 1 will not repeat their prior comments, except as they are relevant to **Sections 4.3** and **6.0**.

The comment is noted.

**Response 11-4:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR contains new information in other sections. In addition, SYRWCD and I.D. No. 1 expressed concerns regarding the accuracy of information presented. Therefore, SYRWCD and I.D. No. 1 have included additional technical comments in an appendix enclosed with the May 31, 2011 comment letter entitled Technical Comments.

The comment is noted.

**Response 11-5:**

The comment suggests that both SYRWCD and I.D. No. 1 support continued implementation of Alternative 3C including the minor modifications to Order WR 89-18 presented by Reclamation in Exhibit C to the Settlement Agreement. Further, the comment suggests SYRWCD and I.D. No. 1 agree with the conclusion reached in the 2011 2<sup>nd</sup> DEIR that Alternative 3C is the environmentally superior alternative.

The comment is noted.

**Response 11-6:**

The comment suggests the 2011 2<sup>nd</sup> RDEIR clarifies that Alternative 3C includes releases for downstream water rights pursuant to Order WR 89-18 as modified by the Settlement Agreement. In addition, the comment suggests that in light of the above clarification, SYRWCD and I.D. No. 1 anticipate if Alternative 3C is adopted in a final water rights decision, the technical amendments to Order WR 89-18 provided in Exhibit C to the Settlement Agreement will also be incorporated.

The comment is noted.

**Response 11-7:**

The comment notes that concerns expressed by SYRWCD and I.D. No. 1 in their comment letter on the 2007 RDEIR regarding the project objectives have been addressed in the 2011 2<sup>nd</sup> RDEIR. Specifically, the comment states the 2011 2<sup>nd</sup> DEIR project objectives include protection of senior water right holders' water quality and quantity.

The comment is noted.

**Response 11-8:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR identifies Alternative 3C as the only no project alternative, however, Alternative 2 is still referred to as the No Project Alternative at least once in the 2011 2<sup>nd</sup> DEIR.

The comment is correct that Alternative 3C is the no project alternative. References to Alternative 2 as the no project alternative are incorrect and the 2011 2<sup>nd</sup> RDEIR has been revised accordingly.

**Response 11-9:**

The comment states that the 2011 2<sup>nd</sup> RDEIR correctly reflects language from *CEQA Guidelines* Section 15126.6, subdivision (e)(3)(A) regarding the no project alternative.

The comment is noted.

**Response 11-10:**

The comment suggests that Alternative 3C is characterized in the 2011 2<sup>nd</sup> RDEIR as the no project alternative and that it describes the provisions of the Settlement Agreement as well as technical amendments set forth in Exhibit C.

The comment is noted.

**Response 11-11:**

The comment notes that the 2011 2<sup>nd</sup> RDEIR recognizes that the terms of the Settlement Agreement have been implemented and are a part of the ongoing Cachuma Project Operations. The comment also notes the potential environmental impacts of implementing the Settlement Agreement are addressed. The comments further notes that the Settlement Agreement contains language regarding its termination if the SWRCB “does not require that downstream water rights releases continue to be made consistent with WR 89-18, as modified by this Agreement, without material change.” As such the comment suggests that the SWRCB consider Alternative 3B and make technical amendments to Order WR 89-18 to ensure that Cachuma Project operations will continue as provided in the Settlement Agreement.

The SWRCB will consider all the alternatives evaluated in the EIR and make its decision based on the whole of the administrative record. Should the SWRCB determine that Alternative 3B is the appropriate alternative to proceed with, it will consider what, if any, changes to the existing water rights decisions or orders are required.

**Response 11-12:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR addressed SYRWCD and I.D. No. 1’s previous comments and includes Alternative 3C with the technical changes to Order WR 89-18, as provided in Exhibit C to the Settlement Agreement, as the environmentally superior alternative.

The comment is noted.

**Response 11-13:**

The comment suggests Alternative 4B should not be included in the 2011 2<sup>nd</sup> RDEIR because the City of Lompoc decided not to pursue a SWP water supply, but instead entered into the Settlement Agreement. Further, due to potential water supply and quality issues, the comment suggests that SYRWCD has concerns with the conclusion in the 2011 2<sup>nd</sup> RDEIR that Alternative 4B is the environmentally superior alternative

The comment is noted.

**Response 11-14:**

The comment suggests that SYRWCD and I.D. No. 1 previously provided comments regarding Alternatives 3B and 5B, which stipulate a 1.8 foot surcharge under certain conditions, and that Reclamation has already increased the surcharge of Lake Cachuma to 3.0 feet as outlined in the Biological Opinion. The comment suggests that the SWRCB has no approval power with respect to implementation of the Biological Opinion, and that a surcharge of 0.75 or 1.8 feet is not likely to be implemented in the

near future. The comment also notes that the 2011 2<sup>nd</sup> RDEIR concludes that Alternatives 3B and 5B would result in significant and unavoidable impacts to water supplies.

The comment is noted.

**Response 11-15:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR concludes that Alternatives 5B and 5C cannot meet all of the project objectives without causing significant and unavoidable (Class I) impacts to the Member Units' water supplies. Further, the comment suggests that the 2011 2<sup>nd</sup> RDEIR should acknowledge that Alternatives 5B and 5C are environmentally inferior to Alternative 3C.

The comment is noted. Further, *State CEQA Guidelines* Section 15126.6, subdivision (e)(2)) only requires that an EIR identify an environmentally superior alternative; the *CEQA Guidelines* do not provide for identification of environmentally inferior alternatives. The 2011 2<sup>nd</sup> RDEIR identifies Alternatives 3C and 4B as the environmentally superior alternatives, and provides information as to why Alternative 4B is not feasible.

**Response 11-16:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR fails to adequately evaluate the impacts of Alternatives 5B and 5C on downstream water rights, including the Above Narrows Account (ANA).

The SWRCB does not agree with this comment. The 2011 2<sup>nd</sup> RDEIR provides analysis of alternatives, including Alternatives 5B and 5C, with regards to a number of water supply issues that may cause potential impacts to downstream users. In **Section 4.3.22, Average Annual Project Yield**, the 2011 2<sup>nd</sup> RDEIR notes that Alternatives 5B and 5C would have less yield than under the baseline operations (Alternative 3C) and notes that the impacts would be minor - approximately 1 percent or less of the total average annual yield. In **Section 4.3.2.3**, the 2011 2<sup>nd</sup> RDEIR notes that, as compared to baseline operations, Alternatives 5B and 5C involve greater releases for fishery resources that are not fully offset by the additional surcharging during spill events. The 2011 2<sup>nd</sup> RDEIR finds that as a consequence, the frequency of years with shortages of 10 percent or more is greater than the baseline. The 2011 2<sup>nd</sup> RDEIR (**Section 4.3.2.4**) states that under 1951 drought conditions, the shortages under Alternatives 5B and 5C would be greater than under the baseline operations because these alternatives involve greater releases for fish and the additional reservoir surcharge is not large enough to compensate. The shortages beyond those of the baseline would be 2,698 af (or approximately 10 percent) under Alternative 5B and 1,598 af (or approximately 6 percent) under Alternative 5C. (See Table 4-16 in the 2011 2<sup>nd</sup> RDEIR.) The 2011 2<sup>nd</sup> RDEIR goes on to state that the pattern of shortages amongst the alternatives using the worst three-year drought period on record (1949–51) as compared to the baseline is similar, with 6,525 af (or 8 percent) under Alternative 5B; and 3,672 af (or 5 percent) under Alternative 5C.

The 2011 2<sup>nd</sup> RDEIR (**Section 4.3.2.5**) notes that for Cachuma Project water supply in the critical drought year, both Alternatives 5B and 5C have severe water supply impacts (Alternative 5B would exceed the baseline by 21 percent and Alternative 5C would exceed it by 12 percent), and will result in a significant environmental impact resulting in the Member Units' water demand exceeding their water supply from all sources. (See **Table 4-17**). Finally, the 2<sup>nd</sup> 2011 RDEIR finds that Alternatives 5B and 5C would result in significant and unavoidable impacts.

The 2011 2<sup>nd</sup> RDEIR (**Section 3.1.2**) identifies the downstream water rights, several of which occur above the narrows, including both appropriative and riparian licenses and permits.

While not specifically evaluating the downstream condition for the ANA, the 2011 2<sup>nd</sup> RDEIR finds that downstream water quantities would be significantly impacted under Alternatives 5B and 5C. As a result, downstream water rights holders, including those above and below the narrows, would be similarly impacted.

**Response 11-17:**

The comment suggests that protection of downstream water rights is a project objective and that Alternatives 5B and 5C must protect downstream resources. Further, the comment suggests the 2011 2<sup>nd</sup> RDEIR does not explain what impacts Alternatives 5B and 5C will have on the Settlement Agreement.

The 2011 2<sup>nd</sup> RDEIR lists the project objectives in **Section 3.1.1** and lists protection of senior water rights holder as one of the objectives. The 2011 2<sup>nd</sup> RDEIR provides analysis of Alternatives 5B and 5C (see response to **Comment 11-16**) and provides for consideration of impacts to downstream water right holders. Further, the 2011 RDEIR provides a comparison of the alternatives against the baseline (Alternative 2) which includes operations before any surcharging and does not include the Settlement Agreement, which is has been included as part of Alternative 3C, the no project alternative.

The alternatives analysis in the 2011 2<sup>nd</sup> RDEIR **Section 3.2.1. Development of Alternatives** include distinct operating parameters for each. Settlement Agreement is considered under Alternative 3C and is not part of Alternatives 5B or 5C. Alternative 3C reflect existing operations under the Biological Opinion and Settlement Agreement. Alternatives 5B and 5C were derived from Alternative 3A2 from the 1995 Cachuma Project Contract Renewal EIR/EIS (Reclamation and CPA, 1995). Under Alternative 3A2, Reclamation would be required to maintain certain flows in the Santa Ynez River at specified locations in order to benefit fishery resources. Under Alternatives 5B and 5C, the Cachuma Project would be operated pursuant to Alternative 3A2 during wet and above-normal water years, and pursuant to the operations dictated by the Biological Opinion during below-normal, dry, and critical water years. Alternatives 5B and 5C would provide higher flows for fishery resources than Alternatives 3B, 3C, and 4B during wet and above-normal years when more water is available. By switching to the long-term flow requirements in

the Biological Opinion during below-normal, dry and critical years, Alternatives 5B and 5C would have less of an impact on the water supply available from the Cachuma Project than Alternative 3A2.

Under Alternatives 5B and 5C, flow requirements to protect fishery resources would be the same, but the two alternatives assume that Reclamation would implement different surcharge levels at Cachuma Lake. Like Alternative 3B, Alternative 5B assumes a 1.8-foot surcharge. Like Alternative 3C, Alternative 5C assumes a 3.0-foot surcharge.

**Response 11-18:**

The comment emphasizes that the Settlement Agreement, as reflected in Alternative 3C, protects downstream water rights and incorporates the 2000 Biological Opinion. The comment opines that there is no substantial evidence Alternatives 5B and 5C will protect downstream water rights, nor have these alternatives been subjected to peer review or cross-examination.

There is no requirement under CEQA that individual alternatives be subjected to peer review or cross examination. Rather, CEQA requires that the EIR reflect the lead agency's independent judgment and analysis. (*State CEQA Guidelines*, Section 15090.) The SWRCB, as the lead agency, has developed the EIR and the alternatives in a manner that is independent of outside influences. Further, the analysis in the EIR has been conducted by entities that include technical specialists and experts with no biases or conflict of interest.

Neither Alternative 5B nor Alternative 5C include the Settlement Agreement; the Settlement Agreement is considered as part of Alternative 3C. See response to **Comment 11-17**, above.

**Response 11-19:**

The comment suggests that Alternatives 5B and 5C will not avoid or lessen significant impacts to fishery resources in any way not accomplished by Alternative 3C.

Alternatives 5B and 5C operate under a different flow regime than Alternatives 3B, 3C, and 4B. Under Alternatives 5B and 5C, "3A2 operations" would not become the operating criteria for fish water releases until cumulative annual inflow into Cachuma Lake exceeds 33,707 af (wet and above-normal water years).

The 2011 2<sup>nd</sup> RDEIR provides analysis of impacts to fishery resources, including under Alternatives 5B and 5C in **Section 4.7.2**. As stated, the analysis below indicates that there were no significant negative impacts to fish associated with Alternatives 5B and 5C. Under Alternative 5C, in wet and above-normal years, 20 cfs would be required at the Highway 154 and Alisal Road bridges from April 15 to June 1.

Flows would gradually decrease to 10 cfs by the end of June and would be held at that level until October 1.

**Response 11-20:**

The comment suggests that there is no substantial evidence in the 2011 2nd RDEIR that Alternatives 5B and 5C will provide additional benefits to steelhead in comparison to Alternative 3C. Further, the comment suggests that these two alternatives have the same limitations on juvenile steelhead rearing as Alternative 3C. In addition, the comment claims that the higher flows of Alternatives 5B and 5C could benefit largemouth bass, which prey on steelhead fry. Finally, the comment concludes that Alternatives 5B and 5C would not be expected to increase production relative to Alternative 3C.

In regard to Alternatives 5B and 5C, the SWRCB concurs that these alternatives have equivalent benefits to those of Alternative 3C, with the exception that the additional flow provided under Alternatives 5B and 5C would likely provide slightly more pool depth within the Alisal Reach. It is also acknowledged in **Section 6.3 Environmentally Superior Alternative**, that Alternatives 5B, and 5C would result in significant and unavoidable (Class I) impacts to water supply.

However, the SWRCB does not concur with the portion of the comment regarding species interactions between largemouth bass and steelhead. In the 2011 2<sup>nd</sup> RDEIR, there is an analysis of impacts on largemouth bass included in **Section 4.7.2.4, Cachuma Lake – Game Fish**. This analysis concludes that Alternative 5B would provide slightly less favorable habitat conditions and slightly less habitat area than baseline operations and Alternatives 3B, 3C, and 4B. In addition, **Section 4.7.2.1, Comparison of Alternatives** states that improved riparian vegetation conditions under Alternative 3C would favor increased abundance of warm-water predators such as largemouth bass. Finally, **Section 6.3 Environmentally Superior Alternative** states that the environmentally superior alternatives would be Alternative 3C and Alternative 4B, as they have the fewest significant impacts.

**Response 11-21:**

The comment notes that a document entitled, “technical comments” is part of SYRWCD and I.D. No. 1’s May 31, 2011 comment letter and that this document contains comments of a more technical nature.

The comments in the “technical comments” document are responded to below in responses to **Comments 23 through 89**.

**Response 11-22:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR resolves many of the issues raised by the SYRWCD and I.D. No. 1 in comments on the 2007 RDEIR. The comment continues that both agencies believe further clarification would be helpful regarding minor technical amendments to Order WR 89-18 and the

downstream impacts to water quality and water rights caused by Alternatives 5B and 5C. Finally, SYRWCD and I. D. No. 1 concur that Alternative 3C is the environmentally superior alternative.

The comment is noted.

**Response 11-23:**

On page 4, line 5, the comment suggests wording changes regarding dewatered storage.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-24:**

On page 4, paragraph 4, line 1, the comment suggests wording changes regarding releases under Order WR 89-18.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-25:**

On page 8, paragraph 4, line 3, the comment suggests changing the definition of surcharging.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-26:**

On page 8, paragraph 4, lines 5 and 6, the comment provides clarification for surcharging at Lake Cachuma.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-27:**

On page 8, paragraph 4, line 6, the comment suggests a global wording change from spillgate to spillway gates.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-28:**

On page 1, paragraph 1, last line, the comment suggests a wording change regarding outlet releases.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-29:**

On page 1, paragraph 2, line 3, the comment suggests a wording change regarding a reduction in reservoir capacity.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-30:**

On page 6, Table 2-1, the comment requests an explanation be added to Table 2-1 that I.D. No.1 is receiving its Cachuma Project entitlement through an exchange with South Coast Project Member Units.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-31:**

On page 6, Table 2-4, the comment requests an explanation that the numbers in this table also includes SWP water that I.D. No 1 provided to the City of Solvang under a separate agreement. The comment also requests clarification whether this table includes turnback water.

An explanation was added to Table 2-4 in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-32:**

On page 9, paragraph 3, line 9, the comment suggests wording changes regarding release rates.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-33:**

On page 9, paragraph 3, line 10, the comment suggests wording changes regarding timing and rate of releases.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-34:**

On page 15, paragraph 5, line 2, the comment suggests wording changes regarding modified storm operations.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-35:**

On page 15, paragraph 5, line 4, the comment suggests wording changes to the timing of Reclamation's consultation with Santa Barbara County Flood Control District, the Member Units and downstream interests.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-36:**

On page 15, bullet, line 4, the comment suggests wording changes regarding modified storm operations.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-37:**

On page 16, Section 2.3, paragraph 2, the comment suggests wording changes regarding the times Cachuma reservoir had spilled since Bradbury Dam was completed.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-38:**

On page 18, paragraph 3, line 4, the comment suggests wording changes regarding the Draft Fish Management Plan prepared by SYRTAC.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-39:**

On page 18, paragraph 3, lines 5-9, the comment suggests wording changes to clarify conservation measures in the Biological Assessment and the Conservation Recommendations in the Biological Opinion.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-40:**

On page 19, paragraph 3, line 1, the comment suggests wording changes from SYRTAC to AMC.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-41:**

On page 25, the last paragraph, the comment suggests wording changes regarding the ramping rates in Table 2-6, authorized by NMFS in the Biological Opinion to satisfy downstream, water rights.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-42:**

On page 30 paragraph 2, lines 1 and 2, the comment suggests wording changes in the Baseline Alternative.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-43:**

On pages 18 through 41, Sections on BO and FMP, the comment requests that the 2011 2<sup>nd</sup> RDEIR mention and discuss that CEQA and NEPA reviews have already been completed for the Biological Opinion and Fish Management Plan.

Reference to the EIR/EIS for the Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion has been added to the 2011 2<sup>nd</sup> RDEIR.

**Response 11-44:**

On page 45, item 5, the comment suggests wording changes regarding the Below Narrows Account.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-45:**

On page 4, 2<sup>nd</sup> bullet, line 7, the comment requests a change from referring to the Santa Ynez River Alluvial Basin to the Lompoc Basin

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR,

**Response 11-46:**

On page 9, 2<sup>nd</sup> paragraph from bottom, line 6, the comment requests the addition of the Settlement Agreement to the discussion.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-47:**

On page 15, paragraph 4, line 1, the comment suggests wording changes regarding the Settlement Agreement and Alternative 3C.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-48:**

On page 15, item 3, the comment suggests deleting “conjunctive” from the heading.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-49:**

In regards to Alternative 3C, the comment suggests that the 2011 2<sup>nd</sup> RDEIR should clarify that provisions of the Settlement Agreement are part of Alternative 3C, Further, the Cachuma Project is currently being operated under the terms and conditions of the Settlement Agreement, therefore it represents the No Project Alternative.

The comment is noted.

**Response 11-50:**

In regards to Alternative 4B, the comment states that the impacts from Alternative 4B are not adequately discussed in the 2011 2<sup>nd</sup> RDEIR and provides several specific examples.

The 2011 2<sup>nd</sup> RDEIR provides a discussion of all the alternatives including Alternative 4B. The 2011 2<sup>nd</sup> RDEIR was updated to reflect the additional information provided.

**Response 11-51:**

In regards to Alternatives 5B and 5C, the comment states that both alternatives would cause significant reductions in the Above Narrows Account (ANA) resulting in adverse impacts

The 2011 2<sup>nd</sup> RDEIR provides a discussion of all the alternatives including Alternative 4B. The 2011 2<sup>nd</sup> RDEIR was updated to reflect the additional information provided.

**Response 11-52:**

On page 1, paragraph 1, line 3, the comment suggests wording changes.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-53:**

On page 2, paragraph 2, line 2, the comment suggests replacing NOP with Biological Opinion.

The 2011 2<sup>nd</sup> RDEIR has been changed to reflect the correct information.

**Response 11-54:**

On page 6, paragraph 4, lines 3-8, the comment provides information relating to the revision of peak flood estimates for 1907 and 1969.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-55:**

On page 8, paragraph 2, lines 1, 2, and 7, the comment suggests wording changes.

The 2011 2<sup>nd</sup> RDEIR has been changed to reflect the correct information.

**Response 11-56:**

On page 8, paragraph 3, the comment suggests wording changes regarding baseline conditions.

The 2011 2<sup>nd</sup> RDEIR has been changed to reflect the correct information.

**Response 11-57:**

On page 8, paragraph 4, second sentence, the comment suggests wording changes regarding raising the reservoir surcharge level.

The 2011 2<sup>nd</sup> RDEIR has been changed to reflect the correct information.

**Response 11-58:**

On page 9, paragraph 1, last sentence, the comment suggests wording changes.

The 2011 2<sup>nd</sup> RDEIR has been changed to reflect the correct information.

**Response 11-59:**

The comment suggests the addition of a footnote on Table 4-1, page 11.

The 2011 2<sup>nd</sup> RDEIR has been changed to reflect the correct information.

**Response 11-60:**

On page 13, Peer Review subsection, the comment notes that the correct reference in the section should be to the Santa Ynez River Water Quality Technical Advisory Committee (SYRWQTAC).

The 2011 2<sup>nd</sup> RDEIR has been corrected.

**Response 11-61:**

On page 18, paragraph 2, lines 5 and 6, the comment provides clarifying information regarding the ANA and BNA.

This information has been added to the 2011 2<sup>nd</sup> RDEIR.

**Response 11-62:**

On page 18, paragraph 2, lines 6 and 7, the comment provides a correction to the dewatered storage discussion.

The 2011 2<sup>nd</sup> RDEIR has been corrected to reflect the correct information

**Response 11-63:**

On page 18, paragraph 2, the comment provides corrected information regarding the Accumulated Drought Water Credit.

The 2011 2<sup>nd</sup> RDEIR has been corrected based on the information provided.

**Response 11-64:**

The comment provides corrected information in Tables 4-10 through 4-18 on page 8.

The 2011 2<sup>nd</sup> RDEIR has been corrected based on the information provided.

**Response 11-65:**

On page 9, Table 4-15, the comment provides reference to corrected information provided in comments on the 2003 DEIR.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-66:**

On page 26, Indirect Environmental Impact of Water Supply Shortages, the comment notes that I.D. No. 1 has concerns regarding the increased releases for flow targets at Alisal Bridge under Alternatives 5B and 5C.

The comment is noted.

**Response 11-67:**

The comment on page 26 (above) states that impacts under Alternative 3C will be made even worse under Alternatives 5B and 5C because the flows at Alisal Bridge are increased under these alternatives.

The comment is noted.

**Response 11-68:**

On page 26, **Section 4.3.2.7**, the comment refers to prior comments submitted on the 2003 DEIR.

The information contained in the prior comments on the 2003 DEIR has been reviewed and the 2011 2<sup>nd</sup> RDEIR has been corrected accordingly.

**Response 11-69:**

The comment suggests wording changes and corrections on page 1, paragraph 1.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-70:**

The comment suggests wording changes and corrections on page 1, paragraph 2.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-71:**

On page 1, paragraph 3, the comment suggests wording changes and corrections regarding upper basin replenishment.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-72:**

The comment suggests wording changes and corrections to Chart 4-9 on page 2, paragraph 2.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-73:**

On page 2, paragraph 3, last sentence, the comment suggests wording changes and corrections regarding annual changes in water quality.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-74:**

On page 2, paragraph 4, the comment suggests wording changes regarding the effect of phreatophytes to the concentration of total dissolved solids in the basin.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-75:**

The comment suggests wording changes and corrections to page 2, paragraph 7, line 1 regarding changes in groundwater levels.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-76:**

On page 4, paragraph 3, the comment provides updated information regarding the local groundwater basin management efforts,

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-77:**

On page 6, paragraph 1, lines 3 and 4, the comment suggests wording changes regarding some charts that show variation in dewatered storage.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-78:**

The comment suggests wording changes and corrections on page 6, paragraph 2, lines 1 and 2 regarding SYRWCD's management of the dewatered storage in the Above Narrows Groundwater Basin.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-79:**

The comment suggests wording changes and clarifications on page 6, paragraph 2 regarding the ANA and BNA releases to the downstream areas.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-80:**

The comment suggests wording changes and corrections to page 6, paragraph 2, lines 10 through 12 regarding the calculation of the ADWC.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-81:**

The comment suggests wording changes and clarifications to page 6, paragraph 2, lines 2 and 3 regarding management of ANA releases.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-82:**

The comment suggests adding clarifying language regarding the salinity concentrations to page 11, paragraph 5, lines 7-14.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-83:**

The comment suggests corrections to page 12, paragraph 3, last two sentences, regarding estimation of salinity trends.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-84:**

The comment suggests wording changes and clarifications to page 14, paragraph 1 regarding TDS under Alternative 4B for the Santa Rita sub-unit upstream of the Lompoc Forebay.

The information has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 11-85:**

On page 3, paragraph 2, the comment provides updated information on the ownership and operation of wells formerly controlled by Vandenberg Air Force Base.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 11-86:**

On page 4, paragraph 4, last sentence, the comment provides clarifying information regarding location of the seawater.

The 2011 2<sup>nd</sup> RDEIR has been updated to reflect the information provided.

**Response 11-87:**

On page 2, paragraph 2, the comment suggests deleting the term "No Project."

The 2011 2<sup>nd</sup> RDEIR has been updated to reflect the information provided.

**Response 11-88:**

On page 4, Table 6-1 and Table 6-2, the comment provides clarifying information regarding Alternative 4B and surface water quality.

The 2011 2<sup>nd</sup> RDEIR has been updated to reflect the information provided.

**Response 11-89:**

On page 6, Table 6-2, the comment provides clarifying information regarding Lompoc groundwater basin conditions.

The 2011 2<sup>nd</sup> RDEIR has been updated to reflect the information provided.



State of California – The Natural Resources Agency  
DEPARTMENT OF FISH AND GAME  
South Coast Region  
4949 Viewridge Avenue  
San Diego, CA 92123  
(858) 467-4201  
http://www.dfg.ca.gov

Edmund G. Brown, Jr., Governor  
John McCamman, Director



May 31, 2011

Ms. Jane Farwell  
State Water Resources Control Board- Water Rights  
1001 I Street  
Sacramento, CA 95814  
Fax #: (916) 341-5400

**Subject: Notice of Completion of a 2<sup>nd</sup> Revised Draft Environmental Impact Report for the Modifications to the US Bureau of Reclamation Water Right Permits 11308 and 11310 for the Cachuma Project on the Santa Ynez River SCH #2000021068**

Dear Ms. Farwell:

The Department of Fish and Game (Department) reviewed the 2<sup>nd</sup> Revised Draft Environmental Impact Report (2<sup>nd</sup> RDEIR) for the above referenced project relative to impacts to biological resources.

The proposed project analyzed in the 2<sup>nd</sup> RDEIR consists of potential modifications to the US Bureau of Reclamation's (Reclamation) water right permits 11308 and 11310 for the Cachuma Project in order to provide appropriate protection of downstream water rights and public trust resources on the Santa Ynez River. The Cachuma Project includes Bradbury Dam, which impounds water on the Santa Ynez River in northern Santa Barbara County, forming Cachuma Lake. The Cachuma Project provides water to the Cachuma Project Member Units for irrigation, domestic, municipal, and industrial uses.

The proposed project, as listed in the Notice of Preparation (NOP) issued by the State Water Resources Control Board (SWRCB) is: "development of revised release requirements and other conditions, if any, in the Reclamation water rights permits (Applications 11331 and 11332) for the Cachuma Project. These release requirements will take into consideration the National Marine Fisheries Service's (NMFS) Biological Opinion and the draft Lower Santa Ynez River Fish Management Plan and other reports called for by Order WR 94-5. The revised release requirements are to provide appropriate public trust and downstream water rights protection. Protection of prior rights includes 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."

The Lead Agency has noted that the CEQA Guidelines Section 15088.5(a)(1) requires that an EIR be re-circulated if a new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented. The lead agency may recirculate only those portions of the document that have been revised, and request that reviewers limit their comments to the revised chapters or portions of the document. (Cal. Code Regs., tit. 14, § 15088.5, subds. (c) & (f)(2).) Although a complete copy of the 2<sup>nd</sup> RDEIR is available for public review, only Sections 4.3 and 6.0 are being recirculated for comment, and the State Water Board has requested that reviewers limit their comments to those revised portions.

1

*Conserving California's Wildlife Since 1870*

Ms. Jane Farwell  
May 31, 2011  
Page 2 of 3

The project has the potential to affect a number of sensitive fish and wildlife species and associated habitat including, but not limited to: Federal Endangered Species Act (FESA) threatened southern steelhead (*Oncorhynchus mykiss*); FESA endangered and California Endangered Species Act (CESA) endangered southwestern willow flycatcher (*Empidonax traillii extimus*); FESA threatened and California Species of Special Concern (CSC) California Red-legged frog (*Rana aurora draytonii*); CSC western pond turtle (*Emmys marmorata*) and two-striped garter snake (*Thamnophis hammondi*); the loss of oak woodland along the margin of Cachuma Lake, changes in riparian vegetation along the Santa Ynez River, and disruption of breeding bird behavior.

2

The Department prepared the following statements and comments pursuant to authority as Trustee Agency with jurisdiction over natural resources affected by the project under the California Environmental Quality Act (CEQA Section 15386) and Responsible Agency (Section 15381) over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code Section 2050 et seq) and Fish and Game Code Section 1600 et seq. regarding impacts to streams and lakes.

The Department commented on the original DEIR for the project on October 7, 2003 (Attachment 1) and expressed a number of concerns regarding project scope, impacts to southern steelhead, impacts to riparian zones and southwestern willow flycatcher, the need for a Streambed Alteration Agreement pursuant to Fish and Game Code Section 1600, and the proposed alternatives.

3

Subsequently, the Department commented on a revised DEIR (RDEIR) on September 28, 2007 (Attachment 2) and expressed a number of concerns regarding the alternatives presented and the lack of a reasonable and feasible alternative providing for fish passage above Bradbury Dam, the lack of an analysis of "flow related actions" for each alternative presented, the failure to incorporate "significant new information" into the analysis of impacts of each alternative in the RDEIR, a reiteration of the 2003 comment that fish migration issues were not adequately addressed, a reiteration of the 2003 comment that impacts to riparian zones and southwestern willow flycatcher were not adequately addressed, and a reiteration that a Streambed Alteration Agreement pursuant to Fish and Game Code Section 1600 would be required.

Upon reviewing the 2<sup>nd</sup> RDEIR for this project, the Department would like to repeat and reinforce its previous concerns about the issues identified. The 2<sup>nd</sup> RDEIR (pg. ES-4) states that:

*"The Revised Draft EIR (2007) included sections on background information and alternatives analyzed in the 2003 Draft EIR to establish a context for the analysis of Alternatives 5B and 5C, but focused on the analysis of the new alternatives. In addition, the Revised Draft EIR was updated to reflect a number of changes, including the surcharging of Cachuma Lake to 2.47 feet, that have occurred since the 2003 Draft EIR was prepared. Finally, the Revised Draft EIR made some changes and corrections in response to comments on the 2003 Draft EIR. The Revised Draft EIR did not contain, however, a complete response to comments."*

4

The Department does not feel that its comments from the past two EIR reviews and comment submittals were adequately addressed. The Department has attached the previous comment letters for reference and intends for them to be used as a repeat of its concerns that need to be addressed by the Lead Agency and incorporated within the 2<sup>nd</sup> RDEIR.

5

Ms. Jane Farwell  
 May 31, 2011  
 Page 3 of 3

#### 4.3 Water Supply

The Department is concerned that, during a three year drought period, current water supply (including that for natural resources) would not meet current water demands. The Department is also concerned that the projected increase in demand would further exceed drought period supply under all project alternative scenarios, even with the Central Coast Water Authority (CCWA) drought buffer reserves and increased use of groundwater.

6

The 2nd RDEIR does not appear to consider the direct environmental impacts to natural resources because, according to the 2<sup>nd</sup> RDEIR, water for fish and other resources has already been factored into the numbers supplied. The Department requests clarification on whether water for fish and other resources would be released under all water year scenarios regardless of human demand.

7

The 2<sup>nd</sup> RDEIR states that indirect environmental impacts would be due to increased groundwater pumping and overdrafting the Goleta Groundwater Basin, saltwater intrusion, and/or desalinization operations, but does not quantify what these impacts would be. The Department requests further analysis and discussion on the indirect environmental impacts identified in the 2<sup>nd</sup> RDEIR.

8

The conclusion of this section states that "drought contingency measures identified in the Member Units' urban water management plans shall be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year" (pg. 4.3-31). The Department requests further information on specific mitigation measures and quantification of how these measures would effectively cover demand during drought conditions, and how effectively they would mitigate for indirect environmental impacts.

9

Thank you for this opportunity to provide comment. Please include the above concerns and comments into the final 2<sup>nd</sup> REIR for the subject project. Please contact Mrs. Mary Larson, Senior Fisheries Biologist at (562) 342-7186 or Mr. Sean Carlson, Staff Environmental Scientist at (909) 596-9120 for any questions and further coordination.

Sincerely,



Edmund Pert  
 Regional Manager  
 South Coast Region

#### Attachments

Helen Birss, CDFG, Los Alamitos  
 Betty Courtney, CDFG, Santa Clarita  
 Natasha Lohmus, CDFG, Carpinteria  
 Mary Larson, CDFG, Los Alamitos  
 Krys Vyverberg, CDFG, Sacramento HQ  
 Scott Morgan, State Clearinghouse, Sacramento

**12. California Department of Fish and Game (CDFG) dated May 31, 2011**

**Response 12-1:**

The comment notes the requirements stated in the *State CEQA Guidelines* for re-circulation of an EIR and that the SWRCB has requested that commenters on the 2011 2<sup>nd</sup> RDEIR limit comments to **Sections 4.3 and 6.0**.

The comment is noted.

**Response 12-2:**

The comment suggests that the Project has the potential to affect a number of fish and wildlife species and associated habitats protected by the Federal and California Endangered Species Acts, such as the southern steelhead (*O. mykiss*), western pond turtle (*Emmys marmorata*), oak woodland and riparian vegetation.

The 2011 2<sup>nd</sup> RDEIR provides a discussion of potential impacts to sensitive species, including fish and wildlife species and their habitats, in the 2011 2<sup>nd</sup> RDEIR **Sections 4.7, Southern California Steelhead and Other Fishes, 4.8, Riparian and Lakeshore Vegetation, and 4.9, Sensitive Aquatic and Terrestrial Wildlife**.

**Response 12-3:**

The comment states that CDFG commented on both the original 2003 DEIR and the 2007 RDEIR expressing concerns regarding a number of issues including impacts to sensitive fishes and wildlife species and riparian habitat, the need for a Streambed Alteration Agreement pursuant to Fish and Game Code Section 1600, and the lack of an alternative providing fish passage above Bradbury Dam.

CDFG's prior comments have been considered in preparing the 2011 2<sup>nd</sup> RDEIR. Responses to those comments are provided in Sections 2.4.2 and 2.4.3 of Volume I of this Final EIR.

**Response 12-4:**

The comment notes that CDFG would like to repeat and reinforce its prior concerns identified in its earlier comments, but offers no specifics.

As previously noted, CDFG's comments on the 2003 DEIR and 2007 RDEIR have been considered in preparing the 2011 2<sup>nd</sup> RDEIR, and responses are provided in Sections 2.4.2 and 2.4.3 of Volume I of this Final EIR.

**Response 12-5:**

The comment suggests CDFG believes prior comments from the 2003 DEIR and 2007 RDEIR were not adequately addressed, therefore CDFG attached the 2003 and 2007 comment letters and intends for them to be used as a repeat of its concerns that need to be addressed by the SWRCB.

As previously noted, CDFG's comments on the 2003 DEIR and 2007 RDEIR have been considered in preparing the 2011 2<sup>nd</sup> RDEIR. Responses to those comments are provided in Sections 2.4.2 and 2.4.3 of Volume I of this Final EIR.

**Response 12-6:**

The comment states CDFG's concern that during a three year drought period, the current water supply, including that for natural resources, would not meet current demands, and that projected increases in demand would further exceed supply during droughts.

The 2011 2<sup>nd</sup> RDEIR (see **Section 4.3**) provides a discussion of the potential impacts to water supply. Specifically, the 2011 2<sup>nd</sup> RDEIR (see **Section 4.3.2.3**) notes that:

*Compared to the 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 than the baseline 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.*

*Alternatives 3C and 4B would involve greater releases for fish than under the baseline operations, but the associated reduction in water supply is offset by a 3.0-foot surcharge. Hence, the frequency of shortages in project yield under Alternatives 3C and 4B would be the same as under the baseline conditions because surcharging would produce more storage in the reservoir.*

**Section 4.3.2.4** discusses the potential impacts during drought periods. As shown on Table 4-16 and Table 4-25a in the 2011 2<sup>nd</sup> RDEIR, all of the alternatives would experience shortages in delivery during a critical 3-year drought.

As shown in the 2011 2<sup>nd</sup> RDEIR Table 4-25a, in a critical three-year drought period all of the alternatives would experience shortages in delivery. Alternatives 3B, 5B and 5C would exceed the baseline conditions (Alternative 2) and result in a water shortage during the three-year critical drought period by 11 percent, 21, percent and 12 percent, respectively, and would result in a significant and unavoidable impact (Class I - greater than 10 percent), depending on the manner in which the Member Units make up for the shortage. The same pattern of demand exceeding supply would be present for the future demand estimates for 2020/2030.

In contrast, total supply would be approximately the same for Alternative 3C (1 percent) or greater for Alternative 4B (5 percent) than total supply under the baseline conditions in a critical drought year for 2010 and for future demand estimates.

**Response 12-7:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR does not consider direct environmental impacts to natural resources because water for fish and other resources has already been factored into the numbers supplied. The comment requests clarification as to whether water for fish and other resources would be released under all water year scenarios regardless of human demand.

Water releases for fish are considered in all of the alternatives. As noted in **Section 3.2.1, Development of Alternatives**, all of the alternatives considered in the 2011 2<sup>nd</sup> RDEIR incorporated non-flow fish conservation measures required by the Biological Opinion, affecting the mainstem and tributaries. These include releases to meet long-term rearing and passage target flows under the Biological Opinion, and other steelhead conservation actions as described in the Biological Opinion (and Fish Management Plan) such as the Hilton Creek and other tributary passage improvement projects. Water releases to support and protect the public trust resources are required in all water year scenarios in order to maintain the flow rates required by the Biological Opinion.

**Response 12-8:**

The comment requests further analysis and discussion of the indirect impacts due to increased pumping and overdrafting in the Goleta Groundwater Basin.

The Goleta Groundwater Basin is managed by the Goleta Water District (GWD) and La Cumbre Mutual Water Company (La Cumbre), the purveyors of groundwater in the Goleta Groundwater Basin. The Goleta Groundwater Basin is managed via the goals and objectives set forth in the Groundwater Management Plan for the Basin.<sup>31</sup> The Plan established Basin Management Objectives (BMOs) to measure and evaluates the health of the basin.

For the Goleta Groundwater Basin, the water level BMOs are set at the lowest measured historical static (non-pumping) groundwater elevation in each BMO well. If groundwater elevations in a BMO well fall below this elevation, the BMO will be considered to have not been met and the basin will be considered to be in distress. This criterion for the water level BMO is based on the observation that a groundwater elevation that low in the well in the past did not harm the basin, but a groundwater elevation below the BMO may create potential undesirable effects.

---

<sup>31</sup> Bachman, Steve, Ph.D., Final Groundwater Management Plan, Goleta Basin, prepared for the Goleta water District and La Cumbre Mutual Water Company, May 11, 2010.

The current strategy for pumping in the basin is to stay within water rights determined by the Wright Judgment, allow the basin to recover by reducing pumping when possible, and store un-pumped groundwater for a drought or some other water contingency.

Reduced pumping in the Goleta Groundwater basin over the past two decades, particularly by GWD, has allowed groundwater elevations in the basin to rise 20 feet above 1972 levels.

The combination of the Wright Judgment's groundwater storage component and GWD's SAFE Ordinance has established a large storage bank in the Central subbasin for droughts and other potential shortages of supply. The amount of groundwater La Cumbre can pump from the storage programs cannot exceed the amount of water it has stored in the basin (although it can pump additional water from its water right as long as the 10-year moving average of pumping does not exceed 1,000 acre-feet per year). La Cumbre will likely pump from its share of the groundwater storage when SWP deliveries are curtailed because of drought conditions in Northern California or some other disruption to supply.

GWD's use of groundwater in storage is controlled by both the SAFE Ordinance and the Wright Judgment. The Wright Judgment only requires that there is storage available that was accumulated by either injection in wells or by deliveries of other supplies in lieu of pumping GWD water right.

An extended drought might require pumping groundwater to below historical elevations. In addition, it is also likely that production yields for individual wells will decrease as groundwater elevations decrease. This relationship was detected during the drought of 1986–1991, when production capacity from GWD's wells dropped by a third over a period of five years as groundwater elevations dropped to their historical low

**Response 12-9:**

The comment requests further information on specific mitigation measures and quantification of how drought contingency measures would effectively cover demand during drought conditions, and how effectively they would mitigate for indirect environmental impacts.

The Member Units and other downstream water purveyors are in the process of finalizing and adopting updates to their Urban Water Management Plans (UWMPs) in accordance with the Urban Water Management Planning Act. (Wat. Code, Sections 10610–10657). These updates must demonstrate how each purveyor will address drought concerns and demonstrate how each will comply with the requirements of the 2009 Comprehensive Water Legislation (SBx7-7). (Wat. Code, Section 10631.)

As stated in the 2011 2<sup>nd</sup> RDEIR (see **Section 4.3.2.7**), the indirect environmental impacts that could result under Alternatives 3B, 5B and 5C if the Member Units increase groundwater pumping, obtain a

temporary transfer from another SWP contractor, or desalinate seawater are potentially significant. These potentially significant impacts might be mitigable to less than significant levels if the Member Units were to develop and implement a drought contingency and/or conservation plans to cover the water supply shortage; conservation plans to achieve a reduction of 20 percent by 2020 are required as part of the 2009 Comprehensive Water Legislation (SB7X) and must be demonstrated in an agencies 2010 Urban Water Management Plan (UWMP) updates

The 2010 UWMPs also must contain an urban water supply contingency analysis. The 2010 UWMP updates must include, among other things, actions to be undertaken in response to a water supply shortage, including up to a 20 percent reduction in per capita water demand by 2020, and mandatory prohibitions against specific water use practices during shortages, including but not limited to prohibiting the use of potable water for street cleaning. (Wat. Code, Section 10632.)

The 2011 2<sup>nd</sup> RDEIR includes a discussion of mitigation measures to reduce impacts to water supply (see **Section 4.3.3**). These include measures adopted by the Central Coast Water Authority (CCWA) including:

- Acquiring water from the State “Turnback Pool,” which is an internal SWP mechanism that pools unused SWP supplies early in the year for purchase by other SWP contractors at a set price. In addition, CCWA has established its own Turnback Pool Program whereby CCWA project participants can buy and sell excess entitlement among themselves before submitting it for sale in the state turnback pool program. The turnback pool mechanism is only for one-year sales of water.
- Acquiring water from the State Water Bank during those years the bank is implemented by the state to market water that it purchases on the open market (i.e., non-SWP water). The bank was first implemented in 1991 as the State Drought Water Bank and has since been utilized during certain dry years when additional water is needed by SWP contractors. The water bank also is only for one-year sales of water.
- Term water purchases and sales of SWP entitlement by CCWA project participants in accordance with the CCWA Water Transfer Procedures adopted in March 1996. The procedures typically cover multi-year temporary and permanent sales of SWP entitlement.

As shown in the 2011 2<sup>nd</sup> RDEIR, not all impacts would be mitigated and there would be significant impacts. Despite the fact that the Member Units already have implemented a number of conservation measures, it may be possible to implement additional drought contingency measures identified as part of the Member Units’ urban water supply contingency analysis in order to make up for a temporary water supply shortage in a critical drought year or period under Alternatives 3B, 5B, and 5C. Therefore, as a mitigation measure, any drought contingency measures identified in the Member Units’ urban water management plans shall be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year.

## Jane Farwell - Solvang Comment Letter

**From:** "Lauren D. Layne" <LLayne@bakermanock.com>  
**To:** "JFarwell@waterboards.ca.gov" <JFarwell@waterboards.ca.gov>, "kobrien@downeybrand.com" <kobrien@downeybrand.com>, "tkuntz@downeybrand.com" <tkuntz@downeybrand.com>, "gkwilkinson@bbklaw.com" <gkwilkinson@bbklaw.com>, "sdunn@somachlaw.com" <sdunn@somachlaw.com>, "econant@youngwooldridge.com" <econant@youngwooldridge.com>, "kkraus@edcnet.org" <kkraus@edcnet.org>, Chris Campbell <CCampbell@bakermanock.com>, "Amy.aufdemberge@sol.doi.gov" <Amy.aufdemberge@sol.doi.gov>, "tmaus@co.santa-barbara.ca.us" <tmaus@co.santa-barbara.ca.us>, "dan.hytrek@noaa.gov" <dan.hytrek@noaa.gov>, "nmurray@dfg.ca.gov" <nmurray@dfg.ca.gov>  
**Date:** 5/31/2011 9:18 AM  
**Subject:** Solvang Comment Letter  
**CC:** "bradv@cityofsolvang.com" <bradv@cityofsolvang.com>, "hanley@hflegal.net" <hanley@hflegal.net>  
**Attachments:** Comment ltr on 2nd RDEIR.PDF

Hello Ms. Farwell,

Attached are the City of Solvang's comments to the Second Revised Draft EIR for the Cachuma Project.

1

Thank you,  
 Lauren

**Lauren D. Layne**  
**Baker Manock & Jensen, PC**  
 5260 North Palm, Suite 421  
 Fresno, CA 93704  
 Telephone (559) 432-5400  
 Facsimile (559) 432-5620  
[LLayne@bakermanock.com](mailto:LLayne@bakermanock.com)

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May 31, 2011

*VIA MAIL & EMAIL*

*(JFarwell@waterboards.ca.gov)*

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

Re: Comments on the Second Revised Draft Environmental Impact Report Prepared in Connection with Consideration of Modifications to United States Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir), dated April 2011 (SCH#1999051051)

Dear Ms. Farwell:

The City of Solvang appreciates the opportunity to comment on the above-referenced 2nd Revised Draft Environmental Impact Report ("2<sup>nd</sup> RDEIR") prepared by the State Water Resources Control Board ("State Water Board").

The City of Solvang is a small city located in the Santa Ynez river watershed adjacent to Alisal Bridge. Solvang is within the Santa Ynez River Water Conservation District ("SYRWCD") and is within the Santa Ynez River Water Conservation District Improvement District No. 1 ("I.D. No. 1") service area. Solvang obtains water from four sources: 1) Diversions from the underflow of the Santa Ynez River pursuant to Permit No. 15878; 2) The State Water Project pursuant to a subcontract with I.D. No. 1; 3) The Cachuma Project through I.D. No. 1 service; and, 4) Upland wells.

As a participant in SYRWCD and as a large water user served by ID No. 1, Solvang has participated in the development of and supports the comments submitted to you by SYRWCD and I.D. No. 1. In particular, Solvang agrees that Alternative 3C is the environmentally superior alternative and is the only feasible alternative that meets all of the project objectives without causing significant (Class I) impacts to our water supply.

Solvang concurs with the SYRWCD and I.D. No. 1 that the 2<sup>nd</sup> RDEIR resolves many of the issues raised by the 2007 RDEIR, including the clarification that Alternative 3C incorporates the

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Settlement Agreement. However, as discussed in Section D(4) of the SYRWCD and I.D. No. 1 2<sup>nd</sup> RDEIR comment letter, none of the other Alternatives discussed in the 2<sup>nd</sup> RDEIR are shown to be environmentally superior to Alternative 3C. Alternative 3C is the only alternative that was developed after significant study and compromise, by all stakeholders. Alternatives 5B and 5C have not been subject to the scientific study and scrutiny that has been focused on the other alternatives and would require significant additional releases that result in Class I impacts to water supplies with little or no fishery benefits. Alternatives that do not avoid or lessen significant impacts caused by the proposed project should not be considered (CEQA Guidelines, § 15126.6(a)).

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We greatly appreciate your attention to these comments and your efforts in preparing the 2nd RDEIR. If you have any questions or require clarification of any of Solvang's comments please feel free to contact me.

Sincerely,



Brad Vidro  
City Manager

Cachuma Project Phase 2 Hearing  
Final Service List  
(updated 05/13/2011)

(Based on 01/05/2004 list, updated 07/26/2007, updated 06/08/2010, updated 01/20/2011,  
updated 05/13/2011)

**The parties whose email addresses are listed below agreed to accept electronic service, pursuant to the rules specified in the hearing notice.**

<p>Cachuma Conservation Release Board Mr. Kevin O'Brien Downey Brand LLP 621 Capitol Mall, Floor 18 Sacramento, CA 95814 <a href="mailto:kobrien@downeybrand.com">kobrien@downeybrand.com</a> <a href="mailto:tkuntz@downeybrand.com">tkuntz@downeybrand.com</a></p> <p><i>updated 01/20/2011</i></p>	<p>City of Solvang Mr. Christopher L. Campbell Baker, Manock &amp; Jensen 5260 N. Palm Avenue, Suite 421 Fresno, CA 93704 <a href="mailto:clc@bmi-law.com">clc@bmi-law.com</a></p>
<p>Santa Ynez River Water Conservation District, Improvement District No. 1 Mr. Gregory K. Wilkinson Best, Best &amp; Krieger, LLP 3750 University Avenue, Suite 400 Riverside, CA 92501 <a href="mailto:gkwilkinson@bbklaw.com">gkwilkinson@bbklaw.com</a></p>	<p>City of Lompoc Ms. Sandra K. Dunn Somach, Simmons &amp; Dunn 500 Capitol Mall Suite 1000 Sacramento CA 95814 <a href="mailto:sdunn@somachlaw.com">sdunn@somachlaw.com</a></p> <p><i>updated 06/08/2010</i></p>
<p>Santa Ynez River Water Conservation District Mr. Ernest A. Conant Law Offices of Young Wooldridge 1800 – 30<sup>th</sup> Street, Fourth Floor Barkersfield, CA 93301 <a href="mailto:econant@youngwooldridge.com">econant@youngwooldridge.com</a></p>	<p>California Trout, Inc. c/o Ms. Karen Kraus Environmental Defense Center 906 Garden Street Santa Barbara, CA 93101 <a href="mailto:kkraus@edcnet.org">kkraus@edcnet.org</a></p>

**The parties listed below did not agree to accept electronic service, pursuant to the rules specified by this hearing notice.**

<p>U.S Bureau of Reclamation Ms. Amy Aufdemberg 2800 Cottage Way, Room E-1712 Sacramento, CA 95825 Fax (916) 978-5694 <a href="mailto:AMY.AUFDEMBERGE@sol.doi.gov">AMY.AUFDEMBERGE@sol.doi.gov</a></p>	<p>Santa Barbara County Parks Ms. Terri Maus-Nisich Director of Parks 601 Mission Canyon Road Santa Barbara, CA 93105 <a href="mailto:tmaus@co.santa-barbara.ca.us">tmaus@co.santa-barbara.ca.us</a></p>
<p>Dan Hytrek NOAA Office of General Counsel Southwest Region 501 West Ocean Blvd., Suite 4470 Long Beach, CA 90802-4213 <a href="mailto:Dan.Hytrek@noaa.gov">Dan.Hytrek@noaa.gov</a></p> <p><i>updated 05/13/2011</i></p>	<p>Department of Fish and Game Office of General Counsel Nancee Murray 1416 Ninth Street, 12<sup>th</sup> Floor Sacramento, CA 95814 <a href="mailto:Nmurray@dfg.ca.gov">Nmurray@dfg.ca.gov</a></p>

**13. City of Solvang (Baker Manock & Jensen, PC) dated May 31, 2011**

**Response 13-1:**

The comment notes that the City of Solvang's (City) comments on the 2011 2<sup>nd</sup> RDEIR have been submitted.

The comment noted.

**Response 13-2:**

The comment notes that the City agrees that Alternative 3C is the environmental superior alternative and is the only feasible alternative that meets all of the project objectives without causing significant (Class I) impacts to water supply.

The comment is noted.

**Response 13-3:**

The comment notes that the City concurs with SYRWCD and I.D. No. 1 that the 2011 2<sup>nd</sup> RDEIR resolves many of the issues raised in comments on the 2007 RDEIR, including the clarification that Alternative 3C incorporates the Settlement Agreement.

The comment is noted.

**Response 13-4:**

The comment suggests, as discussed in Section D(4) of the SYRWCD and I.D. No. 1 comment letter, none of the other alternatives discussed in the 2011 2<sup>nd</sup> RDEIR are shown to be environmentally superior to Alternative 3C.

The comment is noted.

**Response 13-5:**

The comment suggests that Alternatives 5B and 5C have not been subjected to the same scientific scrutiny as other alternatives considered and that these alternatives require significant additional water releases that result in Class I impacts to water supplies with little or no benefit to fisheries. The comment goes onto suggest that alternatives that do not avoid or lessen significant impacts caused by the proposed project should not be considered.

The comment is noted. The comment does not specify any specific area of analysis that received less scrutiny for Alternatives 5B and 5C. Each of the alternatives in the 2011 2<sup>nd</sup> RDEIR has been analyzed with the same degree of scrutiny, including Alternatives 5B and 5C. All alternatives in the 2011 2<sup>nd</sup> RDEIR lessen at least one significant impact, although they may still have a significant impact on one or more other environmental factor.

**Jane Farwell - CCRB Comments on 2nd RDEIR for the Cachuma Project**

**From:** Kate Rees <KRees@cachuma-board.org>  
**To:** <JFarwell@waterboards.ca.gov>, <kobrien@downeybrand.com>, "Kuntz, Terri" <tkuntz@DowneyBrand.com>, <clc@bmj-law.com>, <gkwilkinson@bbklaw.com>, Ernest Conant <econant@youngwooldridge.com>, <sdunn@somachlaw.com>, <kkraus@edcnet.org>, <AMY.AUFDEMBERGE@sol.doi.gov>, <tmaus@co.santa-barbara.ca.us>, <Dan.Hytrek@noaa.gov>, <Nmurray@dfg.ca.gov>  
**Date:** 5/31/2011 5:07 PM  
**Subject:** CCRB Comments on 2nd RDEIR for the Cachuma Project  
**CC:** Steve Torigiani <storigiani@youngwooldridge.com>, <bwales@syrwcd.com>, <cdahlstrom@syrwcd.org>, <Bradv@cityofsolvang.com>, <johnk@cityofbuellton.com>, <r\_stassi@ci.lompoc.ca.us>, "John McInnes " <jmcinnes@goletawater.com>, Rebecca Bjork <RBjork@SantaBarbaraCA.gov>, Tom Mosby <tom@montecitowater.com>  
**Attachments:** 2nd RDEIR\_CCRB Comments\_053111 FINAL.pdf

Ms. Farwell,

Attached are the comments from the Cachuma Conservation Release Board on the Second Revised Draft EIR, prepared in connection with consideration of modifications to U.S. Bureau of Reclamation's Water Right Permits to protect public trust values and downstream water rights on the Santa Ynez River below Cachuma Reservoir (SCH#1999051051).

1

Best regards,  
Kate Rees

\*\*\*\*\*  
 Kate Rees  
 General Manager  
 Cachuma Operation & Maintenance Board  
 Cachuma Conservation Release Board  
 office: 805.569.1391 x 203  
 cell: 805.698.8840  
 krees@cachuma-board.org



CACHUMA  
CONSERVATION  
RELEASE BOARD

City of Santa Barbara  
Goleta Water District  
Montecito Water District

May 31, 2011

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

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

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

Dear Ms. Farwell:

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

CCRB commented on the 2003 DEIR and the 2007 RDEIR for the Project. 2  
The State Board's notice accompanying release of the 2011 RDEIR states that the comments made on those prior draft EIRs will be combined and responded to in the Final EIR ("FEIR"). The notice also requests that reviewers limit their comments to Sections 4.3 and 6.0 of the 2011 RDEIR. Accordingly, CCRB will not repeat its prior comments except insofar as they may be relevant to Sections 4.3 and 6.0. In order to ensure that the 2011 RDEIR accurately and comprehensively considers the potential impacts of a State Board water right decision in relation to the Project, CCRB is also submitting technical comments in the appendix enclosed with this letter (Appendix A). 3

3301 LAUREL  
CANYON ROAD  
SANTA BARBARA  
CALIFORNIA  
93105-2017

TEL 805 687-4011  
FAX 805 569-5825  
www.ccrb-board.org

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## **I. BACKGROUND**

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

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

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

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

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

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

## II. COMMENTS ON THE 2011 RDEIR

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

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

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

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

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

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

7

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

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

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

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

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

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

9

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

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

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

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

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

11

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

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

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

11

**E. Reservoir Surcharge.**

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

12

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

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**F. Analysis of Alternatives.**

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

14

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

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

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

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

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

18

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

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

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

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

18

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

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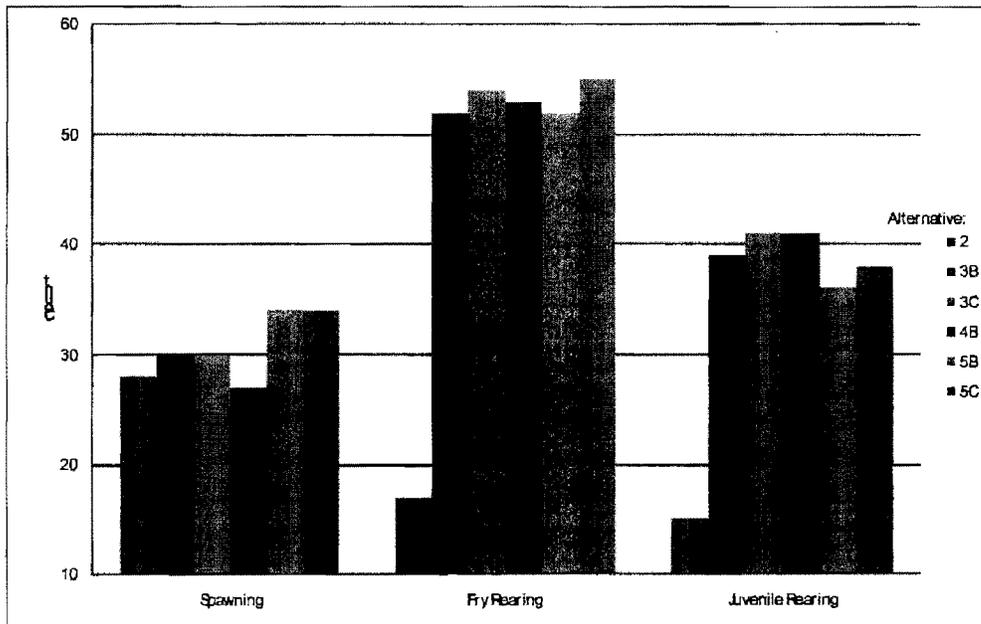
**H. The 2011 RDEIR Does Not Include an Analysis of the Potential for Increased Predation and Competition on Southern Steelhead Resulting from the Alternatives.**

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

20

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

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



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

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

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

21

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

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

22

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

23

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

24

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

25

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

26

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

27

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

28

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

29

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

30

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

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

31

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

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

33

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

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Page 4.3-29. The 2011 RDEIR states:

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

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

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

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

36

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

37

### III. CONCLUSION

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

38

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

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Ms. Jane Farwell  
May 31, 2011  
Page 14

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

Very truly yours,



Kate Rees  
General Manager

Attachment

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

**CACHUMA CONSERVATION RELEASE BOARD**

**APPENDIX A**

**TECHNICAL COMMENTS**

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

May 31, 2011



# TECHNICAL MEMORANDUM

2171 E. Francisco Blvd., Suite K • San Rafael, California • 94901  
TEL: (415) 457-0701 FAX: (415) 457-1638 e-mail: alis@stetsonengineers.com

TO: Kate Rees DATE: May 31, 2011  
FROM: Curtis Lawler and Ali Shahroody JOB NO: 1815-2  
RE: 2011 RDEIR Comments

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

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

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

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

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

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

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

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

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

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

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

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8. Page 4.2-8 Para 3 – Change “Section 3.22” to Section 3.2.2”. Change “baseline conditions that existed in August of 2003” to “baseline conditions that existed in September 2000.”

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9. Page 4.2-8 Para 4 2nd Sentence – Delete “The first action undertaken was the raising of the reservoir surcharge level from the previous elevation of 750.75 feet to an interim elevation of 751.8 feet.” That action never took place. The Final EIR/EIS for implementation of the Biological Opinion and Fish Management Plan was completed in February 2004, and the radial gates were modified in October 2004 for a full 3.0 foot surcharge.

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10. Page 4.2-8 Para 4 last Sentence – Delete last sentence. This sentence implies that releases for fish occur solely from the surcharge water. However, releases to meet the target flows required by the Biological Opinion are derived from a combination of surcharge, Cachuma Project yield, and conjunctive use of water rights releases. The Member Units will have less Cachuma Project water during droughts due to releases for fish.

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11. Page 4.2-9 Para 1 last Sentence – Change to “Originally, the 3.0 foot surcharge would increase reservoir capacity by 9,200 af. However, the 2008 bathymetric survey (MNS 2008) indicates the 3.0 foot surcharge will increase the reservoir capacity by only 8,942 af due to sedimentation to a total of 195,578 af.”

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12. Pages 4.2-19, 4.2-20, and 4.2-21 – The following sentences do not compare alternatives, but rather compare actual historical operations with simulated results over different hydrologic periods. The following sentences (underlined text) from the 2011 RDEIR, with minor edits, are recommended to be moved into a new section titled “Updates After 2003”.

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

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

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

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

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

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

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

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

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

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

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

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

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14. Page 4.3-6 Table 4-15 – This table currently extends through 2000 and should be updated through 2010 to be consistent with several other updates throughout the RDEIR.

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15. Page 4.3-13 Para 2 Lines 6-9– replace with “The shortages beyond those of the baseline would be 1,454 af (or 5.65 percent) under Alternative 3B; 2,698 af (or 10.49 percent) under Alternative 5B; and 1,595 af (or 6.21 percent) under Alternative 5C (Table 4-16). For Alternatives 3C and 4B, the annual deliveries would be approximately the same or albeit slightly more at 87 af (or 0.33 percent) af and -457 af (or -1.77 percent), respectively.”

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16. Page 4.3-20 Line 6– Replace the phrase by “demand would exceed supply.”

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17. Page 4.3-27 Para 2 Lines 3 and 4– Delete “..or three year drought period”. Change 2,845 af to 1,530 af and 13,000 to 14,500.

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18. Page 4.3-25 – A new section should be added titled “Water Supply Impacts Due to Meeting Alisal Bridge Flow Target”. Below is suggested text for this new section:

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

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

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

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

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

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

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

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**CACHUMA CONSERVATION RELEASE BOARD**

**APPENDIX B**

**GOLETA WATER DISTRICT COMMENTS**

May 31, 2011

**14. Cachuma Conservation Release Board (CCRB) dated May 31, 2011**

**Response 14-1:**

The comment states that the Cachuma Conservation Release Board (CCRB) has submitted comments on the 2011 2<sup>nd</sup> RDEIR.

The comment is noted.

**Response 14-2:**

The comment notes that the CCRB previously submitted comments on the 2003 DEIR and 2007 RDEIR.

The comment is noted.

**Response 14-3:**

The comment notes that CCRB will not repeat its prior comments. Also, in addition to comments on the 2011 2<sup>nd</sup> RDEIR, the CCRB is submitting technical comments also.

The comment is noted.

**Response 14-4:**

The comment suggests that the 2007 DEIR did not have a stable project description.

The comment is noted.

**Response 14-5:**

The comment states that CCRB concurs with the revised description of Alternative 3C as provided in the 2011 2<sup>nd</sup> RDEIR and the designation of Alternative 3C as the environmentally superior alternative. Further, the comment suggests that the 2011 2<sup>nd</sup> RDEIR should explicitly recognize that the continuing implementation of Alternative 3C will have fewer environmental impacts than would the implementation of Alternative 4B.

The comment is noted.

**Response 14-6:**

The comment states that CCRB believe that the 2011 2<sup>nd</sup> RDEIR develops and maintains a stable project description in compliance with CEQA.

The comment is noted.

**Response 14-7:**

The comment suggests that previously CCRB commented that the 2007 RDEIR failed to clearly identify the project objectives; the 2011 2<sup>nd</sup> RDEIR, in general, appears to have addressed CCRB's concerns.

The comment is noted.

**Response 14-8:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR recognize that Alternative 3C meets all project objectives and that the continuing implementation of Alternative 3C will have fewer environmental impacts than Alternative 4B. The comment further notes reasons as to why the Settlement Agreement should be included as part of Alternative 3C. In addition, the comment indicates CCRB's support of the minor changes to Order WR 89-18 that were proposed by Reclamation and effectuated by the Member Units in order to implement the provisions of the Settlement Agreement. In this comment, CCRB urges the SWRCB to incorporate those changes in any final water right decision it adopts.

The 2011 2<sup>nd</sup> RDEIR recognizes Alternatives 3C and 4B as the environmental superior alternatives, and discusses the feasibility of implementing Alternative 4B. The 2011 2<sup>nd</sup> RDEIR includes the Settlement Agreement as part of Alternative 3C. CCRB's support of the proposed changes to Order WR 89-18 is noted.

**Response 14-9:**

The comment provides a discussion of why Alternative 4B is not realistic and concurs with the 2011 2<sup>nd</sup> RDEIR that it is not feasible.

The comment is noted.

**Response 14-10:**

The comment recognizes that the 2011 2<sup>nd</sup> RDEIR identifies Alternatives 3C and 4B as the environmentally superior alternatives. CCRB suggests that the 2011 2<sup>nd</sup> RDEIR recognize that the continuing implementation of Alternative 3C will have fewer effects on the environment while still meeting the project objectives. Further, CCRB suggests the 2011 2<sup>nd</sup> RDEIR should explicitly draw this conclusion to inform the public. Finally, CCRB opines that CEQA requires the SWRCB to use Alternative 3C as the basis for its water right decision.

*CEQA Guidelines* Section 15126.6, subdivision (e)(2) provides that an environmentally superior alternative be identified; if the environmentally superior alternative is the "no project" alternative (Alternative 3C in this case), the EIR shall also identify an environmentally superior alternative among the other alternatives. Alternative 4B was identified as the environmental superior alternative over the no project

alternative (Alternative 3C); however, the 2011 2<sup>nd</sup> RDEIR provides information as to why Alternative 4B is not feasible. There is no requirement in CEQA to further justify the superiority of the alternatives.

**Response 14-11:**

The comment suggests CCRB has reviewed the water supply impacts of Alternatives 5B and 5C and, subject to technical comments in Appendix A, CCRB concludes that the water supply analysis for Alternatives 5B and 5C has adequate scientific foundation with respect to the impacts of those alternatives on the Member Unit water supply. Further, CCRB suggests the 2011 2<sup>nd</sup> RDEIR should clearly state that Alternatives 5B and 5C are environmentally inferior to Alternative 3C.

The comment is noted. *CEQA Guidelines* (Section 15126.6 subdivision (e)(2)) only requires that an EIR identify an environmentally superior alternative; the *CEQA Guidelines* do not provide for identification of environmentally inferior alternatives. The 2011 2<sup>nd</sup> RDEIR identifies Alternatives 3C and 4B as the environmentally superior alternatives, and provides information as to why alternative 4B is not feasible.

**Response 14-12:**

The comment notes that prior comments on the 2007 RDEIR stated that the discussion of surcharging was confusing and vague. Further, the comments states that the 2007 RDEIR acknowledged that Reclamation had conducted environmental review of the surcharging project as part of the EIR/EIS developed for the Biological Opinion and Fish Management Plan.

The comment is noted.

**Response 14-13:**

The comment notes that the 2011 2<sup>nd</sup> RDEIR continues to identify Alternatives 3B and 5B and fails to fully recognize that Reclamation has completed improvements to Bradbury Dam to allow surcharging Cachuma Reservoir from to 0.75 to 2.47 feet and can now implement a 3.0 foot surcharge.

The 2011 2<sup>nd</sup> RDEIR maintains the alternatives considered in the 2007 RDEIR. The 2011 2<sup>nd</sup> RDEIR notes that Reclamation has completed all necessary improvements, along with other agencies such as the County of Santa Barbara, to allow for full implementation of the 3.0 foot surcharge.

The comment is noted.

**Response 14-14:**

The comment states that previously the CCRB criticized the alternatives analysis contained in the 2007 RDEIR as flawed, and that with minor exceptions, such as the inclusion of Alternatives 3B and 5B, CCRB believes the analysis in the 2011 2<sup>nd</sup> RDEIR addresses those concerns.

The comment is noted.

**Response 14-15:**

The comment suggests that characterization of Alternative 3C as the no alternative appears to be appropriate.

The comment is noted.

**Response 14-16:**

The comment suggests that the inclusion of the Settlement Agreement into Alternative 3C in the 2011 2<sup>nd</sup> RDEIR has resulted in a stable project description.

The comment is noted.

**Response 14-17:**

The comment states that the CCRB believes the 2011 2<sup>nd</sup> RDEIR provides an adequate foundation to serve for the review of Alternatives 5B and 5C, and that each will result in Class I impacts to water supply.

The comment is noted.

**Response 14-18:**

The comment disagrees with the statement in the 2011 2<sup>nd</sup> RDEIR that Alternatives 5B and 5C show the most benefits to steelhead rearing. The comment continues that all life stages and habitat relationships of steelhead/rainbow trout in the Lower Santa Ynez River should be integrated in the analysis and that habitat bottlenecks should be accounted for in evaluating alternatives. Further, the comment suggests that summer rearing habitat is a key habitat that limits the juvenile steelhead population.

The method of analysis in the EIR for assessing the benefits of the alternatives is a habitat scoring system; this objective system was based on parameters for which data is readily available. The habitat scores are derived from the average monthly flows calculated using simulated mean daily flows for each alternative. These scores only form a basis for comparison of the alternatives and do not provide an absolute prediction of the amount and quality of habitat expected under the alternatives. There may be other methods that would show slightly different results. Using the methodology of the EIR Alternatives 5B and 5C were ranked slightly higher for steelhead spawning (Table 4-43) and fry rearing (Table 4-44) but slightly lower for juvenile rearing (Table 4-45). The limitation of these results is that the data were collected at only a single location along the river (at the Highway 154 Bridge). The overall conclusion is that Alternatives 3B, 3C, 4B, 5B, and 5C show a beneficial effect over baseline conditions, with Alternatives 5B and 5C showing the most benefits to fry rearing.

The comment that summer rearing habitat is a key habitat that limits the juvenile steelhead population is noted.

**Response 14-19:**

The comment concurs with the 2011 2<sup>nd</sup> RDEIR statement that additional flow from Alternatives 5B and 5C would not necessarily provide favorable rearing conditions in the Alisal Reach.

The comment is noted.

**Response 14-20:**

The comment suggests the 2011 2<sup>nd</sup> RDEIR does not analyze the potential for increased predation resulting from the alternatives, although the comment acknowledges that the 2011 2<sup>nd</sup> RDEIR does discuss predation on steelhead and other species in selected paragraphs of the document. The comment also concurs with the finding that potential impacts to steelhead/rainbow trout and other fishes are equivalent for all alternatives. The comment concludes that Alternatives 3B and 3C provide benefits to steelhead equivalent to those of Alternatives 5B and 5C.

2011 2<sup>nd</sup> RDEIR **Section 4.7.1.1, Species Accounts** and **Section 4.7.1.5, Threats to *Oncorhynchus mykiss*** acknowledges that many game fish such as largemouth bass can prey on *O. mykiss* and other native species. Co-occurrence of largemouth bass and *O. mykiss* has been documented at several sites within the mainstem of the Santa Ynez River. Although each species appears to utilize different areas of the pools, predation pressure is thought to increase as pools shrink during the summer months. See also response to **Comment 11-20**.

The portion of the comment that suggests concurrence with the 2011 2<sup>nd</sup> RDEIR that Alternatives 3B and 3C have equivalent benefits to steelhead as those of Alternatives 5B and 5C is noted.

**Response 14-21:**

The comment suggests revised wording to correct reflect the Cachuma Operation and Maintenance Board as the correct entity involved in completing the removal of crossing #6.

The suggested wording has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-22:**

The comment provides language identifying the correct entities approving the Settlement Agreement.

The suggested wording has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-23:**

The comment provides language identifying the correct entities approving the Settlement Agreement.

The suggested wording has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-24:**

The comment provides language identifying the correct entities comprising the SYRWQTAC.

The suggested wording has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-25:**

The comment suggests revised language regarding the composition of the Cachuma Conservation Release Board membership.

The revised language has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-26:**

The comment suggests revised language to reflect that the Cachuma Conservation Release Board was an agency contacted during the preparation of the EIR.

The revised language has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-27:**

The comment suggests a correction to language to **Section 7.0 Cumulative Impacts**, on page 7.0-1, regarding risk of flooding the boat launch ramp at Lake Cachuma.

The revised language has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-28:**

The comment provides updated information on the capacity of Gibraltar Reservoir; the most recent survey calculated a storage capacity of 5,251 af.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-29:**

The comment provides updated information of the capacity of Cachuma Reservoir; the 2008 bathymetric survey of Cachuma Reservoir indicates a capacity of 195,578 af with a 3.0 foot surcharge.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-30:**

The comment indicates that the 2011 2<sup>nd</sup> RDEIR does not include information on the sedimentation effects of the 2007 Zaca fire and reductions in reservoir capacity due to sedimentation.

The 2011 2<sup>nd</sup> RDEIR (**Section 4.2.1.4**) has been updated to include available information.

**Response 14-31:**

The comment states that the information regarding the Member Units' water supply provided by the Cachuma Project should be clearly described.

The information on the water supplies that each Member Unit receives from the Cachuma Project in the 2011 2<sup>nd</sup> RDEIR **Section 4.3.1** has been updated and corrected.

**Response 14-32:**

The comment provides clarification on the use of hydrologic models and how the Member Units manage water during severe droughts.

The 2011 2<sup>nd</sup> RDEIR (**Section 4.3.2.1**) has been clarified to reflect the comment.

**Response 14-33:**

The comment requests that updated information on the cost of reactivating and operating the Santa Barbara desalination plant be provided.

The 2011 2<sup>nd</sup> RDEIR provides updated information.

**Response 14-34:**

The comment questions the feasibility of shutting down a desalination plant during peak power demands.

The 2011 2<sup>nd</sup> RDEIR does not provide a detailed analysis of the operation of a desalination plant, but only a suggestion that could be incorporated into daily operations. Many industrial facilities adapt operations to reduce power during peak energy demand periods, and it is foreseeable that doing so could be part of operations for a desalination facility.

The comment is noted.

**Response 14-35:**

The comment states that CCRB concurs with the 2011 2<sup>nd</sup> RDEIR regarding conservation measures suggested by CalTrout, such as replacing inefficient toilets and washing machines and improving irrigation systems, that could be implemented by the Member Units to conserve an additional 5,000 to 7,000 af.

The comment is noted.

**Response 14-36:**

The comment suggests that information on the water supply in the Santa Ynez River is incorrect.

The discussion has been clarified in the 2011 2<sup>nd</sup> RDEIR.

**Response 14-37:**

The comment suggests that Alternative 2 is incorrectly identified as the “No Project” Alternative.

The statement has been corrected in the 2011 2<sup>nd</sup> RDEIR.

**Response 14-38:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR resolves many of the issues raised by CCRB on the 2007 RDEIR. CCRB suggests the water supply tables should be revised to reflect the corrections noted to Appendix A to CCRB’s May 31, 2011 comment letter.

The comment is noted. Appendix A is responded to in responses to **Comments 40** through **65**, below.

**Response 14-39:**

The comment suggests that while the 2011 2<sup>nd</sup> RDEIR is an improvement over the 2007 RDEIR, further refinement is warranted. The comment suggests that the 2011 2<sup>nd</sup> RDEIR be clear that, in contrast to Alternatives 5B and 5C, the impacts of Alternative 3C are known because the requirements of that alternative have been part of the operations of Cachuma Project for several years. Further, the comment suggests that Alternative 3C is the only alternative developed after significant study, pursuant to the directives of Order WR 94-5.

The comment is noted. All alternatives received thorough analysis consistent with the requirements of CEQA.

**Response 14-40:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR is an improvement over the 2007 RDEIR and concurs with the conclusions reached about Class I water supply impacts for Alternatives 3B, 5B and 5C. The comment also states that the 2011 2<sup>nd</sup> RDEIR has a clear description of the project objectives.

The comment is noted.

**Response 14-41:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR ignores the 2004 Final EIS/EIR for the “Lower Santa Ynez River Fish Management Plan (Plan) and Cachuma Project Biological Opinion (Opinion) for Southern Steelhead Trout.”

Reference to the 2004 Final EIR/EIS has been included in the 2011 2<sup>nd</sup> RDEIR.

**Response 14-42:**

The comment suggests that the updated water supply information matches what was provided by each of the Member Units to Impact Sciences, except for SWP average annual deliveries and delivery during drought years.

The SWP information regarding deliveries included in the 2011 2<sup>nd</sup> RDEIR is based on the 2009 SWP Delivery Reliability Report which provides more recent information than that provided by the Member Units. The comment is noted.

**Response 14-43:**

The comment states that CCRB provided data on Cachuma Project water supplies for the critical drought year under Alternative 3C and have suggested that this information represents a more realistic approach than the use of Alternative 5B.

For Cachuma Project water supply in the critical drought year, Alternative 5B was chosen because the water supply impacts are most severe under this alternative. **Tables 4-20** through **4-24** in the 2011 2<sup>nd</sup> RDEIR compare the supply and demand of the individual Member Units in a critical drought year such as 1951 under Alternative 5B. The source of the data presented in **Tables 4-20** through **4-24** is **Appendix F**, Technical Memorandum No. 5 and the 2009 SWP Reliability Report, **Tables 4-10** through **4-14**.

**Response 14-44:**

The comment states that SYRHM simulated Cachuma Project yields for all of the alternatives have not changed in the 2011 2<sup>nd</sup> RDEIR from the 2007 RDEIR for the water supply tables in **Section 4.3**, and suggests that Member Units' prior comments on the 2003 DEIR and 2007 RDEIR regarding water shortages have not been incorporated.

The SWRCB has reviewed the prior comments and completed independent review of the water supply. The Water supply analysis utilizes both a single dry year and critical drought year considerations.

The 2011 2<sup>nd</sup> RDEIR uses the year 1951 for the purpose of analysis as that is the worst drought year on record during the period analyzed (1918 to 1991). As noted in the 2011 2<sup>nd</sup> RDEIR (see **Section 4.3.2.4**), under 1951 drought conditions (see **Table 4-16**), the shortages under Alternatives 3B, 5B, and 5C would be greater than under the baseline operations (Alternative 2) because these alternatives involve greater releases for fish and the additional reservoir surcharge is not large enough to compensate.

The 2011 2<sup>nd</sup> RDEIR notes that an alternative may result in a significant environmental impact if under that alternative the Member Units' water demand exceeds their water supply from all sources (see **Table 4-17, Member Units' Supply and Demand in Critical Drought Year [1951]**, lines 6 and 9) by an appreciable amount. **Table 4-17** compares the Member Units' water demand to their water supply from all sources, including the Cachuma Project and the SWP, in the critical drought year (1951) under the project alternatives.

The 2011 2<sup>nd</sup> RDEIR states that the 20,935 af figure for total supply from sources other than the Cachuma Project used in **Table 4-17** is derived from **Table 4-18, Member Units' Supply from Sources Other than Cachuma Project in Critical Drought Year**. The analysis depicted in **Table 4-18** is based on data provided by the Member Units as of 2009. The analysis also assumes that the Member Units would receive a SWP delivery of 1,530 af based on reduced delivery per Table A (SWP Allocation Schedule) and CCWA drought buffer (see **Tables 4-10 through 4-14**). This is a conservative assumption in light of the fact that the results of SYRHM and DWRSIM modeling show that SWP deliveries in 1951 would have been 12,029 af (Technical Memorandum No. 1, Table 15B). SWP deliveries during a critical drought year in the Santa Ynez River Watershed will not necessarily drop below average because precipitation in Northern California may vary from precipitation in the Central Coast region. The demand figures in **Table 4-17** are derived from **Table 4-19, Member Units Demand**, which summarizes the current Member Units' demand in 2009/2010 and their projected future demand.

The 2011 2<sup>nd</sup> RDEIR finds an appreciable (10 percent or greater) water supply shortage in a critical drought year, as shown for Alternatives 3B, 5B and 5C, which could result in a significant and unavoidable impact (Class I), depending on the manner in which the Member Units make up for the shortage. The same pattern of demand exceeding supply would be present for the future demand estimates (e.g., 2020/2030) for project alternatives 3B, 5B, and 5C. These impacts would also be potentially significant and unavoidable (Class I).

In contrast, total supply estimates under Alternatives 3C and 4B in a critical drought year (**Table 4-17** line 5) would be approximately the same for Alternative 3C or slightly greater for Alternative 4B than total supply under the baseline conditions resulting in a less than significant impact (Class III).

**Response 14-45:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR should mention the effects of the 2007 Zaca fire on water supply.

Information regarding the Zaca fire and the storage capacity implications to Cachuma Reservoir have been added to the 2011 2<sup>nd</sup> RDEIR **Section 4.2.1.4**.

**Response 14-46:**

The comment suggests that additional discussion should be added to the 2011 2<sup>nd</sup> RDEIR regarding the potential mitigation for water supply shortages.

Mitigation for water supply shortages is provided in **Section 4.3.3** of the 2011 2<sup>nd</sup> RDEIR. The SWRCB recognizes that various sources of water supply are available but that their reliability and availability must be assessed by the Member Units. The forum for the Member Units to address their future supply needs and their ability to meet demand is through the development of Urban Water Management Plans, which were due to be updated and completed in 2011. The 2011 2<sup>nd</sup> RDEIR reflects this requirement.

**Response 14-47:**

The comment suggests language revisions to page 2.0-1 regarding the 2008 bathymetric study.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-48:**

The comment suggests language revisions to page 2.0-1 regarding the description of Member Units' water supplies.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-49:**

The comment suggests minor corrections for certain water years in Table 2-2.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-50:**

The comment provides updated information on reservoir spills.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-51:**

The comment requests that a clarification of the target flows required by the Biological Opinion be added as a footnote to Table 2-5.

The information has been included in the 2011 2<sup>nd</sup> RDEIR.

**Response 14-52:**

The comment provides a correction as to when the NOP was issued in May 1999, not September 2000, as stated on page 3.0-11 of the 2011 2<sup>nd</sup> Revised DEIR.

The comment has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-53:**

The comment provides suggestions for wording changes and to fix typographical errors on pages 4.2-3 and 4.2-4.

The suggested changes have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-54:**

The comment provides suggestions for wording changes regarding baseline conditions.

The suggested changes have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-55:**

The comment provides suggestions for wording changes regarding reservoir surcharge level.

The suggested changes have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-56:**

The comment provides suggestions for wording changes regarding releases for fish.

The suggested changes have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-57:**

The comment provides suggestions for wording changes regarding surcharging and reservoir capacity.

The suggested changes have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-58:**

The comment provides suggestions for wording changes regarding water releases by Reclamation.

The suggested changes have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-59:**

The comment suggests reordering paragraph 4 on page 4.3-7; the paragraph is currently under the subsection titled **Santa Ynez River Water Conservation District** and should be moved to precede Table 4-15.

The comment is noted. The pagination requirements and size of tables in the text dictates the format of the document. The paragraph in question does precede the table.

**Response 14-60:**

The comment notes that Table 4-15 should be updated through 2010 to be consistent with other updates in the 2011 2<sup>nd</sup> RDEIR.

The table has been updated to incorporate available information regarding water deliveries for the Member Units.

**Response 14-61:**

The comment provides corrections to information in the text derived from Table 4-16.

The suggested changes and corrections have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-62:**

The comment provides suggestions and corrections for wording changes on page 4.3-20, line 6.

The suggested changes and corrections have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-63:**

The comment provides suggestions and corrections for wording changes to page 4.27, paragraph 2, lines 3 and 4.

The suggested changes and corrections have been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-64:**

The comment provides suggested language and information regarding target flows at the Alisal Bridge.

The information has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

**Response 14-65:**

The comment provides suggestions and corrections for wording changes to page 4.14-1, first bullet paragraph 1.

The suggested changes and corrections have been incorporated into the 2011 2<sup>nd</sup> RDEIR.



4699 HOLLISTER AVENUE  
GOLETA, CALIFORNIA 93110-1999  
PHONE 805-964-6761

May 31, 2011

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

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

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

Dear Ms. Farwell:

The Goleta Water District (District) appreciates the opportunity to provide comments to the State Water Resources Control Board (State Board) on the above-referenced 2<sup>nd</sup> Revised Draft Environmental Impact Report (2011 RDEIR) for proposed modifications to water right permits 11308 and 11310 held by the United States Bureau of Reclamation (Reclamation) for the Cachuma Project.

The District supports the May 31, 2011 comments provided to the State Board by the Cachuma Conservation and Release Board (CCRB). As indicated by CCRB, the 2011 RDEIR resolves many of the issues raised by CCRB regarding the 2007 RDEIR. In particular, the 2011 RDEIR includes the important clarification that Alternative 3C incorporates the Cachuma Project Settlement Agreement. It also includes updated information on water supply, biological resources, oak trees and recreation, and corrections and clarifications in response to prior comments, except that the water supply tables should be revised to reflect the corrections noted in Appendix A.

The District agrees with CCRB that while the 2011 RDEIR represents a significant improvement over the 2007 RDEIR, further refinement and clarification of the analysis is warranted, as described in CCRB's letter. Specifically, the Final EIR should make clear that, in contrast to

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Miss Jane Farewell  
May 31, 2011  
Page 2

Alternatives 5B and 5C, the impacts of Alternative 3C are known because it has been part of Cachuma Project operations for several years. Alternative 3C is the only alternative that was developed after significant study, pursuant to the directives of WR 94-5. It is also the only alternative that (1) meets all of the Project objectives, (2) avoids significant, unavoidable (Class I) impacts to the Member Units' water supplies, and (3) is the environmentally superior alternative among all of the alternatives that comprise the proposed Project.

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The District greatly appreciates the efforts of State Board staff and consultants in preparing this revised analysis. Through CCRB, the District looks forward to working with the State Board to conclude this proceeding promptly in accordance with all applicable law.

Sincerely,



John McInnes  
General Manager

cc: Board of Directors, Cachuma Conservation Release Board

**15. City of Goleta dated May 31, 2011**

**Response 15-1:**

The comment states that the Goleta Water District (GWD) supports the May 31, 2011 comments submitted by the Cachuma Conservation and Release Board (CCRB).

Comment noted.

**Response 15-2:**

The comment states that the 2011<sup>nd</sup> RDEIR resolves many of the issues raised in the 2007 RDEIR, in particular the clarification that Alternative 3C incorporates the Settlement Agreement.

Comment noted.

**Response 15-3:**

The comment suggests that water supply tables in the 2011 2<sup>nd</sup> RDEIR should be revised to reflection corrections submitted by CCRB in Appendix A,

As appropriate, the water supply tables (see **Section 4.3** of the 2011 2<sup>nd</sup> RDEIR) have been updated to reflect any new data provided in the comments by CCRB.

**Response 15-4:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR should make clear that, in contrast to Alternatives 5B and 5C, the impacts of Alternative 3C are known because the requirements of that alternative have been part of Cachuma project operations for several years. In addition, the comment opines that Alternative 3C is the only alternative developed pursuant to directives of Order WR 94-5, meets all of the Project objectives, avoids significant unavoidable impacts (Class I) to Member Units' water supplies, and is the environmentally superior alternative.

The comment noted. Please see also response to **Comment 14-39**.



*Research for People and the Planet*

**Comments on the 2<sup>nd</sup> Revised Draft EIR  
for the Cachuma Water Rights Hearing**

**Pacific Institute**

**Oakland, California**

**May 12, 2011**

**Comments on the 2<sup>nd</sup> Revised Draft EIR for the Cachuma Water Rights  
Hearing**

**Heather Cooley**

**Peter Gleick**

**Lucy Allen**

**May 12, 2011**

**Introduction**

In 2003, the Pacific Institute provided an assessment of the potential for increased water-use efficiency among the five major water districts that withdraw water from the Santa Ynez River (the Cachuma contractors): Carpinteria Valley Water District, Goleta Water District, Montecito Water District, City of Santa Barbara, and the Santa Ynez River Water Conservation District, Improvement District #1.<sup>1</sup> This analysis focused on the potential for technology-based water-use efficiency measures to reduce water demand. Measures considered in the analysis included installing high-efficiency clothes washers and low water-use landscapes in homes, and installing ultra-low-flow toilets in homes and businesses. The report found cost-effective water savings of between 5,000 and 7,000 acre-feet per year, which would allow the Cachuma contractors to, “reduce their take of water from Santa Ynez River without a loss of service or quality of life.”

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Misty Gonzales provided rebuttal testimony which questioned the validity of the 2003 Pacific Institute analysis. In September of 2007, the Pacific Institute provided a response to her testimony and an analysis of the Revised Draft Environmental Impact Report that was released in

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<sup>1</sup> Haasz, D. and P.H. Gleick. 2003. Comments on the Draft EIR for the Cachuma Water Rights Hearing.

July of 2007 (2007 RDEIR). The 2007 Pacific Institute analysis concluded that the original 2003 Pacific Institute testimony that 5,000 to 7,000 acre-feet of water could be cost-effectively conserved by Cachuma contractors remained valid, and that the rebuttal testimony from Ms. Gonzales contained factual errors and omissions. This finding was further supported by the observation that all five contractors were failing to meet the requirements of the California Urban Water Conservation Council's Memorandum of Understanding (MOU) and could expand their water conservation efforts through implementation of a series of Best Management Practices and improved rate structures. Furthermore, the 2007 Pacific Institute analysis found that the 2007 RDEIR failed to use the most recent water demand projections, therefore likely overestimating 2020 demand. In April 2011, a 2<sup>nd</sup> Revised Draft Environmental Impact Report (2011 RDEIR) was released. This assessment reviews the 2011 RDEIR, particularly certain assumptions about water demand and supply options. We conclude the following:

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- Water demand projections used in the 2011 RDEIR are based on outdated estimates and ignore more recent water demand projections from the contractors themselves.
- Demand projections in the 2011 RDEIR fail to integrate mandated water conservation and efficiency improvements, particularly a requirement to reduce per capita demand by 20% by 2020.
- The 2011 RDEIR overestimates future demand and potential shortages under the proposed alternatives.
- The conclusions from the original 2003 Haasz and Gleick testimony – that 5,000 to 7,000 acre-feet of water could be conserved by Cachuma contractors, cost-effectively, remain valid, and they are still pertinent to the 2011 RDEIR.
- Although water rates within the region are high, improving *rate structures* provide an opportunity to capture some of the identified water conservation and efficiency potential.
- The 2011 RDEIR does not account for additional local supplies, including through recycled water, rainwater harvesting, and stormwater capture.

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## Projections in the 2011 RDEIR Overestimate Future Water Demand

Demand projections in the 2011 REIR fail to include new, statewide water-use efficiency requirements, thus overestimating future water demand. In November of 2009, the California legislature enacted the Water Conservation Act of 2009 (SBx7-7), which requires all water suppliers to reduce per capita water demand by 20% by the end of the year 2020. By July 2011, urban water suppliers are required to have developed interim and final water use targets for compliance with SBx7-7. Additionally, in 2009, SB 407 was passed, which requires that old plumbing fixtures be replaced when alterations or improvements are made to single family homes beginning in 2014. This bill will likely accelerate the natural replacement rate of older plumbing fixtures, thereby increasing water-use efficiency improvements. As described below, these requirements and their impacts on water use are not integrated into the 2011 RDEIR.

Table 1 presents water demands projections included in the 2003, 2007, and 2011 DEIRs, as well as forecasted demand in the utilities' 2005 urban water management plans (UWMP), and, where possible, in reports integrating SBx7-7 requirements. Water demand projections in the 2011 RDEIR for both the Carpinteria Valley Water District and Goleta Water District are taken directly from their 2005 Urban Water Management Plans which were written prior to the efficiency improvements mandated by SBx7-7 and SB 407. Thus, these projections likely overestimate 2020 demand. Similarly, demand projections for the Santa Ynez River Water Conservation District are higher in the 2011 RDEIR than in the 2005 Urban Water Management Plan or in the previous 2007 RDEIR. The source of the new estimate and the reason for the increase in demand are not clear, although it strongly suggests that mandatory reductions in per capita demand are not captured in these estimates.

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**Table 1. Cachuma Contractors' 2020 Water Demands (Acre-Feet per Year)**

	2003 DEIR <sup>1</sup>	2007 RDEIR <sup>2</sup>	2005 UWMP	2011 RDEIR <sup>7</sup>	Studies Integrating SBx7-7 <sup>8</sup>
Carpinteria Valley Water District	5,423	5,833	4,600 <sup>3</sup>	4,600	-
Montecito Water District	6,835	6,835	7,305 <sup>4</sup>	6,500	-
City of Santa Barbara	17,760	18,200	14,000 - 15,000 <sup>5</sup>	14,500	13,400 <sup>9</sup>
Goleta Water District	16,000	17,300	15,890 <sup>6</sup>	15,890	14,900 <sup>10</sup>
Santa Ynez River Water Conservation District, ID#1	9,050	8,119	8,119	8,273	-
Total	55,068	56,287	50,220 - 51,220	49,763	-

Notes: Because Santa Ynez has not completed a 2005 UWMP, we used the estimate from the 2007 RDEIR in the "2005 UWMP" column.

2011 RDEIR estimate for Montecito Water District is for 2030, not 2020.

Sources:

(1) Table 4-19 of the 2003 DEIR; page 4-36.

(2) Table 4-19 of 2007 DEIR; page 4-24.

(3) Kennedy/Jenks Consultants. July 2007. Carpinteria Valley Water District Urban Water Management Plan 2005 Update. Ventura, California.

(4) Mosby, T. 2005. Final Urban Water Management Plan – Update 2005. Montecito Water District. Montecito, California.

(5) City of Santa Barbara Public Works Department. 2005. Urban Water Management Plan. Santa Barbara, California.

(6) Goleta Water District. 2005. Final Urban Water Management Plan.

(7) Table 4-19 of the 2011 DEIR; page 4.3-17.

(8). Updated estimates were not readily available for Carpinteria Valley Water District, Montecito Water District and Santa Ynez River Water Conservation District.

(9) Interpreted from graph, "System Demand Projections (AFY)" in City of Santa Barbara Water Resources Division, Public Works Department. (2011). DRAFT City of Santa Barbara Long-Term Water Supply Plan.

<http://www.santabarbaraca.gov/NR/rdonlyres/D9F28872-C779-4947-8428-56D9A678C8E6/0/LTWSP2011Draft472011.pdf>

(10) Bachman, S. (2011). Goleta Water District Water Supply Management Plan.

[http://www.goletawater.com/assets/documents/water\\_supply/Water\\_Supply\\_Management\\_Plan\\_Final\\_3-31-11.pdf](http://www.goletawater.com/assets/documents/water_supply/Water_Supply_Management_Plan_Final_3-31-11.pdf), page 61.

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Projections for Santa Barbara are based on a more recent (2010) document, "Plan Santa Barbara."<sup>2</sup> The projections, however, are based on *current* per capita demand factors applied to the projected mix of future residential and nonresidential users, and therefore clearly do not

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<sup>2</sup> City of Santa Barbara. (2010). Plan Santa Barbara Program EIR Section 15 – Public Utilities. Accessed on May 3, 2011 at [http://www.youplansb.org/docManager/1000000691/15.0\\_Public\\_Uilities.pdf](http://www.youplansb.org/docManager/1000000691/15.0_Public_Uilities.pdf).

integrate the 20% reduction required under SBx7-7. The 2011 Santa Barbara Long-Term Water Supply Plan explicitly states that projections included in Plan Santa Barbara:

“can be expected to overestimate demand for new development. This is because new development will be subject to new codes and standards, while aggregate demand includes a significant portion of the building stock constructed under older standards.”

Yet, these inflated demand estimates are integrated into the 2011 RDEIR. Only demand projections for Montecito Water District integrate “increased rates and water conservation,”<sup>3</sup> although the original documentation for these numbers is not available and thus it is not clear to what degree water conservation and efficiency are included.

Our independent research identified that the City of Santa Barbara and the Goleta Water District have developed new demand projections based on SBx7-7 requirements, although these estimates were not integrated into the 2011 RDEIR. The City of Santa Barbara and the Goleta Water District updated estimates are collectively 2,100 acre-feet less than the estimates included in the 2011 RDEIR. Thus, we conclude that water demand projections used in the 2011 RDEIR are based on outdated estimates and ignore more recent water demand projections from the contractors themselves.

### **The 2011 RDEIR Fails to Include the Urban Conservation Potential of 5,000 – 7,000 Acre-Feet Per Year Identified in Previous Pacific Institute Analysis**

In a 2003 analysis, the Pacific Institute estimated that between 5,000 and 7,000 acre-feet per year (AFY) could be conserved cost-effectively, allowing the Cachuma contractors to “reduce their take of water from Santa Ynez River without a loss of service or quality of life.” Measures considered in the analysis included installing high-efficiency clothes washers and low water-use landscapes in homes, and installing ultra-low-flow toilets in homes and businesses. The 2011 RDEIR dismisses the Pacific Institute’s 2003 analyses, stating that

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<sup>3</sup> 2011 RDEIR, Table 4-19, footnote 4.

“During the 2003 evidentiary hearing before the SWRCB, expert witnesses for CalTrout testified that the Member Units could conserve an additional 5,000 to 7,000 af by replacing inefficient toilets and washing machines and improving landscape irrigation efficiency. The Member Units presented rebuttal testimony, however, that disputed the testimony of CalTrout’s witnesses.”

While Misty Gonzales provided rebuttal testimony that questioned the validity of the 2003 Pacific Institute analysis, the Pacific Institute submitted a detailed response that identified a number of errors and omissions in Ms. Gonzales’ testimony. See the Pacific Institute’s 2007 comments for this response.<sup>4</sup> The conclusions from the 2003 Pacific Institute testimony – that 5,000 to 7,000 acre-feet of water could be conserved by Cachuma contractors, cost-effectively – remain valid and are still pertinent to the 2011 RDEIR.

In fact, technological improvements since 2003 suggest that the conservation potential may be even larger. The 2003 analysis, for example, evaluated the savings if everyone were using a 1.6 gallon per flush (gpf) toilets. Today, high-efficiency toilets (HET) using 1.28 gpf or less are widely available, and in 2014, will be required in all new or remodeled developments.

Additionally, in 2003, a typical high-efficiency clothes washer used 25 gallons per load. Today, high-efficiency models use 15 gallons per load or less. Thus, technological improvements suggest that the water conservation potential likely exceeds 5,000-7,000 acre-feet per year.

Furthermore, additional measures could be taken to reduce demand during a critical drought period. During droughts, it is not uncommon for communities to cut water use by 10-20% through behavioral measures, such as reducing or even eliminating outdoor irrigation and taking shorter showers. Such measures are not included in the 5,000 – 7,000 AF savings identified in the 2003 Pacific Institute analysis but could help reduce the likelihood and/or severity of future water shortages.

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<sup>4</sup> Cooley, H. and P.H. Gleick. 2007. Comments on the Revised Draft EIR for the Cachuma Water Rights Hearing.

## The 2011 RDEIR Fails to Consider the Potential for Reducing Agricultural Water Use

While urban use makes up the majority of total water demand from the Cachuma contractors, agricultural use also compromises a significant portion. Among the five contractors in 2005, approximately 5,300 acre-feet,<sup>5</sup> or around 10% of total demand, was delivered to agricultural users. In the Carpinteria Valley Water District and the Santa Ynez River Water Conservation District, ID#1, agriculture accounts for around 50% or more of total water demand.

Like within the urban sector, water use in the agricultural sector can often be reduced through increased efficiency while maintaining the same level of service, i.e. without reducing crop yields or area irrigated. In a 2009 report on the potential for increased water use efficiency in California agriculture, the Pacific Institute estimated that agricultural demand could be reduced by 17% by adopting efficient irrigation technologies, improved irrigation scheduling, and regulated deficit irrigation.<sup>6</sup>

Additionally, recycled water can be used to meet many agricultural water demands. At Sea Mist Farms in Salinas Valley, California, for example, recycled water makes up approximately two-thirds of total farm water use; groundwater is only used when irrigation demands exceed recycled water supply.<sup>7</sup> Using recycled water to meet irrigation requirements in the Cachuma contractors' service areas would reduce the need to secure additional potable supplies. The potential to decrease agricultural demand for potable water supplies in the Cachuma Contractors' service areas, both through increased water-use efficiency and the use of recycled water, should be assessed as a potential mitigation strategy.

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<sup>5</sup> Estimate based on agricultural use reported in 2005 Urban Water Management Plans for Carpinteria Valley Water District, Montecito Water District, and Goleta Water District, and the 2000 Urban Water Management Plan (because a 2005 Urban Water Management Plan is not available). Agricultural use in the City of Santa Barbara is minimal, and not included here.

<sup>6</sup> Cooley, H., J. Christian-Smith, and P.H. Gleick. 2009. *Sustaining California Agriculture in an Uncertain Future*. Pacific Institute. [http://www.pacinst.org/reports/california\\_agriculture/final.pdf](http://www.pacinst.org/reports/california_agriculture/final.pdf).

<sup>7</sup> Christian-Smith, J., L. Allen, M.J. Cohen, P. Schulte, C. Smith and P.H. Gleick. 2010. *California Farm Water Success Stories*. [http://www.pacinst.org/reports/success\\_stories/success\\_stories.pdf](http://www.pacinst.org/reports/success_stories/success_stories.pdf)

## **Improving Water Rates Structure Can Help Capture Water Conservation and Efficiency Potential**

The 2011 RDEIR states that “water rates are some of the highest in the state and constitute a strong incentive to conserve water.” Water rates among the Cachuma contractors are generally high as a result of recent investment in capital-intensive water supply projects, such as the desalination plant in Santa Barbara and the Coastal Branch of the State Water Project, but these rates do not consistently include designs that encourage efficiency improvements (Table 2). Of all of the Cachuma contractors, the City of Santa Barbara has a rate design that encourages conservation with a steep increase of \$2.63 per thousand gallons between the first and second tiers at a relatively low water use rate of about 3,000 gallons per month. This design places an early premium on water uses and sends a strong price signal to customers to reduce their water use. The remaining Cachuma contractors, however, have rate designs that send a weak price signal to their customers. For example, the Santa Ynez River Water Conservation District remains on a uniform rate structure with high fixed costs. The Montecito Water District recently adopted inclining block rates; however, households only move into the second tier after using 18,700 gallons, equivalent to more than 620 gallons per day, and the rate increase between tiers is small. Likewise, the Goleta Water District has only a very small increase of \$0.21 between tiers. These agencies could improve their rate structures by instituting inclining block rates with high price differentials between blocks. Additionally, the size of the block should be such that first and second tiers should cover essential uses of water.

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**Table 2. Residential Water Rates, May 2011.**

Municipality [Water Provider]	Rate Structure Type	Fixed Monthly Service Charge	Unit Rate per 1,000 Gallons of Water Consumed
Carpinteria Valley Water District <sup>(1)</sup>	Increasing Block Rate (three blocks)	\$18.15	\$4.01 - avg. winter use (base) \$5.15 - base to 2xbase \$6.48 - over 2xbase
Montecito Water District <sup>(2)</sup>	Increasing Block Rate (four blocks)	\$30.95	\$5.21 – up to 18,700 gal \$5.55 – 19,448 to 44,800 \$6.55 – 45,628 to 89,760 \$7.89 – over 90,508
Goleta Water District <sup>(3)</sup>	Increasing Block Rate (two blocks)	\$9.21 - \$27.63	\$4.75 – up to 2,992 gal \$4.96 – over 2,992 gal
City of Santa Barbara <sup>(4)</sup>	Increasing Block Rate (three blocks)	\$12.31	\$3.92 - up to 2,992 gal \$6.55 - 2,993 to 11,968 gal \$6.90 - over 11,968 gal
Santa Ynez River Water Conservation District <sup>(5)</sup>	Uniform	\$31.00	\$3.62

Note: gal=gallons

Source:

(1): Carpinteria Valley Water District Website: [http://www.cvwd.net/water\\_rates.htm](http://www.cvwd.net/water_rates.htm)

(2): Montecito Water District Website: [http://www.montecitowater.com/fees\\_charges.htm](http://www.montecitowater.com/fees_charges.htm)

(3): Goleta Water District Website: <http://www.goletawater.com/rates/index.htm>

(4): City of Santa Barbara Website: <http://www.santabarbaraca.gov/Government/Departments/PW/Rates.htm>

(5): Santa Ynez River Water Conservation District Website: <http://www.syrwd.org/view/53>

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### **2011 RDEIR Underestimates Availability of Recycled Water and Other Alternative Supplies**

In addition to water conservation and efficiency, a wide range of alternative water supplies are available that can reduce or eliminate the need for additional Cachuma project supplies.

Recycled water is an additional source of supply that may have significant potential in some of the Cachuma Contractor’s service areas. Recycled water can be used directly for landscape and agricultural irrigation and industrial processes. It can also be used to recharge surface and/or groundwater sources, thereby supplementing potable water supplies with a drought-resistant source. Capture and use of rainwater is another potential alternative supply option. The 2011 RDEIR, however, fails to consider the potential to develop these alternative supply options.

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Water reuse is becoming an increasingly important component of the water-supply portfolios of water districts throughout California. For example:

- The Irvine Ranch Water District, in Southern California, met 22% of its total demand with recycled water in 2010<sup>8</sup>
- In West Basin, recycled water accounted for about 7% of its water supply portfolio in 2008, but is expected to account for 15% of the water supply portfolio by 2020.<sup>9</sup>
- In the 2009/2010 fiscal year, recycled water for direct use and recharge purposes accounted for 33% of the total available supply of the Inland Empire Utilities Agency.<sup>10</sup>
- Additionally, the Orange County Sanitation District practices large-scale indirect potable reuse, with approximately 35 million gallons per day pumped into percolation basins where the water naturally filters through the earth and into the groundwater supply.<sup>11</sup>

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The Cachuma contractors, by contrast, meet very little of their demand with recycled water. Currently, the Cachuma Contractors collectively produce and use 1,800 acre-feet of recycled water per year in a normal year, or about 3% of their total supply, and 1,860 acre-feet, or 4.5% of supply, in a critical drought year. Of the five Cachuma contractors, only Goleta Water District and the City of Santa Barbara use recycled water. In the City of Santa Barbara, recycled water meets 5% of demand in a normal year and 8% in a dry year. In the Goleta Water District, recycled water meets 6% of demand in a normal year and 11% in a dry year (Table 2).

The 2011 RDEIR assumes no expansion in recycled water supplies in the future. Yet, Goleta and Santa Barbara currently have significant unused recycled water capacity. Santa Barbara has an

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<sup>8</sup> Irvine Ranch Water District. "Your Water: Supply." Accessed on May 3, 2011 at <http://www.irwd.com/your-water/water-supply.html>.

<sup>9</sup> West Basin Municipal Water District. 2011. Water Reliability 2020. Accessed on April 28, 2011 at <http://www.westbasin.org/water-reliability-2020/planning/water-reliability>.

<sup>10</sup> Inland Empire Utilities Agency. (2010). Accessed on May 3, 2011 at <http://www.ieua.org/recycled/docs/FY09-10AnnualReport/index.html>.

<sup>11</sup> Groundwater Replenishment System. (undated). Accessed on May 3, 2011 at <http://www.gwrssystem.com/images/stories/pdfs/GWRS.E-PressKit.FactsFiguresSection.11.17.10.pdf>.

additional treatment and distribution capacity of 300 acre-feet per year,<sup>12</sup> and the Goleta Water District has an additional treatment and distribution capacity of 2,000 acre-feet per year,<sup>13</sup> Note that the 2011 RDEIR incorrectly states that Goleta Water District has a recycled water capacity of 1,500 acre-feet per year – the 2011 Goleta Water District Water Supply Management Plan reports a total treatment and distribution capacity of 3,000 acre-feet per year. Thus, these agencies are currently using less than 50% of the *existing* capacity, an indication that there is potential to expand the use of recycled water. At a minimum, this existing capacity should be identified in the RDEIR as existing supply available to the Contractors.

Additionally, the relatively low rate of recycled water use among the Cachuma contractors suggests there is potential to expand capacity and use above existing capacity in order to mitigate any identified potential water supply impacts. We recommend that a comprehensive recycled water feasibility study be conducted to support such mitigation; this feasibility study should explicitly evaluate ways to expand the use of recycled water, including through the development of a regional project and a groundwater recharge project.

**Table 2. Recycled Water Use Among Cachuma Contractors**

	<b>Recycled Water- Normal Year</b>	<b>Total Supply - Normal Year</b>	<b>% supply from Recycled Water</b>	<b>Recycled water- Critical Drought</b>	<b>Total Supply – Critical Drought</b>	<b>% supply from Recycled Water</b>
Carpinteria Valley Water District	0	5,699	0%	0	5,077	0%
Montecito Water District	0	7,305	0%	0	2,920	0%
City of Santa Barbara	800	17,493	5%	800	9,945	8%
Goleta Water District	1,000	16,471	6%	1,060	9,922	11%

<sup>12</sup> City of Santa Barbara Water Resources Division, Public Works Department. (2011). DRAFT City of Santa Barbara Long-Term Water Supply Plan. <http://www.santabarbaraca.gov/NR/rdonlyres/D9F28872-C779-4947-8428-56D9A678C8E6/0/LTWSPP2011Draft472011.pdf> .

<sup>13</sup> Bachman, S. (2011). Goleta Water District Water Supply Management Plan. [http://www.goletawater.com/assets/documents/water\\_supply/Water\\_Supply\\_Management\\_Plan\\_Final\\_3-31-11.pdf](http://www.goletawater.com/assets/documents/water_supply/Water_Supply_Management_Plan_Final_3-31-11.pdf).

Santa Ynez River Water Conservation District, ID#1	0	7,241	0%	0	6,279	0%
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Source: Tables 4-10, 4-11, 4-12, 4-13, and 4-14 in the 2<sup>nd</sup> RDEIR.

Similarly, rainwater is another alternative supply option that can be used for landscaping, flushing water closets and urinals, and cooling towers. Rainwater collection systems range in size from small 55-gallon barrels that rely on the force of gravity to complex multi-million gallon reservoirs equipped with pumps and sensors. Rainwater harvesting can be employed in residential settings and by businesses, industry, and public institutions. In Ingleside, Texas, for example, Reynolds Metals uses rainwater as process water in its metal-processing plant.<sup>14</sup> A 1992 survey of American State Health Departments revealed that there were more than 250,000 rainwater cisterns in use across the United States.<sup>15</sup> This number has certainly grown in recent years as water managers are increasingly encouraging these systems.

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The 2011 RDEIR does not consider the potential for rainwater reuse to augment supplies or mitigate potential water supply impacts. Water suppliers in other parts of the country, however, have taken steps to promote and expand the use of rainwater. For example, in the City of Hopkinsville, Kentucky, city officials hold rain barrel workshops to teach residents how to construct their own systems. Cities across the country are also providing rebates to customers for installing rainwater harvesting systems. In San Francisco, for example, the local water utility provided rebates to customers ranging in value from \$80 to \$480, depending on the volume of the container. The City of Tucson has moved beyond education and financial incentives, requiring commercial developers to install rainwater harvesting systems to meet 50% of landscaping water requirements. The City of Los Angeles, working with the group TreePeople has installed large-scale cisterns in schools to meet landscape water needs. The potential for the Cachuma contractors to use rainwater as an alternative supply should be assessed.

<sup>14</sup> Texas Water Development Board. 2005. The Texas Manual on Rainwater Harvesting. Third Edition. Austin, Texas.

<sup>15</sup> Lye, D.J. 1992. Microbiology of Rainwater Cistern Systems: A Review. J. Environ. Sci. Health. A27(8): 2123-2166.

## Conclusions

The potential water supply impacts of the range of alternatives for modifying the U.S. Bureau of Reclamation's water right permits for the Cachuma Project depend in part on the water that might be made available by increasing the efficiency of water use, expanding alternative supplies, and reducing waste. The water demand projections in the 2011 RDEIR are a critical piece in determining the ultimate impacts of the various alternatives and efforts to mitigate those impacts. Thus it is important to get these numbers correct.

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Like the previous RDEIRs, however, the 2011 RDEIR continues to overestimate future demand. Specifically, demand projections included in the 2011 RDEIR fail to include efficiency improvements mandated in 2009 by SBx7-7 and SB 407. The Pacific Institute estimated in 2003 that 5,000 to 7,000 acre-feet of water could be conserved through technology-based measures; subsequent technology improvements suggest that current potential could be even greater.

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Additionally, the 2011 RDEIR does not adequately consider alternative supply options. Recycled water use and rainwater harvesting are alternative supplies that have been developed by water suppliers in other parts of the country. Current recycled water use by the Cachuma contractors is very limited compared with that of other communities in California. The 2011 RDEIR fails to fully identify existing capacity for the limited recycled water facilities that are available. In addition, the 2011 RDEIR fails to consider this as mitigation for potential water supply impacts. However, rainwater harvesting and use for landscaping, toilet flushing, and industrial uses has been promoted successfully by other water agencies. The potential to expand the use of recycled water, both for nonpotable and indirect potable reuse, and the capture and use of rainwater, should be thoroughly assessed as a potential mitigation strategy.

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# HEATHER COOLEY

Email: [hcooley@pacinst.org](mailto:hcooley@pacinst.org)  
Phone: (510) 251- 1600  
Fax: (510) 251 - 2203  
Address: 654 13<sup>th</sup> St.  
Oakland, CA 94612

## EDUCATION

**University of California – Berkeley** May 2004  
*M.S., Energy and Resources*

**University of California – Berkeley** May 1998  
*B.S., Molecular and Environmental Biology, emphasis in ecology*

## PROFESSIONAL EXPERIENCE

**Pacific Institute, Oakland, CA** November 2004 – present  
*Water Program Co-Director*

**Lawrence Berkeley National Laboratory, Berkeley, CA** October 2000 – September 2004  
*Research Associate & Lab Manager*

**University of California – Berkeley, Berkeley, CA** January 2001 – June 2001  
*Teaching Assistant*

**Pesticide Action Network North America, San Francisco, CA** January 2001 – June 2001  
*Cartographer and Database Assistant*

**Mountain Trail Outdoor School, Hendersonville, NC** February 2000 – June 2000  
*Outdoor/Environmental Educator*

**Silver Lab, University of California - Berkeley, Berkeley, CA and Puerto Rico** June 1998 – December 1999  
*Field/Laboratory Technician*

**Weston Lab, University of California - Berkeley, Berkeley, CA** October 1996 – September 1997  
*Field/Laboratory Assistant*

## SELECT RESEARCH PAPERS AND PUBLICATIONS

- Cooley, H., Christian-Smith, J., Cohen, M., Gleick, P.H., and Heberger, M. *California's Next Million Acre-Feet: Saving Water, Energy, and Money*. Pacific Institute: Oakland, CA. August 2010.
- Cooley, H., J. Christian-Smith, P.H. Gleick, L. Allen, and M. Cohen. 2009. Understanding and Reducing the Risks of Climate Change for Transboundary Waters. United Nations Environment Programme.
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- Cooley et al. 2005. "Impact of agricultural practice on regional climate in a coupled land surface mesoscale model." *Journal of Geophysical Research-Atmospheres*. Vol. 110.

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- Cooley, H.S., W.J. Riley, and M.S. Torn. 2003. "Effect of harvest on regional climate and soil moisture and temperature." Poster. American Geophysical Union conference on ecosystem interactions with land use change. Santa Fe, New Mexico.

### **SELECT PRESENTATIONS**

- Asia Society. "Water Issues in California and China." January 14, 2010. San Francisco, California.
- United State Committee on Irrigation and Drainage. "The Future of Water and Agriculture in California." March 25, 2010. Sacramento, California
- City of Oakland. Sea-Level Rise and the San Francisco Bay. March 30, 2010. Oakland, California.
- State of the Estuary Annual Conference. The Impacts of Sea Level Rise on the San Francisco Bay. September 29, 2009. Oakland, California.
- House Subcommittee on Water and Power. "Extinction is not a Sustainable Water Policy: The Bay-Delta Crisis and the Implications for California Water Management." July 2, 2007. Vallejo, California.
- Multi-State Salinity Coalition. The Environmental Impacts of Seawater Desalination. January 12, 2007.
- Water Education Foundation Board of Directors. California and Floods. December 5, 2006.

### **PUBLIC AND PROFESSIONAL SERVICE**

- California Urban Water Conservation Council, Vice-President of the Board of Directors
- Urban Stakeholder Committee, convened by the California Department of Water Resources
- Water Education Foundation, Water Leaders.
- California Water Plan (B160-05) Public Advisory Committee



# PETER H. GLEICK

Email: [pgleick@pipeline.com](mailto:pgleick@pipeline.com)  
Phone: (510) 251- 1600  
Fax: (510) 251 - 2203  
Address: 654 13<sup>th</sup> St.  
Oakland, CA 94612

## EDUCATION

- University of California – Berkeley** 1986  
*Ph.D., Energy and Resources*
- University of California – Berkeley** 1980  
*M.S. Energy and Resources*
- Yale University, Hartford, CT** 1978  
*B.S. Engineering and Applied Sciences (cum laude, with distinction)*

## PROFESSIONAL EXPERIENCE

- Pacific Institute, Oakland, CA** 1987 – present  
*President and Co-Founder*
- Energy and Resource Group at University of California – Berkeley, Berkeley, CA** 1983-1986  
*Research Associate*
- Office of the Governor of California** 1980-1982  
*Deputy Assistant to the Governor of California on Energy and Environment*
- Lawrence Berkeley National Laboratory, Berkeley, CA** 1978-1981  
*Research and Teaching Associate*

## HONORS, AWARDS AND FELLOWSHIPS

- Recipient of 2009 Region 9 Award for Environmental Excellence from the U.S. Environmental Protection Agency.
- The 2009 American Water Resources Association's "Csallany Award" for exemplary contributions to water resources.
- Named "one of 15 People the Next President Should Listen To" by Wired Magazine, September 2008.
- Awarded 2007 Top Environmental Achievement Awards for Freshwater Protection and Restoration, Environment Now Foundation.
- Elected to United States National Academy of Sciences: April 2006.
- Elected AAAS Fellow (Atmospheric and Hydrospheric Sciences): October 2005 (American Association for the Advancement of Science)
- Elected member of AAAS Atmospheric and Hydrospheric Sciences Section: February 2007-2011.
- Awarded 2005 Excellence Award for Statewide/Institutional Innovations, California Urban Water Conservation Council.
- Elected IWRA Fellow: October 2005 (International Water Resources Association)
- Named MacArthur Foundation Fellow. October 2003
- Elected to Phi Beta Delta: Honor Society for scholarly achievement in international education. April 2003
- Named by the BBC as a "Visionary on the Environment" in its Essential Guide to the 21st Century. 2001.
- Elected Academician of the International Water Academy, Oslo, Norway. October 1999
- Awarded MacArthur Foundation Research and Writing Fellowship. International Peace and Security Studies, 1988-1990
- Awarded Social Science Research Council-MacArthur Foundation Post-Doctoral Fellow in International Security. 1986-1988.
- Named San Francisco Chronicle, one of "90 People to Watch in the '90s." 1990.

## **PUBLIC AND PROFESSIONAL SERVICE**

- World Economic Forum's Global Agenda Council on Water Security, 2008-
- National Academy of Sciences Committee on Ecological Impacts of Climate Change, 2008-2009
- U.S. EPA, Human Impacts of Climate Change Advisory Committee, 2007-2009.
- Expert Group on Policy Relevance of the World Water Assessment Program, United Nations, 2008-
- Climate Advisory Group of the California Academy of Sciences, 2007-
- State of California Climate Change Technical Advisory Group, 2007-
- National Academy of Sciences Committee on Advancing Desalination Technology, 2006-2008
- Vice Chair, American Geophysical Union Global Environmental Change Focus Group, 2006-2008
- United Nations-Sigma Xi Scientific Expert Group on Climate Change and Sustainable Development, 2004-2007.
- Water Science and Technology Board, National Academy of Sciences, 2001-2007.
- Public Advisory Committee: California Water Plan. Department of Water Resources, 2001-2006.
- Board of Directors: Pacific Institute, 1988-present.
- Editorial Board: Senior Advisory Council. Environmental Research Letters, 2006-2008.
- Editorial Board, Annual Reviews of Energy and the Environment, 2001-2004
- Editorial Board, Climatic Change, 1990-present.
- Advisory Council, International Water Academy, Oslo, Norway, 2003-2005.
- Scientific Advisor: IMAX Film "The Water Planet," 2003-2006.
- Advisory Board: Documentary film "Thirst," 2002-2004.
- Co-Chair: Water Sector: National Assessment of the Potential Impacts of Climatic Variability and Change on the United States, 1998-2000.
- Board of Directors: International Water Resources Association, 1997-2000.
- Global Environmental Change Committee, American Geophysical Union, 1993-1998.
- Public Advisory Forum: American Water Works Association, 1993-1998.
- 1990 Water Task Group, Second World Climate Conference, Geneva, Switzerland.
- Advisor, Comprehensive Freshwater Assessment, Stockholm Environment Institute, 1996-1997.
- Advisory Board: Documentary film "Cadillac Desert," 1995-1997
- Advisory Committee: Climate Institute's Environmental Refugee Program, 1993-1995.
- Climate and Water Panel, American Association for the Advancement of Science, 1986-1990.
- Co-Chair, Working Group 2, Advisory Group on Greenhouse Gases (AGGG), WMO/UNEP, 1989-91.
- Committee on Science & International Security, American Association for the Advancement of Science, 1993-95.
- Editorial Board, Environment and Security, 1993-2001.
- Editorial Board, Encyclopedia of Life Support Systems, 1997-2002.
- Editorial Board, Encyclopedia of Global Change (Oxford University Press), 1996-2000.
- Editorial Board: Global Change and Human Health, 1999-2003
- Interim Board of Directors: Middle East Water Information Network, 1994-1996
- Project Steering Committee: IUCN (World Conservation Union): Water Demand Management in Southern Africa, 2000-2003.
- Scientific Review Group, President's Council on Sustainable Development, 1994-1996.
- Surface Water Committee, American Geophysical Union, 1992-1993
- Working Group VIII Special Report, United States-Soviet Agreement on Protection of the Environment, 1989-1990.

**(A full publications list is available upon request)**



# LUCY H. ALLEN

Email: [allen@pacinst.org](mailto:allen@pacinst.org)  
Phone: (510) 251-1600  
Fax: (510) 251-2203  
Address: 654 13<sup>th</sup> St.  
Oakland, CA 94612

## EDUCATION

**University of California – Berkeley**

May 2008

*B.S., Conservation and Resource Studies (College Honors, High Distinction)*

## PROFESSIONAL EXPERIENCE

**Pacific Institute**, Oakland, CA

May 2008 – present

*Research Associate*

**Torn Laboratory, Lawrence Berkeley National Laboratory**, Berkeley, CA

April 2007 – May 2008

*Laboratory Assistant*

**Bancroft Technical Services**, Berkeley, CA

Feb. 2005 – July 2007

*Archivist Assistant*

## PUBLICATIONS

- L. Allen, “Water Quality.” Chapter in: Gleick, P. and J. Christian-Smith (editors). In press. *A 21<sup>st</sup> Century Water Policy*. New York: Oxford University Press.
- Allen, L., J. Christian-Smith, and M. Palaniappan. 2010. Overview of Greywater Reuse: The Potential of Greywater Systems to Aid Sustainable Water Management. Oakland: Pacific Institute.
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- Schulte, P., J. Morrison, M. Morikawa, E. Moore, M. Heberger, and L. Allen. 2010. The Water Footprints of Steel, Petrochemicals, and Forest Products: An Analysis of Water-Related Business Risks and Impacts in the United States. Written for the U.S. Environmental Protection Agency. Oakland: Pacific Institute.
- Christian-Smith, J., L. Allen, M. Cohen, P. Schulte, C. Smith, and P. Gleick. 2010. California Farm Water Success Stories. Oakland: Pacific Institute.
- Palaniappan, M., P. Gleick, L. Allen, M. Cohen, J. Christian-Smith, and C. Smith. 2010. Clearing the Waters: A Focus on Water Quality Solutions. United Nations Environmental Program Publication. Available online: [www.unep.org/PDF/Clearing\\_the\\_Waters.pdf](http://www.unep.org/PDF/Clearing_the_Waters.pdf).
- Cooley, H., J. Christian-Smith, M. Cohen, P. Gleick, and L. Allen. 2009. “Understanding and Reducing the Risks of Climate Change for Transboundary Waters.” Prepared for the United Nations Environmental Program. Oakland: Pacific Institute.

## SELECTED PRESENTATIONS

- Panel Participant, Climate Corps Bay Area training. “Water-Energy-Climate: Critical Links.” (2010).
- Panel Participant, Bay Area Water Forum. “Overview of the 2010 Water Bond” (2010).
- Invited Speaker, Water Summit. “Pacific Institute Analysis of the 2010 Water Bond” (2010).

## SELECTED HONORS AND AWARDS

- Phi Beta Kappa member
- Golden Key International Honour Society Scholar

**16. Pacific Institute dated May 12, 2011**

**Response 16-1:**

The comment states that, in 2003, the Pacific Institute provided comments regarding water-use efficiency and conservation measures among the five major water districts that withdraw water from the Santa Ynez River. In addition, the comment suggests that Pacific Institute commented on the 2007 RDEIR.

The comments received on the 2003 DEIR and 2007 RDEIR (including comments from the Pacific Institute) were fully considered and have been responded to in the 2011 2<sup>nd</sup> RDEIR. The comment is noted.

**Response 16-2:**

The comment suggests that representatives of the Pacific Institute provided prior comments on the 2007 RDEIR regarding potential conservation measures to reduce water use.

The comments received on the 2007 RDEIR (including comments from the Pacific Institute) were fully considered and have been responded to in the 2011 2<sup>nd</sup> RDEIR. The comment is noted.

**Response 16-3:**

The comment suggests that water demand projections in the 2011 2<sup>nd</sup> RDEIR are based on outdated estimates and ignore water projections from the Member Units.

The water demand estimates included in the 2011 2<sup>nd</sup> RDEIR were provided by the Member Units in 2010 and reflect the latest information available at the time. Where warranted and available, information provided has been updated in the 2011 2<sup>nd</sup> RDEIR,

**Response 16-4:**

The comment suggests that demand projections in the 2011 2<sup>nd</sup> RDEIR do not integrate mandated water conservation and efficiency improvements, particularly those to reduce water demand by 20 percent per capita by 2020.

As noted in response to comment 9-22, the 2011 2<sup>nd</sup> RDEIR acknowledges that the Member Units must address the requirements of SBx7-7 in the preparation of their 2010 Urban Water Management Plans (UWMPs) (see **Section 4.3.3**). The methods by which the Member Districts comply with SBx7-7 are not within the purview of the SWRCB but rather is subject to review and approval by DWR. Methods of water conservation by local agencies cannot be addressed by the operation of the Cachuma Project nor are they an issue of water rights. As long water is put to beneficial use under Reclamation's water right Permits 11308 and 11310 and managed for the protection of downstream water rights and public trust

resources below Bradbury Dam, further management as suggested by the comment is outside of the SWRCB's purview.

**Response 16-5:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR overestimates future demand and potential shortages under the proposed alternatives,

The 2011 2<sup>nd</sup> RDEIR utilizes demand information as projected by the Member Units and provided in 2010. The water supply analysis completed in the 2011 2<sup>nd</sup> RDEIR was completed independently. Table 4-17 compares the Member Units' water demand to their water supply from all sources, including the Cachuma Project and the SWP, in the critical drought year (1951) under the project alternatives. Line 6 and line 9 of Table 4-17 show the amount and percent differences between water supply shortages under the Alternative 2 baseline and shortages under the other alternatives. The demand figures in Table 4-17 are derived from Table 4-19, Member Units Demand, which summarizes the current Member Units' demand in 2009/2010 and their projected future demand.

**Response 16-6:**

The comment suggests that information provided in the 2003 Haasz and Glieck testimony regarding the amount of water that could be conserved by the Member Units remains valid.

The comment is noted.

**Response 16-7:**

The comment suggests that improving rate structures would provide an opportunity to implement water conservation features.

The Member Units are currently updating their UWMPs as required by state law. As part of the update, which was scheduled to be complete in mid-2011, the Member Units will be providing information on how they plan to meet state mandated conservation requirements (20 percent by 2020).

Additional drought water supply contingency measures are identified as part of each Member Units' UWMP water shortage contingency plan. This required contingency plan identifies a number of measures that can be used during a drought period, such as, building moratoria, water rationing, adjusting water rates, and instituting additional water conservation measures such as water use restrictions and prohibitions, and public outreach campaigns to help customers minimize water use. With such options available, it seems reasonable to indicate that options exist to implement additional drought contingency measures as appropriate.

**Response 16-8:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR does not account for additional supplies including recycled water, rainwater harvesting and stormwater.

The water supply analysis in the 2011 2<sup>nd</sup> RDEIR recognizes the use of the recycled and reclaimed water where identified by the Member Units as a reliable source of water. For example, 800 afy of recycled water is considered for the City of Santa Barbara (see Table 4-12) and 1,000 afy of recycled water is considered for GWD (see Table 4-13).

As noted previously in response to **Comment 9-14**, local agencies have limited ability to legally compel existing customers to convert from the use of potable water to recycled water. In many cases, the costs associated with conversion are prohibitive, especially when recycled water mains need to be extended or booster stations enhanced. All agencies and water providers are required to implement future improvements consistent with state law (California Water Code Sections 13550 et seq.) to achieve a 20 percent reduction in per capita water use by 2020.

**Response 16-9:**

The comment suggests that the demand projections in the 2011 2<sup>nd</sup> RDEIR do not include state-wide water efficiency requirements and therefore overestimate demand.

The 2011 2<sup>nd</sup> RDEIR recognizes that the Member Units and other downstream water purveyors are in the process of finalizing and adopting updates to their UWMPs in accordance with the Urban Water Management Planning Act. (Wat. Code, Subsection 10610–10657.) These updates must demonstrate how each purveyor will address drought concerns and demonstrate how each will comply with the requirements of the 2009 Comprehensive Water Legislation (SBx7-7). (Wat. Code, Section 10631.)

In addition, the plans must contain an urban water supply contingency analysis. The 2010 UWMP updates must include, among other things, actions to be undertaken in response to a water supply shortage, a 20 percent reduction in per capita water demand by 2020, and mandatory prohibitions against specific water use practices during shortages, including but not limited to prohibiting the use of potable water for street cleaning. (Wat. Code, Section 10632.)

Whether or not the Member Units achieve a 20 percent reduction is yet to be determined and will be subject of future reporting to the DWR. At present, the 2009 legislation does not include any penalty other than exclusion from certain state grants if the 20 percent reduction by 2020 is not achieved.

The 2011 2<sup>nd</sup> RDEIR provides for a more conservative analysis by not including provisions that the 20 percent by 2020 would be achieved. Further, the SWRCB has no ability to enforce reduction in water usage. The 2011 2<sup>nd</sup> RDEIR does include mitigation that the Member Units' UWMPs shall be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year.

**Response 16-10:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR overestimates projected water demands and does not reflect reductions in demand that would result from the implementation of SBx7-7.

The 2011 2<sup>nd</sup> RDEIR recognizes that the Member Units and other downstream water purveyors are in the process of finalizing and adopting updates to their UWMPs in accordance with the Urban Water Management Planning Act. (Wat. Code, Subsection 10610–10657.) These updates must demonstrate how each purveyor will address drought concerns and demonstrate how each will comply with the requirements of the 2009 Comprehensive Water Legislation (SBx7-7). (Wat. Code, Section 10631.)

In addition, the plans must contain an urban water supply contingency analysis. The 2010 UWMP updates must include, among other things, actions to be undertaken in response to a water supply shortage, a 20 percent reduction in per capita water demand by 2020, and mandatory prohibitions against specific water use practices during shortages, including but not limited to prohibiting the use of potable water for street cleaning. (Wat. Code, Section 10632.)

**Response 16-11:**

The comment suggests that the information contained in the 2011 2<sup>nd</sup> RDEIR for the City of Santa Barbara are over estimated and do not reflect the requirements of SBx7-7.

The 2011 2<sup>nd</sup> RDEIR recognizes that the Member Units, including the City of Santa Barbara, are in the process of finalizing and adopting updates to their UWMPs in accordance with the Urban Water Management Planning Act. (Wat. Code, Subsection 10610–10657.) These updates must demonstrate how each purveyor will address drought concerns and demonstrate how each will comply with the requirements of the 2009 Comprehensive Water Legislation (SBx7-7). (Wat. Code, Section 10631.) DWR extended the deadline to June 30, 2011, for water purveyors to adopt the 2010 UWMP; the City of Santa Barbara only recently completed and adopted their 2010 UWMP in June 2011.

The information included in the 2011 2<sup>nd</sup> RDEIR was provided directly from the Member Units in 2010.

The comment is noted.

**Response 16-12:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR fails to acknowledge potential conservation measures that were previously provided in 2003.

The 2011 2<sup>nd</sup> RDEIR benefited from comments provided on both the 2003 DEIR and 2007 RDEIR, including those provided by the Pacific Institute. The analysis reflects the independent review of water supply and demand.

The comment is noted.

**Response 16-13:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR does not consider the potential for reducing agricultural water use.

The 2011 2<sup>nd</sup> RDEIR benefited from comments provided on both the 2003 DEIR and 2007 RDEIR, including those provided by the Pacific Institute. The analysis reflects the independent review of water supply and demand, and conservation measures that can be feasibly implemented.

As part of the 2009 legislation, SBx7-7 requires agricultural water suppliers to implement efficient water management practices. An agricultural water supplier that becomes an agricultural water supplier after December 31, 2012, would be required to prepare and adopt an agricultural water management plan within one year after becoming an agricultural water supplier. The agricultural water supplier would be required to notify each city or county within which the supplier provides water supplies with regard to the preparation or review of the plan. The bill would require the agricultural water supplier to submit copies of the plan to DWR and other specified entities.

The comment is noted.

**Response 16-14:**

The comment suggests that Member Units could improve their rate structures to improve water conservation.

The Member Units have already, or are currently, updating their UWMPs as required by state law. As part of the update, which is scheduled to be complete in June 30, 2011, the Member Units will be providing information on how they will meet state mandated conservation requirements (20 percent by 2020).

Additional drought water supply contingency measures are identified as part of each Member Units' UWMP water shortage contingency plan. This required contingency plan identifies a number of measures that can be used during a drought period, such as, building moratoria, water rationing, adjusting water rates, instituting additional water conservation measures such as water use restrictions and prohibitions, and public outreach campaigns to help customers minimize water use. With such options available, it seems reasonable to indicate that options exist to implement additional drought contingency measures as appropriate.

The comment is noted.

**Response 16-15:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR underestimates the use of recycled (reclaimed) water and other alternative supply sources.

The water supply analysis in the 2011 2<sup>nd</sup> RDEIR recognizes the use of the recycled and reclaimed water where identified by the Member Units as a reliable source of water. For example, 800 afy of recycled water is considered for the City of Santa Barbara (see Table 4-12) and 1,000 afy of recycled water is considered for GWD (see Table 4-13).

As noted in response to **Comment 9-14**, local agencies have limited ability to legally compel existing customers to convert from the use of potable water to recycled water. In many cases, the costs associated with conversion are prohibitive, especially when recycled water mains need to be extended or booster stations enhanced. All agencies and water providers are required to implement future improvements consistent with state law (California Water Code Sections 13550 et seq.) to achieve a 20 percent reduction in per capita water use by 2020.

**Response 16-16:**

The comment suggests that there are other methods to reduce supply such as rainwater.

There may be other sources of water, such as rainwater, that the Member Units may use. Information on water sources used in the 2011 2<sup>nd</sup> RDEIR was provided by Member Units. None of the Member Units identified rainwater as a potential source.

The comment is noted.

**Response 16-17:**

The comment suggests that the potential water supply impacts of the alternatives in the 2011 2<sup>nd</sup> RDEIR depend, in part, on the water that may be made available by increasing efficiency in water use, expanding alternative supplies and reducing waste.

The range of alternatives included in the 2011 2<sup>nd</sup> RDEIR provide for differing conditions for surcharging and releasing water from Bradbury Dam for the purposes of providing water for public trust resources and beneficial use downstream. The range of alternatives is consistent with the physical features and characteristics of Bradbury Dam, and the SWRCB's authority. SWRCB concurs that if the Member Units conserved more, would they have to divert less water from the Santa Ynez River. However, as stated above, the SWRCB has limited enforcement authority to require the Member Units to conserve.

The comment is noted.

**Response 16-18:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR, as well as the 2003 DEIR and 2007 RDEIR, overstate future demand and do not include benefits from water conservation that could be attained from the implementation of SBx7-7.

The 2011 2<sup>nd</sup> RDEIR utilizes demand information as projected by the Member Units and provided in 2010. The water supply analysis completed in the 2011 2<sup>nd</sup> RDEIR was completed independently. Table 4-17 compares the Member Units' water demand to their water supply from all sources, including the Cachuma Project and the SWP, in the critical drought year (1951) under the project alternatives. Line 6 and line 9 of the table show the amount and percent difference between water supply shortages under the Alternative 2 baseline and shortages under the other alternatives. The demand figures in Table 4-17 are derived from Table 4-19, Member Units Demand, which summarizes the current Member Units' demand in 2009/2010 and their projected future demand.

The 2011 2<sup>nd</sup> RDEIR acknowledges that the Member Units must address the requirements of SBx7-7 in the preparation of their 2010 UWMPs (see **Section 4.3.3**). The methods by which the Member Districts comply with SBx7-7 is not within the purview of the SWRCB but rather is subject to review and approval by DWR. Separate discussion of the benefits of water conservation is not within the scope of this EIR.

**Response 16-19:**

The comment suggests that the 2011 2<sup>nd</sup> RDEIR does not consider alternate sources of supply such as rainwater and recycled (reclaimed) water.

As previously stated (see response to **Comment 16-8**), the water supply analysis in the 2011 2<sup>nd</sup> RDEIR recognizes the use of the recycled and reclaimed water where identified by the Member Units as a reliable source of water. For example, 800 afy of recycled water is considered for the City of Santa Barbara (see Table 4-12) and 1,000 afy of recycled water is considered for GWD (see Table 4-13).

As noted in response to **Comment 9-14**, local agencies have limited ability to legally compel existing customers to convert from the use of potable water to recycled water. In many cases, the costs associated with conversion are prohibitive, especially when recycled water mains need to be extended or booster stations enhanced. All agencies and water providers are required to implement future improvements consistent with State law (California Water Code Subsection 13550 et seq.) to achieve a 20 percent reduction in per capita water use by 2020.

GR/DKR  
11331 et al

**BEST BEST & KRIEGER**  
**ATTORNEYS AT LAW**

INDIAN WELLS  
(760) 568-2611

IRVINE  
(949) 263-2600

LOS ANGELES  
(213) 617-8100

ONTARIO  
(909) 989-8584

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

SACRAMENTO  
(916) 325-4000

SAN DIEGO  
(619) 525-1300

WALNUT CREEK  
(925) 977-3300

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

September 27, 2007

STATE WATER RESOURCES CONTROL BOARD  
2007 SEP 28 AM 11:13  
DEIR 11331

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

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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.

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## **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

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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.

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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.)

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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.)

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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:

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The purpose of this EIR is to assist the SWRCB in determining if modifications to Reclamation's water rights permits are required to better protect downstream water rights and public trust resources. The SWRCB has not selected a particular modified operational scheme as a proposed project, 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. 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.

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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 Permittee (Reclamation) and other parties (the Cachuma Member Units and downstream water rights interests) have presented for the Board's consideration. This will also allow a proper environmental analysis by way of comparing Alternative 3C to the other alternatives. 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

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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.

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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.)

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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 existing 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.4<sup>th</sup> 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.*)

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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.4<sup>th</sup> 908.)

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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.4<sup>th</sup> 99, 125; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4<sup>th</sup> 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.)

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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.

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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.

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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 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.)

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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).)

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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.

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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

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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

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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.

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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

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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:

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- 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).

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- 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). 1-16
- 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. 1-17
- 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. 1-18

**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. 1-19

**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 1-20

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.

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**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)**

<b>Water Supply Parameter</b>	<b>Alt 2 Interim Operations under Biological Opinion</b>	<b>Alt 3B Biological Opinion with 1.8' surcharge</b>	<b>Alt 3C Biological Opinion with 3' surcharge</b>	<b>Alt 4B Biological Opinion with SWP Delivery to Lompoc Forebay</b>	<b>Alt 5B: "3A2"/BO and 1.8' surcharge</b>	<b>Alt 5C: "3A2"/BO and 3' surcharge</b>
<i>Critical Drought Year WITH NO RESERVES SET ASIDE (based on 1951 drought year, compared to target yield of 25,714 af)</i>						
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%
<i>Critical Drought Year WITH RESERVES SET ASIDE (based on 1951 drought year, compared to target yield of 25,714 af)</i>						
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%
<i>Critical 3-year Drought Period WITH NO RESERVES SET ASIDE (based on 1949-51 drought, compared to target yield of 25,714 af)</i>						
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%
<i>Critical 3-year Drought Period WITH RESERVES SET ASIDE (based on 1949-51 drought, compared to target yield of 25,714 af)</i>						
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*.

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**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 <sup>1</sup>	4,300	4,600
Montecito Water District <sup>2</sup>	7,194	7,305
City of Santa Barbara <sup>3</sup>	14,342	18,200
Goleta Water District <sup>4</sup>	14,000	17,300
Santa Ynez River Water Conservation District, ID No. 1 <sup>5</sup>	7,268	8,247
<b>Total</b>	<b>47,104</b>	<b>55,652</b>

<sup>1</sup> Current demand based on year 2005. 2020 demand based on UWMP (2005).

<sup>2</sup> Current demand based on year 2007. 2020 demand based on UWMP (2005). Year 2030 demand is 7,835 acre-feet.

<sup>3</sup> From City of Santa Barbara Long-Term Water Supply Plan with a year 2009 target.

<sup>4</sup> Current and 2020 demand based on UWMP (2000; 2005).

<sup>5</sup> 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.

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**TABLE 3  
 (DEIR TABLE 4-10, AUG. 2003, WITH REVISIONS)  
 WATER SUPPLY AND DEMAND - CARPINTERIA VALLEY WATER DISTRICT<sup>1</sup>**

	Normal Year	Critical Drought Year <sup>2</sup>	Comment
	(acre-feet per year)		
<b>Supplies</b>			
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.
<b>Total</b>	<b>6,773</b>	<b>5,034</b>	
<b>Demand</b>			
Current (2005)	4,300		Approx. 50% for agricultural use.
Planned Future (2020)	4,600		

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

<sup>2</sup> 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<sup>1</sup>**

	<b>Normal Year</b>	<b>Critical Drought Year<sup>2</sup></b>	<b>Comment</b>
	<b>(acre-feet per year)</b>		
<b><i>Supplies</i></b>			
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.
<b>Total</b>	<b>7,416</b>	<b>2,963</b>	
<b><i>Demand</i></b>			
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.

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

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

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**TABLE 5**  
**(DEIR TABLE 4-12, AUG. 2003, WITH REVISIONS)**  
**WATER SUPPLY AND DEMAND – CITY OF SANTA BARBARA<sup>1</sup>**

	<b>Normal</b>	<b>Critical Drought Year<sup>2</sup></b>	<b>Comment</b>
	<b>(acre-feet per year)</b>		
<b>Supplies</b>			
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.
<b>Total</b>	<b>18,200</b>	<b>13,356</b>	
<b>Demand</b>			
Current (2002)	14,342		
Planned Future (2009 per LTWSP)	18,200		

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

<sup>2</sup> 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<sup>1</sup>**

	<b>Normal</b>	<b>Critical Drought Year<sup>2</sup></b>	<b>Comment</b>
	<b>(acre-feet per year)</b>		
<b>Supplies</b>			
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.
<b>Total</b>	<b>17,671</b>	<b>12,129</b>	
<b>Demand</b>			
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.

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

<sup>2</sup> 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<sup>1</sup>**

	<b>Normal</b>	<b>Critical Drought Year<sup>2</sup></b>	<b>Comment</b>
	<b>(acre-feet per year)</b>		
<b>Supplies</b>			
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.
<b>Total</b>	<b>7,284</b>	<b>5,627</b>	
<b>Demand</b>			
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).

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

<b>CVWD</b>	
1. Local groundwater supply	3,000
<b>MWD</b>	
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
<b>City of Santa Barbara</b>	
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
<b>GWD</b>	
13. Local groundwater supply	4,500
14. Recycled water	1,500
15. GWD subtotal (10 + 11)	6,000
<b>SYRWCD, ID No. 1</b>	
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 <sup>1</sup>
20. Total supply from sources other than the Cachuma Project (1 + 5 + 12 + 15 + 18 + 19)	28,579

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

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**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)**

<b>CVWD</b>	
1. Local groundwater	<b>7,200</b>
<b>MWD</b>	
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	<b>3,586</b>
<b>City of Santa Barbara</b>	
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	<b>21,417</b>
<b>GWD</b>	
12. Local groundwater supply	10,800
13. Recycled water	4,500
14. GWD subtotal	<b>15,300</b>
<b>SYRWCD, ID No. 1</b>	
15. Local groundwater supply	5,088
16. Santa Ynez River diversion	6,255
17. SYRWCD, ID No. 1 subtotal	<b>11,343</b>
18. State Water Project delivery (assumed 32% of Table A + buffer)	<b>17,712</b>
<b>19. Total supply from sources other than Cachuma Project in critical three-year drought period (1 + 5 + 11 + 14 + 17 + 18)</b>	<b>76,558</b>

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- 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.

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**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

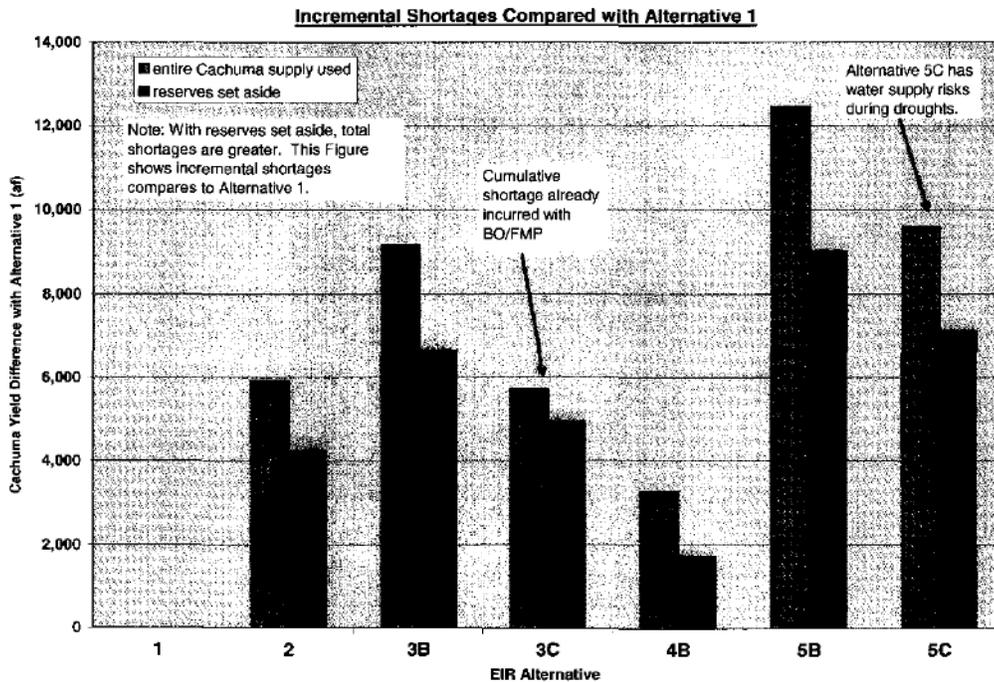
**TABLE 11 (DEIR Table 4-25a, with Revisions)  
 MEMBER UNITS' SUPPLY AND DEMAND  
 DURING CRITICAL THREE-YEAR DROUGHT PERIOD (1949-1951)**

	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**

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**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 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**

	<b>Alt 1</b>
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**

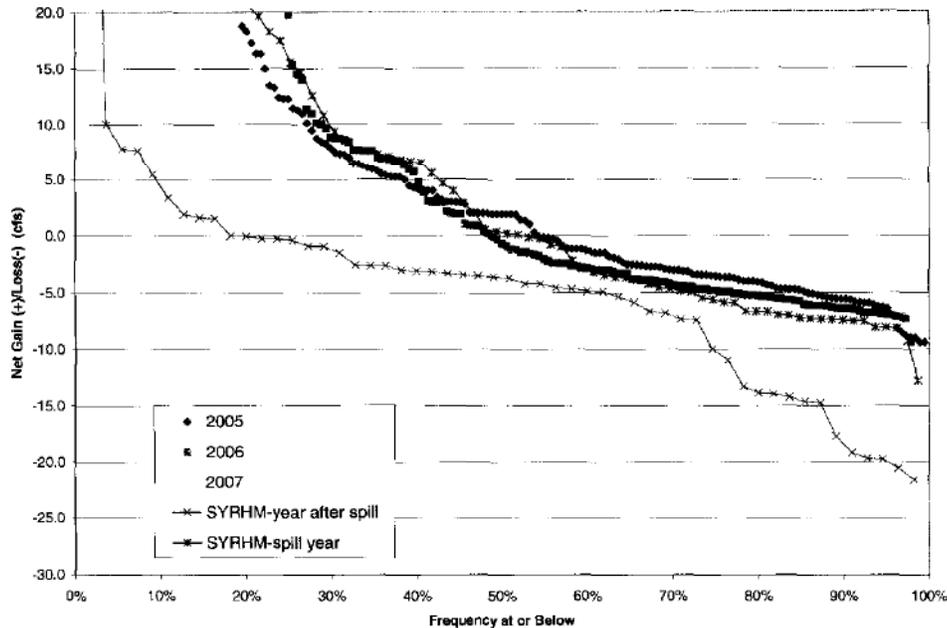
Date	Character of Period	Length of Period (years)	San Gabriel River		Santa Ana River	
			Mean of Period (acre-feet)	Departure from 56-year mean (percent)	Mean of Period (acre-feet)	Departure from 56-year mean (percent)
1895-1904	Dry	9	46,400	-59	36,200	-44
1904-22	Wet	18	172,600	51	92,100	44
1922-36	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

1-20

- 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**



1-20

- 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.4<sup>th</sup> 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.4<sup>th</sup> 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 through 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)

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

*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.4<sup>th</sup> 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.

1-20

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

110 SOUTHERN CALIFORNIA WATER RESOURCES, AND DROUGHT 1944-51

**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.

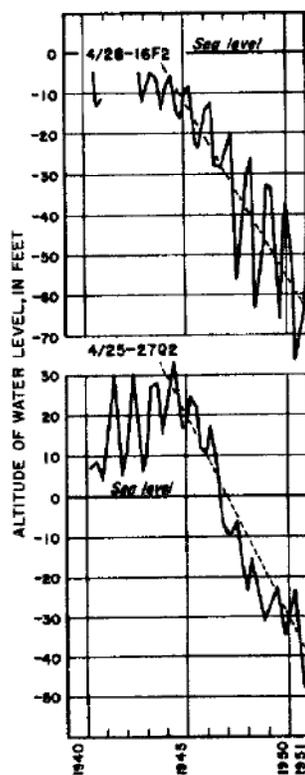


Figure 39. —Altitude of ground water at selected wells in the Carpinteria and Goleta basins.

1-20

- 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.

1-20

- 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).)

1-21

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")<sup>1</sup> 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

<sup>1</sup> 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.)

1-21

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.

1-21

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<sup>2</sup> 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).

1-22

- 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.

1-23

- 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.

1-24

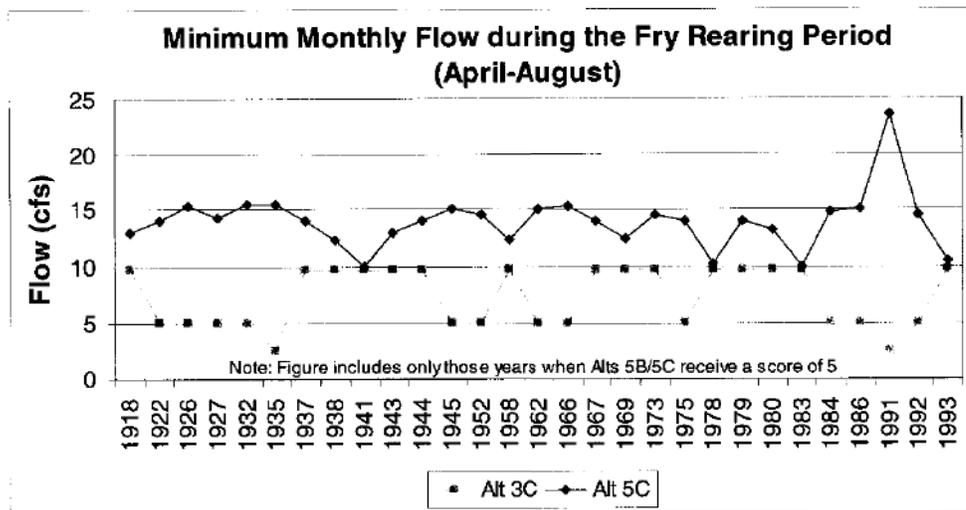
<sup>2</sup> As indicated above, SYRTAC included representatives from DFG, NMFS, Reclamation, CCRB, ID No. 1, and downstream water rights interests.

- 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.

1-25

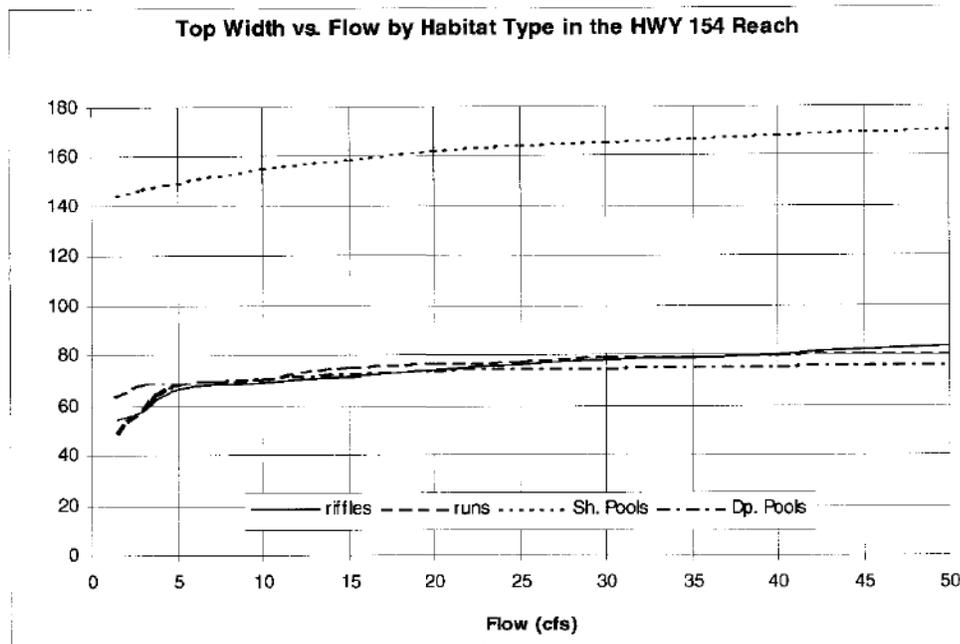
**Figure 1**  
**Comparison of minimum monthly flows for Alternative 3B and 3C and 5B and 5C during the fry rearing period when Alternative 5B and 5C receive a score of 5<sup>3</sup>**



1-25

<sup>3</sup> 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)**



1-25

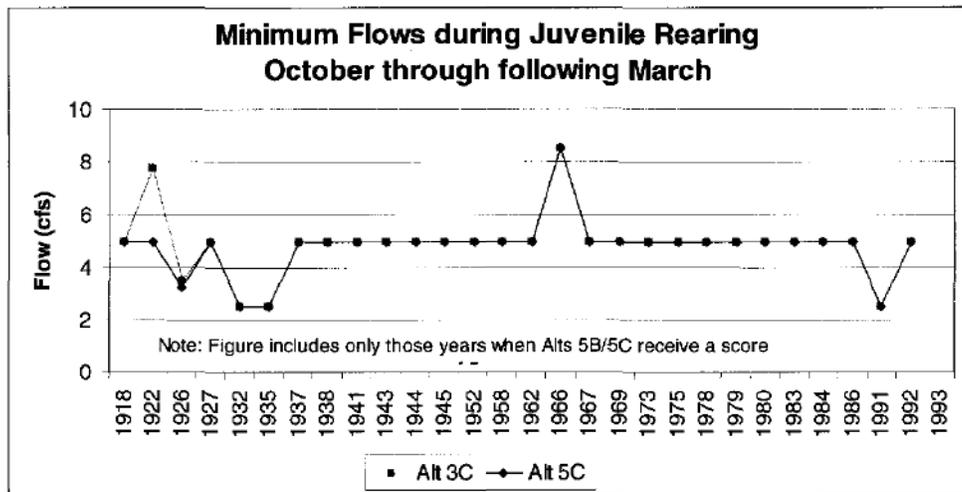
**Table 1**  
**Top width by habitat type in the three study reaches**

Highway 154	Top Width (ft)				
	Riffle	Run	Glide	Sh. Pools	Dp. Pools
Discharge (cfs)					
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.

1-25



- 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.

1-25

- 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.

1-26

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.

1-26

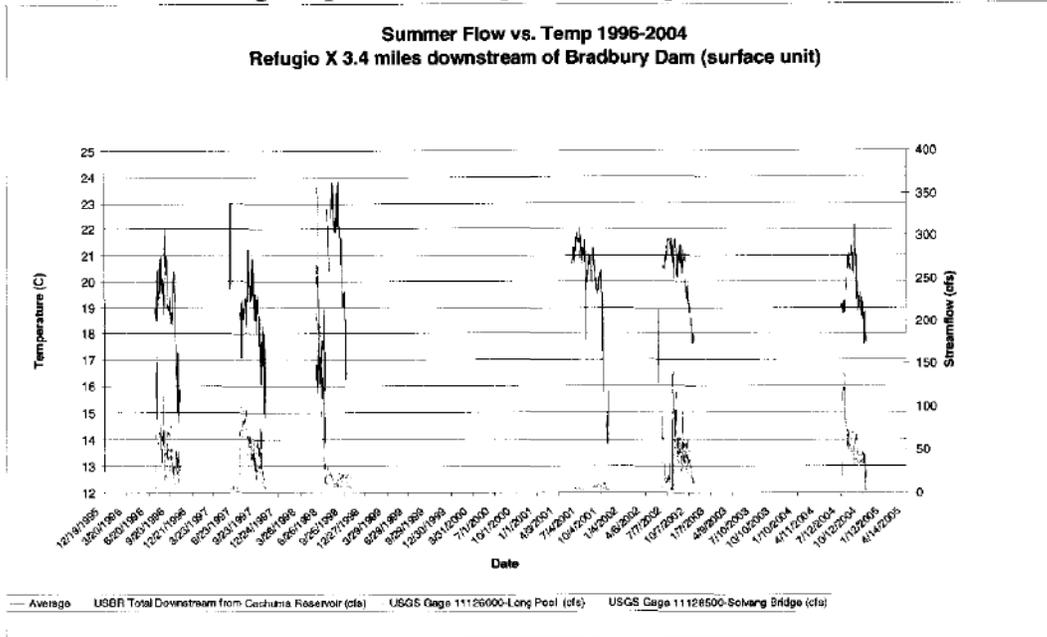
Based on this, habitat improvements in the main stem between Bradbury Dam and Highway 154 should be given substantially greater weight in the DEIR than those below Highway 154 in evaluating the potential effects of various alternatives on steelhead/rainbow trout.

- 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,<sup>4</sup> 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.)

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<sup>4</sup> 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))



1-27

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.

1-28

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

1-29

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.

1-29

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."

1-30

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.

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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.

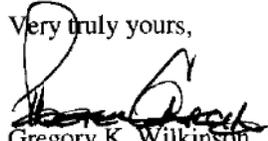
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Ms. Diane Riddle  
September 27, 2007  
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For the reasons set forth above, CCRB and ID No. 1 believe the 2007 DEIR can be corrected by providing certain clarifications as indicated above, and that 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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2.4.2 Written Responses to Comments on the 2007 RDEIR

1. Cachuma Conservation Release Board (Best, Best, and Krieger) dated September 27, 2007

**Response 1-1:**

The comment states that the 2007 Revised Draft EIR's project description does not permit meaningful public review of the project.

The 2003 DEIR and 2007 RDEIR provide detailed project descriptions and several alternatives for the SWRCB to evaluate. The project description meets the requirements of CEQA and the *CEQA Guidelines*. The proposed project consists of potential changes to the existing water rights permits held by Reclamation for the Cachuma project to provide appropriate protection of downstream water rights and public trust resources on the Santa Ynez River. This general project description has not changed since the SWRCB issued the Notice of Preparation. The purpose of this EIR is to support the SWRCB's pending decision after holding an evidentiary hearing to consider whether to modify Reclamation's permits. Accordingly, the CEQA project description corresponds to the key hearing issues. Moreover, it was not possible to define the project in greater detail, and attempt to specify exactly how the permits should be modified, without prejudging the hearing issues. Instead, this EIR evaluates a range of alternatives consistent with the range of possible modifications to the permits that are under consideration. Each of the alternatives provide for varying changes to the permits that would result in different conditions. While the number and scope of the alternatives were revised from the 2003 DEIR, and 2011 RDEIR, the project description fully encompasses the scope of the conditions under each.

The only change made in the 2011 2<sup>nd</sup> Revised Draft EIR was to include in the description of Alternative 3C to specifically note the Settlement Agreement. This clarification to Alternative 3C is consistent with the general description of the project.

The comment is noted.

**Response 1-2:**

The comments states that the 2003 DEIR (and 2007 RDEIR) fail to provide a stable and clearly stated project description. The comment further states that instead it contains contradictions, and is vague and ambiguous.

See response to **Comment 1-1**.

**Response 1-3:**

The comment states that the 2007 RDEIR 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.

See response to comment 1-1. The SWRCB has not decided whether to modify Reclamation's permits consistent with Alternative 3C. Accordingly, it would not be appropriate to identify Alternative 3C as the proposed project.

**Response 1-4:**

The comment states that the 2007 RDEIR's discussion of surcharging is vague and confusing.

The project descriptions for the 2007 RDEIR (and 2003 DEIR) both include a discussion of surcharging and provide information on the various levels of surcharging proposed. It was appropriate to include reservoir surcharging as part of the project alternatives because surcharging affects Cachuma Project operations and Reclamation's planned to surcharge the reservoir when the SWRCB began its CEQA review. As the commenter indicates, Reclamation has since implemented a surcharge. Accordingly, the analysis of the alternatives would have been inaccurate if the alternatives had not included reservoir surcharging. The commenter states that the failure to incorporate the analysis of surcharging contained in the 2005 FMP/BO EIR/EIS should have been explained, but the commenter does not explain whether or how the analysis of surcharging contained in this CEQA document is inadequate.

The comment is noted.

**Response 1-5:**

The comment states that the 2007 RDEIR fails to describe objectives of the proposed project with sufficient particularity.

While the objectives may not have been explicitly addressed in the 2003 DEIR or 2007 RDEIR, they were articulated in various discussions of both documents. The objectives have been clearly stated in the 2011 2<sup>nd</sup> RDEIR. The commenter asks what objectives will guide the SWRCB's decision if full protection of public trust uses conflicts with the protection of downstream water rights. The commenter has not proffered any evidence that those two objectives conflict, or provided any support for the proposition that this CEQA document should specify which objective would have a higher priority in the event of a conflict.

**Response 1-6:**

The comment states the 2007 RDEIR's description of baseline conditions is not supported by substantial evidence. The commenter asserts that existing water right requirements under SWRCB Order WR 89-18 (Alternative 1 in the 2003 Draft EIR) should have been used as the baseline.

The 2007 RDEIR and 2003 DEIR both identify Alternative 2 as the baseline. The 2007 RDEIR provides a discussion as to why Alternative 1 was not considered as a baseline due to the fact that operations at Bradbury Dam had changed in 2003 with the implementation of requirements of the Biological Opinion. Alternative 2 included operations consistent with Order WR 89-18 requirements, plus changes to Cachuma Project operations that had occurred since the Biological Opinion had been issued.

The *CEQA Guidelines* (Section 15125) state that an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of Preparation (NOP) is published, or if no NOP is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

*CEQA Guidelines* Section 15126.6 states that the No Project Alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis, which does establish that baseline.

Consistent with the *CEQA Guidelines*, it was appropriate to use actual Cachuma Project operations as the baseline, as opposed to Cachuma Project operations required under Order WR 89-18, without taking into consideration changes that had been implemented as a result of the Biological Opinion. There was no basis to ignore the Biological Opinion. In addition, it was within the SWRCB's discretion to update the baseline to reflect actual Cachuma Project operations as they existed when the 2003 DEIR was prepared, as opposed using Cachuma Project operations as they existed when the NOP was published, for purposes of establishing the baseline.

**Response 1-7:**

The comment states that the 2007 RDEIR's alternatives analysis is legally deficient.

The 2007 RDEIR (and 2003 DEIR) include a range of alternatives that provide for differing conditions for surcharging and releasing water from Bradbury Dam for the purposes of providing water for public trust resources and beneficial use downstream. The range of alternatives is consistent with the physical features and characteristics of the Bradbury Dam, and can be implemented.

*CEQA Guidelines* (Section 15126.6) state that an 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. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives.

In the course of circulating the 2003 DEIR, the Biological Opinion was finalized and information became available through the 2003 DEIR review process that identified constraints on selected alternatives as well as possible new alternatives. As such, the 2003 DEIR was modified and a 2007 RDEIR was recirculated.

The 2007 RDEIR (and 2003 DEIR) discusses the rationale of including (and excluding) alternatives. Further, the alternatives have been evaluated against each other and the baseline to determine the potential environmental effects and level of significance.

**Response 1-8:**

The comment states that the 2007 RDEIR's analysis of the No Project Alternative is flawed. The commenter asserts that the discussion of the No Project Alternative is confusing and contradictory because the 2007 RDEIR identifies both Alternative 2 and Alternative 3C as the No Project Alternative.

The *CEQA Guidelines* provide that the "no project" analysis shall discuss existing conditions as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved. (Cal. Code Regs., tit. 14, Section 15126, subd. (e)(2).) In this case, the No Project Alternative has changed over time because Cachuma Project operations have changed as the Biological Opinion has been implemented. The commenter is correct that the 2007 RDEIR identified both Alternatives 2 and 3C as the No Project Alternative. The 2011 2<sup>nd</sup> RDEIR has been corrected to clarify that, based on current operations, Alternative 3C should be considered the No Project Alternative because it best reflects how the Cachuma Project is likely to be operated in the foreseeable future if the SWRCB does not make any changes to Reclamation's permits.

**Response 1-9:**

The comment states that the 2007 RDEIR's failure to establish a definite project description has produced several legal and logical infirmities in the alternatives analysis. The comment also asserts that Alternatives 3B and 5B should have been eliminated from the Draft EIR because those alternatives assume a 1.8-foot surcharge, and Reclamation implemented a 3.0-foot surcharge in 2006. In addition, the commenter asserts that the environmental impacts of Alternative 4B on downstream water rights should

have been evaluated because Alternative 4B is contrary to the Settlement Agreement between the Member Units and the City of Lompoc.

See response to **Comment 1-1** to the 2007 RDEIR. Although Reclamation recently implemented a 3.0-foot surcharge, and the Biological Opinion required Reclamation to reinitiate consultation with NMFS if the 3.0 surcharge was not implemented by 2005, Alternatives 3B and 5B are not necessarily infeasible, and retaining Alternatives 3B and 5B was appropriate for purposes of comparing the different environmental impacts under different surcharge levels. The Draft EIR evaluated the potential environmental impacts of Alternative 4B on water supply and water quality downstream of Bradbury Dam. The commenter does not identify what other potential environmental impacts on downstream water rights should have been evaluated.

**Response 1-10:**

The comment states that the addition and analyses of Alternatives 5B and 5C to the 2007 RDEIR are not supported by substantial evidence. The commenter states that, unlike the other alternatives, Alternatives 5B and 5C were not subject to peer review or detailed environmental review.

Alternatives 5B and 5C reflect information provided during the public review of the 2003 DEIR and have been included to respond to concerns regarding downstream flows for fish habitat. Reclamation and the Cachuma Project Authority, a joint powers authority comprised of the Member Units, evaluated a similar alternative, Alternative 3A2, in the 1995 Cachuma Contract Renewal EIS/EIR. Both of the alternatives were analyzed at the same level in the 2007 RDEIR as the other alternatives. CEQA alternatives are not required to be peer reviewed, and the purpose of including Alternatives 5B and 5C in the 2007 RDEIR was to analyze the potential environmental impacts of the alternatives and allow for public review and comment on the analysis.

**Response 1-11:**

The commenter suggests that in the 2007 RDEIR there is no scientific analysis or showing that either Alternative 5B or 5C fulfills the project objectives of protecting public trust resources and downstream water rights in accordance with WR Order 94-5.

The analysis of project and alternative impacts was provided in both the 2003 DEIR and the 2007 RDEIR. The analysis included the use of the appropriate scientific evidence available to provide decision makers sufficient information in order to make an informed decision. Alternatives 5B and 5C are variations of Alternatives 3B and 3C that would provide additional flow releases for public trust resources protection during wet and above-normal rainfall years yet maintain the public trust resource protection during below-normal and dry years by complying with the release requirements under the Biological Opinion. The 2007 Revised Draft EIR evaluates both the incremental benefits to public trust resources of the higher

releases and the impacts of the alternatives on water supply and water quality downstream of Bradbury Dam. **Sections 4.2, 4.3, 4.4, 4.5, and 4.6** of the 2007 RDEIR each include a subsection (e.g., **4.2.2.1 Overview of Hydrologic Modeling for the EIR**) outlining in some detail the scientific analysis performed to evaluate the surface water, ground water, and operational parameters affected by the of the flow actions involved in the project alternatives. The results of this modeling is a comparison of the alternatives in **Section 6.1** that provides summary statements regarding the ability of all alternatives to meet project objectives.

No conclusions were modified as a result of this comment.

**Response 1-12:**

The comment states that Alternatives 5B and 5C in the 2007 RDEIR do not reflect the flow requirements of the Biological Opinion (BO) prepared by the National Marine Fisheries Service (NMFS) by including additional flows and modifying the schedule of flows. The comment further states that NMFS has not advocated for additional releases beyond those set forth in the BO.

One of the project objectives (see **Section 3.1.1**) is to protect public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest. NMFS's responsibilities under the Endangered Species Act are different from the SWRCB's responsibilities under the public trust doctrine, as NMFS acknowledged during the 2003 hearing before the SWRCB. The fact that NMFS has not advocated for additional releases does not necessarily mean that additional releases are not warranted under the public trust doctrine.

**Response 1-13:**

The comment claims that 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 Endangered Species Act (ESA).

The commenter has not provided any reason to conclude that the additional release requirements under Alternatives 5B and 5C are inconsistent with the Biological Opinion or would require Reclamation to re-consult with NMFS.

**Response 1-14:**

The comment claims that the 2007 RDEIR provided no analysis of whether flow releases of Alternative 5B or 5C may result in adverse impacts to steelhead, their habitat or other public trust resources, or whether

switching operating criteria to and from those set forth in the BO (2007 RDEIR, p. 3-14.) would cause potentially adverse impacts under Alternatives 5B and 5C.

The 2011 2<sup>nd</sup> RDEIR has been revised to reflect current information and impact analysis of the various alternatives proposed for this project. **Section 4.7.2, Potential Impacts of the Alternatives** contributes additional discussion of the impacts by all alternatives and concludes that none of the proposed alternatives would result in significant impacts to any of the fish species. In addition, each alternative provides benefits when compared to the baseline condition (Alternative 2). Therefore, the 2011 2<sup>nd</sup> RDEIR concludes that Alternatives 5B and 5C would not cause an adverse impact to the public trust.

**Response 1-15:**

The comment states that there is no analysis of whether operations under Alternatives 5B or 5C are consistent with downstream water rights and the December 2002 Settlement Agreement.

The 2003 DEIR evaluated the potential environmental impacts of Alternatives 5B and 5C on water supply and water quality downstream of Bradbury Dam. There is no requirement for these alternatives to be consistent with the Settlement Agreement. As previously noted, these alternatives provide for differing conditions that could be implemented. The SWRCB will weigh the environmental impacts associated with each of the alternatives in deciding whether or not to grant changes in Reclamation's water rights permits under consideration. Further, the Settlement Agreement is embodied in Alternative 3C, which is compared to other alternatives and the Baseline.

**Response 1-16:**

The comment indicates that the water supply impacts analysis of Alternatives 5B and 5C do not use updated water supply and water demand data to compare the proposed project's water supply impacts to the Member Units with Reclamation's existing water right permits.

Water supply and water demand data in the 2007 RDEIR are summarized for various purposes in Tables 4-17 through 4-25b. Based on this and other comments, and the passage of time, the water supply and water demand data have been updated by the Member Units. This updated data has been used in the 2011 2<sup>nd</sup> RDEIR evaluations, impacts analysis, and comparisons of alternatives, including Alternatives 5B and 5C.

**Response 1-17:**

The comment states that no analysis of the mitigation measures required to minimize the impacts of increased willow growth and streambed alterations resulting from additional flow releases under Alternatives 5B and 5C is provided.

SWRCB concurs that implementation of any of the alternatives could result in the increase of riparian vegetation along the riverbanks. The trend for increased riparian vegetation along the banks of the Santa Ynez River has continued with the additional release flows for protection of *Oncorhynchus mykiss*. The amount of riparian vegetation along the riverbanks in 2010 has not been quantified but there is a considerable increase in the streamside vegetation since the original 2003 DEIR was prepared. This is considered a beneficial effect of the project alternatives as habitat for steelhead and other species occurring in the project area would increase and become more diverse. The commenter has not provided any basis for concluding that increased willow growth or streambed alterations would constitute adverse environmental impacts that would require mitigation.

**Response 1-18:**

The commenter indicated that 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.

As indicated in the 1995 EIS/EIR (**Section 4.8.2** page 4-53), several alternatives, including Alternative 3A2, were deemed infeasible and not considered in the EIS/EIR analysis. Additionally, the 1995 EIS/EIR found (pages 4-39 and 4-55) Alternative 3A2 created potentially significant water supply, socioeconomic, and agricultural impacts.

In the 2007 RDEIR (**Section 3.2.2.5** pages 3-13 and 3-14) explains that the 2007 RDEIR Alternatives 5B and 5C are variants of the 1995 EIS/EIR Alternative 3A2 as follows: "The new Alternatives 5B and 5C are based on a variation of CalTrout Alternative 3A2 Adjusted for Dry Years. These alternatives would operate under two different sets of hydrologic conditions for releases of water from Cachuma Lake for fish. In wet or above-normal years, the criteria for fish water releases would be based on the proposed CalTrout Alternative 3A2, which would entail the increased stream flows outlined in that alternative. In below-normal, dry, or critical years, the criteria for fish water releases would be under the long-term Biological Opinion. The idea is to attempt to reduce impacts to water supplies by switching to the long-term Biological Opinion operating criteria in years of below-normal, dry, and critical runoff conditions."

The 2011 2<sup>nd</sup> RDEIR discloses the fact that the 1995 EIS/EIR found that Alternative 3A2 would have significant water supply impacts, and makes findings on potential significant water-supply related impacts under Alternatives 5B and 5C.

**Response 1-19:**

The 2007 RDEIR does not adequately disclose or analyze the significant environmental impacts of Alternatives 5B and 5C, nor does the 2007 RDEIR demonstrate that alternatives 5B or 5C provide a significant biological benefit to steelhead, their habitat, or other public trust resources

See comment and responses 1-20 through 1-33 on the 2007 RDEIR.

**Response 1-20:**

The comment indicates that the water supply impacts of all the alternatives, especially Alternatives 5B and 5C, are inadequately analyzed. The commenter asserts that the water supply impacts analysis should conclude that each of the alternatives would have a class I cumulative impact due to significant reductions in water supply from the Cachuma Project. The commenter also states that the water supply analysis should take into account the fact that State Water Project (SWP) deliveries have become less reliable, and the Member Units' water supply and demand figures have been updated. In addition, the commenter states that the analysis of Cachuma Project supplies should assume that reserves would be set aside during a drought in case of an additional dry year, and a sensitivity analysis should be performed that assumes a 10 to 20 percent reduction in runoff into Cachuma Reservoir relative to the 1944-51 level. The commenter states further that the 2007 RDEIR improperly assumed that the water supply impacts of the alternatives could be mitigated by temporary transfers from other SWP contractors, increased groundwater pumping, or desalination. Finally, the commenter states that the hydrologic period used for purposes of the water supply impacts analysis is outdated because the period ended in 1993.

The potential impacts associated with each alternative are discussed in the 2011 2<sup>nd</sup> RDEIR, **Section 4.3.2 Potential Impacts of the Alternatives**. See also responses to **Comments 1-11, 1-16, and 1-18**. The analysis in **Section 4.3.2** has been updated to reflect current estimates concerning SWP reliability and the Member Units' current supply and demand figures. Based on the updated analysis, the 2011 2<sup>nd</sup> RDEIR concludes that there would be a shortage in the Member Units' overall water supply under all the alternatives, but only Alternatives 3B, 5B, and 5C would result in a significant, unavoidable impact (Class I) relative to baseline conditions. It was appropriate for the analysis to take into consideration the Member Units' demand as well as supply from other sources, as opposed to evaluating water supply from the Cachuma Project in isolation, and to evaluate the potential impacts of the alternatives relative to baseline conditions. Re-running the Santa Ynez River Hydrology Model with the assumption that reserves would be set aside for an additional dry year and performing a sensitivity analysis are not warranted, and would not change the significance determination with respect to any of the alternatives.

The 2007 RDEIR did not assume that water supply shortages would be mitigated through temporary transfers, increased groundwater pumping, or desalination. The purpose of **Sections 4.3.2.7, 4.3.2.8, and 4.3.2.9** of the 2007 RDEIR (**Section 4.3.2.7** of the 2011 2<sup>nd</sup> RDEIR) is to identify potential sources of supplemental water supplies during a drought, and disclose the indirect environmental impacts that could occur if the Member Units make up for water shortages by obtaining water from those sources. The 2011 2<sup>nd</sup> RDEIR does not assume that the Member Units necessarily will obtain supplemental supplies through water transfers, increased groundwater pumping, or desalination, nor does it assume that water supply shortages necessarily will be mitigated.

Use of the hydrologic period ending in 1993 for purposes of the water supply impact analysis was appropriate. Although the data set is dated, it encompasses a wide range of conditions, including several drought periods. Precipitation data since 1993 does not suggest that the hydrologic period used in the EIR is inappropriate for purposes of estimating future water supply conditions.

**Response 1-21:**

The comment claims that the 2007 RDEIR fails to demonstrate that Alternatives 5B or 5C provide a biological benefit to steelhead or other public trust resources.

**Section 4.7 Southern California Steelhead and Other Fishes** presents a detailed discussion of the alternatives, including Alternative 5B and 5C, and their impacts and benefits on steelhead and other fishes found in the river. The conclusion presented in **Section 4.7** is that these alternatives would result in a beneficial effect. The impacts and benefits to other public trust resources are discussed in **Section 4.8** and **Section 4.9**.

**Response 1-22:**

The comment states that insufficient information on the scoring criteria is provided and fails to incorporate important information provided by Santa Ynez River Technical Advisory Committee (SYRTAC). Nevertheless, the commenter concurs that the scoring criteria are the same as that used in the EIR/EIS prepared by Reclamation/COMB, consistent with the Biological Opinion (NMFS 2000) and the Santa Ynez River Fish Management Plan (SYRTAC 2000).

Discussion of the scoring criteria and methodology used in the impact analysis is found in **Section 4.7.2, Potential Impacts of the Alternatives**. Additional information that provides details documented by SYRTAC have been incorporated into the text of this section and supplemental information is provided in Appendix G. As discussed in the comment, these scoring criteria were developed over several years through extensive consultation and study with the agreement of the SYRTAC in consideration of the physical nature of the Santa Ynez River and access issues.

**Response 1-23:**

The comment states that a straightforward statement regarding how each alternative would affect fish migration would improve the analysis in the 2007 RDEIR.

Discussion of the impacts, including discussion of fish migration, associated with each alternative is provided in the 2011 2<sup>nd</sup> Revised Draft EIR, **Section 4.7.2, Potential Impacts of the Alternatives**. Additional text has been added for further elaboration. The scores in the 2007 Revised Draft EIR indicate 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. There is a very slight advantage in passage days (score of 5) for Alternatives 5B and 5C but this advantage is not substantial when compared to the other alternatives.

**Response 1-24:**

The comment states that differences in habitat improvement for steelhead spawning between Alternatives 5B and 5C and Alternatives 3B and 3C are not significant. The complete comment further describes the minor distinctions between the alternatives.

The detailed discussion of habitat improvements associated with each alternative is found in **Section 4.7.2, Potential Impacts of the Alternatives**. The 2007 RDEIR concluded that each of the proposed alternatives would result in a beneficial effect on spawning habitat.

**Response 1-25:**

The comment states that the potential benefits provided by Alternatives 5B and 5C relative to the other alternatives are exaggerated and that these alternatives are not environmentally superior compared to other Alternatives. The comment further states that the 2007 RDEIR 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.

Discussion regarding the potential benefits of Alternatives 5B and 5C as compared to the other alternatives found on pages 4-68 to 4-71 of the 2007 RDEIR recognizes that while additional flows to the Alisal bridge as proposed under Alternatives 5B and 5C generally result in beneficial effects to *O. mykiss* rearing habitat, complicating factors such as water temperatures, predation, dissolved oxygen limitations and habitat suitability remain constraints. The target flow releases provided since 2000 have resulted in increased riparian habitat in the mainstem, but have also resulted in supporting warm-water predators that retreat to refugia pools with *O. mykiss* during summer low flow conditions. Flows have been sustained to the Alisal bridge following the spill years of 2005, 2006, and 2008 and the subsequent year

(2007 and 2009) in accordance with the Biological Opinion. The wet years of 2005 and 2006 resulted in increased numbers of smolts being trapped in the Lower Santa Ynez River, although numbers in the mainstem trap remained lower than those of Hilton Creek and Salsipuedes Creeks. Conditions were very dry in 2007, and even supplemental flows provided did not result in higher numbers of smolts in the mainstem, although Hilton Creek numbers, supported by the Hilton Creek Watering System, remained high. The pattern of smolt production documented indicates that conditions in the mainstem are not as productive, even with flows to the Alisal Bridge, as those found in Hilton Creek and Salsipuedes Creek (Table 1 and Figure 2, Appendix G).

**Response 1-26:**

The comment states that certain paragraphs in the 2007 RDEIR 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.

Page 4-70 of the 2007 RDEIR describes reaches of the Santa Inez River but not in context of an analysis of alternatives. Description of the characteristics of each reach is provided to illustrate the different habitat constraints found in each reach. Flow patterns in each reach provide a context for evaluating the benefits or potential impacts of each alternative flow regime.

**Response 1-27:**

The comment states that water temperature may be a limiting factor for steelhead 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 2007 RDEIR. The comment further states that 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, which show that increased flows of 50 cubic feet per second (cfs) or more did not decrease temperatures relative to those occurring under base flow.

The comment is noted.

**Response 1-28:**

The comment concurs with the statement in the 2007 RDEIR that additional flow would not necessarily provide favorable rearing conditions in the Alisal reach. There is limited habitat potential in this reach, as recognized in the Biological Opinion and Fish Management Plan which placed this reach at the low level of priority.

The comment is noted.

**Response 1-29:**

The comment states that Alternative 3C is consistent with the Biological Opinion, and describes the BO measures that have been implemented that have improved the habitat for *O. mykiss*.

Based on the comments received on the 2007 RDEIR, the 2011 2<sup>nd</sup> RDEIR recognizes the efforts made by Reclamation and the Member Units to implement the Biological Opinion and incorporates all progress made to date in meeting and exceeding the requirements of the Biological Opinion. (See **Section 2.4.1.1 Summary of Reasonable and Prudent Measures Status of Compliance, Section 2.4.2 Operational Changes, Section 2.4.2.3 Mainstem Rearing Releases, Section 2.4.3.1 Tributary Passage Impediment Removal Measures, and Section 2.4.3.2 Additional Measures on Hilton Creek**).

The successful implementation of supplemental passage releases is discussed in **Section 2.4.4.2 Alternative Passage Flow Releases**.

Additional information compiled by the SYRTAC has been incorporated into the document and a new Appendix G summarizes fish monitoring results to date.

The comment is noted.

**Response 1-30:**

The comment provides several technical comments regarding correction to the 2007 RDEIR.

The last sentence of paragraph 2 correctly describes the different surcharge levels under Alternatives 5B and 5C, respectively.

The sentence referred to by the commenter on page 4-65 of the 2007 RDEIR has been revised to read as “Based on these studies, NMFS considered 14 days of passage in a particular storm event to provide the minimum adequate passage opportunities (NMFS, 2000).”

The second line of first paragraph on pg. 4-67 of the 2007 RDEIR referring to the simulation period analyzed by the scoring is based on water years 1918-1993; a total of 76 years not 52 years. However, analysis specific to *O. mykiss* passage opportunities was run only for years 1942-1993 because required daily information was available. Thus the 52-year statement is correct.

The distance of 3.2 miles to the Highway 154 bridge of 3.2 miles is reflected correctly in the 2011 2<sup>nd</sup> RDEIR.

**Response 1-31:**

The comment states that the 2007 RDEIR analyzes impacts that have been analyzed in other environmental documents, some of which have been mitigated as a component of the Reclamation EIR/EIS. The comment states further that the 2007 Revised Draft EIR incorrectly concludes that surcharging Cachuma Reservoir under some alternatives will result in a significant impact to oak trees. The commenter maintains that these impacts already have been mitigated.

CEQA requires an environmental document to analyze the “whole of an action” for any project that may cause environmental impacts. Therefore, it is not incorrect for the 2003 DEIR to include discussion and analysis of impacts for consequences that have already occurred, such as the oak tree impacts caused by the surcharging of the Bradbury Dam. However, the document should acknowledge the current status of those project components. Based on comments received on the 2007 RDEIR, the 2011 2<sup>nd</sup> RDEIR includes details of the Cachuma Project oak tree restoration program in **Section 4.8 Riparian and Lakeshore Vegetation**. Although Reclamation and the Member Units have begun to implement an oak tree mitigation program, the 2007 Revised Draft EIR properly concludes that, until replacement trees become established and self-sustaining, the loss of mature oak trees is a significant impact.

**Response 1-32:**

The commenter suggests that the 2007 RDEIR inadequately analyzed cumulative water supply impacts, including the effect of future sedimentation as it relates to reservoir capacity. The commenter suggests that, like the Final EIR/EIS for the FMP/BO, the 2007 Revised DEIR should have evaluated cumulative water supply impacts using Alternative 1 as a baseline to take into account impacts to water supply that have occurred since 1989.

Section 155130(a) of the *CEQA Guidelines* requires that: “An EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable, as defined in section 15065 (c)(a)(3). Section 15065(a)(3) provides that “‘cumulatively considerable’ means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

**Section 7.1, Cumulative Impacts** (pages 7-1 and 7-2) does not specifically address cumulative impacts on water supply because, unlike the analysis contained in the Final EIR/EIS for the FMP/BO, the water supply analysis contained in the SWRCB’s EIR takes into account the Member Units’ water supplies from sources other than the Cachuma Project. In addition, although the SWRCB’s analysis does not evaluate the impacts of the alternatives relative to Alternative 1, which is an outdated baseline, the analysis does take into account changes that have occurred since 1989 in determining how much water would be available from the Cachuma Project during both average conditions and drought periods. In essence, the

SWRCB's water supply analysis is a cumulative impacts analysis. With regards to the potential for future sedimentation to impact to the water supply, sedimentation is considered a natural event and not, as defined under CEQA, a project. Therefore, it is not considered as part of the cumulative impacts as defined by the Guidelines.

**Response 1-33:**

The comment states that 2007 RDEIR fails to discuss how the adoption of Alternatives 5B or 5C would affect the 2002 Settlement Agreement.

CEQA does not require an analysis of the effect of these alternatives on the Settlement Agreement. The Settlement Agreement is essentially under consideration as Alternative 3C, and is examined as a stand-alone set of project considerations. Should the SWRCB elect to select Alternatives 5B or 5C, it would essentially reject the Settlement Agreement. Conversely, if the SWRCB would decide that Alternative 3C was the most prudent alternative to implement, it would essentially approve the Settlement Agreement and modify the permits accordingly.



# United States Department of the Interior

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

IN REPLY  
REFER TO:  
MP-440  
WTR 4.10

SEP 28 2007

STATE WATER RESOURCES CONTROL BOARD  
SEP 28 2007

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

**SUBJECT:** Comments on Revised Draft Environmental Impact Report for Consideration of Modifications to the Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir) July 2007, Cachuma Project, California

Dear Ms. Farwell:

Reclamation has reviewed the above-referenced State Water Resources Control Board (SWRCB) Revised Draft Environmental Impact Report (2007 DEIR) for modifications to its water right permits for the Cachuma Project (Bradbury Dam and related facilities), and hereby submits comments on the document pursuant to the California Environmental Quality Act (CEQA).

I. Background

The Cachuma Project was authorized by Congress in 1948 and constructed in 1953 to satisfy an urgent need for water supply to the south coast of Santa Barbara County. Reclamation applied for State water right permits which were granted in 1958 by a predecessor agency to the SWRCB under Water Right Decision D-886. The permits authorize Reclamation to store up to a total of 275,000 acre-feet annually in Cachuma Lake or Reservoir, impounded by Bradbury Dam, for irrigation, domestic, salinity control, incidental recreational purposes, stock watering (Permit No. 11308), and municipal and industrial purposes (Permit No. 11310).

The water right applications for the Cachuma Project were approved under the condition that the project be operated to protect vested prior water rights on the Santa Ynez River below the dam. The State Water Rights Board, now the SWRCB, reserved jurisdiction under the permits so that enough information could be obtained to determine the amounts, timing and rates of releases needed to protect downstream water rights.

The SWRCB has continued its reserved jurisdiction under Permits 11308 and 11310 to the present. In the late 1980's and early 1990's, operation of Cachuma Reservoir to satisfy downstream water rights was still a contested issue. Water Right Decision 89-18 resulted in new accounting, monitoring, and operating procedures for Cachuma Reservoir which were the result of negotiations between Reclamation, the Cachuma water users, and the downstream water right interests. However, further hearings on downstream water right impacts were delayed so that the parties could gain experience and data under the WR 89-18 operating procedures. While the parties were making progress, some issues regarding downstream water rights remained unresolved.

Also at that time, a severe drought had occurred in the Santa Ynez River basin resulting in additional concerns regarding the impact of the Cachuma Project on steelhead below Bradbury Dam. In response, the SWRCB, by Order WR 94-5, adopted November 17, 1994, continued its reserved jurisdiction to establish long-term permit conditions to protect downstream water right holders and to determine whether modifications to permit conditions would be required to protect public trust resources. In 1997, the Southern California steelhead (*Oncorhynchus mykiss*) Evolutionary Significant Unit (ESU) (hereinafter "steelhead") was listed by NOAA Fisheries, National Marine Fisheries Service (NMFS) as an endangered species under the federal Endangered Species Act. NMFS issued a Biological Opinion (BO) for Cachuma Project operations and maintenance in September 2000.

WR 94-5 also required that a hearing be commenced no later than December 1, 2000. On September 25, 2000, the SWRCB issued a Notice of Public Hearing to be conducted in two phases. Key Issues were identified in that notice for both Phase 1 and Phase 2. Phase 1 of the hearing occurred on November 6, 2000, pertaining primarily to issues regarding Reclamation's petitions for change in place- and purposes-of-use. In December 2002, the parties reached an historic Settlement Agreement which settles long outstanding issues regarding downstream water rights. Phase 2 of the hearing occurred in October and November of 2003 pertaining to downstream water rights and public trust resources.

In August 2003, the SWRCB issued the first DEIR for Cachuma Project operations. Recently, in July 2007, the SWRCB issued a revised DEIR which drops certain alternatives from the 2003 DEIR from further analysis, and adds two additional alternatives. The addition of the alternatives is in response to comments on the original DEIR submitted by CalTrout. CalTrout urged the SWRCB to consider an alternative flow regime as defined in an environmental document prepared by Reclamation and the Cachuma Member Units in 1995, prior to consultation and completion of the BO by NMFS. The SWRCB has thus analyzed two new Alternatives (5B and 5C) which would implement the flow regime advocated by CalTrout in wet years, but revert back to the flow regimes in the BO in dryer years.

In general, Reclamation has three major concerns with the SWRCB 2007 DEIR. First, the premise that Alternatives 5B and 5C are more protective of fish – simply because they require releases of more water in wet years – is not supported by the 2007 DEIR. The 2007 DEIR analysis shows that Alternative 3C would be the most protective of steelhead in some respects,

and that there is little or no functional difference between Alternative 3C and 5C in other respects. Second, the 2007 DEIR underestimates impacts to water supply, and third, the 2007 DEIR ignores the 2002 Settlement Agreement which settles years of disputes regarding water right impacts below Bradbury Dam. Each of these concerns is set forth in detail below.

Reclamation continues to support Alternative 3C. Selection of either Alternative 5B or 5C may require re-consultation between Reclamation and NMFS, or invoke Section 10 of the ESA between SWRCB and NMFS. In addition, selection of either 5B or 5C could very well disrupt successful implementation of the Settlement Agreement with a result of little to no net benefit to fish.

2-1

II. The 2007 DEIR Does Not Fully Analyze Impacts to Biological Resources under Alternatives 5B and 5C.

The scoring methodologies used to describe the effects of the alternatives to steelhead are similar to the methodology used by Reclamation and COMB in the February 2004 Final Environmental Impact Report/Environmental Impact Statement Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion for Southern Steelhead Trout (FMP EIR/EIS). The scoring system described in the DEIR is, however, based on the assumption of an exclusively positive relationship between the amount of water available and the benefit to steelhead passage. In essence, the system described is that more water automatically equals more benefit, those benefits are equally distributed, and there are no adverse effects associated with the additional water.

The scoring used to describe the potential effects on passage for steelhead uses a score of 5 to indicate 15 or more days of passage in a year based on the amount of flow at the Alisal Road Bridge. Scores of 4 and below are broken into roughly equal 3-4 day blocks to a score of 0, indicating no passage days. The DEIR explains, on page 4-65, that the "remaining scores were assigned passage days by dividing the remaining passage days evenly amongst the scores. This reflects that, given the uncertainty and variability in steelhead travel times, passage opportunities to portions of the mainstem may be provided even with smaller numbers of passage days." The DEIR acknowledges (page 4-64) that there is uncertainty in the travel times for steelhead, and notes that NMFS considered 14 days of passage in a particular year to provide adequate passage opportunities.

2-2

The methodology in the DEIR does not account for other variables that affect passage, such as depth, velocity, substrate, temperature, in-stream objects (such as woody debris and beaver dams), water diversions (surface water and groundwater), dissolved oxygen, turbidity, resting and sheltering habitat, and predators. The rationale for excluding these variables should be explained.

The DEIR also does not recognize that passage to the dam is not necessarily a preferred goal, as the available high quality habitat in the area is primarily within the section of Hilton Creek on Reclamation land. Hilton Creek is nearing, if not already at, carrying capacity (based on

information collected by the Cachuma Conservation Release Board on behalf of Reclamation), a state that had not been reached at the time the FMP EIR/EIS was written. The increased production of Hilton Creek is, in large part, likely the result of the improvement projects completed by Reclamation as part of the BO. Passage through the Santa Ynez mainstem is therefore more appropriately scored on the ability of steelhead to reach the tributaries (e.g., Salsipuedes and Quiota Creeks), where large stretches of habitat suitable for spawning and rearing are found.

Table 4-42 in the DEIR shows the scoring for the various alternatives for steelhead passage. Examination of the scores shown supports the selection of Alternative 3C as most beneficial to steelhead passage. Alternative 3C is estimated to provide a minimum of 11 days of passage (score of 4 or higher) in 37 of 52 (71%) years. Alternatives 5B and 5C are estimated to provide a minimum of 11 days of passage in 35 of those 52 years (67%). While Alternatives 5B and 5C are estimated to provide 15 or more days of passage in 33 years, as opposed to 31 years for Alternative 3C, the amount of additional passage days that would be provided would only be relevant if the steelhead were passing beyond the dam. As noted in the DEIR, operations of the dam, including releases, do not affect the flows in the tributaries. Hilton Creek is supplied with water based on the requirements established by the BO, and the remaining downstream tributaries are not connected to the lake at all. Hilton Creek is, as mentioned previously, already nearing its carrying capacity as a result of the habitat improvements that Reclamation has made to the creek.

Upstream passage only matters to the extent that it allows adult fish to move through the system into areas suitable for spawning. Downstream passage matters to the extent that juvenile fish can reach the ocean. Once upstream migrants leave the mainstem into the tributaries, passage flows cease to be relevant for those fish; the flows continue to be relevant to fish still migrating in the mainstem, of course. Downstream migrants are not, as far as Reclamation is aware, cued to migrate by conditions in the mainstem, but rather by conditions in the tributaries they inhabit. These tributaries are typical of southern California streams in that they are highly "flashy", which is to say that large pulse flows can occur over very short intervals. These pulse flows will be what triggers downstream migration from the tributaries into the mainstem.

Passage opportunities, therefore, are not equally beneficial for upstream and downstream migration. Within that limitation, however, the scores that represent what NMFS identified in the BO as appropriate for migration opportunities clearly reflect the advantages of Alternative 3C over both 5B and 5C.

The DEIR notes on page 4-67 that scores of 5 are provided in 23 years of the 52 year simulation under Alternative 2 for spawning habitat, and refers to Table 4-43. Table 4-43, however, shows a 76 year analytic period, not a 52 year period. The text or the Table should therefore be corrected.

The benefits to spawning steelhead, as shown in Table 4-43, are limited for all Alternatives. As mentioned previously, habitat suitable for spawning is limited in the mainstem, and

predominantly occurs in the tributaries. Water flow in the tributaries is not subject to the operations of the Cachuma Project, with the exception of Hilton Creek, which receives a permanent supply of water through the Supplemental Watering System identified in the BO. The benefits to the limited habitat available in the mainstem, which may or may not be significant under CEQA compared to the baseline, are not significantly different to the species between Alternatives 3C, 5B, and 5C.

Scoring for the fry and juvenile rearing analysis shows no functional difference between Alternatives 3C, 5B, and 5C for either analysis. The fry rearing shows an equal number of years estimated to provide sufficient flows (75 out of 76) with scores of 3 or higher. The juvenile rearing shows 74 out of 76 years for the three Alternatives with scores of 3 or higher. While Alternatives 5B and 5C have more scores of 5 (indicating flows of 10 cfs or more) than does 3C, this does not indicate a greater benefit than flows of up to 10 cfs. Neither the DEIR nor the BO identify any specific benefit that is provided by flows higher than 10 cfs. Flows are necessary for rearing, maintaining dissolved oxygen levels, providing feeding opportunities, and aiding in shelter from predators. But, flows beyond 10 cfs in the mainstem will not add to any of these benefits. A comparison between Alternatives should, therefore, look at the scores that do add to the value of the habitat to the species. Under that analysis, there is no functional difference between Alternatives 3C, 5B, and 5C.

2-2

The DEIR takes the position that all effects to steelhead from increased water flows are positive. While Reclamation agrees that there are numerous beneficial effects associated with increased flows, no mention is made of potentially adverse effects that could result. Increased turbidity, particularly in areas over substrates of fine sands such as much of the lower Santa Ynez River, can potentially damage gills and skin by abrasion, can hide potential predators such as warm water species, can decrease the thermal stratification of habitats (especially pools), and can reduce feeding opportunities for younger, smaller fish. Turbidity can also decrease reproductive success. Depending on the specific habitat type and substrate, and the resulting flow-related cover, increased flows may potentially wash the smaller emergent fry downstream and into unsuitable habitats. Again, these may or may not be relevant to the Santa Ynez River system, but no discussion of these, or any other potentially adverse effects, is presented in the DEIR. Because of the potential for adverse effects under Alternatives 5B or 5C, Reclamation may be required to re-consult with NMFS on the new operating criteria if either Alternative is chosen. Or, on the other hand, the SWRCB may be required to consult with NMFS under Section 10 of the ESA. There is no disclosure or discussion of these effects in the DEIR.

### III. The 2007 DEIR Inadequately Discloses the Impacts of Alternatives 5B and 5C on Water Supply.

The DEIR Executive Summary concludes that Alternatives 3B, 3C, 4B and 5C would avoid the potentially significant indirect impacts associated with a reduction in water supply to the Member Units that would occur under Alternative 5B. It goes on to state that under Alternative 5B, the release requirements would only be partially offset by a 1.8-foot surcharge. These statements seem to be unsubstantiated based on all water year types. The support behind these

2-3

conclusions, both in the Executive Summary and in the cumulative impacts section needs to be disclosed and discussed.

It is more likely that a significant Class I cumulative impact may occur based on all of the potential Alternatives due to a significant reduction in water supply available to member Units from the Cachuma Project. (See 2007 DEIR, Sections 4.3 and 7.0.) These reductions were previously recognized in both the FMP EIR/EIS, as well as the BO.

The water supply impacts as shown in Table 4-16 of the 2007 DEIR are underestimated for some water year types. In both critical drought years (1951) and critical 3-year drought periods (1949-1951), year-to-year water supply management becomes crucial. Water managers routinely prepare for additional dry or drought years by storing (where possible) additional waters. These reserves serve as a safety net to ensure sustainability if conditions the following water year remain critically dry. Without these reserves during drought years, the potential impact to an individual Member Unit may be significant. For an accurate representation of impacts to water supply, Table 4-16 should be revised to include reserves.

As Table 4-16 currently states, under Alternative 5B there is approximately 12,506 acre feet (af) of shortage, which constitutes a Class 1 impact. If the 2007 DEIR were to be revised to include for reserves in a critical drought water year and in 3-year critical drought period it is likely that all water year types would result in an equal or greater shortage amount (i.e. more than 12,506 af), thus constituting Class 1 impacts for all Alternatives in drought years.

2-3

Demand for water from the Cachuma Project is very dynamic -- both during the water year as well as between water years. The 2007 DEIR should use the most current and best available demand information supplied from the Member Units to conduct its analysis. The numbers in the DEIR are outdated. While it is fully expected that future demand maybe difficult to pinpoint, Member Units do have anticipated long-term water supply plans, and these plans should be utilized to assist in projecting impacts.

A set of operating conditions, consistent with Alternative 3C, has already been developed between Reclamation, NMFS, various downstream interests, and other parties as a result of the BO and the FMP. By operating in accordance with these conditions, the Member Units have already incurred significant water supply reductions. Because even less water is available to the Member Units under alternatives 5B and 5C, the DEIR should include an incremental shortage analysis to determine the impacts to Member Units relative to Alternative 1 in critical drought periods.

The U.S. Geological Survey Water Supply Paper "Water Resources of Southern California with Special Reference to the Drought of 1944-1951" shows that several severe droughts have occurred historically in the Santa Ynez Basin (1928-34, 1986-91, and 1949-51). With the greatest potential impact to the water supply of the Cachuma project situated around the critical drought years, a sensitivity analysis assuming a 10 to 20 percent reduction in runoff should be conducted and included in the DEIR to accurately determine impact to the water supply.

Alternatives 5B and 5C require a much larger continuous flow targeted at Alisal Bridge (10.5 miles below Bradbury) during the summer months compared to the FMP and BO. This target flow at Alisal Bridge versus Highway 154 Bridge (3.5 miles below Bradbury) could require additional releases of water from Bradbury Dam to compensate for losses to the riverine system as infiltration. A sensitivity analysis is needed to quantify these values accurately in the DEIR. With so many variables that could cause a change in the loss factors, it seems prudent to convert all release flows as targeted at Bradbury Dam.

As potential mitigation for Cachuma Project water shortages the 2007 DEIR suggests several alternatives. The alternative that discusses increased groundwater pumping could result in a plethora of adverse indirect impacts. Salt-water intrusion and an evaluation of local groundwater rights, at a minimum, need to be explored if the impacts of pumping groundwater are to be accurately evaluated. These impacts are not adequately disclosed in the DEIR.

2-3

Another alternative that the 2007 DEIR discusses is the use of desalination to offset the loss of water supplies during critical drought years. This alternative could also result in a host of adverse indirect impacts. No National Pollutant Discharge Elimination System (NPDES) permits have been issued for desalination. Without NPDES permits for the City of Santa Barbara, it is unknown if this alternative is even feasible. An analysis of the feasibility, limitations, and impact of using desalination water to mitigate impacts to the water supply to the Cachuma project needs to be undertaken before the SWRCB can rely on this alternative as an actual offset to water supplies

#### IV. The 2007 DEIR Does Not Fully Disclose the Impacts of Alternatives 5B and 5C on the 2002 Settlement Agreement.

As a result of Order WR 94-5, data was gathered in an effort to provide the SWRCB with the necessary information to come to a decision that will meet the needs of both the downstream water right holders and public trust resources. As discussed earlier, a Settlement Agreement was reached in 2002 as a means to resolve the long-standing issues relating to the operations of the Project and its impacts to downstream water rights and public trust resources. While Reclamation is not a party to the Agreement, it reviewed the methodology used to support the Agreement, and supports operations of the Project that are compatible with the Settlement Agreement. Reclamation believes that the Agreement resolves the SWRCB's issues concerning downstream water rights and public trust resources, and has requested modifications to its permits consistent with the Settlement Agreement.

2-4

Alternatives 5B and 5C are not compatible with the Settlement Agreement. The 2007 DEIR makes no mention of the Settlement Agreement, or whether the Agreement could survive under either Alternative.

V. Other.

The DEIR attempts to analyze the effects of the various Alternatives on individual resource areas (e.g., steelhead, surface water, riparian and lakeshore vegetation, archaeological and cultural resources, etc), and presents a summary table on pages 6-2 & 6-3. This table presents the various Alternatives and resource areas and identifies which will be impacted by each Alternative. There is also a very brief summary on page 6-4 of water supply impacts. There is, however, no conclusory description of the aggregate impacts to the resources for each Alternative. The DEIR stops short of describing in sum total how the environment would be affected by each Alternative, beneficial, adverse, or neutral.

2-5

In addition, the DEIR analyzes both a 1.8-foot surcharge and a 3.0-foot surcharge. An accurate description of the current operations would be that the Project includes a 3.0-foot surcharge. Reclamation has implemented the 3.0-foot surcharge under its existing permits to store up to 275,000 acre feet per year. The impacts of the 3.0 surcharge were analyzed in the Final EIR/EIS for the Lower Santa Ynez River Fish Management Plan.

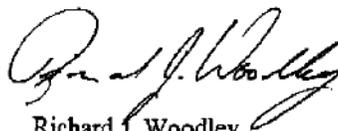
2-6

VI. Conclusion.

The SWRCB 2007 DEIR inadequately discloses the effects of Alternatives 5B and 5C. Actual benefits to fish are overstated while potential adverse impacts are ignored, adverse water supply impacts are understated and inadequately discussed, and the DEIR does not disclose impacts to the Settlement Agreement. Reclamation believes that the DEIR's analysis of Alternatives 5B and 5C are woefully inadequate to support any decision by the SWRCB to regulate flow for the benefit of steelhead beyond those flows required by NMFS in the BO. Reclamation understands that the SWRCB has an independent obligation to protect public trust resources, but that any regulation beyond the BO must be justified with adequate science and environmental analysis. In addition, regulation beyond the BO, based on inadequate science and analysis, is not enough reason to increase adverse impacts to water supply, and disrupt implementation of a long awaited Settlement Agreement. Alternative 3C remains the only SWRCB Alternative which adequately considers and accommodates all impacts and interests.

Please refer any questions regarding these comments to Mr. Bob Colella of our water rights staff at (916) 978-5256, or to Sheryl Carter of Reclamation's South-Central California Area Office at (559) 487-5299.

Sincerely,



Richard J. Woodley  
Regional Resources Manager

**2. U. S. Bureau of Reclamation, dated September 28, 2007.**

**Response 2-1:**

The comment states that Reclamation supports Alternative 3C and cautions that implementation of Alternative 5B or 5C could require re-consultation between Reclamation and NMFS and even disrupt the successful implementation of the Settlement Agreement.

This comment is noted. Re-consultation between Reclamation and NMFS has already been initiated as required by the Biological Opinion since implementation of some fish passage enhancements were not completed by 2005. SWRCB acknowledges that implementation of Alternative 5B or 5C could represent a change to both the Settlement Agreement and the Biological Opinion and as such could require re-consultation and negotiation.

**Response 2-2:**

The comment claims that the 2007 RDEIR does not fully analyze impacts to biological resources under Alternatives 5B and 5C.

SWRCB does not agree with this comment. The 2007 RDEIR provides an analysis of impacts to biological resources focused on aquatic species and lakeshore vegetation, in addition to a suite of sensitive species. The surcharge of Lake Cachuma to 3.0 feet has been implemented since 2005, and additional information relative to the impacts to biological resources has been added in the revisions to the 2011 2<sup>nd</sup> RDEIR.

**Sections 4.7, Southern California Steelhead and Other Fishes, 4.8, Riparian and Lakeshore Vegetation and 4.9, Sensitive Aquatic and Terrestrial Wildlife**, of the 2007 RDEIR compare the various impacts to biological species for each alternative, including **Alternatives 5B and 5C**. Specifically, impacts of each alternative are discussed as they pertain to lakeshore oak trees, riparian vegetation along the Santa Ynez River, sensitive plant species, bald eagles, southwestern pond turtle, steelhead rearing and passage, and southwestern willow flycatcher.

**Response 2-3:**

The comment suggests that the 2007 RDEIR inadequately discloses the impacts of Alternatives 5B and 5C on water supply.

See responses to 2007 RDEIR **Comments 1-11, 1-16, 1-18 and 1-20**.

**Response 2-4:**

The commenter suggests that the 2007 RDEIR does not fully disclose the impacts of Alternatives 5B and 5C on the 2002 Settlement Agreement.

The parties to the December 17, 2002 Settlement Agreement are CCRB, SYRWCD, SYRWCD, I.D. #1, and the City of Lompoc (2007 RDEIR page 2-7). The Settlement Agreement addresses downstream water rights releases, modified winter storm operations, resolution of litigation and claims by the City of Lompoc, and protection of public trust resources. Alternative 3C has been modified for the 2011 2<sup>nd</sup> RDEIR to include the Settlement Agreement.

CEQA requires the various alternatives considered to be evaluated against the baseline (in this case Alternative 2), not the other alternatives. As such, the commenter's request to consider Alternatives 5B and 5C against the Settlement Agreement (Alternative 3C) is not appropriate. See response to 2007 RDEIR

**Comment 1-33**

**Response 2-5:**

The comment states that the 2007 RDIR attempts to analyze the effects of the various alternatives on individual resource areas (e.g., steelhead, surface water, riparian and lakeshore vegetation, archaeological and cultural resources, etc.). The comment continues that a summary table on pages 6-2 & 6-3 presents the various Alternatives and resource areas and identifies which will be impacted by each alternative but that there is no conclusory description of the aggregate impacts to the resources for each Alternative.

As the comment notes, Table 6-2 lists the impacts of each alternative on affected resources. CEQA does not require a more detailed summary for each alternative.

**Response 2-6:**

The comment states that the 2007 RDEIR analyzes both a 1.8-foot surcharge and a 3.0-foot surcharge, but that an accurate description of the current operations would be that the project includes a 3.0-foot surcharge. Reclamation has implemented the 3.0-foot surcharge under its existing permits to store up to 275,000 acre-feet per year. The impacts of the 3.0-foot surcharge were analyzed in the Final EIR/EIS for the Lower Santa Ynez River Fish Management Plan.

While it is true that Reclamation has completed improvements to Bradbury Dam to allow for the 3.0-foot surcharge, Reclamation has only briefly (from April 24 to June 23, 2006, and again from March 23 to April 23, 2008) operated the level of Lake Cachuma above 752.47 feet (the 2.46-foot surcharge) (see Lake Cachuma Daily Operations Reports).

Reclamation is correct that the EIR/EIS for the Lower Santa Ynez River Fish Management Plan did examine the 3.0-foot surcharge; it did not address the changes to the water rights permits.

**DIRECTORS:**

DIVISION 1  
WALLACE S. MARSH  
Lompoc

DIVISION 2  
STEPHEN E. JORDAN  
Lompoc

DIVISION 3  
JON C. PICCIUOLO, President  
Vandenberg Village - Mission Hills

DIVISION 4  
ART HIBBITS  
Buellton - Lompoc

DIVISION 5  
JEFFREY S. NEWTON  
Solvang - Santa Ynez

# Santa Ynez River

## WATER CONSERVATION DISTRICT

P.O. Box 719 - 3669 Sagunto Street, Suite 108  
Santa Ynez, California 93460  
Telephone: (805) 693-1156  
FAX: (805) 688-8065

September 28, 2007

**GENERAL MANAGER:**

BRUCE A. WALES

**SECRETARY:**

BRUCE A. WALES

**CONSULTANTS:**

ERNEST A. CONANT  
General Counsel

STETSON ENGINEERS  
Engineer

VIA MAIL, FAX (916-341-5400) &  
EMAIL ([driddle@waterboards.ca.gov](mailto:driddle@waterboards.ca.gov))

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

Re: Comments on Revised Draft Environmental Impact Report for  
Consideration of Modifications to United States Bureau of Reclamation's  
Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to  
Protect Public Trust Values and Downstream Water Rights on the Santa  
Ynez River below Bradbury Dam (Cachuma Reservoir), dated July 2007

Dear Ms. Riddle:

The Santa Ynez River Water Conservation District ("SYRWCD") appreciates the opportunity to provide the following comments with respect to the above-referenced Revised Draft Environmental Impact Report ("2007 DEIR") prepared by the State Water Resources Control Board ("State Board").

SYRWCD encompasses most of the Santa Ynez River Watershed downstream of Cachuma Reservoir and Bradbury Dam. One of SYRWCD's primary functions is to protect the downstream rights of its landowners and residents in and to the use of Santa Ynez River water below Bradbury Dam, including water released from Cachuma Reservoir. In this regard, as you are aware, SYRWCD is responsible for ordering water rights releases in accordance with your Order WR 89-18 and does so in cooperation with the United States Bureau of Reclamation ("Reclamation"). Since the 2007 DEIR considers modifications to the Reclamation's Cachuma water right permits to protect public trust values "and downstream water rights" of the Santa Ynez River below Bradbury Dam, the 2007 DEIR is of utmost importance to SYRWCD and its constituents.

As provided in more detail below, SYRWCD appreciates all the effort that has been put into the 2007 DEIR by the State Board, but is concerned that it does not comply with the California Environmental Quality Act (“CEQA”)<sup>1</sup> and respectfully requests that the State Board make appropriate changes as may be necessary to bring the 2007 DEIR into compliance with CEQA before considering any modification of Reclamation’s permits.

## **I. HISTORICAL BACKGROUND**

SYRWCD was formed in 1939 to protect the water rights and supplies of its landowners and residents. The District’s boundaries encompass most of the lands within the watershed downstream of Cachuma Reservoir. The water rights of SYRWCD’s constituents are not before the State Board. However, as explained below, the State Board has recognized from the very beginning that Cachuma Project operations can have adverse impacts on the downstream water rights of SYRWCD’s constituents and that such rights must be protected. Thus, SYRWCD has historically been involved in Cachuma Project proceedings before this Board.

The Cachuma Project was authorized in 1948 by House Document 587, 80<sup>th</sup> Congress, 2<sup>nd</sup> Session, and designed to conserve certain waters of the Santa Ynez River. The State Board described the objective of the Project as follows:

“[t]he objective of the Cachuma Project . . . was to divert waters principally for use within the south coast area, that would otherwise waste to the ocean, and not to divert water which would normally flow down the Santa Ynez River and be beneficially used in that watershed.” (D-1486, p. 15 at fn. 11.) (Emphasis added.)

The key decision of the State Board (and its predecessor) regarding the Cachuma Project is Decision D-886 issued February 28, 1958. In D-886, the State Board’s predecessor held, in part, that Reclamation had to release water from Cachuma Reservoir in such amounts and at such time and rates as will be sufficient to, among other things,

“maintain percolation of water from the stream channel as such percolation would occur from unregulated flow, in order that operation of the project shall not reduce natural recharge of groundwater from the Santa Ynez River.” (D-886, MU Exhibit 100, p. 33).

This requirement is based, in part, on the State Board predecessor’s observation that:

“The United States has committed itself to operate the Cachuma Project so as not to export water from the watershed of the Santa Ynez River which is, or will be, required to maintain natural percolation below Cachuma Dam, and the Board has declared its intention to retain jurisdiction for the

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<sup>1</sup> See, Public Resources Code § 21000, *et seq.*; and the Guidelines for CEQA, California Code of Regulations, Title 14, Chapter 3, §§ 15000-15387 (“CEQA Guidelines”).

purpose of requiring sufficient releases of water to so accomplish this purpose.” (*Id.*, p. 29).

Adversarial proceedings have been ongoing for over 50 years to determine the appropriate level of releases to ensure the protection of downstream interests, as recited in D-886. Over the years, there have been numerous proceedings and disagreements, some before this Board, as to whether appropriate releases were being made to satisfy the downstream water rights and supply protection requirements of D-886. Most recently, concerns have been expressed by the City of Lompoc that, although the release regime under WR 89-18 may provide adequate quantities of water, operation of the Cachuma Project adversely affects water quality in the Lompoc Plain and, in particular, water drawn from wells operated by the City of Lompoc.

In WR 94-5, this Board ordered Reclamation to submit reports or data compilations developed pursuant to a 1994 MOU<sup>2</sup> to address and resolve outstanding fish and fish habitat issues related to the portion of the Santa Ynez River below Bradbury Dam. (WR 94-5, Finding Nos. 10 & 11, Order No. 3(b).) At the same time, this Board also ordered Reclamation to submit information developed and conclusions reached during negotiations among Lompoc and the Cachuma Member Units relating to the water quantity and quality issues in the Lompoc Plain. (WR 94-5, Finding No. 15, Order No. 3(d).)

As directed by WR 94-5, the parties to the 1994 MOU conducted studies and worked together to develop and implement a Fish Management Plan (“FMP”). The FMP protects and provides habitat for steelhead in the Santa Ynez River below Bradbury Dam through a combination of measures including water releases from the Dam. During development of the FMP, the National Marine and Fishery Service (“NMFS”) listed the Southern California Evolutionary Significant Unit of steelhead as an endangered species under the federal ESA. The parties to the 1994 MOU coordinated with NMFS, resulting in a Biological Opinion (“BO”) that provided for steelhead protection consistent with the FMP. The FMP, which was presented to the State Board in 1999, provides for releases below the Bradbury Dam as provided in Alternative 3C in the 2007 DEIR. The release regime provided for in the FMP and the BO then formed the basis for the negotiations among the downstream water right interests and the Member Units relating to resolution of their outstanding water quantity and quality issues.

After much negotiation, the downstream water right interests (including the City of Lompoc) and the Member Units reached a compromise and settled their long-standing disputes relative to downstream water quantity and water quality issues. The compromise is set forth in the “Settlement Agreement between Cachuma Conservation Release Board, Santa Ynez River Water Conservation District, Santa Ynez River Water Conservation District Improvement District No. 1, and the City of Lompoc, relating to

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<sup>2</sup> In addition to Reclamation and representatives for all the downstream water right interests, Lompoc and the Member Units, California Department of Fish and Game and the United States Fish and Wildlife Service were parties to the 1994 MOU. (WR 94-5, Finding No. 11.)

Operation of the Cachuma Project,” dated December 17, 2002 (“Settlement Agreement”). The Settlement Agreement is the first time since proceedings commenced before this Board (and its predecessor) that all parties – Reclamation, its Member Units and all downstream interests – are in agreement on a release mechanism that protects the downstream water right interests but which is also acceptable to the project users and Reclamation, and is consistent with the FMP’s and BO’s protections for steelhead.<sup>3</sup>

The provisions of the Settlement Agreement were described in detail in the most recent hearing on the Cachuma Project (MU Exhibit 220; R.T. 202-218). The actual changes to Reclamation’s permits to implement the Settlement Agreement were described by Ms. Struebing (R.T. 218-220; DOI Exhibit 10) and are particularly described as technical amendments to WR 89-18 in Exhibit “C” to the Settlement Agreement. Most of the provisions of the Settlement Agreement constitute contractual commitments between the parties and for which the parties do not request any action of the State Board – it is only those technical amendments identified by Ms. Struebing and contained in Exhibit “C” for which State Board approval is sought.

The Settlement Agreement is not only historic and mostly self-executing as described above, it is also comprehensive in that it resolves between the parties not only water quantity, water quality and flood control issues, but it also includes the requirements of the Biological Opinion and Fish Management Plan (see testimony of Charles Evans (R.T. 198 – 201), Bruce Wales (R.T. 240-241) and Gary Keefe (R.T. 471-474)). Thus, for the first time ever, one document commits the parties to protection of downstream water rights, flood control and fish protection measures in an integrated manner that has been the subject of thorough analysis, study and peer-review.

Only minor modifications to WR 89-18 are requested from the State Board to implement the Settlement Agreement. One involves resolution of the trigger as to when the lower percolation curve would be used in lieu of the upper percolation curve for calculation of Below Narrows Account (BNA) Credits. The State Board made provision for this in 1989 when it requested the parties to resolve the issue and return to the Board (see discussion of Ali Shahroody at MU Exhibit 220, p. 8-10; R.T. 208-211). This provision provides for maximum credits for recharge on the Lompoc Plain in return for some additional drought protection for the Member Units. The other requested changes to WR 89-18 include changed observation and monitoring procedures necessary to update the Order to be consistent with operational changes implemented since 1989 (see discussion of Ali Shahroody at MU Exhibit 220, pp. 10-13; R.T. 211-212).

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<sup>3</sup> The background leading up to the Settlement Agreement, its terms and conditions and how those terms and conditions integrate into operation of the Cachuma Project are particularly described in detail in testimony of Charles Evans, William Mills and Ali Shahroody (MU Exhibits 219 and 220; R.T. 198-218) as well as in Section 3.1.1 of the Santa Barbara Countywide Integrated Regional Water Management Plan, dated May 2007. (The Plan is incorporated herein by this reference and available at <http://www.countyofsb.org/pwd/water/irwmp.htm>.) The testimony and exhibits referred to herein are from the record relating to Phase II of the 2003 Cachuma Hearing.

During the most recent State Board hearings relating to the Cachuma Project, no party presented evidence in opposition to the historic Settlement Agreement nor any evidence that the Settlement Agreement would have any adverse effects on public trust resources. Mr. Lecky testified that NOAA Fisheries has no objection to the Settlement Agreement (R.T. 715).

There being no evidence that the Settlement Agreement should not be approved, and in furtherance of this Board's long-standing policies to encourage parties to settle their differences and the directives of Order WR 94-5, the parties to the Settlement Agreement and Reclamation previously requested that the State modify those specific provisions of the permits to implement the Settlement Agreement, as requested by Reclamation in two enclosures under cover of a letter dated March 21, 2003, entitled "Proposed Modifications to WR 73-37 as amended by WR 89-18 Pertaining to Permits 11308 and 11310 and Revised USBR Exhibit 1, February 1, 2003." (DOI Exhibit 10). As mentioned above, the requested modifications to WR 89-18 are set forth in detail in the technical amendments to WR 89-18 in Exhibit "C" of the Settlement Agreement.

Consistent with the foregoing history and the reasons provided herein, SYRWCD believes that the proposed project under the 2007 DEIR should be Alternative 3C including modifications to WR 89-18 as provided in the technical amendments in Exhibit "C" of the Settlement Agreement.

## **II. THE 2007 DEIR FAILS TO COMPLY WITH CEQA**

### **A. There is No Proposed Project or Adequate Project Description**

The requirement that an EIR contain an accurate, stable and consistent project description was first set forth in *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, and then incorporated into Section 15124 of the CEQA Guidelines. "Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the 'no project' alternative) and weigh other alternatives in the balance. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." (*County of Inyo, supra*, 71 Cal.App.3d at 192.) Thus, a project description that omits integral components of the project will likely result in an EIR that fails to disclose all of the impacts of the project. (*See, Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 829.) Moreover, failure to adequately define the proposed project carries over to and threatens to render defective an EIR's analysis of potential project mitigation measures and alternatives, including the no-project alternative. This is because the selection and the impact analysis of potential mitigation measures and alternatives are each and all driven by and inextricably tied to the project description and its impacts. (*See, e.g., CEQA Guidelines, § 15126.6(a)* ("EIR shall describe reasonable range of alternatives to the project...which would feasibly attain most of the basic objectives of the project but which would avoid or substantially lessen any of the significant affects of the project..."); § 15126.6(e)(1) ("The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of

3-1

approving the proposed project with the impacts of not approving the proposed project.")

The 2007 DEIR is flawed because there is a comparative analysis of the impacts of various alternatives, but no initial selection of a proposed project or analysis of the impacts of a proposed project as required by CEQA (CEQA Guidelines, § 15126.2(a)) or selection of alternatives in light of significant project impacts (CEQA Guidelines, § 15126.6(a)). In this regard, the 2007 DEIR acknowledges that the "SWRCB has not selected a particular modified operational scheme as a proposed project, opting instead to examine several alternatives ...." (2007 DEIR, § 4.1.2, p. 4-1.) Similarly, the 2007 DEIR reiterates that the "SWRCB has not selected a particular alternative as a proposed project at this time." (*Id.*, § 6.1, p. 6-1.) As provided above, selection and analysis of alternatives before selection and analysis of a proposed project is just the opposite of the analytic route mandated by CEQA.

Although the 2007 DEIR states that the State Board has not selected a proposed project, the 2007 DEIR also contradicts itself by indicating or suggesting that there is a proposed project. However, even so, the different proposed project descriptions themselves are too unduly vague and inconsistent. For example, the NOP describes the proposed project as:

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. (2007 DEIR, § 1.1, p. 1-1; emphasis added.)

Yet, the 2007 DEIR later describes the proposed project as:

"The ... modification of releases required under Order WR 94-5, and potential modification of other requirements, taking into consideration the requirements of the Biological Opinion and Fish Management Plan, and the instream flow requirements advocated by CalTrout (discussed in section 3.2.2, below)." (2007 DEIR, § 3.1.1, p. 3-1.) (Emphasis added.)

The "instream flow requirements advocated by CalTrout" are being considered in connection with the proposed project. However, the 2007 DEIR fails to indicate whether the proposed project includes the State Board's approval of the modifications to WR 89-18 as provided in the technical amendments in Exhibit "C" of the previously described

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December 17, 2007, Settlement Agreement (between CCRB, SYRWCD, SYRWCD, Improvement District No. 1, and the City of Lompoc) is part of the proposed project.<sup>4</sup> As provided in the NOP, the revised release requirements are to provide “downstream water rights protection” and “not reduce natural recharge of groundwater from Santa Ynez River below Bradbury Dam.” However, although the proposed project description now mentions the instream flow requirements advocated by CalTrout, it fails to mention the Settlement Agreement, which is *the* measure advocated by Reclamation, the Cachuma Member Units and all the downstream interests to best protect downstream water rights and historic recharge below Bradbury Dam in concert with the Biological Opinion and FMP. Under CEQA, “project” means “the whole of an action” (CEQA Guidelines, § 15378). The 2007 DEIR should clarify that the technical amendments to WR 89-18, as provided in Exhibit “C” of the Settlement Agreement, are part of the proposed project (the “whole of the action”) and/or part of the alternatives to the proposed project evaluated in the DEIR.

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In conclusion, the 2007 DEIR is flawed for failing to clearly define a stable, finite, accurate proposed project or project description. However, as explained below, SYRWCD believes it may be possible to cure the above-referenced flaws by identifying Alternative 3C, with the technical amendments in Exhibit “C” of the Settlement Agreement, as the proposed project.

**B. The Proposed Project Should Be Identified as WR Order 89-18 Operations Modified by the Requirements of the Biological Opinion and the Settlement Agreement**

The lack of an adequate project description is particularly unfortunate in this case because Reclamation, SYRWCD and the Member Units presented the State Board with a detailed and clearly defined project for analysis. In a letter from Reclamation to the State Board dated March 21, 2003, Reclamation informed State Board staff that the December 17, 2002 Settlement Agreement had been entered by the Cachuma Conservation Release Board, Santa Ynez River Water Conservation District, Santa Ynez River Water Conservation District Improvement District No. 1, and the City of Lompoc. Reclamation also informed the Board that, based on the terms of the Settlement Agreement, the Cachuma Project could be operated to protect downstream water rights and public trust resources according to a set of “Proposed Modifications to Order WR 73-37, as amended by Order WR 89-18, Pertaining to Permits 11308 and 11310 (Applications 11331 and 11332).” (Reclamation’s letter is part of the record and is referred to in and attached to the Member Unit’s comments and incorporated herein by this reference.) In a similar letter to the State Board dated February 26, 2003, CCRB also stated that the Settlement Agreement and related modifications to Order WR 89-18 as submitted by Reclamation should serve as the project proposal. (CCRB’s letter is part of the record and referred to in and attached to the Member Unit’s comments and incorporated herein by this reference.) Furthermore, extensive testimony was presented to the State Board during the Phase II Cachuma Hearing in support of the use of the Settlement Agreement and Reclamation’s proposed modifications of WR 89-18 as the proposed project. (See

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<sup>4</sup> The Settlement Agreement is only briefly referenced at page 2-7 of Section 2 of the 2007 DEIR.

testimony of Charles Evans, William Mills, Kate Rees, Chris Dalstorm, Bruce Wales, Marlene Demery and Gary Keefe.)

As requested above, the 2007 DEIR should include as the proposed project or clarify that the proposed project is WR 89-18 as modified by the Settlement Agreement's technical amendments in Exhibit "C" thereto, as submitted by Reclamation. Alternatively, in the event the State Board's proposed project is properly defined by alternatives, the DEIR should clearly demonstrate that such technical amendments are included within Alternative 3C, and have been addressed and adequately analyzed as part of the DEIR process. As mentioned above, the Settlement Agreement's proposed modifications to WR 89-18 settled a long-standing dispute between the parties and it was specifically developed to protect downstream water right interests in concert with releases from Bradbury Dam under the Biological Opinion and FMP as provided in Alternative 3C.

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C. **The 2007 DEIR Employs an Inappropriate Baseline Against Which to Measure Environmental Impacts of the Proposed Project and Alternatives**

Existing physical environmental conditions should normally be used as the "baseline" for determining whether project impacts are significant. The CEQA Guidelines state that existing conditions are determined as of the time the Notice of Preparation ("NOP") is published. (CEQA Guidelines, §§ 15125(a), 15126.2(a); *Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4<sup>th</sup> 99, 125 (court rejected a water use baseline that was based on current water use for irrigation because the current level of use was inconsistent with the level of use at the time of the NOP).)

The 2003 DEIR states that "SWRCB issued a NOP in May 1999..." (2003 DEIR, p. 3-4.) However, contrary to the CEQA Guidelines, the 2007 DEIR did not use existing conditions as of the date of the May 1999 NOP as the environmental baseline against which to assess impacts. Instead, the 2007 DEIR provides that it used Alternative 2 as the baseline, described as: "Operations under Orders WR 89-18 and 94-5 and the Biological Opinion (interim release requirements only)." (2007 DEIR, pp. ES-3, 5.) Alternative 2 represents conditions existing in September 2000, which is when "Reclamation initiated the interim target flows in September 2000." (2007 DEIR, p. ES-3, 6.) However, in contrast to Alternative 2, the 2007 DEIR also states "the baseline conditions that existed in August of 2003 are used to analyze the project alternatives." (2007 DEIR, p. 4-3.) Neither Alternative 2 nor conditions existing in August of 2003 are appropriate conditions for use as the baseline.

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The 2007 DEIR should have used former Alternative 1 as the baseline physical environmental conditions against which to measure impacts. Alternative 1 is the only alternative compatible with the conditions existing at the time of the NOP and with the so-called project, "potential modification of the releases required under Order WR 94-5..." which Order did not include implementation of the requirements in the Biological Opinion (2007 DEIR, p. 3-1).

The 2007 DEIR does not explain why environmental conditions at the time of the NOP were not used to measure impacts of the project or alternatives. The 2007 DEIR acknowledges that Alternative 2, which only assumes a 0.75-foot surcharge, does not represent current conditions -- a 2.47-foot surcharge. (2007 DEIR, p. ES-6.) But, then justifies use of Alternative 2 because it “will result in a more conservative estimate of the potential impact of the alternatives.” (*Id.*) However, this same logic employed to justify use of Alternative 2 counsels for use of Alternative 1 as the baseline. Unlike Alternative 2, Alternative 1 is consistent with pre-project/BO conditions and the only alternative that allows for evaluation of *all* impacts of the proposed project and alternatives incorporating various BO requirements.

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Moreover, there is no substantial evidence in the 2007 DEIR that supports use of a 0.75-foot surcharge instead of no surcharge conditions existing as of the date of the NOP. Stated another way, there is no substantial evidence that justifies excluding analysis of the impacts between zero (0) and 0.75-foot surcharge just like (as the 2007 implicitly concedes) there is no substantial evidence that justifies limiting the analysis to impacts resulting from the difference between 2.47-foot to 3.0-foot surcharge. In both cases, impacts are concealed or masked through use of an inappropriate baseline. As noted, the 2007 DEIR implicitly concedes this problem. Alternative 1, in contrast, is the only alternative that will allow for full analysis of all impacts that will result from the proposed project modifying the release requirements of WR 89-18.

**D. The 2007 DEIR Lacks an Adequate Statement of Project Objectives**

A project description must state the objectives sought to be achieved by the proposed project. The statement of objectives should include the underlying purpose of the project and should be clearly written to guide the selection of alternatives to be evaluated in the EIR. (CEQA Guidelines, § 15124(b).) The 2007 DEIR does not include a so-called “statement of objectives.” In describing the proposed project in Section 3.1.1, the 2007 DEIR merely suggests, and we presume for purposes of these comments, that the two objectives that must be attained by any modification of Reclamation’s permits *are* appropriate protection of (1) downstream water rights and (2) public trust resources. (2007 DEIR, p. 3-1.) However, there is no clearly written statement of objectives and the 2007 DEIR is objectionable for that reason. In particular, the 2007 DEIR’s statement of objectives should, but fails to, include the following requirement from the NOP as part of the downstream water right protection objective:

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“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.” (2007 DEIR, § 1.1, p. 1-1.)

As mentioned above, the 2007 DEIR’s project description includes taking into consideration “the instream flow requirements advocated by CalTrout,” but says nothing about the Settlement Agreement’s proposed technical amendments to WR 89-18 (Exhibit “C”) advocated by the permittee, Reclamation, the Member Units and the downstream water right interests. (2007 DEIR, p. 3-1.) If the

technical amendments in the Settlement Agreement are not part of the proposed project, then they should be incorporated into Alternative 3C because, as explained below, without them, there will be no alternative that feasibly attains most objectives of the proposed project as required by CEQA (CEQA Guidelines §, 15126.6(a)).

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**E. The 2007 DEIR Fails to Analyze an Appropriate No-Project Alternative**

CEQA requires that an EIR contain an analysis of a “no project” alternative. (CEQA Guidelines, § 15126.6(e)(1).) “The ‘no project’ alternative shall discuss the existing conditions at the time the notice of preparation is published..., as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, ....” (CEQA Guidelines, § 15126.6(e)(2), emphasis added.) “The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.” (CEQA Guidelines, § 15126.6(e)(1).)

The first problem with the 2007 DEIR is that it contains contradictory and confusing statements about what alternative is the no project alternative. The 2007 DEIR explains why Alternative 3C is considered the No Project Alternative instead of Alternative 2 (the no project alternative in the 2003 DEIR). (2007 DEIR, p. 3-11.) However, the 2007 DEIR still labels Alternative 2 as the “No Project Alternative” at various places in the document. (E.g., 2007 DEIR, pp. ES-5, 3-6, 3-7 [Table 3-1].) The 2007 DEIR, thus, contradicts itself and is confusing.

The second problem with the 2007 DEIR is that, assuming Alternative 3C is the no project alternative, it fails to address impacts of Cachuma operations on downstream water rights interests without implementation of the Settlement Agreement’s proposed technical amendments to WR 89-18 (Exhibit “C”). As detailed above, the Settlement Agreement was prompted by and resulted from the State Board’s WR Order 94-5 (Finding No. 15, Order No. 3.(d)) and settled a long-standing dispute between the downstream water right interests and the Cachuma Member Units relating to Cachuma operations in a manner compatible with the release requirements in the Biological Opinion and FMP (Alternative 3C). Because the Settlement Agreement was prompted by said order of the State Board, its Paragraph 5.1 provides for the State Board’s approval of technical amendments to WR 89-18 as described in Paragraphs 1.2, 1.3 and 1.4 and Exhibit “C” of the Agreement. Most of the technical amendments have been voluntarily implemented by the parties. However, Paragraph 5.2 allows for their possible termination if, following the completion of the hearing required by Order 94-5, the State Board “does not require that downstream water rights releases continue to be made consistent with WR 89-18, as modified by this Agreement, without material change.”

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As advocated above, SYRWCD believes that approval of the Settlement Agreement’s proposed technical amendments plus Alternative 3C should be the proposed project. The 2007 DEIR, however, fails to indicate whether the Settlement Agreement is an element of the proposed project. (2007 DEIR, p. 3-7 [Table 3-1].) Further, if the DEIR is now considering Alternative 3C to be the no project alternative, then, by

definition Alternative 3C would not include approval of the Settlement Agreement's proposed technical amendments in Exhibit "C." The 2007 DEIR also fails to adequately evaluate the impacts of the State Board not approving the Settlement Agreement as part of the proposed project. Those impacts must include the negative environmental consequences (e.g., on water resources to downstream water right interests) without implementation of the Settlement Agreement's technical amendments. (See, *Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4<sup>th</sup> 892, 913-915 (EIR failed to evaluate negative environmental consequences of failure to approve the project, namely possible permanent reduction in water entitlements stemming from invoking article 18(b) of water supply contracts).) This is particularly important because the State Board's analysis appears to include some or all of the changes in operations brought about by the parties' voluntary implementation of the Settlement Agreement, but does not address what adverse impacts would occur if those changes do not continue following any State Board decision. That is certainly something the State Board should consider in its decision making and certainly something that concerns all the beneficiaries of the Settlement Agreement and their constituents.

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**F. Alternatives with 1.8-Foot Surcharge are neither Reasonable nor Feasible**

An EIR must contain a range of reasonable alternatives to the project, which would feasibly obtain most of the basic objectives of the project, but which would avoid or substantially lessen any of the significant effects of the project. (CEQA Guidelines, § 15126.6(a).) Alternatives 3B and 5B each assume operations under the Biological Opinion with a 1.8-foot surcharge. (2007 DEIR, p. 3-10.) While that may have been a reasonable assumption at the time of the 2003 DEIR, it is not reasonable now. In this regard, the 2007 DEIR states that since 2003, "Reclamation has...increased the surcharge of Cachuma Lake from 0.75 to 2.47, and has begun to implement long-term release requirements under the Biological Opinion." (*Id.*, p. 3-11.) Thus, according to the 2007 DEIR, operation under a 0.75 or 1.8-foot surcharge "no longer reflects how the Cachuma Project is likely to be operated in the foreseeable future..." and "[i]nstead, Alternative 3C ...better reflects how the Cachuma Project is likely to be operated..." (*Id.*) In light of this discussion, and the fact that CEQA does not provide the State Board with independent approval power with respect to implementation of the Biological Opinion, a 1.8-foot surcharge is neither reasonable nor feasible and there appears to be no substantial evidence in support of using such surcharge as an element of any alternative. (*Kenneth Mebane Ranches v. Superior Court* (1994) 10 Cal.App.4<sup>th</sup> 276, 292; Public Resources Code §§ 21004, 21081(a)(3); CEQA Guidelines, §§ 15040(b) & (e), 15091(a)(3), 15126.6(a), 15364.)

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**G. There is No Substantial Evidence That the Alternatives Will Attain Most of the Basic Project Objectives**

Under CEQA, an alternative must attain most of the basic objectives of the project. (CEQA Guidelines, § 15126.6(a).) However, as explained in Sections II.A and II.D. above, the 2007 DEIR fails to contain a project, an adequate project description and an adequate statement of project objectives. These deficiencies make it difficult if not impossible to determine what alternatives attain most of the proposed project's

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objectives. In particular, failure to include and evaluate the Settlement Agreement's proposed amendments to WR 89-18 as part of the proposed project and its objectives distorts not only the project but also the alternatives to the project. (*See, e.g., County of Inyo v. City of Los Angeles* (1981) 124 Cal.App.3d 1, 9-15.) This is evident here since it is not possible to determine with a reasonable degree of certainty if the Settlement Agreement's technical amendments are part of the alternatives or not.

The NOP (see above) and the 2007 DEIR both indicate that the project, whatever it may be, must "provide appropriate protection of downstream water rights and public trust resources on the Santa Ynez River downstream of Bradbury Dam." (2007 DEIR, p. 3-1, emphasis added.) SYRWCD assumes these are the two basic objectives of the proposed project. However, as explained herein, only Alternative 3C with the Settlement Agreement technical amendments protects downstream water rights. There is no substantial evidence that any of the other alternatives do so. Indeed, as provided in Sections II.J. and II.K. below, there is substantial evidence that Alternatives 4B and 5B and 5C will cause adverse impacts to the interests of downstream water right holders with little or no benefit to public trust resources. In addition, the 2007 DEIR fails to adequately analyze the impacts of such alternatives on downstream water right interests including with and without the protections afforded to downstream water right holders by the Settlement Agreement. Because the alternatives have not been shown by substantial evidence and/or appropriate analysis to meet the downstream water right objective of the project, the alternatives are not appropriate for consideration under CEQA.

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**H. There is No Substantial Evidence That The Alternatives Will Avoid or Lessen Significant Effects of the Project, and the 2007 DEIR fails to identify the Environmentally Superior Alternative**

In addition to not meeting most of the project objectives, there is no substantial evidence that the alternatives will avoid or lessen any of the significant effects of the project as required by CEQA (Guidelines, § 15126.6(a).) As noted above, there is no project or adequate project description or evaluation of project impacts. Without an understanding of what *project* impacts are significant, it is impossible to determine whether alternatives are necessary to avoid or lesson significant project impacts.

The 2007 DEIR also fails 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 mentioned above, the 2007 DEIR does not identify a project. It also does not identify an environmentally superior alternative to the project or whether the no-project alternative is the environmentally superior alternative. However, for the reasons provided herein, Alternative 3C with revisions to WR 89-18, as provided in Exhibit "C" to the Settlement Agreement, is the only alternative that provides for protection for public trust resources *and* downstream water rights. As provided below, there is no substantial evidence that Alternative 5C provides any significant additional public trust benefits and, importantly, Alternative 5C's impacts on downstream water rights, including the Settlement Agreement, have not been adequately evaluated in the 2007 DEIR and are not fully known. Thus, Alternative 3C should be identified as the environmentally superior, or

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preferred, alternative among the alternatives.

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**I. There is No Substantial Evidence the Oak Tree Impact Is a Class I Significant, Unmitigable Impact**

The 2007 DEIR identifies the loss of oak trees due to surcharge required by the Biological Opinion as a significant, unmitigable impact (Class I). (2007 DEIR, p. 4-77.) However, there is no substantial evidence that any of the alternatives may feasibly avoid or lessen that impact. Even more fundamentally, there is also no substantial evidence that the impact on oak trees is a significant, unmitigable (Class I) impact. As provided in more detail in the Member Units' comments at SECTION VI.C., such oak tree impacts have been mitigated to a level of insignificance and should be downgraded to a Class II impact. (SECTION VI.C. of the Member Units' comments relative to the DEIR's analysis of oak tree impacts is incorporated herein by this reference.) Notably, the impacts of the surcharge on oak trees have already been evaluated in the joint Environmental Impact Report/Environmental Impact Statement for the Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion ("FMP/BO EIS/EIR"). The FMP/BO EIS/EIR resulted in the implementation of a comprehensive Oak Tree Restoration Program, which the FMP/BO EIS/EIR found mitigated oak tree impacts to a level of insignificance (Class II). The State Board should and is authorized by CEQA to consider the oak tree mitigation and no significant impact findings in the FMP/BO EIS/EIR (CEQA Guidelines § 15153(a)). The FMP/BO EIS/EIR supplies substantial evidence that implementation of the BO will *not* result in any significant, unmitigable impacts on oak trees.

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The results of the actual implementation of the Oak Tree Restoration Program also provide substantial evidence that there are no near-term unmitigated, significant oak tree impacts. In this regard, the 2007 DEIR states that implementation of the Oak Tree Restoration Program began after the 2003 DEIR, in 2005, and that the success rate for Year 1 was 98.6%, which is "far above survival rates normally assumed to be about 70%," and that "[a]ssuming the current projected survival continues at the same rate, the target of 904 replacement trees would be reached by Year 3 of the program, rather than by Year 20." (2007 DEIR, p. 4-79.) On the other hand, there is no substantial evidence in the 2007 DEIR that project impacts on oak trees are not mitigated to a level of insignificance, in the near-term or otherwise, by and through continued implementation of the ongoing Oak Tree Restoration Program, as the FMP/BO EIS/EIR concluded. Because there is no substantial evidence that project impacts on oak trees are or will be significant, no independent mitigation should be considered or required by the 2007 DEIR.

**J. Alternative 4B Is An Inappropriate Alternative**

In addition to the deficiencies mentioned in Sections II.G. and II.H. above, Alternative 4B is inappropriate because it is neither reasonable nor feasible and, therefore, moot. The 2007 DEIR deletes former Alternative 4A as infeasible because the City of Lompoc decided not to pursue a SWP water supply. (2007 DEIR, pp. ES-4, 3-13.) Alternative 4B should be deleted for similar reasons. As mentioned above, in lieu of Alternative 4B, Lompoc has entered into a Settlement Agreement with the downstream

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water right interests and the Member Units, which Reclamation has endorsed, that provides for modifications to WR 89-18 in light of the Biological Opinion to the satisfaction of Lompoc and all downstream water right interests. The Settlement Agreement resolves Lompoc's claims and protests relative to the operation of the Cachuma Project, including with respect to water quality, as provided in Paragraph 3 of the Agreement. Thus, Alternative 4B is unnecessary and neither reasonable nor feasible. The DEIR even seems to acknowledge the infeasibility of Alternative 4B, when it states: "The City of Lompoc, through its legal representative, has notified the SWRCB in a letter regarding the EIR dated June 18, 1999, that the City does not consider this alternative to be feasible because the residents of the City have twice rejected SWP water as a new water supply." (2007 DEIR, p. 3-13.)

Further, Alternative 4B will result in fewer releases from the dam and, therefore, less conjunctive operation of downstream water right releases with fish releases required under the Biological Opinion. This conjunctive operation was also agreed to as a part of the Settlement Agreement in Paragraph 1.2 and Exhibit "A." Thus, Alternative 4B is infeasible because it conflicts with the Biological Opinion's conjunctive operational requirements, as well as the Settlement Agreement. Moreover, if Alternative 4B is not deleted, the impact of Alternative 4B on said conjunctive operation on Cachuma yield should be but is not evaluated in the 2007 DEIR.

Recognizing that BNA water must be released when certain hydrologic conditions exist in the Santa Ynez basin, if Alternative 4B is to be evaluated at all, the DEIR must evaluate whether sufficient quantities of SWP water are expected to be available to satisfy such BNA release requirements under Alternative 4B. This is particularly important in times of SWP shortage. However, the 2007 DEIR fails to contain any such evaluation. Moreover, the 2007 DEIR does not contain an accurate assessment of SWP water reliability. To avoid repetition, SYRWCD incorporates herein by this reference SECTION VI.A. of the Member Units' comments relating to the 2007 DEIR's inadequate evaluation of SWP water supply and reliability.

Finally, SYRWCD reasserts the deficiencies of Alternative 4B previously raised in its comments on the 2003 DEIR, before revision, which are incorporated herein by this reference.

**K. Alternatives 5B and 5C Are Not Appropriate Alternatives to the Project**

Alternatives 5B and 5C are inappropriate for reasons discussed above, which include, but are not limited to, failure to attain the objective of protecting downstream water rights interests as provided in the NOP. Alternatives 5B and 5C are also inappropriate for the following reasons.

1. The 2007 DEIR Does Not Adequately Analyze Alternative 5B and 5C Impacts on Water Supply Downstream of Bradbury Dam, and Alternatives 5B and 5C Fail to Attain Most Project Objectives or Avoid or Lessen Significant Impacts of the Project

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An EIR must set forth the bases for its conclusions; a bare conclusion without an explanation of its factual and analytical basis is not a sufficient analysis of an environmental impact. (*Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 404.) If an EIR concludes that particular environmental impacts are not significant, it should explain the basis for that conclusion. (*Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4<sup>th</sup> 1099, 1111; *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994) 27 Cal.App.4<sup>th</sup> 713.) By the same token, an EIR cannot simply label an impact as significant or insignificant without first providing a good faith reasoned analysis. Such a backwards approach “allows the lead agency to travel the legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Comm'rs* (2001) 91 Cal.App.4<sup>th</sup> 1344, 1370-1371.) As explained below, the 2007 DEIR fails to adequately analyze whether Alternatives 5B and 5C will result in significant adverse impacts on downstream water quantity or quality due to, among other things, reduction of ANA credits, particularly during drought years.

Although the 2007 DEIR mentions a reduction in ANA releases (page 4-11) and asserts that there would be “no significant difference in management of ANA releases” under the project alternatives compared to baseline (Alternative 2) operations (page 4-36), the document nowhere actually quantifies the reduction of ANA releases or analyzes the management implications of these reductions. Moreover, although the application of the SYRHM to Alternatives 1 through 3C was peer-reviewed as described on pages 4-7, no such scrutiny was given to Alternatives 5B/5C, which involve different fisheries flows than the other Alternatives. All that the 2007 DEIR does is quantify the reduction in total “Average Order WR 89-18 releases” in Table 4-7, which reduction it understates because it compares the Alternatives to the wrong baseline conditions (Alternative 2 vs. Alternative 1).

As shown in the tables below<sup>5</sup>, SYRWCD accepted average ANA losses of up to 13% during negotiations for the Settlement Agreement (Alternative 3C) and that reduction would increase to 19% under Alternative 5C, assuming the model application to Alternative 5C is valid (Table 1). These losses increase to as much as 28% during extended dry spells with Alternative 5C, which losses are as much as 15% more than experienced under Alternative 3C (Tables 2 & 3). Despite the fact that these losses could be compensated to some extent by lower values of dewatered storage in the Above Narrows area, they represent significant ANA reductions and suggest serious adverse implications for effectively managing the ANA, especially under drought conditions.

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<sup>5</sup> Tables 1, 2 and 3 are from SYRHM runs requested by SYRWCD.

**Table 1**  
**AVERAGE SIMULATED IMPACTS TO ABOVE NARROWS ACCOUNT**  
**FOR WATER YEARS 1918-1993 (ACRE-FEET/YEAR)**

	Alt 1	Alt 2	Alt 3C	Alt 5C
ANA Releases	4,559	4,237	3,949	3,690
Difference in ANA Releases	---	-321	-610	-869
Percent Reduction in ANA Releases	---	-7%	-13%	-19%

**Table 2**  
**SUMMARY OF SIMULATED ANA NET CREDITS FOR PERIODS WITH EXTENDED**  
**DROUGHT CONDITIONS**

Extended Drought Conditions	Cumulative Net Credits (af)				Difference with Alternative 1 (af)			Difference with Alternative 1 (%)		
	Alt 1	Alt 2	Alt 3C	Alt 5C	Alt 2	Alt 3C	Alt 5C	Alt 2	Alt 3C	Alt 5C
1928-1936 <sup>a</sup>	57,028	50,666	47,866	45,641	-6,362	-9,162	-11,388	-11%	-16%	-20%
1946-1951 <sup>b</sup>	32,274	33,783	30,781	24,406	1,509	-1,492	-7,868	5%	-5%	-24%
1959-1966 <sup>c</sup>	43,637	40,625	38,893	37,138	-3,012	-4,744	-6,499	-7%	-11%	-15%
1976-1977 <sup>d</sup>	11,402	11,201	9,675	9,185	-201	-1,726	-2,216	-2%	-15%	-19%
1987-1992 <sup>e</sup>	41,008	38,468	34,846	29,490	-2,540	-6,162	-11,518	-6%	-15%	-28%

- a) Period of analysis is from beginning spill (April 1927) to ending spill (March 1937), 118 months.
- b) Period of analysis is from beginning spill (April 1945) to ending spill (March 1952), 83 months.
- c) Period of analysis is from beginning spill (April 1958) to ending spill (March 1967), 105 months.
- d) Period of analysis is from beginning spill (April 1975) to ending spill (March 1978), 33 months.
- e) Period of analysis is from beginning spill (April 1986) to ending spill (March 1993), 80 months.

**Table 3**  
**COMPARISON OF SIMULATED ANA CREDITS FOR**  
**FIVE PERIODS WITH EXTENDED DROUGHT CONDITIONS**  
**BETWEEN ALTERNATIVES 3C AND 5C**

Extended Drought Conditions	Average Annual ANA Credits During Drought (afy)		Average Difference with Alternative 3C	
	Alt 3C	Alt 5C	afy	%
1928-1936 <sup>a</sup>	4,868	4,641	-226	-5%
1946-1951 <sup>b</sup>	4,450	3,529	-922	-21%
1959-1966 <sup>c</sup>	4,445	4,244	-201	-5%
1976-1977 <sup>d</sup>	3,518	3,340	-178	-5%
1987-1992 <sup>e</sup>	5,227	4,424	-803	-15%

- a) Period of analysis is from beginning spill (April 1927) to ending spill (March 1937), 118 months.
- b) Period of analysis is from beginning spill (April 1945) to ending spill (March 1952), 83 months.
- c) Period of analysis is from beginning spill (April 1958) to ending spill (March 1967), 105 months.
- d) Period of analysis is from beginning spill (April 1975) to ending spill (March 1978), 33 months.
- e) Period of analysis is from beginning spill (April 1986) to ending spill (March 1993), 80 months.

From a management perspective, the amount of water available for releases from the ANA is important for several reasons. The ANA is not only important for satisfying water rights between Bradbury Dam and Lompoc Narrows, it also acts to convey BNA water to users in the Lompoc Valley. Even more importantly, ANA storage in the Reservoir provides supplies that are essential during droughts. The 2007 DEIR fails to adequately analyze these issues, especially as they relate to Alternative 5C. SYRWCD identified these issues as potential problems during Phase II of the 2003 Cachuma Hearing and in its Closing Brief.

As the General Manger of the SYRWCD for about 13 years, I have tracked the ANA and the BNA, monitored water rights releases in real time, and studied the history of past releases. It is my informed opinion that during a prolonged drought, riparian wells could fail, and as a result, land could be fallowed, perennial crops could be lost, and domestic uses would have to be curtailed. These impacts would be worse with Alternative 5C compared to Alternative 3C, and would be more likely to occur in the lower reaches of the Above Narrows area. The loss of ANA water, especially with

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Alternative 5C, could leave the District with too little ANA water to transport BNA water to the Lompoc Plain, thus tending to “strand” this water in Cachuma Reservoir. The inability to deliver stranded BNA water would tend to increase the salinity of groundwater on the Lompoc Plain. None of these potential impacts are addressed in the 2007 DEIR.

Similarly, as provided in SECTIONS V.C. and VI.A. of the Member Units’ comments, Alternatives 5B and 5C also adversely impact Cachuma Project yield and the Member Units’ water supply (including SYRWCD’s constituents in ID No. 1), and the 2007 DEIR also fails to adequately address those and other impacts of such alternatives. (SECTIONS V.C. and VI.A. of the Member Units’ comments are incorporated herein by this reference.)

In addition, as discussed above, protection of downstream water rights is, or should be, one of no more than two basic objectives of the project (CEQA Guidelines, § 15126.6(a)). Therefore, to be considered, Alternatives 5B and 5C, must protect those downstream water rights but there is no substantial evidence that those alternatives will protect those rights or that the impacts of Alternatives 5B and 5C on downstream water rights was even seriously considered. Among other things, the 2007 DEIR fails to adequately evaluate what impacts Alternatives 5B and 5C will have on the Settlement Agreement. It cannot be over emphasized that the Settlement Agreement, as reflected in Alternative 3C plus the technical amendments, resolved a long-standing dispute and resulted in a contractual agreement to protect downstream water rights between downstream interests and the Member Units, in concert with the requirements of the Biological Opinion and the Fish Management Plan. The Settlement Agreement was entered into only after careful analysis, peer-review and study for many years and was subject to thorough cross-examination in the recent State Board hearings. In contrast to Alternative 3C, there is no substantial evidence or adequate analysis demonstrating that Alternatives 5B or 5C will protect downstream water rights, and there is no reason to believe that Alternatives 5B and 5C have been subjected to peer-review or will be subject to cross-examination.

Finally, as discussed below, there is not substantial evidence or adequate evaluation indicating that Alternatives 5B and 5C will avoid or lessen any significant impacts on fishery resources in any way that is not already accomplished by the appropriate project (Alternative 3C plus the Settlement Agreement). Alternatives that do not avoid or lessen significant impacts caused by the proposed project should not be considered (CEQA Guidelines, § 15126.6(a)).

2. Alternatives 5B and 5C Unreasonably and Infeasibly Require Significant Additional Releases to Achieve Little or No Fishery Benefits

In addition to Alternatives 5B’s and 5C’s adverse impacts on downstream water rights and Cachuma Project yield, there is no substantial evidence and/or adequate analysis that Alternatives 5B and 5C will have any significant benefits to fishery resources in comparison to other alternatives, including Alternative 3C. In this regard, SYRWCD incorporates SECTION VI.B. of the Member Units’ comments herein by this

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reference. The 2007 DEIR finds that all alternatives result in Class IV beneficial impacts in comparison to baseline operations. (2007 DEIR, p. 4-66.) Further, the increased amount of habitat (quantified by top-width) for steelhead created by additional releases for fish under Alternative 5C, as compared to Alternative 3C, are relatively minor, although significant additional quantities of water are required to be released from Bradbury Dam under Alternatives 5B and 5C. In this regard, the Member Units' comments (at page 47) provide, for example, that:

“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/C as compared to Alternatives 3B/C) 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.”

Thus, although they may result in water supply shortages during critical drought years, as explained above, Alternatives 5B and 5C will only provide minor additional benefits, if any, to fish during relatively wet periods. In addition, habitat bottlenecks during the juvenile lifestage may affect populations, thus eliminating any minor advantage that could accrue for steelhead during the fry stage. In this regard, the Member Units' comments (at page 50) provide:

“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 that 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.”

Further, the 2007 DEIR fails to adequately analyze whether additional higher flows of Alternatives 5B and 5C will affect interactions between individually benefited species such as resident bass and anadromous trout. It is well established that bass prey on fry and juvenile steelhead/rainbow trout. It is possible that increases in largemouth bass populations will increase the rates of predation on fry and juvenile trout. In other words, any benefit from flow for trout may well be negated by the benefit for bass. However, the 2007 DEIR does not discuss the species interactions (e.g., predation) that will result from Alternatives 5B and 5C or the other alternatives. Indeed, on a related point, the Member Units’ comments indicate that the additional releases required by Alternatives 5B and 5C will result in very limited additional trout production in the Refugio and Alisal reaches due, in part, to the presence of bass in pools where surviving steelhead are likely to be confined. On this point, the Member Units’ comments (on page 51) provide:

“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.”

As the State Board is well aware, the California Constitution does not equate beneficial use with reasonable use (*Joslin v. Marin Mun. Water Dist.* (1967) 67 Cal.2d 132, 143), and prohibits unreasonable and wasteful uses of water. (Article X, § 2; see also, Water Code §§ 100, 275; *United States v. Gerlach Live Stock Co.* (1950) 339 U.S. 725, 751-753 (Supreme Court assumed that the use of substantial flow of the San Joaquin River to lift a comparatively small quantity of water over the banks for natural flooding of pasture was unreasonable).) The courts have confirmed that the State Board’s authority to regulate unreasonable methods of diversion and use of water is quite expansive. (*People ex rel. SWRCB v. Forni* (1976) 54 Cal.App.3d 743 (State Board sought to enjoin diversion of water for frost protection resulting in significant depletion of stream); *Elmore v. Imperial Irr. Dist.* (1984) 159 Cal.App.3d 185, 198-199; *Imperial Irr. Dist. v. SWRCB* (1986) 186 Cal.App.3d 1160, 1162-69; *Imperial Irr. Dist. v. SWRCB*

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(1990) 225 Cal.App.3d 548, 559-562.) As explained above and in Section SECTION VI.B. of the Member Units' comments, Alternatives 5B and 5C require significant additional quantities of releases of water, in contrast to all other alternatives, including Alternative 3C, to provide only minor fishery benefits, at best. Thus, Alternatives 5B and 5C are not reasonable or feasible alternatives to the appropriate project (Alternative 3C plus Settlement Agreement) as required by CEQA.

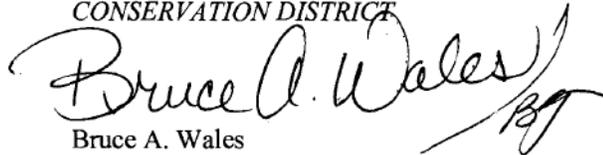
**III. CONCLUSION**

For the reasons set forth above, SYRWCD believes that the 2007 DEIR should be corrected as indicated above, and requests that the State Board adopt Alternative 3C with modifications to WR 89-18 as provided in the technical amendments in Exhibit "C" of the Settlement Agreement. Alternative 3C should be considered as the proposed project as it is the only alternative that was developed after significant study and compromise, by all stakeholders, pursuant to the directions of WR 94-5. Alternative 3C is also the only alternative that, in accordance with WR 94-5 and prior Board orders, resolves both outstanding water quality and quantity issues among the downstream water right interests and the Member Units, consistent with the long-standing Cachuma Project requirement and objective of protecting downstream water right interests and historic percolation below Bradbury Dam, and resolves fishery issues and provides for steelhead protection, consistent with the Fish Management Plan and Biological Opinion.

Thank you for considering our comments and suggestions. Should you have any questions or require clarification regarding any of our comments, please contact the undersigned.

Sincerely,

SANTA YNEZ RIVER WATER  
CONSERVATION DISTRICT



Bruce A. Wales  
General Manager

- cc: Cachuma Project Hearing, Phase-2 Hearing Final Service List
- USBR
- CCRB
- SYRWCD, ID #1
- City of Solvang
- City of Buellton
- City of Lompoc
- SYRWCD, Board of Directors
- Stetson Engineers
- Ernest A. Conant, District Counsel
- Thomas R. Payne & Associates

Cachuma Project Hearing  
Phase-2 Hearing  
Final Service List

Updated 05/10/2007

**(Note: The parties whose E-mail addresses are listed below agreed to accept electronic service, pursuant to the rules specified in the hearing notice.)**

Cachuma Conservation Release Board  
Mr. Gregory K. Wilkinson  
Best, Best & Krieger, LLP  
3750 University Avenue, Suite 400  
Riverside, CA 92501  
[gkwilkinson@bbklaw.com](mailto:gkwilkinson@bbklaw.com)

City of Solvang  
Mr. Christopher L. Campbell  
Baker, Manock & Jensen  
5260 N. Palm Avenue, Suite 421  
Fresno, CA 93704  
[clc@bmj-law.com](mailto:clc@bmj-law.com)

U.S. Bureau of Reclamation  
Ms. Amy Aufdemberg  
2800 Cottage Way, Room E-1712  
Sacramento, CA 95825  
(916) 978-5694 Fax

City of Lompoc  
Ms. Sandra K. Dunn  
Somach, Simmons & Dunn  
813 Sixth Street, Third Floor  
Sacramento, CA 95814-2403  
[sdunn@lawssd.com](mailto:sdunn@lawssd.com)

Santa Ynez River Water Conservation  
District, Improvement District No. 1  
Mr. Gregory K. Wilkinson  
Best, Best & Krieger, LLP  
3750 University Avenue, Suite 400  
Riverside, CA 92501  
[gkwilkinson@bbklaw.com](mailto:gkwilkinson@bbklaw.com)

Santa Barbara County Parks  
Ms. Terri Maus-Nisich  
Director of Parks  
610 Mission Canyon Road  
Santa Barbara, CA 93105

Santa Ynez River Water  
Conservation District  
Mr. Ernest A. Conant  
Law Offices of Young Wooldridge  
1800 – 30<sup>th</sup> Street, Fourth Floor  
Bakersfield, CA 93301  
[econant@youngwooldridge.com](mailto:econant@youngwooldridge.com)

California Trout, Inc.  
c/o Ms. Karen Kraus  
Environmental Defense Center  
906 Garden Street  
Santa Barbara, CA 93101  
[kkraus@edcnet.org](mailto:kkraus@edcnet.org)

Christopher Keifer  
NOAA Office of General Counsel  
Southwest Region  
501 West Ocean Blvd., Ste 4470  
Long Beach, CA 90802-4213

Department of Fish and Game  
Office of General Counsel  
Ms. Nancee Murray  
1416 Ninth Street, 12<sup>th</sup> Floor  
Sacramento, CA 95814

**3. Santa Ynez River Water Conservation District, dated September 28, 2007.**

**Response 3-1:**

The comment states that there is no clearly defined proposed project or adequate project description.

The 2007 RDEIR (and 2003 DEIR) contains a description of the various alternatives considered for the SWRCB to consider.

*CEQA Guidelines* (Section 15124(c)) states that a project description shall contain a general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals, if any, and supporting public service facilities. Section 15124 also states that a project description should not supply extensive detail beyond that needed for evaluation and review of the environmental impact. The 2007 RDEIR and 2003 DEIR provide this information for the various alternatives considered.

Because the SWRCB is considering all of the alternatives and could select any of those considered, none are individually identified as the "proposed project."

See response to 2007 RDEIR **Comment 1-1**.

The comment is noted.

**Response 3-2:**

The comment states that the proposed project should be identified as WR Order 89-18 operations modified by the requirements of the Biological Opinion and the Settlement Agreement.

The Biological Opinion and Settlement Agreement do not constitute the proposed project. The Biological Opinion provides constraints that must be considered in developing the project descriptions, and all of the alternatives considered in the 2007 RDEIR reflect those constraints. . In the 2011 2<sup>nd</sup> Revised Draft EIR, the scope of Alternative 3C is expanded to include the Settlement Agreement. Upon selection of an alternative, WR 89-18 would be modified consistent with the conditions identified in the selected alternative; therefore, all of the alternatives considered would modify WR 89-18 except Alternative 2 (no Project).

**Response 3-3:**

The comment states that the 2007 RDEIR employs an inappropriate baseline against which to measure environmental impacts of the proposed project and alternatives.

See response to 2007 RDEIR **Comment 1-6**.

**Response 3-4:**

The comment states that the 2007 RDEIR lacks an adequate statement of project objectives.

The project objectives, though articulated in various discussions in both the 2003 DEIR and 2007 RDEIR, may not have been expressed clearly enough in those documents. The objectives have been clearly stated in the 2011 2nd RDEIR.

**Response 3-5:**

The comment states that the 2007 RDEIR fails to analyze an appropriate No Project Alternative.

See response to 2007 RDEIR **Comment 1-6**.

**Response 3-6:**

The comment states that alternatives with 1.8-foot surcharge are neither reasonable nor feasible.

While the commenter may be of the opinion that a 1.8-foot surcharge is neither reasonable nor feasible, technically, any surcharge below the physical limitations (3.0 feet) of Bradbury Dam is feasible. Whether a 1.8-foot surcharge is reasonable is the basis for the environmental evaluation. The comment is noted.

**Response 3-7:**

The comment states that there is no substantial evidence that the alternatives will attain most of the basic project objectives. The comment suggests that only Alternative 3C will be protective of downstream water rights.

The project objectives have been clarified and all of the considered alternatives would meet some or all of those objectives. As part of the revised Alternatives Analysis in **Section 6.0** of the 2011 2<sup>nd</sup> Revised Draft EIR, the ability of the environmentally preferable alternatives to meet the project objectives has been analyzed and noted. See response to 2007 RDEIR **Comment 1-1**.

**Response 3-8:**

The comment states that there is no substantial evidence that the alternatives will avoid or lessen significant effects of the project, and that the 2007 RDEIR fails to identify the environmentally superior alternative.

**Section 6.0, Alternatives Analysis** of the 2011 2<sup>nd</sup> RDEIR has been revised to illustrate how the various alternatives relate to the baseline and to each other. Furthermore, the environmentally superior alternative has been identified.

**Response 3-9:**

The comment states that there is no substantial evidence in the 2007 RDEIR that the oak tree impact as a result of lakeshore inundation is a Class I significant, unmitigable impact.

The 2007 RDEIR estimated that a total of 452 oak trees would be impacted with the implementation of a surcharge of 3.0 feet. When the surcharge was initially implemented in 2005, a subsequent survey found that 612 oaks had actually died as a result of the 2005 and 2006 surcharges, with an additional 263 oaks deemed at risk for failure. Mature oak trees are identified as significant resources by local, state, and federal authorities, recognizing that in many cases, an oak tree, which takes approximately 50 years to mature, represents an ecosystem in and of itself. There is a large temporal loss of habitat functions between the time when a mature oak is lost and a replacement tree reaches comparable size and function. Thus the loss of oaks remains a Class I significant, unmitigable impact.

In recognition of this impact, an Oak Restoration Management Plan was initiated in 2005, with the intention of planting sufficient replacement trees to meet the goal of a 2:1 ratio of self-sustaining reproducing oaks after 20 years. The mitigation plan was based on the agreement between COMB and Santa Barbara County as outlined in the 2004 EIR/EIS. As of 2010, a total of 1,881 oaks and associated understory plants have been installed at several locations within Reclamation's property. (See discussion in 2011 2<sup>nd</sup> RDEIR **Section 4.8 Riparian and Lakeshore Vegetation**). Survival of these trees has been between 83 and 100 percent. As these trees continue to grow, the impact will be reduced to a Class II, significant but mitigable impact.

**Response 3-10:**

The comment states Alternative 4B is an inappropriate alternative and is neither reasonable nor feasible.

The comment expresses the opinion as to the relative appropriateness of the alternative by suggesting that it may not be feasible because the City of Lompoc has previously decided not to pursue State Water Project (SWP) water. The comment is correct in that the City did make such a decision. However, the alternative does not require that the City obtain SWP water but rather provides an analysis of what would occur should it do so.

The alternative however has been maintained in the 2011 2<sup>nd</sup> RDEIR for comparison purposes. See response to 2007 RDEIR **Comment 1-33**

**Response 3-11:**

The comments states that Alternatives 5B and 5C are not appropriate alternatives to the project.

While the commenter expresses the opinion that these are not appropriate alternatives, as explained in response 1-3c1, the alternatives have been included because of information brought forward during the public review of the 2003 DEIR. Sufficient arguments and data were provided at that time to warrant including these alternatives in the analysis.

**Response 3-12:**

The comment suggests that the 2007 RDEIR does not adequately analyze the impacts of Alternative 5B and 5C on water supply downstream of Bradbury Dam, and that the alternatives fail to attain most project objectives and to avoid or lessen significant impacts of the project.

See responses to 2007 RDEIR **Comments 1-11, 1-16, 1-18, and 2-4.**

The impacts of Alternatives 5B and 5C on water supply downstream of Bradbury Dam are analyzed based on the Santa Ynez River Hydrology Model (SYRHM) and are disclosed in the 2007 RDEIR (throughout **Section 4** and summarized in **Section 6**). Alternatives 5B and 5C are feasible alternatives that can attain project objectives with certain levels of impacts compared to the baseline or no project conditions.

The evaluation of alternatives presented in the 2007 RDEIR is comparable to that of the analysis of other alternatives. Additionally, the 2007 RDEIR provides substantial information supporting the findings of significance.

The EIR is required to evaluate alternatives against the baseline (see response to 2007 RDEIR **Comment 2-4**); the baseline conditions are presented as Alternative 2.

**Response 3-13:**

The comment states that Alternatives 5B and 5C are unreasonable and would achieve little or no benefits to fisheries

The SWRCB does not agree with this comment. As discussed in the 2011 2nd RDEIR, **Section 4.7.2.3, Alternatives 5B and 5C** result in consistently small to negligible negative impacts to sport fisheries. The effects on steelhead fisheries would be beneficial under all alternatives (Table 6-2, 2011 2<sup>nd</sup> RDEIR), with no difference among alternatives with regard to steelhead adult migration. The greatest benefit afforded to steelhead spawning at the Highway 154 bridge would come under **Alternatives 5B and 5C** (2 tenths of a point higher than any other alternatives and 7 tenths of a point higher than existing conditions). The greatest benefits to steelhead fry rearing at the Highway 154 bridge would also be afforded under **Alternatives 5B and 5C**, with improved fry rearing conditions in 75 out of 76 years over existing conditions, and 29 out of 76 years over each of the other alternatives.

21 East Carrillo Street  
Santa Barbara, CA 93101  
Telephone: (805) 963-7000  
Fax: (805) 965-4333



Gary M. Kvistad  
(805) 882-1414  
GKvistad@HatchParent.com

September 28, 2007

FAX: (916)341-5400

Via E-Mail [driddle@waterboards.ca.gov](mailto:driddle@waterboards.ca.gov)

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:

Hatch & Parent submit this comment letter on behalf of the Santa Ynez River Water Conservation District, Improvement District No. 1, (ID No.1) with respect to the above referenced matter. Oh behalf of ID No.1, we appreciate the opportunity to provide its comments on the Revised Draft Environmental Impact Report (RDEIR), State Clearinghouse No. 1999051051 by the State Water Resources Control Board (State Board). In Addition to this letter, ID No. 1 and the Cachuma Conservation Release Board (CCRB) submitted a separate joint comment letter. A comment letter has also been submitted on the RDEIR by the Santa Ynez River Water Conservation District (SYRWCD) which ID No.1 joins SYRWCD in its comments submitted for consideration by the State Board.

ID No. 1's service area is located in the Santa Ynez River Watershed downstream of Cachuma Reservoir and Bradbury Dam, ID No. 1's primary function is to provide water service to its residential, municipal, commercial, industrial and agricultural customers with water supplies from both Lake Cachuma Project water and underflows from the Santa Ynez River downstream of Bradbury Dam, among other sources. Since the RDEIR considers modifications to United States Bureau of Reclamation's (Reclamation) Cachuma Project water right permits to protect public trust values and downstream water rights of the Santa Ynez River, ID No. 1 is uniquely situated and therefore concerned with and affected by the RDEIR.

In this regard, and given the interdependency of the Member Units on the Reclamation water right permits 11308 and 11310 (Applications 11331 and 11332) which are at issue and

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affect ID No. 1's water supplies, below are additional comments submitted to ensure the State Board's ability to comply with the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et. Seq. "CEQA"), its Guidelines (Title 14, California Code of Regulations section 15000 et. Seq., the "CEQA Guidelines"), and applicable case law. More importantly, ID No.1 respectfully requests that the State Board acknowledge the Settlement Agreement to which the Member Units are parties and respect it through this process which is clearly in the public interest.

A review of the RDEIR discloses that it fails to adequately address the demonstrated impacts that the proposed alternatives water release regimes will have on ID No. 1 and others in all but Alternative 3C, to the extent it reflects the terms of the Settlement Agreement<sup>1</sup>. Alternative 3C is the only alternative which satisfies the purposes of the requested permits because it meets the public trust values and protects downstream water rights. Moreover, 3C is consistent with current operations, has fewer impacts on water supplies and provides substantially as much benefit to fish as the other alternatives. Given that the remainder of the alternatives fail to adequately address the public trust values and downstream water rights, including new Alternatives 5B and 5C, they are inadequate either because they fail to meet this intended purpose or do not contain the necessary data to assess their impacts.

Consequently, the 2007 RDEIR has both factual and legal flaws. For that reason, ID No.1 requests the State Board to either adopt Alternative 3C demonstrating its incorporation of the Settlement Agreement's technical amendments as set forth in Exhibit "C", or alternatively, clarify the proposed project is WR 89-18 as modified by the Settlement Agreement's technical amendments in Exhibit "C" as submitted by the Reclamation, and establish through the completion of the State Board's environmental review process its compliance with CEQA.

## **I. HISTORICAL BACKGROUND**

### **A. ID NO.1'S WATER SERVICE AREA**

The SYRWCD formed ID No. 1 on January 5, 1960 under the Water Conservation Law of 1931, Division 21, Section 74000 et seq. of the California Water Code. Its purpose is to furnish potable domestic and irrigation water within its boundaries and for distributing the Cachuma Project entitlement water as set forth under contract with the Reclamation for receiving water from Lake Cachuma (Bradbury Dam).

The first Reclamation Water Service Contract was in 1954 for a minimum of 500 Acre-Feet-Per-Year (AFY) plus an additional 2,800 AFY to be delivered to ID No.1. The Reclamation Water Service Contract was later renewed in 1995 for 10.31% of the operational annual supply to be used on lands within the ID No.1's service area that encompasses

<sup>1</sup> The Settlement Agreement was presented to the State Board during the 2003 DEIR hearing.

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approximately 10,850 acres. As a Cachuma Project Member Unit, the renewal contract for water service is with the Reclamation through the Santa Barbara Water Agency.

ID No.1 is located in the Santa Ynez Valley downstream of the Cachuma Project and has operated continuously since 1960. The water service area includes the towns of Santa Ynez, Los Olivos, and Ballard, the Santa Ynez Band of Mission Indians Reservation, the City of Solvang and lands owned by the Reclamation that are currently operated as the Lake Cachuma Park and Recreation Area under Santa Barbara County management. ID No.1 currently provides water to approximately 2,437 domestic accounts and 116 agricultural customer accounts and has a resident population of approximately 8,920 (excluding the City of Solvang population of 5,332 and the transient visitor population at the Lake Cachuma Park of 900,000 people annually)<sup>2</sup>. ID No.1 also supplies domestic water to the City of Solvang and the Lake Cachuma Park. It currently serves approximately 2,963 acre feet a year (AFY) of domestic water, and agricultural deliveries (including limited agriculture) of approximately 2,934 AFY (Water Year 2007 figures).

The City of Solvang (City) is included within the service area boundaries of the District and currently serves approximately 1,371 AFY. In addition to the City's own water sources, which include its rights to underflow from the Santa Ynez River, ID No.1 contracts to the City for State Project Water (SWP) and provides Cachuma Project Water, groundwater pumped from the Uplands Groundwater Basin, and river underflow water to the City through two meters on an as-needed or emergency basis. The City, in turn, provides water service to customers within its incorporated boundaries.

Besides the Cachuma Project source of supply, ID No. 1 currently has three remaining sources: 1) groundwater pumped from the Santa Ynez Uplands Groundwater Basin, which underlies the service area; 2) the rights to underflow of the Santa Ynez River, and, 3) SWP entitlement which the ID No.1 began receiving September 12, 1997.

In water year 2007, ID No.1 obtained 40% of the total supply as Cachuma Project/State Water exchange, 1% of its water supply directly diverted from the Cachuma Project, approximately 7% of its water from the SWP, and pumped approximately 27% of its water supplies from the Santa Ynez Uplands Groundwater Basin with approximately 25% from the Santa Ynez River alluvium. As a result, the Cachuma Project currently provides about 40% of the ID No.1's water supply but the proportionate percentage varies from year to year with up to 57% of the total water supply in past years.

## **B. CACHUMA PROJECT**

The history of the water rights permits issued for the Cachuma Project involves an operational regime carefully developed among Reclamation, the Cachuma Project Members

<sup>2</sup> These statistics are based upon ID No.1's 2005 Urban Water Management Plan Update.

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Units, downstream water rights holders, and other interested parties. In 1958, the State Board issued Water Right Decision 886 making Cachuma Project Permits 11308 and 11310 subject to certain criteria for determining when water could be stored and when it was released. The criteria provided that water flowing into Lake Cachuma could not be stored by Reclamation unless certain conditions existed in the Santa Ynez River and as measured at designated locations downstream from Bradbury Dam.

In 1973, a negotiated order, WR-73-37, was issued which modified prior decisions and permitted storage of all inflow, but provided periodic downstream releases through credits in an Above Narrows Account and a Below Narrows Account (under specific conditions). The order also provided for later releases if the downstream alluvium basins were not refilled by water originating below Bradbury Dam. As in the previous orders, the State Board also reserved jurisdiction and amended permit condition 7 which provided for extending the initial 15-year trial period until 1989 for refining Cachuma reservoir operating procedures.

Water Rights Order 89-18 made additional limited technical modifications to the criteria originally developed and set forth in WR 73-37. This was done for the purpose of addressing water rights concerns and called for a trigger for a so-called "Perc curve" to be developed by agreement among Reclamation, the Cachuma Member Units, and downstream water rights holders. WR 89-19 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 develop and undertake a study plan for riparian vegetation along the margins of the Santa Ynez River below Bradbury Dam and 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.

In July of 1990, a consolidated hearing to consider all outstanding actions within the Santa Ynez River Watershed was commenced. Shortly thereafter, the hearing was recessed to allow the parties to work together to resolve public trust issues "outside of the hearing process." And, 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, 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 3-5 year period was needed to collect necessary data related to outstanding downstream water rights and public trust issues and established a Fish

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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 resources, impacts on the Project water supply and downstream water rights.

In Water Rights Order 94-5, the State Board provided for the 3-5 year study plan contemplated in the 1994 MOU. In doing so, the Board recognized the need for a consensus based operational regime that would protect the public trust resources and Project water supply as well as downstream water rights by agreement among the parties. Consistently, WR 94-5 provided for the results of the studies to be presented by the Permittee (Reclamation) to the State Board in a manner that would allow for additional environmental documentation, if any, be prepared by the Permittee (Reclamation) and considered by the State Board in development of changes to the conditions under Reclamation Permits 11308 and 11310 to allow for such consensus based solutions.

As a result, beginning in 1994, the parties to the 1994 MOU carried out the contemplated studies, and developed a consensus based fishery management plan that analyzed the need for and provided protection of rainbow trout/steelhead downstream of Bradbury Dam through a combination of water releases from the Dam and 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 their Fish Management Plan (FMP) 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 FMP, in 1997 the National Marine Fishery 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 FMP was therefore coordinated with NMFS, resulting in a Biological Opinion (BO) that protected steelhead consistently with the terms of the FMP. In 1999, the FMP was formally presented to the State Board in 1999 incorporating a regime of releases from Bradbury Dam which has been identified as Alternative 3C in the RDEIR. The FMP (Alternative 3C) has served as the basis for discussions among the parties regarding the reconciliation of flows for the protection of downstream public trust resources with impacts to Project water supply, the protection of downstream water rights and water quality in Lompoc.

Adversarial proceedings have been ongoing for over 50 years to determine the appropriate level of releases to ensure the protection of downstream interests by the Cachuma Project. In WR 94-5, this Board ordered Lompoc and the Cachuma Member Units to submit information developed and conclusions reached during negotiations relating to the water quantity and quality concerns in the Lompoc plain. (WR 94-5, Finding No. 15, Order No. 3.(d).)

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A compromise was memorialized in the "Settlement Agreement between Cachuma Conservation Release Board, Santa Ynez Water Conservation District, Santa Ynez Water Conservation District Improvement District No. 1, and the City of Lompoc, relating to Operation of the Cachuma Project," dated December 17, 2002 ("Settlement Agreement"). The Settlement Agreement reflects the first time that all parties – Reclamation, its Member Units and all downstream interests – are in agreement on a release mechanism that protects the downstream water right interests but which is also acceptable to the project users and Reclamation. More importantly it resolves not only water quantity, water quality and flood control issues, but includes the requirements of the BO and FMP for protection of public trust resources.

Because ID No. 1 endorses the Settlement Agreement and manages its water supplies pursuant to it, as well as the 2000 Lower Santa Ynez River Fish Management Plan ("Fish Management Plan" or "FMP"), which the Member Units and downstream interests are fully committed to carrying out, ID No.1 has accepted its operational constraints and the water supply impacts resulting from FMP and Settlement Agreement characterized as Alternative 3C.

**II. THE STATE BOARD SHOULD CONSIDER THE SCOPE OF THE PERMITS TO REFLECT ALTERNATIVE 3C AND INCORPORATE THE SETTLEMENT AGREEMENT'S TECHNICAL AMENDMENTS TO 89-18**

On March 21, 2003 Reclamation informed the State Board that the CCRB, SYRWCD, ID No. 1, and City of Lompoc had entered into the Settlement Agreement on December 17, 2002 resolving issues relating to downstream water rights. They also represented based upon the terms of the Settlement Agreement that the Cachuma Project could be operated to protect downstream water rights and public trust resources according to "Proposed Modifications to Order WR 73-37, as amended by Order WR 89-18, pertaining to Permits 11308 and 11310 (Applications 11331 and 11332)."

Extensive testimony was presented to the State Board during the hearings in support of the use of the Settlement Agreement and Reclamation's proposed modification of WR 89-18 as the project to be analyzed by the State Board.

Because the FMP and the Settlement Agreement were developed in a coordinated manner to maintain support and acceptance by their signatory parties, Reclamation noted in its letter of March 21, 2003, that the State Board has the authority pursuant to section 11415.60 of the Government Code to issue a decision recognizing the Settlement Agreement, including the technical amendments 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 includes releases from Bradbury Dam as described in Alternative 3C of the RDEIR. Furthermore, surcharging of the Cachuma Project by 3 feet to partially mitigate for the loss of water supply resulting from releases in accordance with

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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 Member Units.

Because the Settlement Agreement was prompted by said order of the State Board, Paragraph 5.1 provides for the State Board's approval of technical amendments to WR 89-18 as described in Paragraphs 1.2, 1.3 and 1.4 and Exhibit "C." Accordingly, only minor modifications to WR 89-18 are requested from the State Board to implement the Settlement Agreement which are as follows:

- 1) resolve the timing of when the lower percolation curve would be used in lieu of the upper percolation curve for calculation of Below Narrows Account (BNA) Credits<sup>3</sup>; and,
- 2) change observation and monitoring procedures necessitated to update the Order to be consistent with operational changes implemented since 1989 (see discussion of Ali Shahroody at MU Exhibit 220, p. 10-13; R.T. 211-212)

The above action is necessary because while most of the technical amendments have been voluntarily implemented by the parties, the Settlement Agreement allows for their possible termination if, following the completion of the hearing required by Order 94-5, the State Board "does not require that downstream water rights releases continue to be made consistent with WR 89-18, as modified by the Settlement Agreement, without material change." (See Paragraph 5.2).

Because the RDEIR fails to indicate whether the technical amendments of the Settlement Agreement are an element of the proposed project (2007 DEIR, p. 3-7 [Table 3-1].), even though Alternative 3C includes the required releases under the Settlement Agreement, the above action is requested to continue operations as they presently exist. Otherwise, if no action is taken as requested above, the RDEIR fails to adequately evaluate the negative environmental consequences (e.g., on water resources to downstream water right interests) without implementation of the Settlement Agreement's technical amendments. *Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 913-915 (EIR failed to evaluate negative environmental consequences of failure to approve the project, namely possible permanent reduction in water entitlements stemming from invoking article 18(b) of water supply contracts.)

<sup>3</sup> In 1989, the State Board requested the parties resolve the issue and return to the Board (see discussion of Ali Shahroody at MU Exhibit 220, p. 8-10; R.T. 208-211). This provision provides maximal credits for recharge on the Lompoc Plain in return for some additional drought protection for the Member Units.

**III. ALTERNATIVE 3C IS THE ONLY VIABLE ALTERNATIVE UNDER THE EXISTING PERMIT APPLICATIONS**

As mentioned above, ID No.1 is one of the five (5) public agencies comprising the Member Units of the Cachuma Project. As set forth more fully in the Member Units comment letter, the RDEIR's range of alternatives, except 3C, are fundamentally flawed as unreasonable and not meeting with the purpose of Reclamation's March 2003 permit applications. *Save San Francisco Bay Assn. v. San Francisco Bay Conservation etc. Com.* (1992) 10 Cal.App.4th 908.).

4-2

**A. ALTERNATIVE 3C WITH THE TECHNICAL AMENDMENTS MOST ACCURATELY REFLECTS RECLAMATION'S PERMIT REQUEST AND IS CONSISTENT WITH THE TERMS OF THE SETTLEMENT AGREEMENT**

The RDEIR should identify Alternative 3C, as supplemented by Reclamation's modifications to WR Order 89-18, incorporating the technical amendments of the Settlement Agreement in Exhibit "C" as the project and the preferred alternative. Alternative 3C incorporates the core elements of the Settlement Agreement, which were evaluated in the RDEIR, and represents the only "project" resembling what the Permittee (Reclamation) and other parties (the Cachuma Member Units and downstream water rights interests) have presented for the State Board's consideration.

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Alternative 3C most completely mirrors what Reclamation (the Permittee) and other parties (the Cachuma Member Units and downstream water rights interests) have presented for the State Board's consideration. Specifically, the Settlement Agreement's proposed modifications to WR 89-18 settled a long-standing dispute between the parties and it was specifically developed to protect downstream water right interests in concert with releases from Bradbury Dam under the BO as provided in Alternative 3C for protection of public trust resources.

**B. ALTERNATIVE 3C MOST CLEARLY REFLECTS CACHUMA PROJECT OPERATIONS**

Although ID No. 1 is unable to fully endorse Alternative 3C because of its significant water supply impacts, it has learned to operate within the water supply impacts resulting from Alternative 3C and the agreed sharing of those impacts formed a basis of the formation of the existing Settlement Agreement. 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.

4-4

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, ID No. 1 and 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.

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**C. ALTERNATIVE 3C IS CONSISTENT WITH NMFS BIOLOGICAL OPINION FOR PROTECTION OF STEELHEAD**

Alternative 3C is the only alternative which is consistent with the flow requirements and protective measures for steelhead as specified in the Biological Opinion prepared by NMFS. More importantly, as supplemented by Reclamation's modifications to WR 89-18, it is the only alternative that accomplishes the purposes set forth in the 1999 Notice of Preparation<sup>4</sup> (NOP) and WR Order 94-5 of providing protection for public trust resources and downstream water rights. Hence, many of the concerns raised by ID No. 1 in these comments can be ameliorated by the adoption of Alternative 3C as set forth herein.

As provided for in NMFS' BO, a key element of Reclamation's operation and maintenance of the Cachuma Project involves surcharging (increasing water levels) 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 alleged impacts to recreational facilities within the Cachuma County Park. (2007 DEIR, p. 2-13.) Instead, the Reclamation has implemented a 2.47-foot surcharge (it implemented a 3.0 foot surcharge in 2006 with the concurrence of the County of Santa Barbara)

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<sup>4</sup> The NOP 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)

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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 ("FMP/BO EIR/EIS") 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: 1) proposed or recommended higher flow releases for fish and habitat protection than those developed through the 3.0 foot surcharge, as provided in the BO; or 2) 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") previously supported the water release regime developed by NMFS. On September 30, 2003 it commented on the EIR/EIS regarding the Draft FMP/BO, stating:

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.)

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**IV. THE RDEIR IMPACT ANALYSIS ON WATER SUPPLY SOURCES LACKS SUBSTANTIAL EVIDENCE**

4-6

**A. ID NO. 1'S OPERATIONS ARE LIMITED BASED UPON SUPPLY SOURCES WHICH ARE NOT ACCURATELY REFLECTED IN THE RDEIR**

**1. Cachuma Project Water**

The Cachuma Project and Bradbury Dam is a source of supply and diversion point for the ID No.1. The amount of Cachuma Project water allocated is set forth in both the Water Service Contract (I75r-1802) and the applicable Member Unit Contract of which ID No.1 is one of five member agencies. ID No.1 contractual share of Project entitlement is 10.31%. The project's available capacity is 27,908 acre feet with a safe yield of 24,800 acre feet per year. The annual operational yield with minimal shortages is 25,714 acre feet with ID No.1's delivery share totaling 2,651 acre feet. The actual amount is subject to reduction in any given year due to reservoir level conditions, climatic changes, public trust resource protection, water rights, reservoir siltation and environmental constraints. From this operational yield, the ID No.1 is committed to provide a maximum of 200 acre-feet per year to the Cachuma Park Recreation Area, which currently uses approximately 75 acre-feet per year.

ID No.1 exchanges its Cachuma Project water with the South Coast Member Units and other water purveyors, who hold State Project water entitlements, for treated State Project water pursuant to an agreement entered into on February 1, 1993. The exchange water eliminates ID No.1's need to treat the Cachuma Project water, which would otherwise require surface water treatment. In the event of an emergency and if needed, a direct diversion of water supplies from the Cachuma Project may be transported by a 30-inch pipeline now operated by the Central Coast Water Authority.

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The total amount Cachuma Project water exchanged with South Coast entities for treated State Project water is the annual delivery yield, less the water sold to the County Park of 75 acre feet per year, being approximately 2,576 acre-feet per year. However, when the lake level drops to less than 100,000 AF, the operational yield is reduced by 20% and quantity to be exchanged is subsequently reduced to 2,060 afy. Based on requirements for fishery releases pursuant to the Lower Santa Ynez River Fish Management Plan and Biological Opinion, in 2007, an additional 1,364 AF of Project water was released downstream and used to maintain fisheries flows at the Alisal target point. Although this action was not anticipated, this equates to a reduction of ID No.1's operational yield of 140 AF in this year.

Consequently, limitations on water release requirements as part of Cachuma Project operations resulting from Alternatives 5B or 5C will further restrict and reduce ID No.1's Cachuma Project Water source, resulting in any additional water releases for the fishery purposes significantly affecting water supplies.

## 2. Santa Ynez River

ID No.1 holds appropriative water permits to the underflow of the Santa Ynez River<sup>5</sup>. In 1978, the State Board issued to ID No. 1 two appropriation permits for the diversion and use of 2,220 acre-feet per year (4 cfs) under Permit 17733 and 3,400 acre-feet per year (6 cfs) under Permit 17734. In addition, ID No.1 has the right to take 515 acre-feet per year (1.73 cfs) under License No. 10415. Furthermore, the City of Solvang, is entitled to receive under Permit 15878, 3,600 acre feet per year (5.0cfs).

Notwithstanding the ability to pump what is currently operational in the river underflow of 1,836 AFY, some of the wells in the river alluvium are subject to damage or destruction in the event of high river flows during flood periods when significant flood releases are being made from Bradbury Dam which is compounded by tributary flood flows. These conditions result in both short-term and long losses in operation.

For example, ID No.1's ability to take well water was affected as recently as March 2000, when the Santa Ynez River channel realigned its course at the 4.0 cfs well field during a flood event destroying ID No. 1's Wells 12 and 13 and damaging the interconnecting pipelines to the 4.0 cfs well field distribution system. Because of lower production rates from ID No. 1 Wells 17 and 18, (350 gpm and 225 gpm respectively), the highest annual production rate of 1,659 dropped to a monthly maximum production of 201 acre-feet in August of 2000. Subsequently in 2005, additional flooding occurred causing the river to change course and of the five original wells, the only operational well is Well 14 with the others either damaged or destroyed by this flood event. No water production from this well field has occurred since 2005 because repairs were required. Accordingly, of these 5 wells, none are currently operational due to flooding downstream of Bradbury Dam.

The 2005 storm events caused heavy rains and flooding that resulted in the Santa Ynez River mainstream channel to change, flowing directly over a portion of the 6.0cfs well field causing significant damage to wells and transmission facilities. This channel shift has caused a reduction in water supplies from the well field resulting from direct damage, thus removing some of the facilities from production or creating constraints in pumping due to the EPA's Surface Water Treatment Rule (SWTR). Of the original nine wells only six are currently operational reducing water supplies.

In addition to flood flows impacting pumping from the river wells, the ability to draw from wells may also be impacted by releases from Bradbury Dam under the RDEIR's Alternatives 5B and 5C, as well as by possible unknown regulations imposed by governmental regulators. ID No.1's ability of the District to maximize its use of these wells depends on controlled water rights releases from Cachuma to recharge the river alluvium when needed

<sup>5</sup> The Santa Ynez River Riparian Basin is recharged by water rights releases from Lake Cachuma in accordance with existing State Board requirements.

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pursuant to State Board conditions and orders relating to the Cachuma permits.

Accordingly, ID No. 1 relies heavily on the periodic releases from the dam to maintain water availability to it's wells. The RDEIR's assumption that these impacts are "less than significant" is contrary to the evidence.

**3. State Water Project**

Under a Water Supply Agreement, ID No.1 has contracted for and is entitled to 2,000 acre feet per year of State Water Project (SWP) water. Of this, 1,500 acre feet is contractually obligated to the City of Solvang through a separate Water Supply Agreement and is delivered to a separate turnout. This water is used for partial elimination of groundwater overdraft and as a supplemental supply for system reliability.

Each year, the amount SWP water delivered is variable and subject to a number of factors that affect the water available for allocation to contracting entities. In 2007, only 60% of the entitlement was delivered. Accordingly, ID No.1 anticipates the 2008 water deliveries will be 32% of entitlement or 640 AF of the total 2000 AF entitlement<sup>6</sup>.

Accordingly, the RDEIR's identified mitigation of offsetting any water supply impacts by increased deliveries from the State Water Project water is contrary to the evidence. To emphasize the infeasibility of this mitigation, on August 31, 2007, an order issued by the United States District Court in *Natural Resources Defense Council v. Kempthorne*, USDC No. 05-CV-1207-OWW, reduces SWP deliveries to ID No.1 by as much as 19% on the already reduced allocation. The *Kempthorne* ruling constitutes significant new information that requires re-analysis of the water supply impacts to the Member Units resulting from Alternatives 5B and 5C. (CEQA Guidelines § 15088.5.)

4-7

**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)

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

Thus the RDEIR's mitigation measures are infeasible and unable to avoiding significant impacts on ID No. 1, including the City of Solvang. Pub. Res. Code §§21002, 21100; *Kings*

<sup>6</sup> Based upon water supply conditions currently in Northern California.

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*County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 (EIR was inadequate, in part, because is found groundwater impacts to be insignificant on the basis of a mitigation agreement that calls for purchases of replacement groundwater supplies without specifying whether water was available.)

#### 4. Groundwater

Most of ID No.1 overlies a portion of the Santa Ynez Upland Groundwater Basin. The Paso Robles Formation is the source of ID No. 1's upland groundwater, with possible well yields from several hundred to over 1,500 gallons per minute (g.p.m.).

ID No.1 is one of two public water purveyors in the Basin, the other being the City of Solvang. Only a small portion of the City of Solvang overlies the Santa Ynez Uplands Basin and has limited pumping capability.

Given its dependence on groundwater, ID No.1 commissioned studies of the basin which confirmed the existence of an overdraft condition since at least 1968 in both the basin as a whole and, more significantly, in the sub area underlying the ID No.1's boundaries and that no temporary surplus exists which is available for pumping. Such overdraft exists regardless of the inclusion of non-native, imported water return flow in the inflow calculations. Recent pumping basin-wide has been estimated to be as high as 17,300 AFY.

Although ID No. 1 historically operated eight wells in the Santa Ynez Uplands Groundwater Basin, only six wells are operational but have production limits. Thus, ID No.1's water production has been reduced by up to 39% of the original design for a variety of reasons, including lowering of groundwater levels.

Given the overall decrease in available water supplies, any reliance on using groundwater to mitigate any of the impacts discussed in the RDEIR, in particular 5B and 5C, is not feasible. *Kings County Farm Bureau*, 221 Cal.App.3d at 727.

#### 5. Summary of ID No. 1's Supply Sources

The table below indicates the water supplies for the water year 2007. Dependent on the source of supply, water production from each source will vary depending on such factors including but not limited to hydrology, climate, ground water conditions, physical facilities and institutional and fiscal constraints. These alternative sources, to the extent they are available, are already fully committed and not available to mitigate additional flow releases contemplated by the RDEIR. In addition, ID No. 1 is committed to provide water to the City of Solvang based upon ID No. 1's existing sources which are expected to further reduce the amount of its sources of supply.

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2007 Water Supply in Acre-Feet/Year	
Water Supply Sources	2007 <sup>7</sup>
Purchased from Reclamation	2651
Delivery from DWR	420
Delivery from DWR for City of Solvang	900
Uplands Basin groundwater	1711
Transfers*	89
Exchanges	N/A
Recycled Water	N/A
Santa Ynez River Underflow	1532
Other	N/A
Note: City of Solvang/Dudley Ridge water repayment agreement one-year only	7303

4-7

**B. ID NO. 1'S INCREASING WATER DEMANDS WILL NOT BE SERVED CONTRARY TO THE RDEIR'S CONCLUSIONS**

The District encompasses an area of approximately 10,850 acres (including the City of Solvang's approximately 1,300 acres). Of this area, approximately 5,000 acres are residential (up to 5 acre parcels), 150 acres are commercial, 400 acres are used for parks, schools and cemeteries, 3,137 acres are agricultural, and 2,163 acres are either used for grazing or are unused or undeveloped. It is expected that the undeveloped land within its boundaries will continue to build-out with residential or ranchette housing including development in the City of Solvang. Additionally the continuing change of agricultural crop patterns from unused or grazing land to vineyards has caused a further increase in irrigation water demand.

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In water year 2007, the ID No.1 total water demand is 7,268 AF inclusive of the City of Solvang. Of the total, 2,936 AF met the annual demand for Agriculture water use and 2,963 AF was used to supply domestic demand. In comparison to the prior water year, the total water demand has increased by 1,068 AF or 22 percent resulting from a number of factors including dry climatic conditions causing substantially increased agricultural use and moderate increase in residential water demand. In addition, change in crop patterns to vineyards has resulted in agriculture demand increasing over 29 percent from the prior year. Residential build-out was a contributing factor which increased by 16% as compared to the previous year. This trend is expected to continue with the demand for water supply continuing increase in the future. These annual and periodic fluctuations in water demands were not analyzed in the RDEIR.

<sup>7</sup> These statistics are based upon ID No.1's water production tables and DWR and Reclamation allocations.

**C. RDEIR SIGNIFICANTLY UNDERSTATES THE IMPACTS ON ID NO. 1'S WATER SUPPLIES UNDER THE ALTERNATIVES**

The water supply impacts shown in the RDEIR, Table 4-16 understate 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 RDEIR 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 RDEIR, 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 RDEIR 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 RDEIR erroneously shows Cachuma Project shortages during the critical drought period would range from 9,808 to 12,506 acre-feet for all alternatives.

4-9

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 1951 drought year.

Consistently, the Final EIR must recognize that the water supply shortages are more dire than noted in the RDEIR 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

Potential mitigation of the increase in Cachuma Project shortages caused by the RDEIR's alternatives through increased ground-water pumping also requires a more comprehensive review of indirect 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 shown below in Figure 3. The indirect environmental impacts analysis from ground-water pumping during droughts, such as possible sea water intrusion, is insufficient in the RDEIR. 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. (RDEIR, 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*, (2007) 40 Cal.4th 412. (RDEIR, Table 4-25b; Appendix F, Tables 19A-B.) This inadequate analysis results in a gross understatement of water supply impacts to the Member Units.

4-9

The RDEIR also improperly assumes desalination will comprise a portion of the Member Units' water supplies during critical drought periods. (RDEIR, 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. (RDEIR, 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. Because of ID No.1's geographical location and the absence of infrastructure and inter-connection with the south coast, desalination water supplies are not viable or feasible. Nor does the RDEIR 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, in part because desalination is not a viable option for ID No.1.

4-10

Notwithstanding whether there are surplus's or shortfalls amongst ID No.1 and other Member Units, the RDEIR improperly concludes the Member Units could transfer or exchange water. See RDEIR, Page 4-24 stating even though shortages will be experienced by MWD, GWD and ID No.1, they could buy from CVWD and City of Santa Barbara. This fundamentally ignores the fact that there are no physical facilities to deliver water to ID No. 1 from either CVWD or City of Santa Barbara, whether groundwater or desalination water.

4-11

**D. THE RDEIR DOES NOT ADEQUATELY ANALYZE OR CONSIDER THE AFFECT OF UNEXPECTED HYDROLOGICAL CONDITIONS ON WATER RELEASE REGIMES**

The Biological Opinion and Lower Santa Ynez River Fish Management Plan (collectively referred to as the BO/FMP) established a management goal of maintaining target flows in the mainstream and in lower Hilton Creek, which would provide year-long habitat in the Santa Ynez River below Bradbury Dam, through a combination of water releases from Cachuma Reservoir and tributary flows. The final BO/FMP also provided operations to improve passage flows by supplementing storm flows. When the BO and FMP were finalized in September and October 2000, respectively, the interim BO/FMP operations commenced (EIR Alternative 2). With the additional surcharge and spills of January 2005, the long-term BO/FMP operations (EIR Alternative 3C) commenced after the spill stopped on May 23, 2005. The long-term BO/FMP operations for habitat flows are shown in Table 1.

**Table 1**

**FINAL PHASE MAINSTREAM SANTA YNEZ RIVER REARING TARGET FLOWS  
 IN BIOLOGICAL OPINION AND FISH MANAGEMENT PLAN**

<b>Lake Cachuma Storage</b>	<b>Reservoir Spill</b>	<b>Target Flow</b>	<b>Target Site</b>
> 120,000 AF	Spill > 20,000 AF	10 cfs	Highway 154 Bridge
> 120,000 AF	Spill > 20,000 AF	1.5 cfs*	Alisal Road Bridge
> 120,000 AF	Spill <20,000 AF or No Spill	5 cfs	Highway 154 Bridge
< 120,000 AF	No Spill	2.5 cfs	Highway 154 Bridge
>30,000 AF	Spill < 20,000 AF or No Spill	1.5 cfs*	Alisal Road Bridge**
<30,000 AF	No Spill	Periodic Release; ≤30AF per month	Stilling Basin and Long Pool

4-12

\*When rainbow trout/steelhead are present in the Alisal Reach.

\*\*This target will be met in the year immediately following a >20,000 AF spill year.

Source: Lower Santa Ynez River Fish Management Plan, October 2, 2000, pg. 3-9.

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In years when Cachuma Reservoir spills 20,000 acre-feet or more, a target flow of 10 cfs will be maintained at the Highway 154 Bridge with releases up to 10 cfs (designated capacity) from Hilton Creek supplemental watering system. The Reclamation shall also provide a target flow of 1.5 cfs at Alisal Road Bridge during spill years with greater than 20,000 acre-feet of spill and the first year after such spill years if steelhead trout are present. In years when Cachuma Reservoir does not spill or spills less than 20,000 acre-feet, the Highway 154 target flow will be determined based on reservoir storage: 5.0 cfs when storage is greater than 120,000 acre-feet and 2.5 cfs when storage is less than 120,000 acre-feet. Periodic releases to refresh the Stilling Basin and Long Pool will be made when storage is less than 30,000 acre-feet. In addition, the BO requires a 2 cfs minimum flow in Hilton Creek once a pump is installed as a part of the terms and conditions to implement Reasonable and Prudent Measure No. 2.

4-12

In addition, to releases for habitat as listed in Table 1, under the final BO/FMP, the Fish Passage Account will be allocated 3,200 acre-feet in years when the reservoir surcharges to 3.0 feet (9,200 acre-feet). If the reservoir surcharges to less than 3.0 feet, the Fish Passage Account will be credited any surcharge amount in excess of a 1.8-foot surcharge, up to 3,200 acre-feet. Water will be released to facilitate passage beginning in the year following a surcharge year, and in subsequent years until the account has been depleted. The account will not be subject to evaporation and seepage losses, and can be carried over to subsequent years. However, the account is reset when the reservoir spills (surcharges). Likewise, 500 acre-feet is allowed to the Adaptive Management Account in years when the reservoir surcharges 3.0 feet. The account will not be subject to evaporation and seepage losses, can be carried over to subsequent years, and will be reset when the reservoir spills (surcharges). The account will be used at the discretion of the Adaptive Management Committee (AMC) to benefit steelhead and its habitat as determined by the committee.

**1. Summary of Measured Releases for Fish During 2005-2007 Under Alternative 3C**

Table 2 shows the release made for fish to date (2005-2007) under the Final BO/FMP (Alternative 3C) by month.

4-13

**Table 2**  
**Releases for Fish under Final BO/FMP To-Date (2005-2007)**

Releases for Fish		
Month-Year	(acre-feet)	Comments
May-05	156	Spill totaling 260,078 af ends on May 23. Final BO/FMP targets go into effect.
Jun-05	586	
Jul-05	614	
Aug-05	681	
Sep-05	588	
<b>Total</b>	<b>2,625</b>	
Oct-05	613	
Nov-05	400	
Dec-05	362	
Jan-06	356	
Feb-06	317	
Mar-06	2,190	First passage releases made to supplement storm hydrograph.
Apr-06	488	Passage releases occurred before two spill events during month.
May-06	0	
Jun-06	503	Spill totaling 62,869 af ends on June 5.
Jul-06	620	
Aug-06	613	
Sep-06	596	
<b>Total</b>	<b>7,057</b>	
Oct-06	409	
Nov-06	354	
Dec-06	360	
Jan-07	352	
Feb-07	328	
Mar-07	373	
Apr-07	393	
May-07	455	There is difficulty in meeting 1.5 cfs target at Alisal due to dry conditions and beaver dams.
Jun-07	1,104	Adaptive Management Account might be debited to deal with beaver dams.
Jul-07	803	Water rights releases begin July 23.
Aug-07	0	
Sep-07	0	
<b>Total</b>	<b>4,931</b>	

4-13

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Water year 2007 is the year following the spill year (2006) and it also requires maintaining 1.5 cfs at Alisal Bridge. During the summer of 2007, there was a difficulty in meeting the target flow of 1.5 cfs at Alisal Bridge which resulted in making significantly higher releases than expected from June 23 to July 23, 2007. The amount of water releases for fish to maintain a flow 1.5 cfs at Alisal Bridge was about 1,420 acre-feet during this period. This is about 825 acre-feet more than the maximum expected release rate of 10 cfs (590 acre-feet for 30 days) under Alternative 3C. In other words, the Cachuma Project yield under Alternative 3C (Table 4-16 RDEIR) would be reduced by about 825 acre-feet.

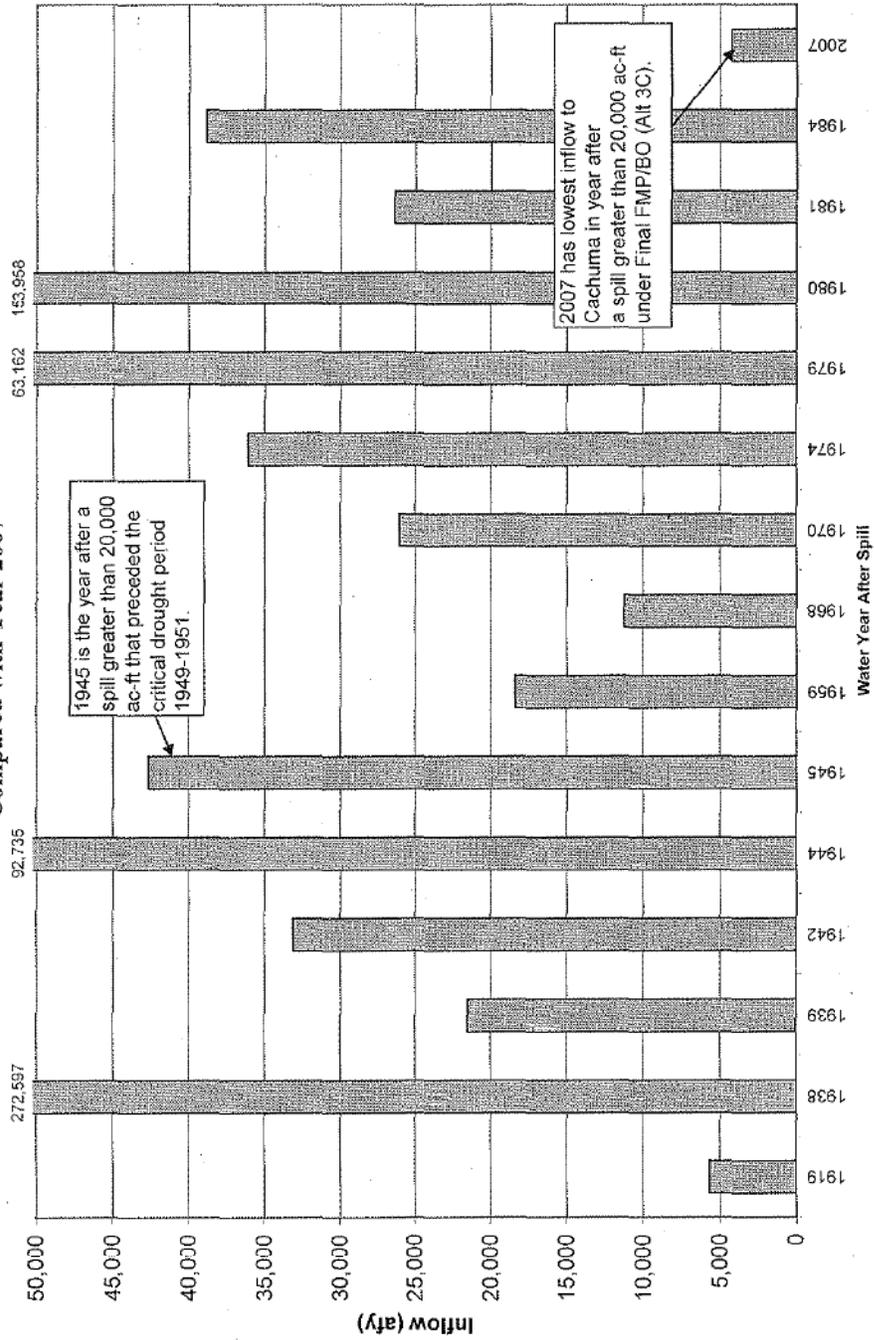
4-13

## 2. Water Supply Impacts of Alternatives 3C and 5C

A year like 2007 was not predicted in the model analysis, which poses a risk to actual future water supplies from the Cachuma Project under the Final BO/FMP operations (Alternative 3C). The year 2007 is the driest year on record following a spill greater than 20,000 acre-feet as shown in Figure 1. Figure 1 compares the year 2007 runoff to the annual runoff in years following spills greater than 20,000 acre-feet within the base period (1918-1993) used in the SYRHM for the analysis of Alternative 3C. As of August 31, 2007, the cumulative annual runoff into Cachuma Reservoir starting from October 1, 2006 was only 4,262 acre-feet.

4-14

**Figure 1. Cachuma Lake Inflows for Years Following Spills of Greater than 20,000 AF Under Alternative 3C (1918-1993) Compared with Year 2007**



The current impact of releases for fish since the cessation of spills from Cachuma Reservoir in 2006 is shown in Table 3. Table 3 reflects that in about one (1) year the entire surcharge water of 9,200 acre-feet has been used or dedicated to an account. In other words, the surcharge water, after deductions for Fish Passage Account and Adaptive Management Account, has been exhausted in about one year. This water is supposed to maintain habitat in Hilton Creek, stilling basin, and the main stem of Santa Ynez River between Bradbury Dam and Highway 154 Bridge until the occurrence of next spill. With the exhaustion of the surcharge water, releases for the maintenance of the fish (outside of the water rights releases) will come directly from the Project water supply from here out until the reservoir surcharges again.

**Table 3**  
**Summary of Surcharge Water Used from Spill Event in 2006**  
**To Maintain Habitat for Fish in Santa Ynez River (acre-feet)**

	Releases for Fish	Cumulative Releases	Amount of Surcharge Water (5,500 af) <sup>a</sup> Remaining
Jun-06	503	503	4,997
Jul-06	620	1,123	4,377
Aug-06	613	1,736	3,764
Sep-06	596	2,332	3,169
Oct-06	409	2,741	2,759
Nov-06	354	3,094	2,406
Dec-06	360	3,455	2,046
Jan-07	352	3,807	1,693
Feb-07	328	4,135	1,365
Mar-07	373	4,508	992
Apr-07	393	4,901	599
May-07	455	5,356	144
Jun-07	1,104	6,460	-960
Jul-07	803	7,263	-1,763 <sup>b</sup>

- a) 9,200 (total surcharge) – 3,200 (Fish Passage Account) – 500 (Adaptive Management Account) = 5,500 (habitat maintenance)
- b) A portion or all of the Adaptive Management Account water may be used, subject to approval by AMC, to offset a portion of the unexpected release amounts for habitat maintenance in 2007.

Table 3 indicates that the Project water supply has already been shorted by about 1,800 acre-feet under Alternative 3C. If 2007 is the first year of the five year drought period (1947-1951), the Project has to make releases from storage (outside of water rights releases) to maintain fish habitat in the remaining four years. This may result in significantly additional impacts to water supply under Alternative 3C than predicted in the RDEIR.

4-14

The above analysis demonstrates the additional impacts associated with Alternative 3C due to the unexpected hydrologic condition in 2007. This impact would be compounded if Alternative 5C were in effect. After the cessation of spills in early June 2006, the target flows at Alisal Bridge would have been approximately 19 cfs (average) for June and 10 cfs in July, August, and September under Alternative 5C rather than 1.5 cfs under the BO/FMP (Alternative 3C) for the same period. That means, significantly more water has to be released from Cachuma Reservoir under Alternative 5C compared to Alternative 3C. This difference in meeting the target flows at Alisal Bridge would result in additional impacts to the Project water supply.

4-14

Given the above, the RDEIR should acknowledge the Settlement Agreement, adopt the proposed modifications to WR Order 89-18 submitted by Reclamation and expressly recognize that such core modifications have been addressed and analyzed under Alternative 3C as part of the DEIR process.

It is respectfully requested that the State Board order 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.

**E. THE RDEIR ALTERNATIVES ANALYSIS FAILS TO ACCOUNT FOR AN ALMOST 20% DECREASE IN DOWNSTREAM RELEASES TO ID NO. 1 FROM THE ABOVE NARROWS ACCOUNT, WHICH IS 1/3 GREATER IMPACT THAN ALTERNATIVE 3C**

Water rights releases are made to replenish the Santa Ynez River alluvial groundwater basin between Bradbury Dam and Lompoc Narrows. ID No. 1 including the City relies on replenishments provided to the alluvial groundwater basin by water rights releases from the Above Narrows Account (ANA). Additionally, water stored in Lake Cachuma under the ANA is the source of drought water supply for water users, such as ID No. 1 and the City, downstream of Bradbury Dam. The amount of credits accrued to the ANA is crucial in the management of water supply for the water right holders in the Above Narrows area. Water rights releases from the ANA are impacted by the proposed alternatives when compared to the WR 89-18 operations (Alternative 1).

4-15

The average annual amounts of releases from the ANA for Alternatives 1, 2, 3C and 5C are shown below. The average annual reductions in the ANA releases under these alternatives are compared to Alternative 1. The average annual reduction in the downstream water rights releases (ANA) under Alternatives 3C would be 13 percent. Under Alternative 5C, the reduction in the releases from the ANA would be 19 percent. In other words, the average annual decrease in the amount of available water in the ANA for releases would be about 20 percent under Alternative 5C. This level of reduction in the ANA would impair the supply of water to replenish the downstream alluvial groundwater basin which in turn impacts the supply of water to ID No. 1 and the City.

**Average Annual Impacts on Releases from Above Narrows Account**

**1918-1993, SYRHM  
 (ACRE-FEET)**

	<b>Alt 1: WR 89-18</b>	<b>Alt 2: Interim BO Operations</b>	<b>Alt 3C: BO with 3' Surcharge</b>	<b>Alt 5C: "3A2"/BO and 3' Surcharge</b>
ANA Releases	4,559	4,237	3,949	3,690
Difference in ANA Releases	---	-321	-610	-869
Percent Reduction in ANA Releases	---	-7%	-13%	-19%

4-15

Importantly, the supply of water from the Santa Ynez River alluvial groundwater basin for ID No. 1 would be adversely affected during the drought periods with the above reductions in the ANA credits. The reduction in the amount of ANA water would affect the drought water supply for the downstream water right holders during the prolonged drought periods under Alternative 3C. The reduction in the availability of drought water supply is further compounded under Alternative 5C with the reduction of about 20 percent in the ANA release compared to the WR 89-18 operations.

**V. THE RDEIR LACKS SUBSTANTIAL EVIDENCE TO SUPPORT ITS FINDING OF AN IMPACT ON RECREATION IN LAKE CACHUMA COUNTY PARK.**

Lake Cachuma County Park is located on Reclamation land, is operated by the Santa Barbara County and within the ID No.1 water service area. ID No.1 provides water supply to the Park facilities. In the 2003 DEIR process, Santa Barbara County provided testimony that when Lake Cachuma was surcharged in accordance with the Fish Management Plan, the County Park facilities would be inundated by the surcharge up to 753.0 feet. Notwithstanding this, in 2005, when the lake elevation actually reached 753.18 feet, an engineering survey concluded those facilities were not impacted by surcharge. In an abundance of caution, the Member Units installed a gabion basket barrier at the water treatment plant in response to the County's concerns about alleged wave run-up. Since the gabion basket barrier was installed, and as the RDEIR now reflects is considered a permanent mitigation, there is not basis for the conclusion of any impacts at 753 feet on the water treatment plant or other facilities from wave run-up or inundation during surcharge periods. In support of such, no further concerns have been raised.

4-16

Despite the RDEIR acknowledging that the "impacts" to the water treatment plant from inundation and wave run-up have been mitigated by the gabion basket barrier, it states the County has acquired partial funding and plans to move the water treatment plant. This fails to

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acknowledge that since 2002, Reclamation and County Parks have been working on modernization of all recreation facilities at the County Park, including the water treatment plant and wastewater plan in connection with "modernization" of all recreation facilities at the reservoir. These facilities will be analyzed as disclosed during 2002 public meetings in a Resource Management Plan/EIS for activities at the reservoir. Given there are no impacts, it is unnecessary to account for moving the water treatment plant.

The RDEIR states that under Alternatives 3C, 4B and 5C, that surcharging the reservoir to 3.0 feet would require relocation of the boat launch ramp at Cachuma County Park. RDEIR, page ES-9. This finding is obviated by the County's independent proceeding wherein it issued a mitigated negative declaration to replace the three (3) existing boat launch ramps with one new ramp to add to the efficiency of the facility serving boaters and in compliance with accessibility requirements of the American's with Disabilities Act (ADA) Guidelines for Recreation Facilities. The County was the lead agency and found that the construction impact was potentially significant and implemented mitigation measures during construction. This included a finding that specific and cumulative impacts would not be considerable.

Specifically, it states:

The proposed relocation of the Cachuma Lake Facilities due to surcharging was analyzed as a cumulative project on a programmatic level in the EIS/EIR for the Cachuma Operation and Maintenance Board and the Bureau of Reclamation's Lower Santa Ynez River Fish Management Plan and Cachuma project."

...

The Project is consistent with the goals and objectives of the Cachuma Operation and Maintenance Board and the Bureau of Reclamation's Lower Santa Ynez River Fish Management Plan and Cachuma Project."

In conjunction with such, the County proceeded with the construction and relocation of the Boat Launch ramp in September 2007. It is anticipated that construction will be complete by January 2008. Regardless, the RDEIR's conclusion of a Class II impact based on safety is unfounded demonstrated by the County's compliance with the ADA.

Accordingly, the RDEIR is inconsistent and the mitigation measure R-1 is inappropriate.

4-16

**VI. THE RDEIR'S CLASSIFICATION OF THE OAK TREE IMPACT AS SIGNIFICANT WITH AN UNMITIGABLE IMPACT LACKS SUBSTANTIAL EVIDENCE**

The RDEIR identifies the loss of oak trees due to surcharge required by the Biological Opinion is identified as a significant, unmitigable impact (Class I). (RDEIR, p. 4-77.) Not only is there no substantial evidence to support this finding, similarly there is no substantial evidence that any of the alternatives may feasibly avoid or lessen that impact. As set forth in more detail in the Member Units' comments [See Also Member Units Comments, SECTION VI.C.] oak tree impacts have been mitigated to a level of insignificance and therefore should reflect a Class II impact [significant environmental impact that can be mitigated].

More importantly, the impacts of the surcharge on oak trees were evaluated in the joint Environmental Impact Report/Environmental Impact Statement for the Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion ("FMP/BO EIS/EIR"). The FMP/BO EIS/EIR resulted in the implementation of a comprehensive Oak Tree Restoration Program, which the FMP/BO EIS/EIR found mitigated oak tree impacts to a level of insignificance (Class II). The State Board should and is authorized by CEQA to consider the oak tree mitigation and no significant impact findings in the FMP/BO EIS/EIR. (CEQA Guidelines § 15153(a).) Based upon the FMP/BO EIS/EIR, there is no basis for the RDEIR's conclusion that implementation of the BO will result in any significant, unmitigable impacts on oak trees. Moreover, there is no substantial evidence in the RDEIR that project impacts on oak trees are not mitigated to a level of insignificance through continued implementation of the ongoing Oak Tree Restoration Program, as the FMP/BO EIS/EIR concluded.

4-17

**VII. CONCLUSION**

For the reasons discussed in this letter, ID No.1 believes the 2007 RDEIR can be corrected and requests that the State Board adopt Alternative 3C with modifications to WR 89-18 as provided in the technical amendments contained in Exhibit "C" to the Settlement Agreement. Alternative 3C is the only alternative that, in accordance with WR 94-5 and prior State Board orders, resolves both outstanding water quantity and quality issues among the Member Units and downstream water right interests while protecting public trust resources.

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Should you have any questions or desire any additional information or clarification,  
please feel to contact us. Thank you for your consideration of these comments on behalf of ID  
No.1..

Sincerely,



Gary M. Kvistad  
For HATCH & PARENT  
A Law Corporation

GMK:dcd  
Enclosures

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**4. Santa Ynez River Water Conservation District, Improvement District No. 1 (Hatch & Parent), dated September 27, 2007,**

**Response 4-1:**

The comment states that the SWRCB should consider the scope of the permits to reflect Alternative 3C and incorporate the Settlement Agreement's Technical Amendments to WR 89-18.

See response to 2007 RDEIR **Comment 3-2**.

**Response 4-2:**

The comment expresses the opinion that Alternative 3C is the only viable alternative under the existing permit applications.

The purpose of an EIR is to identify significant effects on the environment of a project (CEQA Section 21002.1(a)) and not to predetermine which alternative is viable and which are not. While the commenter is of the opinion that only Alternative 3C is viable, in reality, any of the surcharge alternatives are viable. Reclamation has modified Bradbury Dam to accommodate the surcharge requirements as expressed in all the alternatives and could regulate flow, in accordance with the Biological Opinion, to meet a variety of downstream flow requirements.

**Response 4-3:**

The comment states that Alternative 3C with the technical amendments most accurately reflects Reclamation's permit request and is consistent with the terms of the Settlement Agreement.

As previously stated (see response to 2007 RDEIR **Comment 3-2**), the project description has been clarified to note that the elements of the Settlement Agreement are embodied in Alternative 3C.

**Response 4-4:**

The comments states that Alternative 3C most clearly reflects Cachuma Project operations.

The comment is correct in that Reclamation and the Member Units have been operating the Cachuma Project largely in accordance with the requirements of the Settlement Agreement, which is reflected in Alternative 3C. Regardless of the fact that the project may have recently been operated in accordance with a particular alternative, that fact does not obviate the need for consideration of reasonable alternatives prior to a determination of what would best meet the project objectives. As part of Phase II of the Cachuma project, the SWRCB will determine how best to proceed with any permit modifications.

**Response 4-5:**

The comment states that Alternative 3C is consistent with NMFS Biological Opinion for protection of steelhead.

As previously noted (see response to 2007 RDEIR **Comment 3-2**, all of the alternatives consider the requirements of the Biological Opinion.

**Response 4-6:**

The comment states that the 2007 RDEIR impact analysis on water supply sources lacks substantial evidence.

See responses to 2007 RDEIR **Comments 4-7 to 4-15**.

**Response 4-7:**

The comment suggests that I.D. No. 1 operations are limited based upon supply sources that are not accurately reflected in the 2007 RDEIR.

See response to 2007 RDEIR **Comment 1-16**. I.D. No. 1 water supply data are summarized in the 2007 RDEIR, for example in Tables 4-18, 4-19, and 4-24. Based on this comment and others, the water supply and water demand data have been updated by the Member Units. The analysis for the 2011 2<sup>nd</sup> RDEIR using the updated Member Units water supply and water demand data resulted in no modified conclusions requiring changes in impacts from less than significant to either significant or unavoidable.

**Response 4-8:**

The comment suggests that I.D. No. 1's increasing water demands will not be served and that this is contrary to the 2007 RDEIR's conclusions.

See response to 2007 RDEIR **Comments 1-16** and **4-7**. There was no change in I.D. No. 1 water demand from the 2007 RDEIR (Table 4-24) to the 2011 2<sup>nd</sup> RDEIR. No conclusions were modified as a result of this comment.

**Response 4-9:**

The commenter claims that the 2007 RDEIR significantly understates the impacts on I.D. No. 1 water supplies under the alternatives presented.

Impact determinations are based on the water supply and water demand data provided by the Member Units and the resulting analysis of the SYRHM results. See response to 2007 RDEIR **Comment 4-7** for updates to ID No. 1 water supply data. **Sections 4.2, 4.3, 4.4, 4.5, and 4.6** of the 2007 RDEIR each include **Section 4.2.2.1, Overview of Hydrologic Modeling for the EIR**, outlining in some detail the scientific

analysis performed to evaluate the surface water, ground water, and operational parameters affecting the flow actions involved in the project. This updated data (see 2011 2<sup>nd</sup> RDEIR **Section 4.3.1**) and the 2007 SYRHM modeling have been used in the 2011 2<sup>nd</sup> RDEIR evaluations and impacts analysis. Conclusions regarding impacts to I.D. No. 1 were modified based on qualitative analysis of updated Member Units water supply and water demand data.

**Response 4-10:**

The comment states that the 2007 RDEIR also improperly assumes desalination will comprise a portion of the Member Units' water supplies during critical drought periods.

The comment correctly notes that there are currently no plans for the City of Santa Barbara to reactivate its desalination plant. The 2011 2<sup>nd</sup> RDEIR has been updated to acknowledge this fact.

**Response 4-11:**

The comment suggests that the 2007 RDEIR improperly concludes that the Member Units could transfer or exchange water to either Carpinteria Valley Water District (CVWD) or the City of Santa Barbara despite the lack of physical facilities to deliver water from ID No.1.

The comment is correct in noting that there may not be facilities in place at present; however, mechanisms could be provided in the future. Further, exchange agreements already exist with certain Member Units (SYRWCD ID No. 1) and other entities to exchange SWP that flows to Lake Cachuma. While it may not be the preference of the Member Units to consider exchanges and transfer, they are potentially feasible and should be considered.

In the 2007 RDEIR (page 4-24) using the revised Member Units water supply and demand values, it is indicated that (1) surpluses would exist at CVWD (2,895 acre-feet [af]) and the City of Santa Barbara (534 af) and (2) a shortages would exist at ID No. 1 (1,060 af), Goleta-GWD (1,637 af), and Montecito-MWD (2,219 af). Considering this information, the 2007 RDEIR concludes "MWD, GWD, and SYRWCD, ID#1 could make up for these shortages in part by buying water from other Member Units." There is no indication that buying water from Member Unit's would require new facilities or infrastructure. Any alternative requiring new facilities (e.g., a new 20-inch diameter pipeline) was analyzed in the 2007 RDEIR.

The SWRCB agrees that it is unlikely that all of the shortages could be made up, however some could. Therefore, the 2011 2<sup>nd</sup> RDEIR modified sentence in question from the 2007 RDEIR to read: "Portions of the MWD, GWD, and SYRWCD ID#1 shortages could make up at least in part by buying water from the Member Units that are projected to have surpluses (CVWD and the City of Santa Barbara) and without the need for new facilities beyond any analyzed in the 2011 2<sup>nd</sup> RDEIR." As a result of updated Member

Units' water supply and water demand data, conclusions were modified from the 2007 RDEIR to the 2011 2<sup>nd</sup> RDEIR to reflect additional significant impacts to water supply to Alternatives 3B, 5B and 5C.

**Response 4-12:**

The commenter suggests that the 2007 RDEIR does not adequately analyze or consider the effect of unexpected hydrological conditions on water release regimes.

The peer-reviewed Santa Ynez River Hydrology Model (SYRHM, see 2011 2<sup>nd</sup> RDEIR **Section 4.2.2.1**) uses data for the 76-year model period 1918-1993 to analyze hydrologic conditions affecting the project. The SYRHM (**Sections 4.2, 4.3, 4.4, 4.5, and 4.6** of the 2007 RDEIR) performs detailed scientific analysis considering water releases from surface water, ground water, and Bradbury Dam operations affecting the of the flow actions involved in the project. Using this widely accepted model over this statistically significant period, suggests that an adequate analysis has been performed and that reasonably expected hydrologic conditions would have been encountered. The updated Member Units' data (see 2011 2<sup>nd</sup> RDEIR **Section 4.3.1**) and the 2007 SYRHM modeling have been used in the 2011 2<sup>nd</sup> RDEIR evaluations and impacts analysis. Conclusions regarding project impacts have modified based on qualitative analysis of updated Member Units water supply and water demand data.

**Response 4-13:**

The comment references Table 2 summarizing releases for fish during 2005-2007 under Alternative 3C and notes that meeting the target flow of 1.5 cfs at Alisal Bridge under this requirement during the dry year of 2007 required 1,420 acre-feet of project yield to be released, which represents about 825 acre-feet more than the maximum expected.

This comment is noted. **Chart 2-4, Historical Monthly WR 89-18 Water Rights and Fish Releases** in Appendix B of the 2007 RDEIR, summarizes the water releases made for fish to meet the requirements of the Biological Opinion during this period.

**Response 4-14:**

The comment suggests that there are water supply impacts that would result from Alternatives 3C and 5C.

The 2007 RDEIR presents potential water supply impacts for Alternatives 3C and 5C in **Section 4.3.2** (pages 4-19 through 4-32). Impacts considered are reduced average annual project yield, increased frequency of years with shortages in project deliveries, reductions in deliveries during drought periods, member units' demand and decreases in supply from all sources, indirect environmental impacts of water supply shortages, increased groundwater pumping, and need for temporary water transfer and desalination. In **Section 6.1.2** (pages 6-1 through 6-4, Table 6-2) Alternative 3C was not determined to

cause water supply impacts greater than the baseline condition (no Class I or III impacts). Alternative 5C was not determined to cause a potential Class III water supply impact greater than under baseline conditions, other than as follows: "Water supply shortages in a critical drought year could result in indirect environmental impacts if the Member Units increase groundwater pumping, implement a temporary transfer, or desalinate seawater in order to make up for the shortages." No conclusions were modified as a result of this comment.

**Response 4-15:**

The commenter suggests that the 2007 RDEIR alternatives analysis fails to account for an almost 20 percent decrease in downstream releases to I.D. No. 1 from the Above Narrows Account.

Alternative 3C parameters discussed and analyzed in the 2007 RDEIR have been replaced in the 2011 2<sup>nd</sup> RDEIR by the parameters in the 2002 Settlement Agreement. This change, along with consideration of the updated Member Units' water supply data (see 2011 2<sup>nd</sup> RDEIR **Section 4.3.1**), and the 2007 SYRHM modeling, has been used in the 2011 2<sup>nd</sup> RDEIR evaluations and impacts analysis. This accounts for the 20% decrease and conclusions regarding project impacts were modified on this basis. This resulted in changes to impacts for the various alternatives considered.

**Response 4-16:**

The comment states that the 2007 RDEIR lacks substantial evidence to support its finding of an impact on recreation in Lake Cachuma County Park.

The impacts to the County park have been revised to reflect improvements made by the County. As a result the impacts have been revised to less than significant.

**Response 4-17:**

The comment claims that the 2007 RDEIR determination of the oak tree impacts as significant but unmitigable impact lacks substantial evidence.

The SWRCB does not agree with this comment. The 2007 RDEIR estimated that a total of 452 oak trees would be impacted with the implementation of a surcharge of 3.0 feet. When the surcharge was implemented in 2005, a subsequent survey found that 612 oaks had actually died as a result of the 2005 and 2006 surcharges, with an additional 263 oaks deemed at risk for failure. Mature oak trees are identified as significant resources by local, state, and federal authorities, recognizing that in many cases, an oak tree, which takes approximately 50 years to mature, represents an ecosystem in and of itself. There is a large temporal loss of habitat functions between the time when a mature oak is lost and a replacement tree reaches comparable size and function. Thus the loss of oaks remains a Class I significant, unmitigable impact.

In recognition of this impact, an Oak Restoration Management Plan was initiated in 2005, with the intention of planting sufficient replacement trees to meet the goal of a 2:1 ratio of self-sustaining reproducing oaks after 20 years. The mitigation plan was based on the agreement between COMB and Santa Barbara County as outlined in the 2004 EIR/EIS. As of 2010, a total of 1,881 oaks and associated understory plants have been installed at several locations within Reclamation's property. Survival of these trees has been between 83 and 100 percent. As these trees continue to grow, the impact will be reduced to a Class II, significant but mitigable impacts.

JK/DKR



# Carpinteria Valley Water District

1301 Santa Ynez Avenue, Box 578 • Carpinteria, CA 93014  
Phone (805) 684-2800 • Fax (805) 684-3170

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September 20, 2007

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

RE: CACHUMA DRAFT ENVIRONMENTAL IMPACT REPORT

Dear Ms. Riddle,

This letter details concerns of the Carpinteria Valley Water District regarding proposed Alternative 4B of the DEIR for the Cachuma Project.

**Alternative 4B:**

This alternative proposes using State Water Project (SWP) water as a replacement for Cachuma water for injection into the Lompoc Plain (Below Narrows Account). Presently, an annual average of 1,683 AF (acre-feet) of water is sent to this area (low = 0 AF, high = 4,215 AF). The ostensible reason for this would be to improve the water quality of the Lompoc Plain, and increase available Cachuma supplies for South Coast contractors.

**Principal concerns:**

**1. Impact of Alternative on SWP Allotment(s)**

Presently, Carpinteria Valley Water District (District) has 2,200 AF of SWP allotment (w/ drought buffer), of which 410 AF is used in exchange water for Santa Ynez River Water Conservation District ID#1. Major steps are being taken by the District, however, that would reduce District SWP allotment in half, as well as half of the District's cost obligations. Plains Exploration and Production Company (PXP) near Lompoc has recently secured an option agreement with the District to purchase 400 AF of allotment, and a possible sale of 500 AF of allotment by the District to the City of Guadalupe is also now in negotiation. Should PXP successfully exercise its option agreement, and the proposed sale to Guadalupe be consummated, the District would then have 1,210 AF of allotment (1,100 AF plus 110 AF drought buffer).

Given the average annual SWP delivery rate of 68%<sup>1</sup>, a total of 603 AF of SWP allotment is needed to ensure the District's use of 410 AF for ID#1 exchange, leaving the District with approximately 1,600 AF for other purposes. Sales of allotment to PXP and Guadalupe as proposed would result in some 607 AF of available SWP water for Alternative 4B. Presumably the District would be responsible for 10.938% of any SWP water for Alternative 4B (District's share of Cachuma allotment) or 184 AF given the average identified in the alternative. With the average SWP delivery rate, the District would need to set aside an average of 271 AF in order to meet Alternative 4B (range between 0 AF to 678 AF).

5-1

Alternative 4B in some years would adversely impact the desirable and possible sales of water by the District to PXP and Guadalupe. Alternative 4B would also limit the District from utilizing SWP capacity for participation in water banking programs and addressing shortages in dry years. Alternative 4B would in general reduce the District's ability to meet the needs of its customers in drought years.

2. Degradation of superior water quality source

The District believes that its customers would prefer to see SWP water used for higher purpose needs than groundwater quality improvement. Immediate supply enhancing opportunities for treated SWP water – municipal, agricultural – should be first sought out before this alternative is adopted. The concern is that the customers of Carpinteria Valley will take a negative view of the alternative, given the expense incurred by the District for the SWP project and lack of perceived benefit to District customers.

5-2

3. Fundamental change in SWP role / purpose to the District.

Using the SWP infrastructure for fish habitat would essentially change the fundamental purpose of this water source of supply from an emergency or reliability based source of supply for the District to something for which it was not intended. Under Alternative 4B, should the District reduce its SWP allotment as discussed above, its use of this asset for its original purpose would be severely restricted. Although the District might gain some Cachuma allotment in an exchange, the cost of SWP debt carried by District consumers might be regarded as too great for the derived benefit. Additionally, relying more heavily on Cachuma water will likely increase the severity of shortages during local drought conditions, as the remaining SWP water would not be sufficient to meet Cachuma cutbacks.

5-3

Thank you for the opportunity to comment as well as for your consideration of these comments.

Sincerely,



Charles B. Hamilton

<sup>1</sup> California Department of Water Resources (2005). *The State Water Project Delivery Reliability Report*. Sacramento, CA: State of California.

5. **Carpinteria Valley Water District, dated September 26, 2007,**

**Response 5-1:**

The comment suggests that Alternative 4B would reduce the ability of the CVWD to meet the needs of its customers in drought years based on limitations to uses of their State Water Project (SWP) allotment.

See response to 2007 RDEIR **Comment 4-14** for a general discussion of the water supply impacts methodology. See response to 2007 RDEIR **Comment 4-15** with regard to the changes and considerations that occurred due to the use of updated Member Units water supply data in the 2011 2<sup>nd</sup> RDEIR **Section 4.3.1**. No conclusions were modified as a result of this comment.

**Response 5-2:**

The comment indicates that the CVWD believes SWP water allotment is better used for supply enhancement rather than groundwater quality improvement as proposed in Alternative 4B.

**Section 3.2.2.4** (page 3-12) of the 2007 RDEIR indicates: "The objective of this alternative is to improve water quality in the Lompoc Plain for the City of Lompoc and other groundwater pumpers in response to claims by the City of Lompoc that operations of the Cachuma Project have degraded water quality in the Lompoc Basin." Alternative 4B is the only alternative with this objective. Several other alternatives analyzed in the 2007 RDEIR will either enhance or else do not degrade the water supply with respect to the baseline in the 2007 RDEIR. For the 2011 2<sup>nd</sup> RDEIR, updated Member Units data (see 2011 2<sup>nd</sup> RDEIR **Section 4.3.1**) and a qualitative assessment of the effects of these data on the 2007 SYRHM modeling results have affected the alternatives impact analysis. Conclusions regarding overall impacts of alternatives were modified as a result.

**Response 5-3:**

The comment suggests that Alternative 4B fundamentally changes the intended uses of the CVWD SWP allotment, thereby increasing the severity of supply shortfalls during local drought conditions.

See response to 2007 RDEIR **Comment 5-1**.

SOMACH, SIMMONS & DUNN

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

813 SIXTH STREET  
THIRD FLOOR  
SACRAMENTO, CA 95814-2403  
TEL 916 446-7979  
FACSIMILE 916 446-8199  
WEBSITE: www.lawsed.com

September 28, 2007

Ms. Diane Riddle  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2002  
Sacramento, CA 95812-2000

Re: Comments on State Water Resources Control Board’s Revised Draft Environmental Impact Report for Consideration of Modifications to United States Bureau of Reclamation’s Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights of the Santa Ynez River below Bradbury Dam (Cachuma Reservoir)

Dear Ms. Riddle:

The City of Lompoc submits the following comments on the State Water Resources Control Board’s (“SWRCB”) Revised Draft Environmental Impact Report (“DEIR”) for the Cachuma Project hearings. In addition to these comments, by letter dated October 7, 2003, the City of Lompoc provided written comments on the August 2003, Draft Environmental Impact Report for the Cachuma Project, which comments are fully incorporated herein. In addition, the City of Lompoc also submits as attachments the rebuttal testimony of Timothy Durbin (Attachment A) and comments prepared by Paul Bratovich, Surface Water Resources, Inc. (Attachment B).

**A. Preliminary Comments Regarding the Revised DEIR**

The City of Lompoc’s purpose and goal in this proceeding, as in previous proceedings on the Cachuma Project, is to protect the quantity and quality of its downstream water rights. Lompoc and its experts have conducted an extensive investigation of the current and past operation of the Cachuma Project and the Project’s relationship with the groundwater basin which supplies Lompoc its essential water supply. Lompoc’s consultants prepared a detailed groundwater model. This extensive modeling effort by Lompoc’s experts evidences that the historic operation of the Cachuma Project has impacted the quality of recharge to the Lompoc groundwater basin. The modeling also concludes, that under the

current operating regime that includes the downstream water rights releases as required in Water Rights Order No. 89-18 and the commingling of water from the State Water Project (“SWP”) imported by the Central Coast Water Authority (“CCWA”), the groundwater quality in the eastern portion of the Lompoc groundwater basin will return to a no Project condition within the foreseeable future. However, any change in the downstream release program under Water Right Order No. 89-18 or a change in the commingling of the CCWA’s imported water will result in the ongoing adverse water quality impact noted above for a number of years or indefinitely.

6-1

The Settlement Agreement between Cachuma Conservation Release Board, Santa Ynez Water Conservation District, Santa Ynez Water Conservation District Improvement District No. 1 and the City of Lompoc, dated December 17, 2002 (“Settlement Agreement”) resolves the long-standing dispute among the parties relative to operation of the Cachuma Project. The Settlement Agreement will adequately protect Lompoc’s senior downstream water rights and will not significantly adversely affect water quality in the Lompoc Plain Groundwater Basin. The Settlement Agreement should form the basis of the SWRCB’s proposed project and any subsequent water rights decision

6-2

**B. The Revised DEIR Fails to Provide a Stable and Finite Project Description and Objectives**

“[A]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.” (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) “[O]nly through an accurate view of the project may the public and interested parties and public agencies balance the proposed project’s benefits against its environmental cost, consider appropriate mitigation measures, assess the advantages of terminating the proposal and properly weigh other alternatives ....” (*City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1454.)” (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4<sup>th</sup> 645, 654.) The CEQA Guidelines require that an EIR must set forth a project description that is sufficient to allow an adequate evaluation and review of the environmental impacts. (CEQA Guidelines, § 15124.) “Among other things, a project description must include a clear statement of ‘the objectives sought by the proposed project,’ which will help the lead agency ‘develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary.’” (CEQA Guidelines, § 15124(b).)” (*San Joaquin Raptor Rescue Center v. County of Merced, supra*, 149 Cal.App.4<sup>th</sup> at p. 655.)

6-3

The Revised DEIR fails to provide a stable and finite project description. The Revised DEIR identifies the project as “[d]evelopment of revised release requirements and other considerations, if any, in the Reclamation water rights permits (Applications 11331 and 11332) for the Cachuma Project.” (Revised DEIR at p. 1-1.) The Revised DEIR does not identify an actual Project or provide a stable and finite project description.

The Revised DEIR also fails to provide a clear statement of the project objectives sought by the proposed project. (Revised DEIR at p. 1-1.) Sufficient identification of the project objectives is necessary to evaluate the feasibility of the proposed project and the various alternatives identified in the Revised DEIR.

6-3

**C. The Revised DEIR Fails to Discuss and/or Analyze the Settlement Agreement as an Alternative**

The Revised DEIR fails to discuss and/or analyze as an alternative the Settlement Agreement. The modifications provided for in the Settlement Agreement achieve Lompoc's long-term objective that the Cachuma Project be operated in such a manner so as to not adversely affect Lompoc's downstream groundwater rights, including water quality. To the extent the purpose of the proposed project is to develop a revised release regime for the protection of downstream water users, the Settlement Agreement achieves that purpose. It should not be understated that the Settlement Agreement resolves a dispute over water rights that dates back to before 1960. Yet despite this resolution of one of the primary key issues for the Cachuma Project hearings, the SWRCB's Revised DEIR all but ignores the implementation of the Settlement Agreement.

6-4

Instead of analyzing what should be the proposed project, the primary purpose of the Revised DEIR is to discuss and analyze Alternatives 5B and 5C. To the extent that Alternatives 5B and 5C are a hybrid pieced together from CalTrout's "dry" Alternative 3A2, Lompoc has testified that Alternative 3A2 would have a potentially significant impact on the groundwater quality in the Lompoc Basin. (See ¶ E. below for further discussion.)

The Revised DEIR's failure to discuss the Settlement Agreement also has implications regarding the "Modified Winter Storm Operations." The Settlement Agreement provides for the settling parties to support Reclamation's adoption and continued use of "Modified Winter Storm Operations" as described in USBR Technical Memorandum No. WR8130-RA-TM-00-2, entitled "Risk Based Evaluation, Modified Storm Operations-Bradbury Dam," dated February 2000, and the Santa Barbara County Water Agency report entitled "Report of Modified Storm Operations, Bradbury Dam, Cachuma Project, Santa Barbara County, California," dated December 29, 1998. The Modified Winter Storm Operations provide the City of Lompoc and its residents, as well as other entities and individuals downstream of Bradbury Dam, a level of protection and security from major flooding that simply did not exist before 1998. The importance of this added protection to Lompoc and its residents cannot be overstated.

6-5

Although the Cachuma Project's storm operations are not within the SWRCB's jurisdiction, it is critical for the SWRCB to understand the importance of the Modified Storm Operations contained in the Settlement Agreement. (See Settlement Agreement, ¶ 2.) Reclamation staff asserts that the Cachuma Project is a water supply project and not an authorized flood control project. No storage space is dedicated for flood control. As such,

Reclamation's has historically operated the Cachuma Project to maximize water supply and storage of water without planning for or providing for downstream flood protection.

In January/February 1998, a series of powerful winter storms in Southern California brought to the forefront Reclamation's failure to operate the Cachuma Project for downstream flood control protection. These storms brought near record flows to the Santa Ynez River. These powerful winter storms resulted in Cachuma Reservoir reaching its maximum capacity to retain water and also provide downstream flood control protection. During the storm that ended on a Tuesday morning, the Santa Ynez River was at its maximum carrying capacity of 20,000 to 29,000 cubic feet per second ("cfs"). Prior to these storms, Cachuma Reservoir had not yet filled to capacity and thus offered some limited downstream flood control protection. However, even with this flood control protection, flows in the Santa Ynez River resulted in some flooding of agricultural land downstream of Lompoc.

As more storms made their way to the California central coast, the National Weather Service forecasted that Santa Barbara County would receive up to 10 inches of rain in the mountains within 48 hours. The Santa Barbara County Flood Control District's meteorologist had predicted six inches of rain for the mountains. Based upon either of these predictions, a significant potential existed for wide-spread flooding downstream of the Cachuma Project with even another storm predicted to hit Santa Barbara County only two days later. The situation posed a grave risk to life and property of the residents of the City of Lompoc.

After intense negotiations just prior to the arrival of the storms, Reclamation's staff indicated a willingness to cooperate in avoiding or minimizing this impending disaster by making pre-releases from the reservoir in order to have reservoir capacity to capture the imminent flood flows. Clearly, if Reclamation had failed to provide immediate pre-releases from Bradbury Dam, Lompoc and its residents would have incurred severe property damage and/or loss of life.

Had Reclamation not modified its project operations and done the pre-releases at the insistence of Lompoc, the Santa Barbara Water Conservation and Flood Control District, the Santa Ynez River Water Conservation District, portions of Lompoc and the Lompoc Valley would have experienced serious flooding that threatened life and property. Reclamation's pre-release of water from Lake Cachuma allowed the peak flows to be captured by Bradbury Dam, thus preventing uncontrolled spills into the Santa Ynez River. The pre-releases of stored water allowed Reclamation to control the out-flows from the dam so that they did not exceed the downstream carrying capacity of the Santa Ynez River.

At the conclusion of 1998 storm season, the parties began discussions to implement permanent operating procedures to protect downstream life and property from flooding. In December 1999, Reclamation released a draft Technical Memorandum for modified storm

operations for Bradbury Dam. The proposed modifications identified the procedures for determining how much and when water will be released from Cachuma Reservoir in order to protect downstream interests from potential floods.

The importance to the City of Lompoc and its residents of the modified storm operations and the continued support of those operations cannot be over-emphasized. It helps ensure that the neither the City nor other parties will have to frantically negotiate with Reclamation regarding the operation of the project as powerful winter storms race across the Pacific Ocean and slam into the mountains of Santa Barbara County.

If upon completion of the water right hearing on the Santa Ynez River the SWRCB issues an order that does not require water right releases consistent with WR 89-18, as modified by the Settlement Agreement, the parties may chose to walk away from the Settlement Agreement. (Settlement Agreement, ¶ 5.2.) If Reclamation fails to maintain the Modified Winter Storm Operations as provided in the Settlement Agreement, then such change would significantly enhance the risk of flooding downstream, particularly in and near Lompoc. The Revised DEIR's discussion of Alternatives 5B and 5C fail to address the potentially significant environmental impacts with the increased flood risk associated with the implementation of either Alternative 5B or 5C.

**D. Alternative 4B Is a Not a Feasible Alternative as the City of Lompoc's Voters Have Twice Rejected State Water**

The alternatives presented in an EIR must be potentially feasible. (CEQA Guidelines, § 15126.6(a).) CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Resources Code, § 21061.1.) The CEQA Guidelines add the term "legal" to the list of factors to be taken into consideration to determine the feasibility of an alternative. (CEQA Guidelines, § 15364.)

Alternative 4B provides for the delivery of water from the SWP to the City of Lompoc. This is not a feasible alternative from the City of Lompoc's perspective. Alternative 4B constitutes an impermissible effort to impose a new water supply on Lompoc. Implementation of Alternative 4B would require the City of Lompoc to accept the delivery of SWP water, a water supply voters having twice rejected.

The Revised DEIR states that the implementation of Alternative 4B would require cooperation by all involved agencies, completion of the project-specific environmental review and permitting, and securing funding and operation agreements. The City of Lompoc would not be agreeable to participating in the implementation, funding, or an operational agreement for Alternative 4B. The City of Lompoc's opposition to this alternative is noted in the DEIR (page 3-11) and the Revised DEIR (page 3-13) and in a letter dated June 18, 1999, from Donald B. Mooney to James Canady, which comments are incorporated herein.

6-5

6-6

6-7

Alternative 4B also fails to address the situation in which SWP water deliveries are not available or are substantially reduced. Under such a scenario, Reclamation continues to be obligated to protect downstream water rights in accordance with its water rights permits. (Revised DEIR at pp. 4-49 to 4-50.) Instead of discussing what the release regime would consist of, the Revised DEIR simply states that there would have to be agreement among the parties to account for the variability in deliveries of SWP. (Revised DEIR at p. 3-13.) While the Revised DEIR offers two scenarios, it provides no detail or analysis of what, if any, impact would occur if SWP water is not available or is substantially reduced. (Revised DEIR at pp. 3-13, 4-49, 4-50.) Therefore, if the SWRCB pursues Alternative 4B, it must contain a release schedule from Bradbury Dam to maintain downstream water rights, including water quality, to ensure compliance with its legal obligations. Simply approving Alternative 4B, without providing the operational requirements for the quantity and timing of SWP water, and without the authority to require the parties to enter into an agreement, would be an exercise in futility.

6-8

Alternative 4B fails to identify which agencies would have to approve the new water supply for the City of Lompoc and other downstream water users. Initially, it appears that the Santa Ynez River Water Conservation District ("SYRWCD"), the CCWA, and the City of Lompoc would have to approve implementation of Alternative 4B. The SWRCB, however, does not have any regulatory authority over the City of Lompoc and the SYRWCD with respect to the downstream groundwater rights and, therefore, cannot require their respective approvals.

**E. The Revised DEIR Fails to Discuss the Potentially Significant Impacts to the Lompoc Groundwater Basin Associated with Alternatives 5B and 5C**

During the SWRCB's Cachuma Project Hearings in November 2003, CalTrout submitted a proposal that the Cachuma Project be operated as described in Alternative 3A2 of the Bureau of Reclamation's Cachuma Contract Renewal EIR/EIS, that formed the basis for the SWRCB's development of Alternatives 5B and 5C in the Revised DEIR. As noted in the attached Rebuttal Testimony of Timothy Durbin (November 12, 2003) (Attachment A), Alternative 3A2 "will result in significantly higher groundwater salinity within the Lompoc groundwater basin." (Attachment A at p. 2.) To the extent Alternatives 5B and 5C are based upon Alternative 3A, they too would have a significant effect on groundwater salinity. The Revised DEIR does not provide sufficient information regarding Alternatives 5B and 5C to adequately evaluate the water quality impacts to the City of Lompoc.

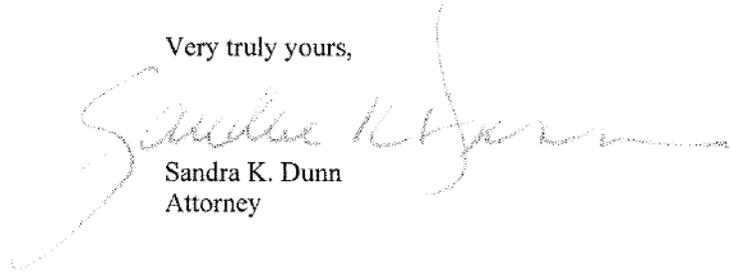
6-9

6-10

Ms. Diane Riddle  
September 28, 2007  
Page 7

The City of Lompoc incorporates by reference Comments on Revised Draft Environmental Impact Report submitted by the Santa Ynez River Water Conservation District.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Sandra K. Dunn".

Sandra K. Dunn  
Attorney

SKD:sb

Attachments

cc: Service List  
Gary Keefe  
Ron Stassi  
Don Mooney

**6. City of Lompoc (Somach, Simons & Dunn), dated September 28, 2007,**

**Response 6-1:**

The commenter suggests that extensive groundwater modeling studies indicate that any change in the current downstream release program (a No Project condition) under Water Right Order No. 89-18 or commingling of the CCWA's SWP water will result in continued adverse water quality impacts for a number of years or indefinitely.

**Section 4.6 Lompoc Groundwater Basin Conditions** (beginning on 2007 RDEIR page 4-45) describes the 2003 DEIR and peer-reviewed 2007 RDEIR groundwater modeling studies that evaluated the impact on salinity in the Lompoc Groundwater Basin due to the commingling of SWP water. The conclusion of the salinity assessment (page 4-49) regarding the effects of Alternative 4B is: "Alternative 4B would reduce TDS levels in portions of the Main Zone in the Lompoc Basin, and as such, would result in a beneficial effect on groundwater quality in the Lompoc Basin (Class IV)." Based on the experts retained to perform the SYRHM hydrologic modeling (Stetson Engineers), the conclusion appears to be reasonable. No conclusions were modified as a result of this comment.

**Response 6-2:**

The comment indicates that The Settlement Agreement between Cachuma Conservation Release Board, Santa Ynez Water Conservation District, Santa Ynez Water Conservation District Improvement District No. I, and the City of Lompoc, dated December 17, 2002 (Settlement Agreement) should form the basis of the SWRCB's proposed project and any subsequent water rights decision.

Alternative 3C in the 2011 2<sup>nd</sup> RDEIR has been modified to reflect the full Settlement Agreement (see response to 2007 RDEIR **Comment 2-4**). As such, the Settlement Agreement, as now being fully described in Alternative 3C, is considered by the SWRCB as one project alternative.

**Response 6-3:**

The comment states that the 2007 RDEIR fails to provide a stable and finite project description and objectives.

See response to 2007 RDEIR **Comments 1-2** and **1-5**.

**Response 6-4:**

The comment states that the 2007 RDEIR fails to discuss and/or analyze the Settlement Agreement as an alternative.

See response to 2007 RDEIR **Comment 3-2**.

**Response 6-5:**

The comment states that 2007 RDEIR's failure to discuss the Settlement Agreement also has implications regarding the "Modified Winter Storm Operations."

See response to 2007 RDEIR **Comment 3-2**. Further, as discussed in 2007 RDEIR **Section 2.2.5, Modified Storm Operations**, the provisions in the Settlement Agreement are considered as part of the analysis.

**Response 6-6:**

The comment states that Alternative 4B is not a feasible alternative as the City of Lompoc's voters have twice rejected State Water Project water.

See response to 2007 RDEIR **Comment 3-10**.

**Response 6-7:**

The comment states that the 2007 RDEIR states that the implementation of Alternative 4B would require cooperation by all involved agencies, completion of the project-specific environmental review and permitting, and securing funding and operation agreements.

The comment is correct in that the 2007 RDEIR notes that implementation of Alternative 4B would require additional actions as stated. While the City of Lompoc has previously rejected SWP water, future circumstances could cause for them to revisit this decision.

See response to 2007 RDEIR **Comment 3-10**.

**Response 6-8:**

The comment states that Alternative 4B also fails to address the situation in which State Water Project water deliveries are not available or are substantially reduced. The comment also states that Alternative 4B fails to identify which agencies would have to approve the new water supply for the City of Lompoc and downstream water users.

See response to 2007 RDEIR **Comment 3-10**.

**Response 6-9:**

The commenter claims that the 2007 RDEIR fails to discuss the potentially significant impact of higher groundwater salinity to the Lompoc groundwater basin associated with Alternatives 5B and 5C.

See response to 2007 RDEIR **Comment 6-1**.

**Response 6-10:**

The comment suggests that the 2007 RDEIR does not provide enough information to evaluate the potential groundwater quality (salinity) impacts of Alternatives 5B and 5C on the City of Lompoc.

See response to 2007 RDEIR **Comment 6-1**.



September 28, 2007

VIA FAX (916-341-5400) &  
EMAIL (driddle@waterboards.ca.gov)

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

Re: Comments on Revised Draft Environmental Impact Report for Consideration of Modifications to United States Bureau of Reclamations Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir), dated July 2007 ("2007 DEIR")

Dear Ms. Riddle,

The City of Solvang appreciates the opportunity to provide comments concerning the 2007 DEIR prepared by the State Water Resources Control Board ("State Board")

The City of Solvang is a small city located in the Santa Ynez river water shed adjacent to Alisal Bridge. Solvang is within the Santa Ynez River Water Conservation District ("SYRWCD") and is within the SYRWCD ID#1 service area. Solvang obtains water from four sources: 1. Diversions from the underflow of the Santa Ynez River pursuant to Permit No. 15878; 2. The State Water Project pursuant to a subcontract with ID#1; 3. The Cachuma Project through ID#1 service; and, 4. upland wells.

As a participant in SYRWCD and as a large water user served by ID#1, Solvang has participated in the development of and supports both the comments submitted to you by SYRWCD and the separate comment letter submitted jointly by the Cachuma Conservation Release Board and ID#1 (the "Member Units"). In particular, Solvang urges the State Board to revise the DEIR to identify Alternative 3C with the

7-1

Settlement Agreement as the proposed project and to adopt it as the preferred alternative for all of the reasons discussed in those comments.

7-1

The Solvang City limits include 1,600 acres. The current population is approximately 5,434 and our utilities department services 1,931 water service connections. Solvang incorporates elements of a traditional Danish Village and the majority of the local economic activity is related to the tourism industry. Solvang currently has some of the highest water rates in the state and all water connections are metered. The combination of the high cost of water and aggressive conservation programs, especially ones targeted at hotel visitors who do not pay the water bill, have resulted in significant reductions in water use even as population and economic activity grow. All of Solvang's wastewater is processed and returned to the watershed. As a result, there is very little flexibility in the current demand and very little additional benefit that can be gained from conservation or reuse strategies.

Solvang has been involved in the various disputes and proceedings referred to in the SYRWCD and Member Unit's comment letters. Those disputes and proceedings and the uncertainty that they have caused for the Solvang's water supply have resulted in significant direct and indirect costs to Solvang. Because Solvang relies upon the tourist industry, both the actual, and the perceived, reliability of the water supply are vitally important to the economic well being of the area. Tourists have many choices so they will not plan to go to an area that might have a problem that will disrupt their vacation. Uncertainty over water supply invariably hurts the tourist economy and Solvang's tax revenue. In addition, Solvang's water users already pay a very high cost for water due, at least in part, to the per capita share of legal and consulting fees required by the historic disputes.

Solvang concurs with the SYRWCD comments that the December 17, 2002 Settlement Agreement resulting from the discussions directed by WR 94-5 is an historic and comprehensive resolution of the long standing issues concerning the Santa Ynez River. The Settlement Agreement resolves long standing water quantity, water quality and flood control issues between the parties while implementing the requirements of the Biological Opinion and Fish Management Plan. The resolution through the Settlement Agreement has allowed Solvang to turn its attention and resources to working collaboratively with ID#1 and SYRWCD on mutual projects to enhance water supply infrastructure and reliability. Alternative 3C with the technical amendments will implement the Settlement Agreement and allow all of those that rely upon Santa Ynez River supplies to work on constructive projects that will both improve the riparian environment and improve the quality and reliability of water supply for downstream users.

7-2

None of the other Alternatives discussed in the DEIR are shown to be environmentally superior and choosing any one of them may result in a step backward to extensive litigation and other proceedings that divert precious resources from constructively addressing the water shed issues that concern all of the parties interested in this proceeding.

7-3

In particular, as discussed in detail in Section II.K of the SYRWCB comments, Solvang is extremely concerned about the late introduction of Alternatives 5B and 5C into the DEIR. These alternatives have not been subject to the scientific study and scrutiny that has been focused on the other alternatives, and in particular, Alternative 3C and the Settlement Agreement. As the SYRWCD comments describe, preliminary analysis indicates that 5B and 5C would result in minimal, if any, enhancement of public trust resources at a significant cost to downstream water rights holders as well as the Member Units that rely upon the Cachuma Project.

7-4

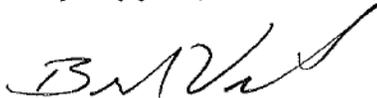
Contrary to the DEIR's discussion of the hoped for results of alternatives 5B and 5C, this preliminary data indicates that water will be provided for fish flows when they are not needed and that will result in significant adverse impacts to all of the water users in drought periods. Running extra water down the river in wet years when the fishery needs have already been substantially met merely wastes water that will be of much greater benefit to the habitat and water users if it as much of it as possible is saved for the inevitable dry years.

7-5

At this point, the State Board has before it a contractual settlement that meets the Biological Opinion and Fish Management objectives and is binding upon all of the water users in the watershed. That is rare in any watershed in the west. The partial implementation of the Settlement Agreement by the Bureau of Reclamation and the downstream water rights holders is resulting in substantial habitat improvements. Solvang urges the State Board to adopt that scientifically supported, physically feasible and contractually agreed upon operational plan.

We appreciate your attention to these comments and diligence in addressing this matter. If you have any questions or require clarification of any of Solvang's comments please feel free to contact me.

Very truly yours,



Brad Vidro  
City Manager

cc: Chris Campbell, Baker, Manock & Jensen  
Roy Hanley, Hanley & Fleishman  
Bruce Wales, Santa Ynez River Water Conservation District  
Ernest Conant, Young Woolridge  
Chris Dahlstrom, Santa Ynez River Water Conservation District, ID#1  
Gary Kvistad, Hatch & Parent  
Greg Wilkensen, Best, Best & Kreiger  
Sanra Dunn, Somach, Simmons & Dunn  
Don Mooney

7. **City of Solvang, dated September 28, 2007.**

**Response 7-1:**

The City of Solvang urges the SWRCB to revise the 2007 RDEIR to identify Alternative 3C with the Settlement Agreement as the proposed project and to adopt it as the preferred alternative.

See responses to 2007 RDEIR **Comments 3-2** and **3-8**.

**Response 7-2:**

Solvang concurs with the SYRWCD comments that the December 17, 2002, Settlement Agreement resulting from the discussions directed by WR 94-5 is an historic and comprehensive resolution of the long standing issues concerning the Santa Ynez River.

The comment is noted.

**Response 7-3:**

The comment states that none of the other alternatives discussed in the 2007 RDEIR are shown to be environmentally superior and choosing anyone of them may result in a step backward for the extensive litigation and other proceedings that divert precious resources from constructively addressing the watershed issues of concern to all parties interested in this proceeding.

See response to 2007 RDEIR **Comments 3-2** and **3-8**.

**Response 7-4:**

The comment states that Solvang is extremely concerned about the late introduction of Alternatives 5B and 5C into the 2007 RDEIR.

See response to 2007 RDEIT **Comments 1-10**.

**Response 7-5:**

The comments states that contrary to the 2007 RDEIR's discussion of the hoped for results of Alternatives 5B and 5C, the preliminary data indicate that water will be provided for fish flows when they are not needed, which will result in significant adverse impacts to all of the water users in drought periods.

The parameters of flows related to Alternatives 5B and 5C are provided in the project description. Water releases for fish flows are regulated by the Biological Opinion. Other water releases are determined by the hydrologic requirements. The analysis of water supply evaluates the impacts of each of the alternatives, including 5B and 5C on water supplies.

COUNTY OF SANTA BARBARA

Ok/DKR

Michael F. Brown  
County Executive Officer



105 East Anapamu Street, Suite 406  
Santa Barbara, California 93101  
805/568-3400 • Fax 805/568-3114  
www.co.santa-barbara.ca.us

September 28, 2007

EXECUTIVE OFFICE

VIA FAX to (916) 341-5400

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

OCT 1 AM 6:55  
COUNTY OF SANTA BARBARA

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

Dear Ms. Riddle:

Thank you for the opportunity to comment on the Revised DEIR-Considerations of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310. Comments from County Public Works and County Parks have been outlined below.

County Public Works provides the following comments on the Revised DEIR:

Sections dealing with "Overview of Cachuma Project" (Section 2.0), "Proposed Project" (Section 3.0), and "Comparison of Alternatives" (Section 6.0)

Existing sections 2.0, 3.0 and 6.0 need to include a discussion of the Cachuma Project Settlement Agreement (CPSA) reached among various interests that settle the long-standing disputes along the Santa Ynez River relating to water rights. This binding interagency agreement is well known to SWRCB since it has been offered as the basis for action by SWRCB to address the issues within its purview in a positive and constructive manner.

The CPSA provides for:

1. Successful resolution of long-standing water rights related issues;
2. Agreed upon reservoir release regime to enhance fish habitat, protect water quality and assure downstream water rights, as described by Alternative 3C;
3. Improved public safety based on innovative winter storm operations; and
4. Ongoing cooperation on river management issues.

The CPSA is summarized in the Santa Barbara County-Wide Integrated Regional Water Management Plan (IRWMP) developed and approved by 28 public agencies through an extensive public process.

The IRWMP describes the agreement in Section 3.1.1.

8-1

James Laponis  
Deputy County Executive Officer  
jlaponis@co.santa-barbara.ca.us

Ron Cortez  
Deputy County Executive Officer  
rcortez@co.santa-barbara.ca.us

Terri Maus-Nisich  
Assistant County Executive Officer  
tmaus@co.santa-barbara.ca.us

Ken A. Masuda  
Assistant County Executive Officer/Budget Director  
masuda@co.santa-barbara.ca.us

**3.1.1 South Coast, Santa Ynez Valley, and Lompoc Valley**

The history of Santa Ynez River water use is a contentious one, and issues raised by water rights holders downstream of the three Santa Ynez River dams have been addressed over the years by litigation, decisions by the State Water Resources Control Board (SWRCB), and by agreements reached between the parties involved. As described below, years of dissent culminated in the Cachuma Project Settlement Agreement, which uses the Bradbury Dam and the Santa Ynez Extension of the State Water Project to integrate surface and groundwater management strategies including surface storage, conjunctive use, groundwater recharge, groundwater quality improvement, flood protection, and habitat improvements. Existing infrastructure is managed cooperatively, creatively, and efficiently to maximize the use and improve the reliability of available water resources, as well as to provide environmental enhancements.

**Cachuma Project Settlement Agreement**

The 2002 "Cachuma Project Settlement Agreement" resolves various differences between the South Coast Member Units and downstream interests pertaining to the operation of the Cachuma Project that existed for over 50 years. It provides the vehicle to manage Cachuma releases conjunctively downstream of the dam. The background and provisions of the Cachuma Project Settlement Agreement are summarized below.

1. The parties support WR 89-18 and agree that releases pursuant to WR 89-18, as modified by the Agreement, will protect downstream water rights holders and will improve quality of water released for downstream uses. The parties agree to mutually support the National Marine Fisheries Service Biological Opinion and the Fish Management Plan for the Cachuma Project to address public trust (steelhead) issues. The parties further agree that WR 89-18 releases will operate conjunctively with fish water releases required to meet target flows in the Biological Opinion.
2. In order to lower the salt (total dissolved solids) content of water rights releases for the lower Santa Ynez River downstream of Bradbury Dam, the parties agree to commingle State Water Project water with water from Cachuma in the outlet works of Bradbury Dam by maximizing deliveries of State Water Project water (consistent with the Biological Opinion) when water rights releases are made.
3. Santa Ynez River flooding issues are addressed in the Agreement through winter storm operations of Bradbury Dam, including precautionary drawdowns and temporary surcharging, in order to reduce peak flows and provide some measure of flood control. Project water supply is protected by achieving a full reservoir following the peak flow events.
4. The parties have requested the SWRCB to incorporate into WR 89-18 a provision involving conjunctive operation of the Below Narrows Account (water stored in Lake Cachuma) with the Lompoc Groundwater Basin. More water would be available for the Lompoc (Below Narrows) area in most years, although some Below Narrows Account water stored in Cachuma Reservoir would be made available to Cachuma contractors during shortage years.

Division of Water Rights  
State Water Resources Control Board

Page 3 of 5

*Most of the provisions of the Cachuma Project Settlement Agreement were implemented in 2002. Some others are pending before the SWRCB. Approval of the remaining provisions and full implementation of the Agreement would provide the basis for further water management planning by individual water purveyors downstream of the dams in accordance with the objectives, water management strategies, and regional priorities in the IRWMP.*

8-1

Table ES-2 (Reporting "Water Supply Impacts")

Results of actual evaluation of changes to water supply (in percentage change and loss of available supply) need to be summarized for Alternatives 5B and 5C. We suggest this information be presented in a table with similar and comparable information regarding Alternatives 3B, 3C and 4B. Appropriate modeling results should be developed and reported as the basis for evaluating impacts under various drought or supply disruption scenarios. In addition, the economic impacts (increased cost) to the districts and their customers need to be evaluated and disclosed (see discussion below).

8-2

Section 4.1.3 and Page ES-2

The nature of the threshold relating to the significance of water supply shortages is not clearly described. This is a critical issue since these impacts are different among alternatives and for certain alternatives no mitigation is offered (thus the impacts are "class I"). The CEQA guidelines offer Lead Agencies abundant guidance in the matter of developing and utilizing thresholds of significance. SWRCB needs to develop and apply rational and specific thresholds for impacts to water supply in this EIR.

8-3

Section 6 and Table ES-2, Table 6-1

Since the SWRCB has chosen not to include a proposed project, but rather rely on its analysis of alternatives, the EIR needs to include both positive and negative effects so as to meet the obligation to objectively and completely evaluate the impacts of alternatives. Without such evaluation any conclusions regarding alternatives have no basis and are thus arbitrary.

In this light we point out that SWRCB has, in essence, taken Alternatives 5B and 5C from an EIR prepared in 1995 and, without adequate justification for their inclusion, evaluated them in an incomplete manner. First no discussion of beneficial impacts is presented to support how they can be considered reasonable alternatives to 3B and 3C. We point out that the Alternatives 3B and 3C were: 1) developed after listing of *O. Mykiss* as an endangered species (1999), 2) were based on the Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion (2000), and 3) have specific, reach based, habitat maintenance objectives. SWRCB needs to adequately justify the inclusion of Alternatives 5B and 5C and clarify the full range of their impacts or should mention them without further consideration as infeasible and/or not meeting the necessary criteria for avoidance of impacts.

8-4

Section 4.0 Environmental Analysis

The socioeconomic impacts of the proposed action need to be included in this EIR. CEQA requires such an evaluation if the action may cause socioeconomic impacts that lead to adverse changes in the environment. Such changes due to socioeconomic impacts would include increased cost of water beyond

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the ability of certain classes of existing users to pay. In particular Cachuma project supplies are the least cost alternative to the Member Unit Service areas serving agriculture. Loss of supply will drive the cost of supplies to levels that will not support agriculture (see Cachuma Project Contract Renewal EIS/EIR 1995). Among reasonably foreseeable effects to the environment, loss of active agriculture will lead to loss of greenspace (visual impacts) and conversion to residential and commercial land uses (water quality and traffic impacts). These effects need to be evaluated and disclosed in the EIR.

8-4

County Parks provides the following comments on the Revised DEIR:

Section 4.2.1 Existing Conditions

Section 4.2.1 of the Revised DEIR describes the elevation survey completed by Stetson Engineers in January 2005, identifying the impacts from an actual water elevation increase to 753 feet. The DEIR should be consistent in the name of the document. Statements relating to this survey in sections 4.2.1 and 4.10 are incomplete and may leave the reader with a misunderstanding regarding the status of park facilities.

Section 4.2.1 states: "Following a spill event in January 2005, Stetson Engineers conducted a survey of the vulnerability of the lake's recreation facilities, revealing that the facilities identified earlier as being at risk of inundation were actually located at elevation higher than had been previously thought."

8-5

Section 4.10 states: "The survey also negated the claim that other park facilities would be negatively impacted, such as the water treatment plant intake and electrical facilities, the sewer lift stations near Teepee Island and Mohawk and access to the Marina and concessions."

A Memorandum of Understanding between the County and Member Unit interests described in the EIR document relates to the impacts to the boat ramp and 'critical' facilities e.g. water treatment plant and sewer lift stations. While the above statements are true regarding inundation of the critical facilities addressed in the MOU, other Park facilities which would be inundated at an elevation of 753 feet include the access walk from the boat launch facility to the boat concession area, access walk from boat concession area to private marina docks, access to the ADA fishing pier and picnic area at Harvey's Cove, and access bridge to Teepee Island (walk-in day use area). Additionally, at a water surface elevation of 753 feet an existing lift station in the park would sit within the 50 foot setback from the water's edge, a violation of State of California guidelines.

The Revised Draft EIR should be revised to acknowledge this additional information. (The attached photos represent conditions in January 2005.)

4.8.2.3 Impacts to Riparian Vegetation along the River

Section 4.8.2.3 of the Revised DEIR indicates that Cachuma Park will be reconsidered for placement of the third year's planting of replacement trees. This statement should be revised to reflect that a final determination as to the appropriate site for third year planting has yet to be determined.

8-6

Page 5 of 5

#### 4.10 Recreation

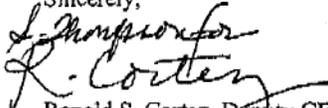
Section 4.10 refers to the survey completed by Stetson Engineers in 2005 as both a "survey" and "study". The DEIR should be consistent in the name of the document. Section 4.10.2.1 referenced the construction of a new boat ramp at the lake "...pending Board of Supervisors approval, construction is slated to begin in August 2007." Construction of the boat ramp commenced September 5, 2007 and is scheduled for completion February 25, 2008. Mitigation R-1 should be revised to reflect the construction of the ramp.

Section 4.10.2.1 indicates: "Though initially described as a temporary emergency protective measure, the gabion basket barrier's ability to protect the water treatment plant from potential wave run-up has proven sufficient to preclude any need for other measures to protect the facility. In order to ensure the continued viability of the gabion basket barrier, regular, small-scale maintenance (i.e. monitoring of the integrity of the barrier and conducting repairs if necessary) similarly in scale to that already performed on the water treatment plant will be required to maintain the barrier's effectiveness." This paragraph should be revised to reflect the existing MOU between the local agencies which identifies the gabion barrier as a temporary measure until the water treatment plant can be relocated. The County is currently pursuing funding for this effort.

8-7

Again, thank you for the opportunity to review the Revised DEIR. If you should have further questions, please do not hesitate to contact David Matson, Deputy Director in the Office of Long Range Planning (805) 568-2068.

Sincerely,

  
Ronald S. Cortez, Deputy CEO  
County Executive Office

Cc: David Matson, Deputy Director, Office of Long Range Planning  
Robert Almy, Water Agency Manager, Public Works  
Coleen Lund, Project Manager, Parks

TOTAL P.05

8. County of Santa Barbara, dated September 28, 2007.

**Response 8-1:**

The comment states that 2007 RDEIR needs to include a discussion of the Settlement Agreement.

See response to 2007 RDEIR **Comment 3-2**.

**Response 8-2:**

The commenter suggests that the results of the actual evaluation of changes to water supply (in percentage change and loss of available supply) shown in Table ES-2 (Water Supply Impacts) need to be summarized for Alternatives 5B and 5C.

The 2007 RDEIR Table ES-2 (Summary of Impacts Due to the Project Alternatives, pages ES-8 through ES-13) provides a summary of impacts in order to compare each potential impact across all alternatives. Impacts to Water Supply Conditions are indicated for Alternatives 5B (Class I) and 5C (Class III) by an "X" in the respective rows. This table has been modified in the 2011 2<sup>nd</sup> RDEIR (Table ES-1 pages ES-9 through ES-17) based on updated water supply and water demand data from the Member Units. The requested summary of the percentage change and loss of supply (shortage) relative to baseline operations (Alternative 2) is added to the 2011 2<sup>nd</sup> RDEIR **Section 4.3.2.5** based on Table 4-17.

**Response 8-3:**

The comment suggests that in **Section 4.1.3** and on page ES-2 the nature of the threshold relating to the significance of water supply shortages is not clearly described.

As stated in the 2007 RDEIR, one purpose of the EIR is to determine if downstream water rights and public trust resources are adequately protected by the various alternatives considered. The proposed project alternatives represent different modifications to the current operational scheme (baseline Alternative 2) and the EIR examines each alternative against the baseline (see response to 2007 RDEIR **Comment 2-4**). The significance of overall water supply shortages for each alternative is one important aspect of the evaluation that is discussed in the 2011 2<sup>nd</sup> RDEIR **Sections 4.3 (Water Supply)** and **6.0 (Comparison of Alternatives)**. These discussions have been expanded to better indicate the nature of the water supply shortage threshold for each impact Class (I-IV).

**Response 8-4:**

The comment states that since the SWRCB has chosen not to include a proposed project, but rather rely on its analysis of alternatives, the EIR needs to include both positive and negative effects so as to meet the obligation to objectively and completely evaluate the impacts of alternatives. Without such evaluation, any conclusions regarding alternatives have no basis and are thus arbitrary.

The 2007 RDEIR provides an evaluation of the impacts for all alternatives considered. Further, the 2011 2<sup>nd</sup> RDEIR (as well as the 2007 RDEIR and 2003 DEIR) identifies both impacts that would result in adverse (negative) conditions (Class I, II, and III) and those that would be beneficial (positive) (Class IV).

**Response 8-5:**

The comment states that the 2007 RDEIR describes the elevation survey completed by Stetson Engineers in January 2005, identifying the impacts from an actual water elevation increase to 753 feet. The comment also states that the 2003 DEIR should be consistent in the name of the document, and that statements relating to this survey in **Sections 4.2.1** and **4.10** are incomplete and may leave the reader with a misunderstanding regarding the status of park facilities.

The 2011 2<sup>nd</sup> RDEIR acknowledges the 2004 Memorandum of Understanding (MOU) between the Member Units and Santa Barbara County Parks. The MOU provided for County Parks to address a number of issues before Lake Cachuma was surcharged to the full 753-foot level. As noted in the 2011 2<sup>nd</sup> RDEIR, County Parks did make improvements to the boat ramps, but no other facilities. The MOU expired in 2009.

The impacts associated with the County park were revisited as part of the 2011 2<sup>nd</sup> RDEIR preparation. As a result of improvements made to the parks, impacts were revised to be less than significant (Class III).

**Response 8-6:**

The comment states that the location for planting of replacement oak trees during the third year of planting was yet to be determined at the time of the comment letter.

Because several years have passed since this comment letter was received, planting of replacement oaks since 2005 has taken place on Reclamation property and not within the County park. Trees have been planted at Storke Flats, adjacent to Bradbury Dam and in another area near existing oak woodlands. The location of oak planting sites is shown in Figures 4-19 and 4-20 of the 2011 2<sup>nd</sup> RDEIR.

In addition to the change in the mitigation program, there has been a change to the locations where the replacement oak trees have been planted to date. However, the new areas for Year 1 through Year 2 plantings were still within the Cachuma Recreation Area. The initial Planting Plan identified in the 2003 DEIR identified a project scope within the public boundaries of the County's Cachuma Lake Park. Restoration sites outside the park were also explored for future plantings. However, the Cachuma Member Units and the County were concerned that newly planted oak trees would be at a substantially greater risk of damage by the recreating public if the trees were installed within the Park. Therefore, after extensive discussions with the County Parks personnel, it was agreed that as many oak trees as possible should be planted in a less recreated area of the Cachuma Recreation Area to ensure maximum survival

of the young oak trees. This resulted in project relocation for Year 1 and Year 2 plantings to the wildland setting along Storke Flats, approximately 2 miles south of the Cachuma Park entrance, off of Highway 154.

**Response 8-7:**

The comment suggests editorial changes regarding consistency of language when referring to the Stetson Engineers 2005 study. The 2011 2<sup>nd</sup> RDEIR has been updated to use consistent language when referring to this study. In addition, the 2011 2<sup>nd</sup> RDEIR has been updated to reflect the upgrade of the boat ramp to accommodate the surcharged water level, and mitigation measure R-1 has been removed. The upgraded boat ramp was completed in June 2008 and is designed to function at the surcharged water level of 753 feet.

The 2011 2<sup>nd</sup> RDEIR has also been updated to reflect the planned water treatment plant that is expected to replace the existing water treatment plant. The gabion barrier is a temporary measure that protects the existing water treatment plant from wave action until a new plant is constructed. The new plant will be designed and located to accommodate the surcharged lake water level of 753 feet.

GK/DKF



September 25, 2007

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

2007 SEP 28 PM 1:17  
ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED

Subject: Revised Draft Environmental Impact Report prepared for the  
Cachuma Reservoir Project

Dear Ms Riddle,

**Board of Directors**

- President  
Jan E. Abel
- Vice President  
Larry Wilson
- Samuel Frye  
W. Douglas Morgan  
Richard Shaikewitz
- General Manager  
and Secretary**  
Robert L. Roebuck, P.E.

The Montecito Water District is a Member Unit of the Cachuma Project. As General Manager of the Montecito Water District I have concerns regarding any alternative which may result in a reduction of water supply. In particular, the newly proposed alternatives 5B and 5C appear to result in further reductions in present water yield from the project, with a wholly superficial, factually inaccurate and completely inadequate analysis of the resulting significant impacts to public water supply. It should be noted that the present project yield has already been reduced from previous yield in order to provide additional water for Public Trust resources and downstream water rights in accordance with a Water Rights Settlement Agreement, and a Biological Opinion and Fishery Management Plan developed through years of detailed study and broad-based consensus. Perhaps an explanation of the District's present water supply/demand situation will help you understand why I am so concerned about any further reduction in water supply from the Cachuma Project, and believe that analysis of the impacts of such reduction needs to be better described.

In the Montecito Water District Final Urban Water Management Plan Update – 2005 it is shown that during a normal year water supply is 7380 acre feet (AF), and in the critical drought year as shown in DEIR Table 4-11, August 2003, with revision, the water supply is 2963 AF. In fiscal year 2007 the District's water demand was 7194 AF. You can see from these numbers that during a dry period District customers will already need to make significant cutbacks. The District is implementing an aggressive conservation program to accomplish such necessary reductions. With any further supply reduction, the District may be forced to implement severe rationing during dry/drought periods, which will have significant primary and secondary environmental impacts.

9-1

583 San Ysidro Road  
Santa Barbara, CA  
93108-2124

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Subsequent to preparation of the Urban Water Management Plan – 2005 report, the District received a Future Water Demand and Water Supply Options Report, March 2007 (Report) prepared by Steven Bachman PhD. The Report states that the District has 4,599 customer water meters. Based on an analysis of the Montecito

Community Plan Update, December 1995; Summerland Community Plan, May 1992; and Toro Canyon Plan, February 2002, as many as 914 water meters will be added to the District customer base by 2030. In addition, those plans provide for approximately 1400 acres of land for agricultural purposes, which will result in approximately an additional 2900AF/year demand on District water supplies.

The District is hard-pressed to provide for the water needs of existing customers. It is unknown if the District can provide water for additional residences and agricultural zoning as shown in the community plans. Based on existing demand, the District can expect significant shortages during dry periods, which may be exacerbated if the District continues to full build out. District staff, recognizing its water supply/demand dilemma, embarked on a two-year search for additional water supplies. The results of that search have been incorporated into the Report. The District was unable to find any additional long-term water supplies. District staff is hopeful that by implementing an inclined block rate structure that gives significant financial incentives for water conservation, along with other conservation measures such as replacing existing water intensive landscaping with xeriscape and requiring new construction to have water efficient landscaping, severe rationing could be avoided during a dry period under existing water supply/demand conditions. Any proposal such as 5B or 5C that would further reduce limited and already obligated District water supplies would only exacerbate the likelihood and severity of rationing during dry periods. The impact of such proposals must be thoroughly analyzed, since it would have a significant negative impact on District customers and the District's environment.

9-2

Montecito Water District customers and the District's environment were traumatized by the severe drought which ended in March 1991. Coming out of that drought, the Cachuma Member Units, including the District, understood the need to provide for water supply balanced with appropriate protection for Public Trust resources and downstream water rights. Seeking an end to over 70 years of water wars on the Santa Ynez River, the District helped develop and accepted the provisions of the Fishery Management Plan and the Water Rights Settlement Agreement. Alternative proposals such as 5B and 5C ignore that recent history, and unnecessarily push the District in the direction of water vulnerability that was experienced during the last drought. Before the SWRCB can reasonably expect to consider such irresponsible alternatives, the true and full cumulative impacts to water supply must be fully analyzed.

9-3

Sincerely,



Robert L. Roebuck  
General Manager  
Montecito Water District

CC: Jan Abel, MWD President  
Kate Rees, COMB/CCRB  
Chip Wullbrandt, Counsel

**9. Montecito Water District, dated September 25, 2007.**

**Response 9-1:**

The commenter suggests that with any further supply reduction the Montecito Water District (MWD) may be forced to implement severe rationing during dry/drought periods, which will have significant primary and secondary environmental impacts.

MWD water supply data are summarized in the 2007 RDEIR, for example in Tables 4-18, 4-19, and 4-21. Based on this comment and others, the water supply and water demand data have been updated by the Member Units. The analysis for the 2011 2<sup>nd</sup> RDEIR using the updated Member Units water supply and water demand data resulted in no modified conclusions that lead to changes in impacts from less than significant to either significant or unavoidable.

**Response 9-2:**

The comment suggests that any proposal (such as Alternatives 5B or 5C) that would further reduce limited and already obligated MWD water supplies must be thoroughly analyzed with regard to any significant negative impact on the MWD customers and environment.

See response to 2007 RDEIR **Comment 9-1**.

**Response 9-3:**

The commenter suggests that alternative proposals (such as Alternatives 5B and 5C) push the District in the direction of water vulnerability during drought conditions, and that the true and full cumulative impacts of such alternatives to water supply must be fully analyzed.

See response to 2007 RDEIR **Comments 9-1** and **1-32**.



September 28, 2007

Ms. Diane Riddle  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812-2000  
[driddle@waterboards.ca.gov](mailto:driddle@waterboards.ca.gov)

**VIA EMAIL AND OVERNIGHT DELIVERY**

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

Dear Ms. Riddle:

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

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

10-1

906 Garden Street, Santa Barbara, CA 93101 Phone (805) 963-1622 FAX (805) 962-3152  
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vast majority of comments previously raised by EDC regarding these now modified portions of the August 2003 Draft EIR. As discussed in detail below, EDC's prior comments are still pertinent to the SWRCB's review of the newly identified range of alternatives, including Alternatives 5B and 5C. Therefore, this comment letter incorporates by reference EDC's October 7, 2003 comments (in their entirety) submitted on behalf of CalTrout in response to the SWRCB's August 2003 Draft EIR ("October 2003 comment letter").

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

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

10-1

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

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

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

10-2

<sup>1</sup> CEQA Guidelines § 15088.5.

<sup>2</sup> CEQA Guidelines § 15124(b).

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

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

10-2

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

<sup>3</sup> EDC October 2003 comment letter at 2-4.

<sup>4</sup> Ex. No. NOAA 6 at 1-4 (Capelli); Ex. No. CT 90 at 3-5 (Edmondson); Ex. No. CT 95 (Edmondson Powerpoint) at 1-5. Exhibits identified here and throughout this letter refer to exhibits entered into the Record for the SWRCB Hearing to Review the U.S. Bureau of Reclamation Water Right Permits (Applications 11331 and 11332) – Cachuma Project Phase 2.

<sup>5</sup> EDC October 2003 comment letter at 4-6.

<sup>6</sup> Section 4.7.2.1 discusses “Lake Cachuma - Rainbow Trout” but fails to differentiate between native resident trout (landlocked steelhead) which inhabit Cachuma and planted trout. Native resident trout residing in Cachuma Reservoir are part of the same biological species (*Oncorhynchus mykiss*) as steelhead and native trout below Bradbury Dam. Many native resident trout in Cachuma and in the watershed above Bradbury Dam would migrate downstream and go through physiological changes to become steelhead smolts if access to the ocean was available, but remain landlocked due to the migratory barrier imposed by the Cachuma Water Project. The Cachuma Project as permitted currently precludes recruitment to the steelhead population below Bradbury Dam from the upstream native resident trout population. Native resident trout above Bradbury Dam are important to the recovery of steelhead according to NOAA’s Draft Viability Criteria for Southern Steelhead and are part of the Santa Ynez River steelhead public trust resource. Like their anadromous counterparts below the dam, resident trout above the dam are isolated and severely impacted by the Cachuma Project as a migratory barrier.

<sup>7</sup> Silva, Peter S. (Hearing Officer, SWRCB). 2003. *Letter to the Cachuma Service List*. May 29.; Silva, Peter S. (Hearing Officer SWRCB). 2003. *Letter to the Cachuma Service List*. Aug. 13.

<sup>8</sup> SWRCB Order No. 95-17 (Lagunitas Creek) at 136-139 (1995).

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

10-2

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

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

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

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

10-3

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

<sup>9</sup> SWRCB Decision No. 1632 (Carmel River) at 73-74 (1995).

<sup>10</sup> See e.g. SWRCB Decision No. 16631 (Mono Lake) at 59, 71, 82, and 117 (1994); Order No. WR 95-17 at 147-148 (1995).

<sup>11</sup> Experts from the DFG testified during the administrative hearing proceedings that passage around Bradbury Dam is "critical" to the restoration of steelhead. Reporter's Transcript (RT):554 (McEwan); Ex. No. DFG 4 at 7 (Dr. Titus). NOAA Fisheries similarly testified. RT:748 (Jim Lecky); see also BO at 82 ("Access to [above-dam] areas would be of huge benefit to the Santa Ynez steelhead population."). Consistent with this evidence, NOAA Fisheries, CDFG, and CalTrout have each recommended a study of the feasibility of fish passage around Bradbury Dam. October 7, 2003 NOAA comment letter; Ex. No. DFG 2 at 6 (McEwan); Ex. No. CT 30 at 16 (Keegan). Citations to Reporter's Transcript ("RT") here and throughout this letter refer to proceedings conducted for the SWRCB Hearing to Review the U.S. Bureau of Reclamation Water Right Permits (Applications 11331 and 11332) – Cachuma Project Phase 2.

<sup>12</sup> EDC October 2003 comment letter at 6-7.

<sup>13</sup> CEQA Guidelines § 15126.6(a).

<sup>14</sup> EDC October 2003 comment letter at 8-9.

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

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

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

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

10-3

<sup>15</sup> Raysbrook, C.F. (CDFG). 2003. Letter to Andrew Fecko (SWRCB) re 2003 Draft EIR. Oct. 7. See p. 6.

<sup>16</sup> See also, Williams, John. 2007. Letter to Ms. Diane Riddle (SWRCB) re Cachuma Project RDEIR. Sept. 26. [Attached.] See pp. 4-5.

<sup>17</sup> As discussed below, Alternative 4B is also infeasible, leaving only one water rights release method (WR 89-18) shared by all feasible RDEIR alternatives.

<sup>18</sup> CEQA Guidelines § 15126.6(f).

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

10-3

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

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

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

10-4

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

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

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

<sup>20</sup> EDC October 2003 comment letter at 9-10.

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

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

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

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

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

10-4

<sup>22</sup> Ex. No. DFG 4 (Titus) at 6.

<sup>23</sup> Moyle, Peter B. 2003. *Statement of Peter B. Moyle*. Oct. (Attachment 20 to EDC's October 2003 comment letter); Ex. No. CT 70 (Moyle).

<sup>24</sup> Williams 2007 at 19.

<sup>25</sup> Boughton, David et al. (NOAA Fisheries TRT). 2007. *Viability Criteria for Steelhead of the South-Central and Southern California Coast*. July. [Attached.] See also Boughton, David et al. (NOAA Fisheries TRT). 2006. *Steelhead of the South-Central/Southern California Coast: Population Characterization for Recovery Planning*. Oct. [Attached.]

<sup>26</sup> NOAA Fisheries. 2007. *2007 Federal Recovery Outline for the Distinct Population Segment of the Southern California Coast Steelhead*. Sept. [Attached.] See pp. 31-35.

<sup>27</sup> See, e.g., Ex. No. CT 30 (Keegan).

<sup>28</sup> Lent, Rebecca (NOAA Fisheries). 2001. *Letter to Harry Schueller (Chief, Division of Water Rights, SWB)*. Sept. 19.; RT:746 (Testimony of Jim Lecky, NOAA Fisheries).

<sup>29</sup> Raysbrook 2003.

<sup>30</sup> Williams 2007 at 29.

<sup>31</sup> *Id.* at 19-25.

<sup>32</sup> *Id.*

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

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

10-4

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

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

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

10-5

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

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

10-6

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

<sup>33</sup> Id.

<sup>34</sup> Id. at 21-23. Santa Ynez River data was received in response to EDC's June 22, 2007 Public Records Act Request to CCRB. CCRB supplied data to EDC on approximately August 17, 2007. This data was provided by EDC to John Williams for his evaluation of the RDEIR. CCRB delivered additional data to EDC on September 25 at 6 p.m. This recently delivered data was not available to John Williams when he conducted his evaluation.

<sup>35</sup> Moyle, Peter B. 2007. *Letter to Ms. Diane Riddle (SWRCB) Re: Santa Ynez River, Williams Analysis*. Sept. 26. [Attached.]

<sup>36</sup> EDC October 2003 comment letter at 10-16.

<sup>37</sup> *National Audubon Society v. Superior Court of Alpine County*, 33 Cal. 3d 419 (1983).

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

10-6

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

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

10-7

RDEIR Section 4.2 – Surface Water Hydrology

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

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

10-8

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

<sup>38</sup> EDC October 2003 comment letter at 16-17.

<sup>39</sup> See e.g., Ex. No. CT 23 and CT 24.

<sup>40</sup> EDC October 2003 comment letter at 17-22.

<sup>41</sup> CEQA Guidelines § 15125(a).

<sup>42</sup> *Berkeley Keep Jets over the Bay Com. v. Board of Port Comrs.*, 91 Cal. App. 4th 1344, 1367 (Cal. Ct. App. 2001) (Use of scientifically outdated information is not a "reasoned and good faith effort to inform decisionmakers and the public" about the consequences of a project).

<sup>43</sup> Santa Barbara County Public Works Department. \_\_\_\_\_. *Santa Barbara County Climate*. Webpage: <http://www.countyofsb.org/pwd/water/climatology.htm>. Viewed Sept. 17, 2007. [Attached.]

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

10-8

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

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

10-9

#### RDEIR Section 4.3 – Water Supply Conditions

*The three-year critical drought is poorly defined.*

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

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

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

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

10-11

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

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

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

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

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

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

<sup>46</sup> Santa Barbara County Water Agency. \_\_\_\_\_. *Water Resources of Santa Barbara County*. Downloaded Sept. 26, 2007 from:

[http://www.countyofsb.org/pwd/water/downloads/Part%204%20\(Water%20Supplies%20-%20Surface%20Water.%20SWP.%20Desal.%20Water%20Quality\).pdf](http://www.countyofsb.org/pwd/water/downloads/Part%204%20(Water%20Supplies%20-%20Surface%20Water.%20SWP.%20Desal.%20Water%20Quality).pdf). [Attached.] See p. 43.

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

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

<sup>49</sup> *Id.* at 3.12-15

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

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

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

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

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

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

<sup>51</sup> EDC October 2003 comment letter at 17-18 and Attachment 18.

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

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

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

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

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<sup>52</sup> Cooley, Heather and Peter Gleick. 2007. *Comments on the Revised Draft EIR for the Cachuma Water Rights Hearing*. Sept. 27. [Attached.] See pp. 11-16.

<sup>53</sup> Cooley and Gleick 2007 at 11-13.

<sup>54</sup> *Id.* at 12-13.

<sup>55</sup> *Id.* at 13-15.

<sup>56</sup> Haasz, Dana and Peter Gleick. 2003. *Comments on the Draft EIR for the Cachuma Water Rights Hearing: Report to the Environmental Defense Center*. Oct. 1. (Attachment 18 to EDC's October 2003 comment letter.)

<sup>57</sup> *Id.*

<sup>58</sup> Cooley and Gleick. 2007 at 4.

and omissions.<sup>59</sup> It identifies no technical basis to discount the Pacific Institute's conclusions regarding potential water savings.

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

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

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

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

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<sup>59</sup> *Id.* at 5-11.

<sup>60</sup> Cooley and Gleick 2007 at 15-16 and Table 4 (“GWD and SB are the best performers and have met or are on track to meet the requirements of eight and nine of the 14 BMPs, respectively. By contrast, CVWD, MWD, and SYRWCD, ID#1 have met or are on track to meet only five of the 14 BMPs.”).

<sup>61</sup> *Id.* at 17.

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

<sup>64</sup> *Id.* at 17.

<sup>65</sup> *Id.* at 20.

<sup>66</sup> *Id.* at 20-26.

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

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

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

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

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

10-14

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

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

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

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

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

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

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

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#### RDEIR Section 4.5.3 – Surface Water Quality Mitigation Measures

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

10-16

<sup>68</sup> Mitigation measures must be effective and enforceable. CEQA Guidelines § 15126.2.

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

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

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

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

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

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

10-18

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

<sup>69</sup> *County of Inyo v. City of Los Angeles*, 124 Cal. App. 3d 1, 9 (Cal. Ct. App. 1981).

<sup>70</sup> Williams 2007 at 5-8.

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

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

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NOAA Fisheries BO clearly states:

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

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

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

<sup>71</sup> Raysbrook 2003.

<sup>72</sup> Williams 2007 at 8.

<sup>73</sup> BO at 35 (emphasis in original); See also, Williams 2007 at 8.

<sup>74</sup> BO at 37.

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

10-18

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

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

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

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

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<sup>75</sup> Williams 2007 at 8.

<sup>76</sup> *Id.* at 18.

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

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

10-19

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

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

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

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

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<sup>77</sup> Non-native fish are introduced to the lower Santa Ynez River from Cachuma during spill events and are expected to be entrained in WR 89-18 water rights releases and introduced to the lower portions of the river during such releases.

<sup>78</sup> Williams 2007 at 5-9.

<sup>79</sup> *Id.*

<sup>80</sup> *Id.* at 8-9.

<sup>81</sup> *Id.* at 8.

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

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

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

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

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

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<sup>82</sup> *Id.* at 9.

<sup>83</sup> *Id.* at 13.

<sup>84</sup> *Id.* at 9-13.

<sup>85</sup> *Id.* at 9.

<sup>86</sup> EDC October 2003 comment letter at 25 and Attachment 19 (Keegan, Tom. 2003. *Preliminary Report to CalTrout*. Oct. 6.). Similar criticisms were raised during the administrative hearing proceedings. See, e.g., Ex. No. CT 30 (Keegan); RT:817-818 (Keegan); RT:937 (Li, NOAA Fisheries); RT:593-594 (Titus, CDFG).

<sup>87</sup> Williams 2007 at 13.

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

10-20

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

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

10-21

**Technical Memo 5:**

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

10-22

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

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

<sup>88</sup> Id. at 5, fn 3.

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

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

10-22

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

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

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

10-22

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

#### Technical Memo 6

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

10-23

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

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

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

10-24

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

<sup>89</sup> The Refugio Reach is 5 miles long while the Alisal Reach and Highway 145 Reaches are only 2.6 and 2.9 miles respectively. DEIR 4-85.

<sup>90</sup> CEQA Guidelines § 15126.6(a).

<sup>91</sup> Keegan 2003 (Attachment 19 to EDC's October 2003 comment letter) at 5.

<sup>92</sup> Keller, Edward A. 2003. *Statement of E.A. Keller*. Oct. 6 (Attachment 21 to EDC's October 2003 comment letter). See p. 2.

<sup>93</sup> Williams 2007 at 16-17.

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

10-24

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

*The RDEIR analysis of water temperature is inadequate.*

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

10-25

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

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

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

10-26

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

<sup>94</sup> See, e.g., Exhibit No. MU 224 (Hanson); at 13 RT:279 (Hanson) (discussing observations of juvenile fish in Highway 154 Reach in water temperatures that were "in excess of the general guidelines established").

<sup>95</sup> Keegan 2003 (Attachment 19 to EDC's October 2003 comment letter).

<sup>96</sup> Williams 2007 at 17.

<sup>97</sup> *Id.* at 17.

<sup>98</sup> *Id.* at 18-19.

<sup>99</sup> *Id.* at 18.

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

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

10-27

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

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

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

10-28

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

*The RDEIR misrepresents the area of impact from surcharge.*

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

10-29

RDEIR Section 4.10 – Recreation

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

10-30

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

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

10-31

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

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

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

10-32

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

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

10-33

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

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

10-34

<sup>100</sup> As described above, modest water conservation can feasibly offset the potential water supply-related impact associated with Alternative 5B.

<sup>101</sup> Williams 2007 at 15.

<sup>102</sup> As discussed above, the RDEIR overstates potential water supply impacts. When overstated demand projections are corrected and specific mitigation measures identified by the Pacific Institute are taken into account, none of the identified alternatives would have significant water supply impacts.

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

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

10-35

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

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

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

10-36

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

<sup>103</sup> Pub. Res. Code §§ 21002, 21002.1(b), 21081; CEQA Guidelines §§15002(a)(3), 15021(a)(2), 15091(a), 15092(b)(2)(A); see also, *Mountain Lion Foundation v. Fish and Game Commission* (1997) 16 Cal.App.4<sup>th</sup> 105, 134.

<sup>104</sup> EDC October 2003 comment letter at 23-31.

<sup>105</sup> Wet and above average year types are synonymous.

<sup>106</sup> In EDC's October 2003 comment letter, this is the water release portion of the "Public Trust Alternative." See pp. 25-26.

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

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

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

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

10-36

<sup>107</sup> EDC October 2003 comment letter; Ex. No. CT 90 (Edmondson).

<sup>108</sup> Id. The long-term mainstem rearing “target” flows under the BO are 10 cfs at Highway 154 and 1.5 cfs at Alisal Road (if steelhead are present) when Cachuma has >120,000 AF and spills greater than 20,000 AF; 5 cfs at Highway 154 when Cachuma has >120,000 AF but spills less than 20,000 AF; 2.5 cfs at Highway 154 when Cachuma has < 120,000 AF; and 1.5 cfs at Alisal Road when Cachuma has >30,000 AF when steelhead are present the year after a 20,000 AF or more spill. When Cachuma has <30,000 AF, periodic releases of less than or equal to 30 AF month are required. (RDEIR at 2-15.)

<sup>109</sup> Ex. No. CT 90, Appendix I (referencing SWRCB DEIR, Appendix C, Table 4-1).

<sup>110</sup> Id. at 27; Moyle 2007.

<sup>111</sup> Ex. No. CT 90 (Edmondson); Ex. No. CT 50 (Haasz and Gleick).

<sup>112</sup> Cooley and Gleick 2007 at 4-5.

<sup>113</sup> Id. at 11-16.

10-36

Alternative 3A2 Modified for Dry Years should be evaluated in the EIR.<sup>114</sup> This instream flow schedule should be adopted on an “interim” basis while monitoring and further studies, as described below, are conducted.

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

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

10-37

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

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

<sup>115</sup> EDC October 2003 comment letter at 26-28. A study of fish passage was identified as part of CalTrout’s “Public Trust Alternative.”

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

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

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

<sup>119</sup> October 7, 2003 NOAA comment letter; Ex. No. DFG 2 at 6 (McEwan).

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

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

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

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

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

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

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

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

<sup>126</sup> Williams 2007 at 24; Robinson et al 2007; Robinson 2007.

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

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

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

10-37

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

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

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

<sup>127</sup> See also, Williams 2007 at 24-25.

<sup>128</sup> Zapel, Ed T. 2003. *Opinion of E.T. Zapel*. Oct. (Attachment 17 to EDC's October 2003 comment letter).

<sup>129</sup> Ex. No. CT 10 (Zapel).

<sup>130</sup> Zapel 2007 at 2-10.

<sup>131</sup> Ex. No. DFG 7.

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

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

10-38

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

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

10-39

#### *Additional Water Conservation Studies*

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

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<sup>132</sup> EDC October 2003 comment letter at 25; CalTrout Closing Brief at 9.

<sup>133</sup> Williams 2007 at 25-26.

<sup>134</sup> *Id.*

<sup>135</sup> *Id.* at 26. EDC and CalTrout commented regarding on Draft EIR’s alternatives use of a flawed “adaptive management” program. EDC October 2003 comment letter at 14-16. These comments are still pertinent to the RDEIR.

<sup>136</sup> EDC October 2003 comment letter at 28-29 (referred to as CalTrout’s “Maximum Beneficial Use Alternative.”).

<sup>137</sup> *National Audubon, supra*, 33 Cal. 3d at 447.

<sup>138</sup> Williams 2007 at 26.

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

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

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

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

10-41

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

**X. Other Comments Regarding the RDEIR**

*Flood Control Impacts*

10-42

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

<sup>139</sup> Cooley and Gleick 2007 at 17-18.

<sup>140</sup> CEQA Guidelines, App. G, Sec. IX.

<sup>141</sup> EDC October 2003 comment letter at 31-32.

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

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

10-43

*RDEIR Section 7.0 – Cumulative Impacts*

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

10-44

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

10-45

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

10-46

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

<sup>142</sup> EDC October 2003 comment letter at 32.

<sup>143</sup> However, in response to EDC’s comments the RDEIR does now acknowledge that continuous flows in the lower River would promote riparian vegetation that could stabilize River banks and reduce erosion. In addition, based on EDC’s comments, the RDEIR has been revised to delete reference to clearing of riparian vegetation in the River by the County Flood Control District as a mitigation measure. (RDEIR at 4-17.)

<sup>144</sup> EDC October 2003 comment letter at 32-33.

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

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

10-47

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

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

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

10-48

<sup>145</sup> As discussed above, although the RDEIR does update water supply data, it is still outdated, and does not reflect more recent demand projections identified by the Member Units themselves.

<sup>146</sup> Berkeley Keep Jets over the Bay Com. v. Board of Port Comrs., 91 Cal. App. 4th 1344, 1367 (Cal. Ct. App. 2001) (Use of scientifically outdated information is not a "reasoned and good faith effort to inform decisionmakers and the public" about the consequences of a project).

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

10-48

*The RDEIR may not reflect the independent judgment of SWRCB.*

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

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

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

10-49

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

<sup>147</sup> See also, CEQA Guidelines § 15084(e).

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

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

months downstream of the Highway 154 Reach at temperatures in excess of Entrix's temperature criteria.<sup>150</sup>

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

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

10-49

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

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

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

<sup>153</sup> Supplemental Statement of Responsibilities at ¶ 4-5.

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

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

#### **XI. Conclusion**

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

Sincerely,

/s/  
Karen M. Kraus  
Staff Attorney

/s/  
Brian Trautwein  
Environmental Analyst

Attachments (electronic files)

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<sup>155</sup> Supplemental SOR at ¶ 4.

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

List of Attachments

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

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

**10. Environmental Defense Center – CalTrout, dated September 28, 2007.**

**Response 10-1:**

The comment states that the 2007 RDEIR does not address or respond to the vast majority of comments previously raised by the Environmental Defense Center (EDC) regarding these now modified portions of the 2003 DEIR. The comment letter incorporates by reference EDC's October 7, 2003, comments (in their entirety) submitted on behalf of CalTrout in response to the 2003 DEIR (October 2003 comment letter).

The comments to both the 2007 RDEIR and 2003 DEIR have been addressed in this response to comments. In addition the responses provided here to the EDC's September 28, 2007, letter, the commenter is referred to the responses provided under letter number 3 to the 2003 DEIR (EDC's letter of October 7, 2003).

**Response 10-2:**

The comment states that the 2007 RDEIR fails to adequately identify the project objectives and fails to provide the specificity required by CEQA for objectives. In addition, the comment also states the opinion that the Cachuma Project should include protecting of public trust resources above Bradbury Dam as an objective and the 2007 RDEIR should have analyzed the impact of the Bradbury Dam to the passage of *O. mykiss* upstream above the dam.

See response to 2007 RDEIR **Comment 1-5**.

The Santa Ynez River reaches upstream of Bradbury, Gibraltar, and Juncal dams are not included as *O. mykiss* critical habitat, however, populations of *O. mykiss* that exist upstream of the introduced dam barriers are largely or entirely descended from relic *O. mykiss* populations historically ascending the watersheds (Boughton and Goslin, 2006<sup>32</sup>). Nielsen (1998<sup>33</sup>) found that the native fish found upstream of the Bradbury Dam appear to be historically descended from anadromous *O. mykiss*, despite extensive stocking with hatchery fish over the years. Thus, hatchery fish do not appear to have significantly interbred into the wild strain, potentially as a result of different life cycle patterns. Finally, the Draft Recovery Plan emphasizes restoring access to the approximately 40 river miles upstream of the barriers in the Santa Ynez River in order to promote ecological traits such as capacity to migrate long distances and withstand warmer temperatures. There are no current plans to construct fish passage around these barriers and further analysis is not a part of the 2011 2<sup>nd</sup> RDEIR, which analyzes the potential impacts of

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<sup>32</sup> Boughton, D. A. and M. Goslin. 2006. *Potential steelhead over-summering habitat in the south-central/southern California coast recovery domain: Maps based on the envelope method*. NOAA- NMFS, SW Fisheries Center Technical Memo No 391. Santa Cruz, CA.

<sup>33</sup> Nielsen, J. L. 1998. Molecular genetic population structure in steelhead/rainbow trout (*Oncorhynchus mykiss*) from the Santa Ynez River, 1994-1997. Final Technical Report submitted to ENTRIX, Walnut Creek, CA November 20, 1998. 32pp.

the project before the SWRCB. The CEQA baseline for analysis includes the presence of the Bradbury Dam, so the barrier to public trust resource passage above the dam is part of the existing conditions. No further discussion is needed.

**Response 10-3:**

The comment states that the 2007 RDEIR fails to analyze a reasonable range of alternatives that fulfill the basic objectives and substantially lessen or avoid significant impacts.

See response to 2007 RDEIR **Comment 1-7**.

**Response 10-4:**

The comment asserts that the alternatives analyzed in the 2007 RDEIR cannot restore or preserve the public trust in steelhead and would not fulfill the project objective.

The project objectives listed in 2011 2<sup>nd</sup> RDEIR **Section 3.1.1** include protection of public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, taking into consideration: (1) the water supply impacts of measures designed to protect public trust resources, and (2) the extent to which any water supply impacts can be minimized through the implementation of water conservation measures. The SWRCB does not agree with this comment because the analysis presented in the 2007 RDEIR substantiates the reasons why the various alternatives would benefit the public trust resources.

For resident *O. mykiss*, the various alternatives analyzed in the 2011 2<sup>nd</sup> RDEIR would have no adverse impact as the varying lake levels would not hinder the capacity of the public trust resource to ascend into tributaries above the Bradbury Dam. For anadromous *O. mykiss*, the baseline operations do not include releases to facilitate passage. In contrast, Alternatives 3B, 3C, 4B, 5B and 5C would substantially increase the frequency of years with passage for the public trust resource due to releases to supplement passage. These alternatives would result in a beneficial effect (Class IV) on anadromous *O. mykiss* migration. For *O. mykiss* spawning habitat, Alternatives 3B, 3C, 4B, 5B and 5C would result in a beneficial effect (Class IV), with the number of years with intermediate flows increasing under Alternatives 5B and 5C. For *O. mykiss* rearing habitat, Alternatives 3B, 3C, 4B, 5B and 5C all show beneficial effects (Class IV) on *O. mykiss* fry rearing along the mainstem of the river, with Alternatives 5B and 5C providing the greatest benefit. The above conclusions are found in **Section 4.7.2.5, Impacts on Southern California *O. mykiss* along the River** of the 2011 2<sup>nd</sup> RDEIR.

**Response 10-5:**

Comment states that the 2007 RDEIR suffers from lack of a clear, stable project description

See response to 2007 RDEIR **Comment 1-2**.

**Response 10-6:**

The comment states that 2007 RDEIR identifies the appropriate baseline, but that, irrespective of the CEQA baseline, the 2007 RDEIR should also assess pre-Cachuma project conditions.

See response to 2007 RDEIR **Comment 1-6**.

**Response 10-7:**

The comment suggests that the 2007 RDEIR fails to address EDC's comments on the 2003 DEIR related to the adequacy of analysis or mitigation for many project impacts.

See responses to 2003 DEIR **Comments 3-25, 3-26, 3-27, 3-45, and 3-49**.

**Response 10-8:**

The commenter suggests that the surface water hydrology analysis for Alternatives 5B and 5C uses old and outdated data.

See response to 2007 RDEIR **Comment 1-16**.

**Response 10-9:**

The comment indicates that on page 4-18 and in Table 4-9 of the 2007 RDEIR there is no change in scouring flows and therefore no change in existing flood conditions, making the impact beneficial.

Regarding flood conditions, the 2007 RDEIR (pages 4-17 and 4-18) concludes that the alternatives are not expected to significantly increase the potential for flooding hazards along the lower Santa Ynez River, however there is expected to be some effect between the dam and Buellton. Overall, the potential increase in flood hazard is considered a less than significant impact (Class III) due to the balancing of reduced spill frequency and average annual spill amount (reduced potential) versus a reduction in uncontrolled spills (increased potential). Since available analysis techniques cannot predict these reductions and increases accurately and the river has different characteristics along its length, Class III was selected rather than Class II or Class IV. No conclusions were modified as a result of this comment.

**Response 10-10:**

The commenter suggests that the three-year critical drought is poorly defined for the purpose of evaluating Alternatives 5B and 5C and the other alternatives.

The three-year critical drought period used in the SYRHM analysis is defined as extending from May 1, 1949 to May 1, 1951 since this was the period with the most critical shortages of any 36-month period simulated by the model; shortages for all alternatives are shown in Table 4-16 in the 2007 RDEIR. The three-year critical drought period water supply and demand data for the Member Units is provided in Tables 19A and 19B. Table 4-25a defines in detail the water supply, water demand, surplus, and shortage values for each of the alternatives that allow an evaluation and comparison to be made for the years 2000 and 2020. All of these tables have been updated for the 2011 2<sup>nd</sup> RDEIR, evaluations and comparisons are made for 2009-2010 and 2020/2030 water years; conclusions were modified based on qualitative analysis of updated Member Units water supply and water demand data. The definition of the three-year critical drought period is considered adequate for the 2011 2<sup>nd</sup> RDEIR. No conclusions were modified as a result of this comment.

**Response 10-11:**

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

All Member Units' water supply data are summarized in the 2007 RDEIR, for example water supplies from sources other than Cachuma are found in Table 4-18. Based on this comment and others, the water supply and water demand data have been updated by the Member Units. The analysis for the 2011 2<sup>nd</sup> RDEIR using the updated Member Units water supply and water demand data resulted in no modified conclusions that lead to changes in impacts from less than significant to either significant or unavoidable.

**Response 10-12:**

The comment asserts that Alternative 5B would not result in significant water supply impacts, therefore the impacts should be classified as less than significant.

The 2007 RDEIR **Section 3.2.2** describes the Alternatives considered, including Alternative 5B. Based on the SYRHM modeling discussed in the 2007 RDEIR, it is shown that Alternative 5B could have significant (Class I) water supply related impacts (Table ES-2) and that water supply shortages (page ES-7) in a critical drought year or critical three-year drought period could have significant, unmitigable indirect environmental impacts depending on the manner in which the Member Units make up for the shortage. This analysis is sufficient to indicate that the Alternative 5B water supply impacts would not be expected to be less than significant. No conclusions were modified as a result of this comment.

The comment further suggests that that additional water conservation measures could be implemented and that the Member Units are not meeting the requirements of the Memorandum of Understanding (MOU) with the California Urban Water Conservation Council (CUWCC).

The Member Units are addressing conservation measures as part of their 2010 Urban Water Management Plan (UWMP) requirements. As noted previously, the 2009 legislation (SBx7-7) requires a statewide 20 percent reduction in urban per capita water use by 2020. It requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified requirements, and requires agricultural water suppliers prepare plans and implement efficient water management practices.

SBx7-7 further requires agricultural water suppliers (public or privately owned water suppliers providing water to 10,000 or more irrigated acres, excluding recycled water) to implement a variety of efficient water management practices and to prepare and adopt Agricultural Water Management Plans by December 31, 2012, according to specific requirements. Those plans must then be updated by December 31, 2015 and every five years thereafter.

The law also requires the California Department of Water Resources (DWR) to cooperatively work with the CUWCC to establish a task force to identify best management practices to assist the commercial, industrial and institutional sectors in meeting the water conservation targets. These and other provisions appear under SBx7-7 as California's evolving approach to water supply planning.

The CUWCC is reviewing the requirements for signatories to be deemed compliant;<sup>34</sup> with MOU Compliance and the differences between SBx7-7 compliance targets has been a continuing discussion item with the CUWCC. At present, the CUWCC is reviewing its methodologies and steps to address compliance.

**Response 10-13:**

The comment suggests that fish releases under Alternatives 5B and 5C illustrate the feasibility and effectiveness of modifying WR 89-18 releases to mimic the "natural hydrograph" in order to better protect groundwater resources and better protect steelhead.

This comment is noted.

**Response 10-14:**

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

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<sup>34</sup> California Urban Water Conservation Council (CUWCC), Memorandum from Chris Brown, Executive Director to CUWCC Board of Directors, GPCD and SBx7-7, February 23, 2011,

This comment is noted. In addition, as shown in Table 4-27 (Above Narrows Alluvial Groundwater Basin, page 4-35) of the 2007 RDEIR, Alternatives 3B, 3C, 4B, 5B, and 5C would all be more favorable for groundwater levels than under the baseline operations with Alternatives 5B and 5C being the most favorable amongst the alternatives. For the Lompoc Groundwater Basin, no significant changes in groundwater levels are predicted under any of the alternatives (page 4-50). There seems to be no substantial difference in the beneficial affects to groundwater levels from increased releases (Table 4-28).

**Response 10-15:**

The comment suggests that by modifying Order WR 89-18 the conjunctive water rights and steelhead protection releases can more efficiently and effectively help to maximize fulfillment of the project's objective to protect public trust resources.

Comment noted.

**Response 10-16:**

The commenter suggests that in 2007 RDEIR **Section 4.5.3** the surface water quality mitigation measures for Alternative 4B are not enforceable and are not effective.

See response to 2007 RDEIR **Comment 3-10**.

With regard to Alternative 4B **Section 3.2.2.4** (page 3-13), the 2007 RDEIR states: "The City of Lompoc, through its legal representative, has notified the SWRCB in a letter regarding the EIR dated June 18, 1999, that the City does not consider this alternative to be feasible because the residents of the City have twice rejected SWP water as a new water supply." Alternative 4B was considered in the 2007 RDEIR due to its projected reduction in the Lompoc Groundwater Basin salinity over time; however, as shown on page 6-1 (Table 6-1) this alternative has the highest number of adverse impacts. In addition, as stated on page 3-12, "This alternative provides a physical solution to address water quality issues in the Lompoc Plain using a nearby source of high quality water. Its implementation would require cooperation by all involved agencies, completion of project-specific environmental review and permitting, securing funding, and operational agreements." Therefore, without City of Lompoc's cooperation Alternative 4B would not be implemented. No conclusions were modified as a result of this comment.

**Response 10-17:**

The comment states that the analysis of Alternative 5B's and 5C's impacts on southern steelhead and resident trout in the 2007 RDEIR contains significant flaws and omissions.

A discussion of the impacts of Alternatives 5B and 5C is found in **Section 4.7.2 Potential Impacts of the Alternatives**. The analysis is based on the scoring criteria which were developed over several years

through extensive consultation and study with the agreement of SYRTAC and in consideration of the physical nature of the Santa Ynez River and access issues. Additional information that provides details documented by SYRTAC has been incorporated into the text of this section and supplemental information is provided in Appendix G. The same scoring criteria were used to evaluate each Alternative equally, so the analysis was the same for Alternative 5B and 5C as for the others. Under Alternatives 5B and 5C, "3A2 operations" would not become the operating criteria for water releases for fish until cumulative annual inflow into Cachuma Lake exceeds 33,707 af (wet and above-normal water years). If cumulative annual inflow does not reach this level, then operations would proceed under the Biological Opinion, with surcharges of 1.8 feet or 3.0 feet (Alternatives 3B and 3C, respectively). The SWRCB developed Alternatives 5B and 5C, which are modified versions of Alternative 3A2, specifically in response to comments made by CalTrout on the 2003 DEIR.

**Response 10-18:**

The comment states that the analysis of Alternative 5B's and 5C's beneficial impacts to steelhead migration in the 2007 RDEIR incorrectly assumes 14 days of passage flows in a year is a benefit for steelhead migration.

A discussion of the impacts and benefits of alternatives 5B and 5C is found in **Section 4.7.2 Potential Impacts of the Alternatives**. The Adult Steelhead Passage Flow Analysis for the Santa Ynez River (SYRTAC 1999) document was used as the basis for developing the model for potential fish passage. This document represents the best available data for managing flows to provide passage opportunities. The Biological Opinion represents the minimum flows identified to sustain *O. mykiss* passage. Re-evaluating whether these minimum criteria, which have been used for comparison and evaluation of all alternatives, protect the public trust resources was beyond the scope of this document.

**Response 10-19:**

The comment claims that the 2007 RDEIR fails to analyze adverse impacts to steelhead and other public trust resources caused by WR 89-18 releases.

Any adverse impacts related to WR 89-18 would be a component of the baseline information because WR 89-18 is a primary consideration for the current SWRCB water releases from Bradbury Dam. CEQA does not require an analysis of adverse impacts associated with the existing conditions.

The rationale for determining adverse impacts to steelhead resulting from the alternatives is based on the criteria for scoring detailed in **Section 4.7.2 Potential Impacts of the Alternatives** Table 4-41. See also the responses to 2003 DEIR **Comments 3-25, 3-26, 3-27, 3-45, and 3-49**.

**Response 10-20:**

The comment claims that the 2007 RDEIR relies on flawed scoring and analysis to evaluate flow related impacts.

The scoring analysis compares the benefits and impacts of each alternative relative to baseline conditions, and does not include an evaluation of the proposed alternatives compared to pre-dam conditions. The scoring method attempts to quantify relative habitat suitability and impacts associated with the project alternatives by examining each life-cycle phase independently.

While the scoring method may appear to be simple, it was designed as a metric that would allow an objective method for comparing the relative benefit or impact associated with the different alternatives. The SWRCB does not concur with Dr. Williams that the scoring system is not an interval scale but an ordinal scale just because it may appear to be a coarse scale with arbitrary differential gradients. This is not the case and the arithmetic averages are just as valid as if the rankings were more finely divided

The scoring system used to evaluate the impacts of alternatives was based on stream conditions as mapped in 2000, which is prior to the implementation of the Hilton Creek Watering System and other fish enhancements in the tributaries and mainstem implemented since 2006. Although qualitative observations indicate that since 2000 riparian vegetation has increased along the mainstem as a result of target flows, no quantitative data is available. Therefore, the scoring analysis is based on conditions prior to 2001 as explained in 2011 2<sup>nd</sup> RDEIR **Section 4.7.2 Potential Impacts of the Alternatives**, but remains consistent with previous analyses.

**Response 10-21:**

The comment suggests that the definition of water year types found in Appendix F, Technical Memorandum No. 5 (TM5; at pages 7 through 9), and used to evaluate Alternatives 5B and 5C, is fundamentally in error.

A water year, as used in the 2007 RDEIR, covers the period October through the following September (note Table 5, Stetson Engineers Technical Memorandum No. 3), which is the State of California standard. Multiple data sets throughout the 2003 DEIR and the 2007 RDEIR are captured, analyzed, and presented in water years. For example, the 2007 RDEIR notes (page 3-2) that the SYRHM states: "hydrologic period of analysis for the model simulations included the *water years* (emphasis added) 1918 through 1992." It is not stated in the comment why this definition is considered in error, therefore, the use seems reasonable. No conclusions were modified as a result of this comment.

**Response 10-22:**

The commenter suggests that TM5 is based on a significantly flawed categorization of water years and excludes readily available water year/inflow data from 1994 to the present.

See responses to 2007 RDEIR **Comments 10-21** and **4-12**.

**Response 10-23:**

The comment suggests that the Santa Ynez River Hydrology Model (SYRHM) produces only monthly flow data, but that Technical Memorandum #6 (2007 RDEIR Appendix F) includes a tabulation of flow exceedances for 2007 RDEIR alternatives that depends on daily flow estimates. The commenter also claims that use of the Salsipuedes Creek Gauge for the monthly to daily flow conversion is not supported in the 2007 RDEIR.

Technical Memorandum No. 6 (2007 RDEIR Appendix F) contains Tables A-1 and A-2 (Appendix A) with simulated monthly flows (using the SYRHM for Alternatives 5B and 5C for the period 1918 through 1993). These monthly flows were converted to daily flow estimates (Table 1, between pages 2 and 3) using simple mathematical relationships applied to the monthly data outside the SYRHM by comparing the monthly data to the daily variations of gauged flow measured in Salsipuedes Creek (Water Year 1942-1993). The daily flow estimates in Table 1 were utilized to assess impacts on fish passage flows. The same procedures for the impact analysis utilizing daily flow estimates was used for the Biological Assessment (BA) and Fish Management Plan (FMP).

Daily variations of gauged flow measured in Salsipuedes Creek cover a 52-year period including wet and dry years, providing an overlapping and statistically significant basis for estimating daily flow in the watersheds on the north side of the Santa Ynez Mountains. Without a more specific technical basis for questioning the reasonableness of the method, it is believed that the Salsipuedes Creek data set forms an acceptable basis for the conversion of monthly flow data to daily flow estimates. No conclusions were modified as a result of this comment.

**Response 10-24:**

The comment states that the 2007 RDEIR fails to compare the steelhead habitat quality in the Refugio Reach under Alternatives 5B and 5C to other Alternatives' steelhead habitat quality for the same reach.

The habitat quality for *O. mykiss* in the Refugio Reach is described on page 4-86 of the 2003 DEIR. (Pages 4.7-20 and 4.7-53 in the 2011 2<sup>nd</sup> RDEIR). The *O. mykiss* habitat quality in the Refugio Reach discussion received the same the level of detail for all alternatives in the 2007 RDEIR. However, much of the 4.6 miles of this reach are not accessible for monitoring due to private property constraints.

**Response 10-25:**

The comment states that the 2007 RDEIR analysis of water temperature in relation to *O. mykiss* habitat suitability is inadequate.

Updated information on water temperature based on SYRTAC (2004) has been added to **Section 4.7 Southern California Steelhead and Other Fishes** of the 2011 2<sup>nd</sup> RDEIR and summaries describing specific reaches are found in 2011 2<sup>nd</sup> RDEIR **Section 4.7.1.2 Fish Communities**.

**Response 10-26:**

The comment states that the 2007 RDEIR fails to analyze effects of water quality on the success of incubating steelhead embryos and alevins.

Updated information on water quality based on SYRTAC (2004) has been added to pertinent the **Section 4.7 Southern California Steelhead and Other Fishes** of the 2011 2<sup>nd</sup> RDEIR, and summaries describing specific reaches are found in **Section 4.7.1.2 Fish Communities** and is further discussed in **Section 4.7.1.5 Threats to *O. mykiss***. No further response is required.

**Response 10-27:**

The comment states that the 2007 RDEIR fails to address potential impacts to sensitive plant species within Alternative 5B's and 5C's surcharge zones.

The 2003 DEIR analyzed potential impacts from surcharging to six sensitive plant species, none of which are known to occur around the margins of Cachuma Lake or in the Santa Ynez River channel between the dam and the ocean. Hence, changes in lake elevation and flow regime downstream of the dam would not affect these species. The six species discussed in **Section 4.8.1.3** of the 2003 DEIR are beach layia (*Layia carnosa*), beach spectaclepod (*Dithyrea maritima*), La Graciosa thistle (*Cirsium loncholepis*), surf thistle (*Cirsium rhothophilum*), crisp monardella (*Monardella crispera*), and San Luis Obispo monardella (*Monardella frutescens*). The impact analysis discussion in the 2003 DEIR for Alternatives 3B and 3C equally apply to Alternatives 5B and 5C in regard to lake vegetation. See also response **Comment 11-14** of the 2003 DEIR

**Response 10-28:**

The comment states that sensitive wildlife species present at the reservoir and lower Santa Ynez River would be impacted by surcharging and Order WR 89-18 releases.

Discussion of the impacts to sensitive wildlife species from the project and the Alternatives is found in 2011 2<sup>nd</sup> RDEIR **Section 4.9.2 Potential Impacts of the Alternatives**. Only the southwestern willow flycatcher is determined to be potentially impacted and only under Alternative 4B and Mitigation Measure WL-1 is proposed to reduce impacts to that species to less than significant. Releases under Order

WR 89-18 are part of the baseline condition and the ongoing operations at Bradbury Dam, and, therefore, no new impacts would result from Order WR 89-18 releases.

**Response 10-29:**

The comment states that the 2007 RDEIR misrepresents the area of impact from surcharge.

The impact area includes the areas downstream of Bradbury Dam and those areas around Lake Cachuma that will be impacted by the various alternatives. As appropriate, the 2011 2<sup>nd</sup> RDEIR (including the 2007 RDEIR) addresses the impacted areas. While there may be discussions in the 2011 2<sup>nd</sup> RDEIR that specify individual channel widths, the reader should be cautioned to note that any changes are dependent on the specific discussion and analysis. The analysis provides for appropriate level of review for impact areas.

**Response 10-30:**

The comment suggests that the 2007 Revised Draft EIR fails to analyze the impacts to public recreation in and along the River caused by increased flows under Alternatives 5B and 5C, and fails to compare the impacts to those of the BO alternatives and the baseline.

As discussed in the 2003 DEIR under **Section 4.10.2.2**, recreational opportunities upstream of the lake would not be significantly affected by any of the alternatives. Most of the river downstream of Cachuma Lake is private property with limited access, and no public recreational facilities are located within the river channel. Kayaking, rafting, and canoeing are not currently feasible in the river due to low flows. Alternatives 3B, 3C, 4B, 5B, and 5C are anticipated to increase flows to the Santa Ynez River lagoon during emergency winter operations and passage releases. During this time recreational water activities within the lagoon (i.e., kayaking) would be beneficially affected. In addition, as stated in the 2003 DEIR, increase in the above-mentioned flows would have a slightly beneficial effect on anadromous fish and sensitive aquatic and terrestrial wildlife that would beneficially affect recreational activities reliant upon such resources, such as bird watching or fishing.

**Response 10-31:**

The comment suggests that the SWRCB is inappropriately deferring to COMB as a lead agency in the context of analysis of fish passage around Bradbury Dam.

The SWRCB is not inappropriately deferring to COMB for analysis of impacts to fish passage around Bradbury Dam. Consistent with CEQA, the SWRCB project analyzes only the impacts associated with surcharging and the flow releases along the lower Santa Ynez River, which is the proposed project.

**Response 10-32:**

The comment states that Alternatives 5B and 5C avoid a significant impact to the Santa Ynez River public trust resources that would result from Alternative 4B.

Analysis of both benefits and impacts of the alternatives are discussed in **Section 4.7.2 Potential Impacts of the Alternatives**. The 2007 RDEIR supports the statement made in the comment.

**Response 10-33:**

The comment states that Alternative 5B's 1.8 foot surcharge substantially lessens and avoids portions of the significant impact to oak trees caused by Alternative 5C's 3.0 foot surcharge.

The comment is noted. Analysis of the potential impacts to oak trees is discussed in 2011 2<sup>nd</sup> RDEIR **Section 4.8.2.2 Impacts to Lakeshore Oak Trees**.

**Response 10-34:**

The comment states that Alternative 5B is the environmentally superior alternative of those analyzed in the 2007 RDEIR.

The commenter's opinion is noted. **Section 6.0, Alternatives Analysis**, in the 2011 2<sup>nd</sup> RDEIR has been revised to illustrate how the various alternatives related to the baseline and to each other. Further, the environmentally superior alternative has been identified.

**Response 10-35:**

The comment states that CalTrout's proposed Alternative 3A2 Modified and other measures are capable of fulfilling the CEQA project objective of protecting public trust resources. Further, the comment states that the SWRCB cannot adopt an alternative if there is another feasible alternative that fulfills most of the basic project objectives and avoids or substantially lessens significant impact.

The commenter misstates the law. *CEQA Guidelines* Section 15126.6, subdivision (a) states that "it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." This is a different standard than that proposed by the commenter. The commenter's citations likewise do not support the standard espoused by the commenter. In addition, while Alternative 5B (which addresses and embodies the proposed Alternative 3A2 by CalTrout) does achieve most of the project objectives, it is not the environmentally superior alternative. The SWRCB has evaluated the alternatives to determine the relative impacts of the alternatives and has determined that while both Alternatives 3C and 5B will have the fewest impacts, Alternative 3C will have fewer impacts

than, or reduces the impact more than, Alternative 5B, and is therefore environmentally superior to Alternative 5B.

**Response 10-36:**

The comment states that CalTrout's proposed instream flow schedule is more capable of meeting project objectives and reducing or avoiding impacts.

While CalTrout has provided a flow schedule, the range of alternatives analyzed in the multiple Draft EIRs also includes a flow schedule that meets the needs of the project and complies with the Biological Opinion. *CEQA Guidelines* Section 15126.6, subdivision (a) states that "An EIR shall describe a range of reasonable alternatives to 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. An EIR need not consider every conceivable alternative to a project."

**Response 10-37:**

The comment states that study of fish passage should be conducted to fulfill the public trust objective.

The public trust objective of the current SWRCB project is stated in 2011 2<sup>nd</sup> RDEIR **Section 3.1.1, Description of the Proposed Project** as Protecting public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, taking into consideration: (1) the water supply impacts of measures designed to protect public trust resources, and (2) the extent to which any water supply impacts can be minimized through the implementation of water conservation measures. Therefore, it is not an objective of the project to study fish passage around Bradbury Dam, as the comment claims. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing passage over Bradbury dam. This is discussed further in 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**. While the SWRCB is supportive of a study of fish passage around the Bradbury Dam, it is not part of the current project or project objectives.

**Response 10-38:**

The comment states that a "Demonstration Flow Assessment" should be conducted to identify instream flow requirements necessary to fulfill the public trust objective.

The comment is noted. In 2009, the SYRTAC completed the Summary and Analysis of Annual Fishery Monitoring in the Lower Santa Ynez River 1993-2004. This document updates the data from the 2000 Fish

Management Plan, and summarizes the status of actions related to the Biological Opinion. This data may be used to analyze river flow but this is not necessary for the environmental analysis of impacts upon the public trust resource. Conservation Recommendation #1 recommends further study of alternative methods to provide downstream water right holders with water from the Cachuma Project. This study has not yet been completed and thus the data were not available for incorporation into the analysis as noted in the 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

See also response to 2007 RDEIR **Comment 10-37**.

**Response 10-39:**

The comment states that a study of modifications to Order WR 89-18 must be conducted to fulfill the public trust objective and maximize the beneficial use of Cachuma Project water.

The comment is noted. See response to 2007 RDEIR **Comment 10-38** above.

Chart 2-4 Historical Monthly WR 89-18 Water Rights and Fish Releases in Appendix B summarizes the water releases made for fish to meet the requirements of the Biological Opinion, implementation of which will protect the public trust.

**Response 10-40:**

The comment notes that the Pacific Institute has determined that 5,000 to 7,000 afy could be cost-effectively conserved by the Member Units by implementing existing efficiency technologies and well-understood policies to promote water conservation. The commenter suggests that this information demonstrates that the alternatives in the 2007 RDEIR and CalTrout's Alternative 3A2 Modified for Dry Years can be implemented without significant impacts to water supply. To identify further potential water savings, the commenter recommends additional study to identify additional conservation opportunities and to determine the mix of conservation options most appropriate for the individual Member Units.

The scope of the project does not extend to the Member Units ability to conserve water rather it deals with water rights and protection of both public trust resources and other downstream users. Further, the Member Units are in the process of revising their 2010 Urban Water Management Plan updates. These updates will be required to address the 2009 Comprehensive Water Legislation, including conservation requirements (20 percent by 2020). The Member Units will be required to demonstrate how they intend to meet the water demand requirements based on supplies.

Alternative 3A2 in the 1995 EIS/EIR has been included in the analysis as part of the 2007 RDEIR Alternatives 5B and 5C. The potential impacts on water supply associated with these alternatives would be substantially greater than for other alternatives when compared to the baseline.

With regard to potential impacts on water supply, see response to 2007 RDEIR **Comment 1-18**.

Future studies are not required to adequately address the impacts of the reasonably selected alternatives.

**Response 10-41:**

The comment states that the 2007 RDEIR fails to analyze consistency with applicable plans and policies and fails to acknowledge the project's inconsistency with such.

The 2011 2<sup>nd</sup> RDEIR includes a discussion of applicable plans and policies and the relationship of the proposed project to them. All of the existing plans note that Reclamation has requested a revision to its water rights permits and that it intends to surcharge the reservoir to 753 feet. The review of existing plans and policies did not find any inconsistencies with the Project.

**Response 10-42:**

The comment suggests that EDC comments on the 2003 DEIR regarding potential flooding impacts are still pertinent to the 2007 RDEIR.

See response to 2003 DEIR **Comment 3-45**.

**Response 10-43:**

The comment states that no protection of public trust resources in other streams impacted by Cachuma Project is analyzed or provided.

The SWRCB does not concur with this comment. The streams and tributaries of the Santa Ynez River below Bradbury Dam identified within the Biological Opinion are discussed and analyzed in the 2003 DEIR and the 2007 RDEIR. Discussion of implementation of the Reasonable and Prudent Measures on these tributaries is found in **Section 2.4.3.1 Tributary Passage Impediment Removal Measures** and also in **Section 4.7.1.2 Fish Communities**.

**Response 10-44:**

The comment references a 2003 comment on the 2003 DEIR regarding its failure to consider an ongoing vegetation removal project in the lower Santa Ynez River at Lompoc and the proposed Cachuma Resource Management Plan in the cumulative impact analysis.

Please see response to 2003 DEIR **Comment 3-48**.

**Response 10-45:**

The comment suggests that the 2007 RDEIR fails to analyze the cumulative impacts of Gibraltar Dam, Jameson Dam, Alder Creek Diversion, Devil's Diversion, and other upstream water diversions (e.g., No Name Creek) that affect surface flows into Cachuma, and thus affect frequency and rate of spill events, surcharging, lakeshore vegetation, water supplies and the amount of water available for fish.

*CEQA Guidelines* (Section 15130) clearly state that an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Here the SWRCB is not evaluating the Cachuma project itself, but the proposed project, which consist 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. As such, the cumulative impacts of existing upstream dams and water diversions may be considered inasmuch as those could cause cumulative impacts in combination with the project evaluated in the Draft EIRs, but "An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." (*CEQA Guidelines* Section 15130.)

**Response 10-46:**

The comment states that existing and reasonably foreseeable future downstream water rights projects have been improperly excluded from the 2003 DEIR's and 2007 RDEIR's cumulative impact analysis.

The 2011 2<sup>nd</sup> RDEIR has been updated to include all known and reasonably foreseeable downstream water rights projects. The commenter is directed to 2011 2<sup>nd</sup> RDEIR **Section 3.1.2** as updated.

**Response 10-47:**

The comment states that the 2007 RDEIR does not reflect new data and information that is pertinent to the evaluation of the newly identified range of alternatives, including data available since the 2003 DEIR was published.

See response to 2007 RDEIR **Comment 1-7**. Additionally, the 2011 2<sup>nd</sup> RDEIR has been updated to include data that is available and pertinent to all issues including operation data for Bradbury Dam, water supply and demand, improvements made pursuant to the Biological Opinion, data on fish recovery, measures to mitigate oak tree losses, improvements made to the County Park and other data. Further, the 2011 2<sup>nd</sup> RDEIR acknowledges additional information available from NMFS on steelhead and discussions on climate change.

**Response 10-48:**

The comment states that the 2007 RDEIR improperly describes the SYRTAC and its decision making role with respect to conditions for endangered steelhead.

Discussion of the role of the SYRTAC and Adaptive Management Committee is found in 2011 2<sup>nd</sup> RDEIR **Section 2.3 Memorandum of Understanding for Fish Studies.**

**Response 10-49:**

The comment states that the 2007 RDEIR may not reflect the independent judgment of SWRCB and expresses concerns regarding prior use of previous contractors (Stetson and Entrix)

SWRCB has contracted with the California Department of General Services (DGS) to complete the 2011 2<sup>nd</sup> RDEIR. In turn, DGS has selected a new contractor (and associated subcontractors) with no prior involvement on the project or with the parties involved. As such, the 2011 2<sup>nd</sup> RDEIR was prepared independently and with no potential for bias or preconceived results.

OK/OKR

State of California - The Resources Agency

ARNOLD SCHWARZENEGGER, Governor



DEPARTMENT OF FISH AND GAME

http://www.dfg.ca.gov
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201



September 26, 2007

Ms. Diane Riddle
Division of Water Rights
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812
Fax No.: (916) 341-5400

2007 SEP 26 PM 4:31
DIV OF WATER RIGHTS
SACRAMENTO
STATE WATER RESOURCES
CONTROL BOARD

Revised Draft Environmental Impact Report for the
Consideration of Modifications to the
Bureau of Reclamation's Water Right Permits 11308 and 11310
SCH # 1999061061, Santa Barbara County

Dear Ms. Riddle:

The Department of Fish and Game (Department), has reviewed the Revised Draft Environmental Impact Report (RDEIR) for impacts to biological resources. The proposed project consists of potential modifications to the U.S. Bureau of Reclamation's (Reclamation) water right permits for the Cachuma Project (Order WR 94-5) to provide appropriate protection of downstream water rights and public trust resources on the Santa Ynez River. The Cachuma Project provides water to Cachuma Project Member Units for irrigation, domestic, municipal and industrial uses. Member Units consist of the City of Santa Barbara, Goleta Water District, Montecito Water District, Carpinteria Valley Water District, and the Santa Ynez River Water Conservation District. Permit conditions require Reclamation to release enough water to satisfy downstream users with senior rights to surface water and to maintain percolation of water from the stream channel, and not reduce natural recharge of groundwater from the Santa Ynez River. Potential adverse impacts from the project include, but are not limited to, the loss of oak woodland along the margin of Cachuma Lake, changes in riparian vegetation along the Santa Ynez River, and disruption of breeding bird behavior. Wildlife with the potential to be impacted by the project includes a long list of State and Federally listed and otherwise sensitive species of plants, animals, and communities, including the Federally Endangered southern steelhead (Oncorhynchus mykiss) the Federal and State Endangered southwestern willow flycatcher (Empidonax traillii extimus), the Federally Threatened and State Species of Special Concern California red-legged frog (Rana aurora draytonii), the State Species of Special Concern southwestern pond turtle (Clemmys marmorata pallida) and two-striped garter snake (thamnophis hammondi).

The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Guidelines §15386(a)) and pursuant to our authority as a Responsible Agency (CEQA Guidelines §15381) over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code Section 2050 et seq.) and Fish and Game Code Section 1600 et seq. As trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management

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of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species.

**3.2 Alternatives**

The RDEIR describes five alternatives, without presenting any one alternative as the preferred project. Each of the alternatives presented would result in at least one significant, unmitigable impact (Class I). CEQA Guidelines §15021(a)(2) establishes a duty for public agencies to not approve a project if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects the project would have on the environment. While the Department appreciates the efforts of the Water Board to include an analysis of two new alternatives (5B and 5C) in the revised DEIR, the Board fell short in not considering all feasible and reasonable alternatives as required under CEQA Guidelines §15026.6 (a). Of particular concern is the lack of alternatives that examines the feasibility of fish passage past Bradbury Dam either as a stand alone alternative or in combination with one of the five alternatives outline in the RDEIR or as part of non-flow related alternatives. The Board has received numerous requests from the Department and other Resource Agencies in written communication regarding the 2003 DEIR as well as in written and oral testimony during the 2003 water rights hearing to include an alternative that examines the feasibility of fish passage in the RDEIR. An outline of a scientifically-based fish passage feasibility study is included in attachment 1. For this reason, the RDEIR does not contain a range of all reasonable alternatives that would satisfy the stated objective of protection of public trust resources.

11-1

**4.0 Environmental Analysis of Alternatives (Flow-Related Actions)**

Bradbury Dam is located approximately 46 miles from the ocean on a watershed that encompasses over 900 square miles. Due to its location, approximately 78% of the watershed is above the dam. This has a tremendous effect on the fluvial processes within the watershed. The document states on page 2-1 that siltation has reduced the original 204,874 acre feet (af) capacity Lake Cachuma. The document further goes on to state that estimates in 2000 place the capacity at 188,030 af (MNS, 2000). This illustrates that the natural movement of sediments has been interrupted by the presence of Bradbury Dam. The environmental analysis of the alternatives did not include an analysis of what effect if any the release of "hungry water", that is waters that are devoid of sediment, will have or has had on the downstream resources. The change in sediment budget due to capture of all but the finest materials by the dam, and the increased sediment transport capacity of sediment-free water released from the dam can have a detrimental effect on the stability of the channel, bank and associated riparian habitat. In turn destabilized banks result in increased erosion, loss of riparian cover and nesting habitat, and for the aquatic resources increased water temperatures and decrease in dissolved oxygen. The RDEIR needs to evaluate these potential impacts. It may be determined that the potential impacts are not avoidable and may have to be mitigated through implementation of a sediment management plan. This might include sediment removal from behind the dam and placement onto the spillway for transport during scheduled water releases or spill events.

11-2

The RDEIR also failed to examine the impact of water releases for irrigation and flood control releases under the alternative presented in the RDEIR. Rapid rates of increased and decreased flow and the associated changes in water surface elevation have destabilizing

11-3

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impacts on bank conditions that have not been addressed. It may be necessary to establish ramping rates similar to those established for fishes for irrigation and flood control releases as mitigation for downstream impacts.

11-3

#### 4.7.2. Potential Impacts of the Alternatives

New information prepared as part of the recovery planning process by the National Marine Fisheries Service (NMFS) during the past 5 years has not been incorporated into the RDEIR, which would enable the resources agencies and the public to better evaluate the alternatives and their potential impacts on *O. mykiss*. In particular the 2007 Federal Recovery Outline for the Distinct Population Segment of Southern California Coast Steelhead (NMFS 2007) identifies the need to protect the inland populations of the five core populations as well as reconnect them to the ocean. These two elements are essential to the recovery of the species in the Santa Ynez watershed. As this information was not included in the RDEIR, it is impossible to adequately assess the potential impact of the five alternatives or to evaluate other proposed actions.

11-4

#### Fish Migration (excerpt from the Department's 2003 comment letter)

The analysis for fish passage in the lower reach uses a criterion of 25 cfs at the Alisal Road Bridge. It states that this is sufficient flow to pass critical riffles between the dam and the lagoon 92% of the time. Therefore, for suitable access to mainstem and tributary spawning habitat, there must be a sufficient number of days with flow at the Alisal Road Bridge greater than or equal to 25 cfs. The NMFS Biological Opinion states that 25 cfs is a minimum flow for passage (at 8 feet of contiguous wetted channel and ½ foot of depth), but does not provide "water depth and width that produce good migration habitat" (NMFS 2000).

The number of passage days used in the analysis is 14. Reclamation proposed in its biological assessment to supplement storm flows to ensure that there are approximately 14 days for migration. The statement in the RDEIR that "NMFS considered 14 days of passage in a particular year to be an adequate passage opportunity (NMFS 2000), and therefore this was given a score of 5 (Table 4-41)" is inaccurate. The conclusion NMFS made was based on Reclamation's modeling results which showed that supplemental flows to assist steelhead migration would be applied in approximately 24% of the years and would double the amount of normal years when 14 or more consecutive days of migration would be available. The 14 days of fish passage is not per year, but per storm event in a given year. The Biological Opinion stated that based on the limited information available, 14 days of consecutive migration availability is likely to significantly increase successful migration by steelhead compared to recent operating conditions. However, migration opportunity below the dam will continue to be reduced over the life of the project when compared to natural conditions associated with the larger historic steelhead population in the Santa Ynez River. Therefore, a flow of 25 cfs for 14 or more days per storm event should be considered a minimum criterion for fish passage and should be scored in the lower end of the range, not at the highest.

11-5

The method of analysis and scoring system used in the RDEIR is based on flow standards and location criteria that are scored too high given the information provided in the Biological Opinion. However, to determine whether or not any of the alternatives protect

Ms. Diane Riddle  
September 26, 2007  
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steelhead a comparison should be made between the proposed alternatives and pre-dam conditions.

11-5

#### **Impacts to Riparian Zones and Southwestern Willow Flycatcher from Downstream Releases**

Water releases from Cachuma Lake via Bradbury Dam to enhance fish passage in the Santa Ynez River are considered in the RDEIR a beneficial impact to aquatic and terrestrial wildlife between the dam and the Alisal Road Bridge in Solvang. The Department has reservations about the depiction of this impact as beneficial.

One benefit identified in the RDEIR of downstream releases could be to "...increase the vigor and extent of wetland and riparian vegetation along the river, and indirectly benefit the associated aquatic and terrestrial wildlife, including sensitive species." The Santa Barbara County Flood Control District (SBCFCD) implements a Routine Maintenance Plan which includes the Santa Ynez River and the removal or reduction of riparian vegetation in areas where it constitutes a threat of flooding. Any increase in vigor and extent of riparian vegetation in the Santa Ynez River above Alisal Bridge may therefore lead to initiation or intensification of riparian vegetation management by SBCFCD. This would constitute a foreseeable indirect effect of the proposed project as defined in CEQA Guidelines §15064(d), and as such should receive analysis in the RDEIR to determine if the effect would be adverse.

11-6

Southwestern willow flycatchers (SWF) are known to nest in areas along the Lower Santa Ynez River which have potential to be affected by the proposed project. SWF sometimes build nests in vegetation growing directly over the river channel, sometimes as close as 0.5-1m above the surface of the water. A rise in water levels as little as 0.5m could therefore result in the destruction of occupied SWF nests. An analysis of this issue in the RDEIR concluded "...it is not possible to accurately assess the magnitude of the impact of ongoing and future water rights releases..." The Department therefore recommends monitoring the effects of releases on SWF nesting along the Lower Santa Ynez River. This can be accomplished by conducting thorough SWF nest surveys annually and monitoring active nests on a weekly basis to determine impacts from downstream releases. The results should then be provided to an advisory committee consisting of the Department, the U.S. Fish and Wildlife Service, and Mr. Mark Holmgren. One method for avoiding possible negative impacts to nesting SWF would be to end water releases prior to May 20<sup>th</sup> of each year.

#### **Impacts to Jurisdictional Drainages**

The Department requires a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to any direct or indirect impact to a lake or stream bed, bank or channel or associated riparian resources. The law requires any person, state or local governmental agency, or public utility to notify the Department before beginning an activity that could substantially modify a river, stream, or lake. The project as proposed includes impacts to streambeds within Department jurisdiction. An application for a Lake or Streambed Alteration Agreement (LSAA), under Section 1600 et seq., therefore will be required. You may call our San Diego office at (858) 636-3160 to initiate the 1600 process. You may also obtain a notification package online by visiting the Department's website at

11-7

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<http://www.dfg.ca.gov/1600/1600.html>.

Thank you for this opportunity to provide comment. Questions regarding this letter and further coordination on these issues should be directed to Ms. Mary Larson, Senior Biologist Specialist, at (562) 342-7186 and Mr. Martin Potter, Environmental Scientist, at (805) 640-3677.

11-7

Sincerely,

*Theresa A. Stewart*  
for Kevin Hunting  
Acting Regional Manager  
South Coast Region

References:

McEwan, D. and T. A. Jackson. 1996. Steelhead Restoration and Management Plan for California. California Department of Fish and Game.

National Marine Fisheries Service 2000. Biological Opinion issued to the U. S. Bureau of Reclamation for operation and maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California. Dated September 11, 2000.

National Marine Fisheries Service 2007. 2007 Federal Recovery Outline for the Distinct Population Segment of Southern California Coast Steelhead. September 2007.

Attachments

cc: Ms. Betty Courtney  
Department of Fish and Game  
Santa Clarita, California

Ms. Mary Larson  
Department of Fish and Game  
Los Alamitos

Mr. Martin Potter  
Department of Fish and Game  
Ojai, California

Ms. Natasha Lohmus  
Department of Fish and Game  
Santa Barbara, California

Mr. Scott Morgan  
State Clearinghouse  
Sacramento, California

### Feasibility Study Outline

When creating a feasibility study, several steps should occur in order to complete a successful project.

1. Outline an overall course of study at the beginning of the investigation
  - a. Scheduling
  - b. Estimate costs
  - c. Identify funding sources and in-kind services.
  - d. Select technical team
  - e. Establish management process
    - i. Conduct regular meetings with technical team
    - ii. Provide over site
    - iii. Respond to new information provided by technical team
2. Acquire primary data
  - a. Historic and anticipated run timing
  - b. Historic and anticipated hydrology
  - c. Various site information
3. Familiarize staff with project site
4. Brainstorm possible alternatives
  - a. Identify several top alternatives
    - i. Identify and attempt to answer data gaps and research needs
5. Develop, discuss, and rank top alternatives
  - a. Develop cost estimate for:
    - i. Preliminary and final design
    - ii. Permits
    - iii. Bids
    - iv. Construction
6. Proceed to preliminary design for top alternatives
7. Peer review project after critical decision steps

Potential pitfalls to avoid in order to complete a proper fish passage feasibility study are:

1. Lack of earnest desire to achieve goal
2. Exploring too narrow a scope of alternatives
3. Premature dismissal of possibly valid concepts
4. Dismissal of concept due to lack of existing precedent
5. Dismissal of concept solely because some testing is needed to close data gaps
6. Prematurely launching of experimental technology
7. Premature dismissal of alternative because public agency policies appear to conflict with alternative

VA

**11. California Department of Fish and Game, dated September 26, 2007.**

**Response 11-1:**

The commenter states that the 2007 RDEIR describes five alternatives, without presenting any one alternative as the preferred project. The comment notes particular concern in the lack of alternatives that examine the feasibility of fish passage past Bradbury Dam either as a stand-alone alternative, in combination with one of the five alternatives outline in the 2007 RDEIR or as part of non-flow related alternatives.

The commenter is referred to response to 2007 RDEIR **Comment 3-8**. Further, the development of a reasonable range of alternatives was completed for both the 2003 DEIR and 2007 RDEIR, as explained in response to 2007 RDEIR **Comment 1-7**.

**Response 11-2:**

The commenter suggests that the environmental analysis of alternatives (flow-related actions) did not include what effects, if any, the release of waters that are devoid of sediment (hungry water) will have on the downstream resources.

Alternatives in the 2007 RDEIR were analyzed relative to the baseline operating conditions (Alternative 2) for flow-related actions. This baseline includes the Bradbury Dam, the existing watersheds above and below the Dam, and the various reaches of the Santa Ynez River below the dam. The baseline flow conditions include the deposition of sediment behind the Dam and the release of sediment-starved waters (so-called hungry water) to the Santa Ynez River below the Dam. Therefore, hungry water effects, if any, on erosion and sedimentation do not require analysis for the comparison of alternatives. Flooding, however, is considered in the analysis and although infrequent in nature has a much greater potential impact on erosion and sedimentation within the Santa Ynez River and its contributing watersheds. No conclusions were modified as a result of this comment.

**Response 11-3:**

The comment suggests that the 2007 RDEIR failed to examine the impact of water releases for irrigation and flood control releases under the alternative presented in the 2007 RDEIR.

See response to 2007 RDEIR **Comment 11-2** above. As with hungry water, irrigation and flood control releases are a part of the baseline flow conditions that are a part of each alternative. Therefore, the ongoing irrigation and flood control release effects, if any, on riverbank destabilization do not require analysis for the comparison of alternatives. No conclusions were modified as a result of this comment.

**Response 11-4:**

The comment states that the 2007 RDEIR did not incorporate new information prepared as part of the recovery planning process by the National Marine Fisheries Service (NMFS) during the past five years, claiming the use of which would enable the resource agencies and the public to better evaluate the alternatives and their potential impacts on *O. mykiss*.

**Section 2.6 Draft Steelhead Recovery Plan** was added to the 2007 RDEIR and discusses the recommendations contained with the Draft Southern Steelhead Recovery Plan (NMFS 2009) for the Santa Ynez River. Additional updated information provided by numerous references since 2003 has been incorporated as appropriate throughout the document, especially in **Section 2.0 Overview of the Cachuma Project** and **Section 4.7 Southern Steelhead and Other Fishes**. Finally, the 2011 2<sup>nd</sup> RDEIR incorporates the most recent information available concerning *O. mykiss* in the Santa Ynez River related to the Cachuma Project.

**Response 11-5:**

The comment states that method of analysis and scoring system based on flow standards and location criteria used in the 2007 RDEIR yield scores that are too high given the information provided in the Biological Opinion. The comment also recommends that in order to determine whether or not any of the alternatives would protect steelhead a comparison should be made between the proposed alternatives and pre-dam conditions.

The analysis of flows from 1942-1993 included 12 years of data prior to installation of Bradbury Dam. The scoring indicated that all proposed alternatives would provide benefits to *O. mykiss* relative to the baseline condition (Alternative 2), which reflects the impacts of the dam. Therefore, at least several years of pre-dam conditions were included in the analysis and subsequent scoring found in **Section 4.7.2.3 Impacts on Southern California *O. mykiss* Along the River**. In addition, the pre-dam condition is not consistent with the project objective to protect senior water right holders from injury due to a reduction in the quantity of water available to serve prior rights.

**Response 11-6:**

The comment states that water releases from Cachuma Lake via Bradbury Dam to enhance fish passage in the Santa Ynez River are described in the 2007 RDEIR as a beneficial impact to aquatic and terrestrial wildlife between the Bradbury Dam and the Alisal Road Bridge in Solvang. The commenter has reservations about the depiction of this impact as beneficial.

Releases for target flows have been maintained since 2000 to the Highway 154 bridge, and as a result of spill events, have been maintained to the Alisal Road Bridge from 2005–2009. Although no quantitative

monitoring of riparian vegetation has been completed, riparian habitat has increased in segments of the mainstem. Increased riparian cover is considered to be a benefit to both aquatic and terrestrial riparian species.

The Santa Barbara County Flood Control District (SBCFCD) periodically removes or reduces riparian vegetation to protect against flood hazards as a matter of public safety. This is a current program that will continue in the future. The vegetation removal actions of the SBCFCD are not indirect impacts of the project because that agency's operations are independent of those of the SWRCB. The riparian vegetation increase as a result of any of the project alternatives would be evaluated by SBCFCD to determine when such a situation constitutes a potential flood threat. This is not a component of the project.

**Section 4.9.1.2, Sensitive Bird Species** of the 2011 2<sup>nd</sup> RDEIR indicates that the southwestern willow flycatcher breeds along the lower Santa Ynez River, which represents the northern geographic limit of the species. Potential impacts to the southwestern willow flycatcher are addressed in **Section 4.9.2.3, Impacts to Southwestern Willow Flycatcher Nesting**, which concludes that proposed project impacts of releases on southwestern willow flycatcher nesting are considered neutral in consideration of all factors and available evidence.

**Response 11-7:**

The comment states that Department of Fish and Game requires a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the project proponent prior to any direct or indirect impact to a lake or stream bed, bank or channel or associated riparian resources.

The comment is noted. SWRCB will comply with the provisions of the Fish and Game Code. Implementation of streambed enhancements required by the Biological Opinion and others providing additional enhancements to the requirements have received the required permits from trustee and regulatory agencies.

GK / DKR



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, California 90802-4213

DEC 7 2007

In Response, refer to:  
150308SWR2007PR00445

2007 DEC 11 PM 4:36  
DIV OF WATER RIGHTS  
SACRAMENTO  
STATE WATER RESOURCES CONTROL BOARD

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

Dear Ms. Riddle:

In a letter dated September 28, 2007, NOAA's National Marine Fisheries Service (NMFS) submitted written comments to the State Water Resources Control Board (SWRCB) on the Revised Draft Environmental Impact Report (RDEIR) which considers modifications to the Bureau of Reclamation's water rights to protect public trust resource values and downstream water rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir). We are hereby withdrawing that comment letter because it did not undergo full management review and vetting prior to signature. We apologize for this situation and hope that you will accept our official comments on the RDEIR which follow below even though the comment period has closed.

**NMFS Recovery Planning Efforts**

Since the SWRCB's issuance of the 2003 DEIR, NMFS has been actively engaged in steelhead recovery planning efforts in Southern California. NMFS's Southwest Region convened a Technical Recovery Team (TRT) in 2003 which has completed and published a number of Technical Memoranda and reports that are intended to support the development of a recovery plan for the Southern California steelhead distinct population segment (DPS) that includes the population in the Santa Ynez River and which is listed as an endangered species under the Endangered Species Act (ESA). The relevant Technical Memoranda and reports are listed below and were submitted to the SWRCB with our September 28, 2007, letter:

12-1

1. Contraction of the Southern Range Limit for Anadromous *Oncorhynchus mykss* (2005);
2. Steelhead of the South-Central/Southern California Coast: Population Characterization for Recovery Planning (2006);
3. Potential Steelhead Over-summering Habitat in the South-Central/Southern California Coast Recovery Domain: Maps Based on the Envelope Method (2006);



4. Viability Criteria for Steelhead of the South-Central and Southern California Coast (2007);
5. Updated Status of federally listed ESUs of West Coast salmon and steelhead (2005);
6. Population Structure and Ancestry of *O. mykiss* Populations in South-Central California Based on Genetic Analysis of Microsatellite Data (2006).

12-1

These Technical Memoranda and reports represent new information that should be considered by the SWRCB in finalizing the RDEIR. These documents analyze and present new information regarding the Southern California steelhead DPS, including information relevant to the Santa Ynez River. This information was not available to the SWRCB when the 2003 DEIR was developed and was not considered by the SWRCB in the development of the RDEIR. NMFS received a wide range of public comments on some of these documents, notably the 2007 Viability Criteria Report (#4 above), prior to their publication, and these comments are available upon request from the SWRCB.

It is important to emphasize that even though most of the technical analyses necessary to support the recovery plan development for the Southern California DPS have been completed by the TRT, NMFS has not yet completed a recovery plan for this DPS. Our goal is to develop a recovery plan for this DPS that has broad stakeholder support and that can be implemented to the maximum extent possible on a voluntary basis. We initiated work on the development of a draft recovery plan in 2006 and then more recently held a series of recovery planning outreach workshops in the spring of 2007 to inform the public about the TRT findings and to gather public input on the threats facing steelhead and possible recovery actions that would address those threats. We are actively working now on a detailed threats assessment for each watershed and in some cases sub-watersheds throughout the entire range of the Southern California DPS, including the Santa Ynez River. We currently expect to release a draft recovery plan for the Southern California DPS for public review and comment in 2008. This draft plan will identify recovery goals for the DPS as a whole, as well as identify threats and recovery actions by watershed, including the Santa Ynez River, that we believe will achieve the identified recovery goals and if successfully implemented lead to eventual recovery of the species. We will convene public meetings to gather public input on the draft plan it is released for review and then finalize it in 2008. We will provide the SWRCB with the draft plan during the public review period and a final plan once it is completed.

We think its important the SWRCB be aware of, and utilize, the technical information that is currently available as a result of NMFS' recovery planning process. We also think the final recovery plan for the Southern California DPS will contain valuable information that could be useful to the SWRCB in its decision making. However, we also want to emphasize that it is not our goal to merge our recovery planning effort with the SWRCB's regulatory process for the purposes of implementing the recovery actions contained in the plan. Recovery plans are guidance documents, not regulatory documents, and the implementation of actions identified in such plans are voluntary. NMFS mission is to recover listed species, including the endangered Southern California steelhead DPS, and we intend to work diligently to implement the recovery plan, particularly with Federal agencies who have an obligation under the ESA to support

species recovery, but we do not think it is appropriate to use the water rights decision making process for this purpose.

**NMFS' Comments on the RDEIR**

1) In addition to the new technical recovery planning documents identified above, NMFS has re-designated critical habitat (see 70 FR 52488, September 2, 2005) for the Southern California steelhead DPS which includes the mainstem and tributaries of the Santa Ynez River below Bradbury Dam. In addition, we reconsidered the status of the Southern California steelhead DPS and reaffirmed its status as an endangered (see 71 FR 834, January 5, 2006) species under the federal Endangered Species Act. The RDEIR should reflect this new information.

12-2

2) In previous comments to the SWRCB and during the 2003 water rights hearing for this action, NMFS has recommended that the 3A2 flow regime be further evaluated. We recognize, however, that this flow regime has significant impacts on water supply, and therefore, are not advocating it be analyzed or considered further by the SWRCB at this time. We do, however, continue to support implementation of the flows contained in NMFS' 2000 Biological Opinion (BO) for the Cachuma Project. In this regard, we are supportive of the 2002 Cachuma Project Settlement Agreement which serves to resolve long-standing water rights concerns downstream of Bradbury Dam and ensures implementation of flows contained in the 2000 BO.

12-3

NMFS is not taking a position on any of the proposed flow alternatives in the RDEIR; however, we do believe that augmented flows above those contained in the Cachuma Project BO may be necessary to support steelhead recovery in the Santa Ynez River. Unfortunately, we are not in a position at this time to identify the required flows and we do not expect specific flow regimes to be identified in the draft or final recovery plan for the Southern California steelhead DPS. We do think the recovery plan is likely identify the need for additional flows beyond those in the BO and that a strategy for identifying necessary flows will be laid out. As the recovery plan is implemented and flows necessary for steelhead recovery in the Santa Ynez are developed, we will make this information available to the SWRCB.

3) In NMFS' testimony during the 2003 water rights hearing for this action, we recommended that a study be conducted to assess the feasibility of providing fish passage for steelhead at Bradbury Dam. We also made a similar conservation recommendation to the Bureau of Reclamation that such a study be conducted in the 2000 Cachuma Project BO. The RDEIR does not include any analysis of fish passage at Bradbury Dam. NMFS continues to think this analysis should be conducted.

12-4

4) The RDEIR incorrectly characterizes the scope of public trust resources on the Santa Ynez River as only including those resources, including endangered steelhead, found in Cachuma Lake and downstream of Bradbury Dam along the Santa Ynez River. As you are aware, the SWRCB hearing officer clarified the scope of the public trust resources that would be addressed during the 2003 Cachuma water rights hearing subsequent to the original hearing notice that was issued in September 2000. Specifically, the SWRCB hearing officer (Peter Silva) advised the parties to the Water Rights Hearing that: "By its terms, the key hearing issue 4b is not limited to public trust resources below Bradbury Dam, or to requirements that apply below Bradbury Dam. Consistent

12-5

with the hearing notice, I intend to allow parties to present evidence concerning whether Reclamation's permits should be modified to address any impact of Cachuma Project operations to public trust resources above Bradbury Dam, including evidence concerning requirements that would apply above the dam." (letter from Peter S. Silva, Hearing Officer, to Cachuma Hearing Service list, dated May 29, 2003). In NMFS view, there are public trust resources, including native *O. mykiss*, which occur along the mainstem of the Santa Ynez River and its tributaries above Bradbury Dam that should be considered by the SWRCB in the RDEIR.

12-5

5) We have several comments on the Environmental Analysis of Alternatives with respect to Impacts on Southern California Steelhead (pg 4-51) that follow below:

12-6

Method of Analysis and Scoring

The scoring system proposed in the RDEIR only addresses different flow regimes for fish habitat in the lower Santa Ynez River and in Cachuma Lake. As noted previously, the scope of the public trust issues raised by the Cachuma Project "is not limited to public trust resources below Bradbury Dam, or to requirements that apply below Bradbury Dam." It also includes "any impact of Cachuma Project operations to public trust resources above Bradbury Dam . . ." (letter from Peter S. Silva, Hearing Officer, to Cachuma Hearing Service list, dated May 29, 2003).

12-7

Impacts on Southern California Steelhead/Rainbow Trout along the River (4.7.2.3)

The REDIR indicates that spawning of steelhead can occur at locations within the mainstem or in tributaries downstream. However, it does not recognize that the overwhelming majority of the suitable steelhead spawning and rearing habitat within the Santa Ynez River system is within the tributaries to the Santa Ynez River above Bradbury Dam, and that the loss of access (as a result of physical blockage and altered flows) to these tributaries by adult steelhead is the principal reason for the decline and near extirpation of the anadromous runs in the Santa Ynez River (see comments above regarding the scope of the public trust interests in the natural resources of the Santa Ynez River; also enclosed map of distribution of potential spawning and rearing habitat in the Santa Ynez River watershed, and "Contraction of the Southern Range Limit for Anadromous *Oncorhynchus mykiss*" (2005))

12-8

Method of Analysis and Scoring (pg 4-63)

The RDEIR uses a simple scoring system for flows based upon whether the flows provide more or less habitat. This approach fails to capture the complex role of flows in the creation and maintenance of habitats. Flows have several basic characteristics that are important to the various life-history stages of steelhead; these include magnitude, duration, rate-of-change, and timing. These aspects are not captured in the habitat scores, which "are derived from the average monthly flows calculated using simulated mean daily flows for each alternative." For example, monthly steps do not provide adequate resolution for rearing and spawning habitat conditions in the river because they do not capture the channel-forming processes that are dependent on rate-of-change and duration, as well as magnitude. The result of the simplistic analysis used in the RDEIR is to not capture the full biological significance of the proposed alternative flow regimes. Also, it is problematic to use a scoring system that equates a flow designed to prevent jeopardy (i.e., not

12-9

drive the species to extinction) with a flow designed to protect the public trust interest in the steelhead resources of the Santa Ynez River system, particularly under the circumstances where the steelhead population is severely depressed as is the case with the Santa Ynez River population.

12-9

Fish Migration (pg 4-64)

The RDEIR indicates that steelhead migrate primarily from February through April. The migration of steelhead in the Santa Ynez River, as with all southern California streams, is closely tied to the rainfall and runoff pattern in the watershed. In the Santa Ynez River watershed significant rainfall and runoff extends from December through April, and runs coincide with this period (see also Fukushima and Lesh 1998, California Fish and Game 84(3):133-145, regarding run timing). Additionally, the initiation of anadromous runs is not keyed to the minimum flow required to navigate over critical riffle areas, as presumed in the RDEIR, but rather peak flows which breach the sand bar and create a sustained flow of sufficient duration to allow fish to successfully migrate to their principal spawning and rearing areas. It is therefore problematic to define a passage day as a day with a flow of greater than or equal to 25 cfs at the Alisal Bridge, because it assumes that adult steelhead will actually enter the Santa Ynez River under the lower flows within the flow range specified.

12-10

Spawning and Rearing Habitat (pg 4-65)

The spawning and rearing habitat in the lower Santa Ynez River (below Bradbury Dam) is strongly influenced by the channel forming processes of variable flows. The RDEIR does not adequately recognize the degree to which the timing, duration, magnitude and rate-of-change in flows below Bradbury Dam create and maintain habitat suitable for spawning and rearing. Specific habitat features such as the size and distribution of sediment and in-channel morphology that are important to spawning and rearing are a function of the character of instream flows. The alternative flow regimes appear to presume that physical instream spawning and rearing habitats are fixed, or will be adequately sustained by the existing highly modified flow regime below Bradbury Dam.

12-11

With regard to water temperature, new information indicates steelhead in southern California streams can tolerate warmer water, under certain conditions (e.g., abundant food sources, adequate oxygenation), than previously presumed. Individuals accept an elevated body temperature that exceed temperature preferences and upper heat tolerances reported for the species as a whole, and forage and remain active throughout the day despite elevated temperatures (Spina 2007, Environmental Biology of Fishes 80:23-34).

Results - Fish Migration (pg 4-66)

The number of days with fish passage indicated in this analysis presumes fish have been induced to enter the Santa Ynez River system with a minimum flow over critical riffle areas. The assumption is not consistent with steelhead migratory behavior, and therefore over-estimates the relative passage opportunities (benefits) of the various alternative flow regimes, and therefore the

12-12

degree to which the alternative protects the public trust resources of the Santa Ynez River system, including listed steelhead. See the comments above regarding the scoring system based upon the assumptions associated with the minimum flow at critical riffles.

12-12

Results - Spawning Habitat (pg 4-67)

As noted above, the alternative flow regimes do not take into account the importance of the channel-forming processes associated with variable flow, particularly those flows above the proposed release level, but presume the suitability of the channel morphology is fixed, or can be maintained by the existing highly modified flow regime below Bradbury Dam.

12-13

Results - Rearing Habitat (pg 4-68)

The rearing habitat in the reach between Bradbury Dam and Highway 154 is influenced by a variety of artificial factors such as flow releases, channel-maintenance activities, and land use practices. See comment above regarding Spawning Habitat.

12-14

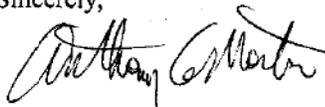
**Other Considerations**

The Cachuma member units and Caltrout have initiated very preliminary discussions about how to address their differences with regard to fish passage and other issues in the Santa Ynez River. NMFS is fully supportive of, and intends to support, these discussions, and is hopeful they will lead to reaching consensus about actions that need to be taken to recovery steelhead in the Santa Ynez River. We recognize the long standing conflicts in the Santa Ynez River and believe that the best way to achieve steelhead recovery in this watershed is for the involved parties to reach consensus on how to proceed. We urge the SWRCB to respect and support these discussions.

12-15

NMFS apologizes for the need to withdraw our September 28, 2007, comment letter and respectfully requests that you consider these official comments in finalizing the RDEIR for the Cachuma Project water rights. Should you have any questions regarding these comments, please contact Russ Strach at (916) 930-3621 or Craig Wingert at (562) 980-4021.

Sincerely,

  
Rodney R. McInnis  
Regional Administrator

12. National Marine Fisheries Service, dated December 7, 2007.

**Response 12-1:**

The comment states that subsequent to SWRCB's issuance of the 2003 DEIR, NMFS has been actively engaged in steelhead recovery planning efforts in Southern California. NMFS's Southwest Region convened a Technical Recovery Team (TRT) in 2003 which has completed and published a number of Technical Memoranda and reports that are intended to support the development of a recovery plan for the Southern California steelhead distinct population segment (DPS) that includes the population in the Santa Ynez River and which is listed as an endangered species under the Endangered Species Act (ESA). These Technical Memoranda and reports represent new information that should be considered by the SWRCB in finalizing the 2007 RDEIR. These documents analyze and present new information regarding the Southern California steelhead DPS, including information relevant to the Santa Ynez River. This information was not available to the SWRCB when the 2003 DEIR was developed and was not considered by the SWRCB in the development of the 2007 RDEIR.

The 2011 2<sup>nd</sup> RDEIR has updated the 2007 RDEIR to provide more current information. **Section 2.6 Draft Steelhead Recovery Plan** discusses the recommendations of the Draft Southern Steelhead Recovery Plan (NMFS 2009) for the Santa Ynez River with reference to the SWRCB project. Additional updated information provided since 2003 have been incorporated as appropriate throughout the document, especially in **Section 2.0 Overview of the Cachuma Project** and **4.7 Southern Steelhead and Other Fishes**. The 2011 2<sup>nd</sup> RDEIR incorporates the most recent information available concerning *O. mykiss* in the Santa Ynez River related to the Cachuma Project.

**Response 12-2:**

The comment states that NMFS has re-designated critical habitat (see 70 FR 52488, September 2, 2005) for the Southern California steelhead DPS, which includes the mainstem and tributaries of the Santa Ynez River below Bradbury Dam.

The comment is noted. The information concerning critical habitat has been added to **Section 2.4.1 Background Information** of the 2011 2<sup>nd</sup> RDEIR.

**Response 12-3:**

The comment states that NMFS previously recommended that Alternative 3A2 flow regime be further evaluated, however, in recognition that this flow regime may have significant impacts on water supply, NMFS continues to support implementation of the flows contained in NMFS' 2000 Biological Opinion (BO) for the Cachuma Project and support the 2002 Cachuma Project Settlement Agreement, which serves to resolve long-standing water rights concerns downstream of Bradbury Dam and ensures implementation of flows contained in the 2000 BO.

The comment is noted.

**Response 12-4:**

The comment states that NMFS recommends that a study be conducted to assess the feasibility of providing fish passage for steelhead at Bradbury Dam. The comment states that the 2007 RDEIR did not include any analysis of fish passage at Bradbury Dam.

While the project objective includes the protection of public trust resources in the Santa Ynez River downstream of Bradbury Dam, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, to the extent feasible and in the public interest, efforts to provide fish passage around Bradbury Dam is not a component of the proposed project. Therefore, an analysis of fish passage above Bradbury Dam was not included in the environmental analysis. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2010, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam. This is discussed further in 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

See also response to 2007 RDEIR **Comment 10-37**, above.

**Response 12-5:**

The comment states that the 2007 RDEIR incorrectly characterizes the scope of public trust resources on the Santa Ynez River as only including those resources, including endangered steelhead, found in Cachuma Lake and downstream of Bradbury Dam along the Santa Ynez River. The public trust resources also include red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam.

The comment is noted. The 2007 RDEIR did not revise the entire 2003 DEIR, as is allowed under CEQA, so absence of a complete discussion of public trust resources does not indicate that public trust resources besides *O. mykiss* were not addressed. The 2011 2<sup>nd</sup> RDEIR provides discussion of *O. mykiss* and other fishes (**Section 4.7**), riparian and lakeshore vegetation (**Section 4.8**) and sensitive aquatic and terrestrial wildlife (**Section 4.9**). Impacts of the project on the public trust resources including the red-legged frog, tidewater goby and wetlands are all analyzed in the 2011 2<sup>nd</sup> RDEIR.

The Santa Ynez River reaches upstream of Bradbury, Gibraltar, and Juncal dams are not included as *O. mykiss* critical habitat, however, populations of *O. mykiss* that exist upstream of the introduced dam barriers are largely or entirely descended from relic *O. mykiss* populations historically ascending the

watersheds (Boughton and Goslin, 2006<sup>35</sup>). Nielsen (1998<sup>36</sup>) found that the native fish found upstream of the Bradbury Dam appear to be historically descended from anadromous *O. mykiss*, despite extensive stocking with hatchery fish over the years. Thus, hatchery fish do not appear to have significantly interbred into the wild strain, potentially as a result of different life cycle patterns. Finally, the Draft Recovery Plan emphasizes restoring access to the approximately 40 river miles upstream of the barriers in the Santa Ynez River in order to promote ecological traits such as capacity to migrate long distances and withstand warmer temperatures. There are no current plans to construct fish passage around these barriers and further analysis is not a part of the 2011 2<sup>nd</sup> RDEIR. No further discussion is required of upstream public trust resources.

**Response 12-6:**

The comment states that NMFS made several comments on the Environmental Analysis of Alternatives with respect to Impacts on Southern California Steelhead (pg. 4-51).

The responses to these comments follow separately as responses to **Comments 12-7** through **12-14**.

**Response 12-7:**

The comment claims that the scoring system used in the 2007 RDEIR only addresses different flow regimes for fish habitat in the lower Santa Ynez River and in Cachuma Lake and did not address flow regimes for public trust resource habitats above Bradbury Dam.

The Cachuma Project scope focuses on Lake Cachuma, Bradbury Dam, and the Santa Ynez River downstream of the dam. Upstream portions of the river above the dam, where public trust resources also occur, were outside the scope of the project and thus consideration of these upper river resources was not included in the scoring analysis. These scoring criteria were developed over several years through extensive consultation and study with the agreement of the SYRTAC in consideration of the physical nature of the Santa Ynez River and access issues.

See also **response** to 2007 RDEIR **Comment 12-5**, above.

The project analyzed in the 2011 2<sup>nd</sup> RDEIR is the potential modifications to Reclamation's water rights Permits 11308 and 11310, to provide appropriate protection of water rights and public trust resources on the Santa Ynez River downstream of Bradbury Dam. The Cachuma Project is responsible for the public

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<sup>35</sup> Boughton, D. A. and M. Goslin. 2006. *Potential steelhead over-summering habitat in the south-central/southern California coast recovery domain: Maps based on the envelope method*. NOAA- NMFS, SW Fisheries Center Technical Memo No 391. Santa Cruz, CA.

<sup>36</sup> Nielsen, J. L. 1998. Molecular genetic population structure in steelhead/rainbow trout (*Oncorhynchus mykiss*) from the Santa Ynez River, 1994-1997. Final Technical Report submitted to ENTRIX, Walnut Creek, CA November 20, 1998. 32pp.

trust resources below the Bradbury Dam. The Cachuma Project scope focuses on Lake Cachuma, Bradbury Dam, and the Santa Ynez River downstream of the dam. Upstream portions of the river above the dam, where public trust resources also occur, were outside the scope of the project.

Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam.

**Response 12-8:**

The comment states that the overwhelming majority of the suitable steelhead spawning and rearing habitat within the Santa Ynez River system occurs within the tributaries to the Santa Ynez River above Bradbury Dam, and that the loss of access (as a result of physical blockage and altered flows) to these tributaries by adult steelhead is the principal reason for the decline and near extirpation of the anadromous *O. mykiss* runs in the Santa Ynez River.

The comment is noted. The scope of the Cachuma Project is limited to Lake Cachuma, Bradbury Dam, and the Santa Ynez River downstream of the dam. Upstream portions of the river were outside the scope of the project and thus not included in the scoring analysis.

**Response 12-9:**

The comment states that the 2007 RDEIR uses a simple scoring system for flows based upon whether the flows provide more or less habitat but that this approach does not capture the complex role of flows in the creation and maintenance of habitats.

The scoring system was based on stream conditions as mapped in 2000, which is prior to the implementation of the Hilton Creek Watering System and other fish enhancements in the tributaries and mainstem. Qualitative observations indicate that since 2000 riparian vegetation has increased along the mainstem as a result of target flows, although no quantitative data was available. Therefore, the scoring analysis remains based on conditions prior to 2001 as explained in the 2011 2<sup>nd</sup> RDEIR **Section 4.7.2 Potential Impacts of the Alternatives**. See also response to 2007 RDEIR **Comment 12-7**, above.

**Response 12-10:**

The comment states migration of steelhead in the Santa Ynez River is closely tied to the rainfall and runoff pattern in the watershed, generally from December through April, and does not occur only from February through April as identified in the 2007 Revised Draft EIR. The commenter also states that initiation of anadromous runs is not keyed to the minimum flow required to navigate over critical riffle areas, but rather peak flows that breach the sand bar and create a sustained flow of sufficient duration to allow fish to successfully migrate to their principal spawning and rearing areas and therefore, a passage

day should not be defined as a day with a flow of greater than or equal to 25 cubic feet per second (cfs) at the Alisal Bridge, because it assumes that adult steelhead will actually enter the Santa Ynez River under the lower flows within the flow range specified.

The comments are noted. Flow passage criteria are found in the 2011 2<sup>nd</sup> RDEIR **Section 4.7.2.3 Impacts on Southern California *O. mykiss* Along the River**. The Adult Steelhead Passage Flow Analysis for the Santa Ynez River (SYRTAC 1999) document was used as the basis for developing the model for potential fish passage. Based on best available evidence, peak flow patterns from the Los Laureles gauge were used to approximate pre-dam flow conditions. This information was then used to develop criteria for identifying potential flows that would provide migration opportunities. The target of 25 cfs at the Alisal Bridge was estimated to provide a minimum of 14 passage days, which is estimated to provide sufficient flow for fish to migrate successfully. These flow patterns are also associated with the breaching of the sandbar at the mouth of the lagoon. The 2011 2<sup>nd</sup> RDEIR has been revised to reflect a migration window of December through April as indicated.

**Response 12-11:**

The comment states that spawning and rearing habitat in the lower Santa Ynez River (below Bradbury Dam) is strongly influenced by the channel forming processes provided by variable flows and that the 2007 RDEIR does not adequately recognize the degree to which the timing, duration, magnitude and rate of change in flows below Bradbury Dam create and maintain habitat suitable for *O. mykiss* spawning and rearing.

The channel condition response to flow and its suitability as spawning and rearing habitat was based on the historic flows measured between 1942 and 1993. This analysis incorporated results of the SYRTAC (1999) flow passage modeling, which included parameters such as average depth and average velocity as they occurred during the spawning window between February and May. While this did not reflect all flow conditions, the timing, duration, and magnitude of flows were examined.

The comment concerning *O. mykiss* being tolerant of warmer water temperatures than previously presumed is acknowledged. This discussion is included in the 2011 2<sup>nd</sup> RDEIR **Section 4.7.1.1, Species Accounts** for Steelhead/Rainbow Trout (*Oncorhynchus mykiss*).

**Response 12-12:**

The comment states that the number of days with fish passage indicated in the 2007 RDEIR analysis presumes fish have been induced to enter the Santa Ynez River system with a minimum flow over critical riffle areas, but that this assumption is not consistent with steelhead migratory behavior, and overestimates the relative passage opportunities (benefits) of the various alternative regimes designed to protect the public trust resources of the Santa Ynez River system, including listed steelhead.

The Adult Steelhead Passage Flow Analysis for the Santa Ynez River (SYRTAC 1999) document was used as the basis for developing the model for potential fish passage. This document represents the best available data for managing flows to provide passage opportunities. The Biological Opinion represents the minimum flows identified to sustain *O. mykiss* passage. Evaluating whether these minimum criteria protects the public trust resources was beyond the scope of this document.

**Response 12-13:**

The comment states that the alternative flow regimes do not take into account the importance of the channel-forming processes associated with variable flow, particularly those flows above the proposed release level, but, instead, presume the suitability of the channel morphology is fixed, or can be maintained by the existing highly modified flow regime below Bradbury Dam.

The comment is noted. The flow regimes analyzed in the 2003 DEIR were based on the historic record of flows between 1942 and 1993, which spans a wide range of hydrological conditions and related channel forming flow patterns. Conservation Recommendation #3 recommends further study of periodic flood flows that could play an important role in creating and maintaining *O. mykiss* habitat. This study has not yet been completed and thus the data were not available for incorporation into the analysis.

**Response 12-14:**

The comment states that the rearing habitat in the reach between Bradbury Dam and Highway 154 is influenced by a variety of artificial factors such as flow releases, channel-maintenance activities, and land use practices.

The comment is noted. The 2011 2<sup>nd</sup> RDEIR incorporates this comment in **Section 4.7.2.3 Impacts on Southern California *O. mykiss* along the River**. See also response to 2007 RDEIR **Comment 12-13**. above.

**Response 12-15:**

The comment states that the Cachuma Member Units and CalTrout have initiated very preliminary discussions about how to address their differences with regard to fish passage and other issues in the Santa Ynez River. The commenter is fully supportive of these discussions, and is hopeful they will lead to reaching consensus about actions that need to be taken to recovery steelhead in the Santa Ynez River and urges the SWRCB to respect and support these discussions.

The comments are noted. SWRCB also supports the dialogue between the Cachuma Member Units and CalTrout.



**Comments on the Revised Draft EIR for the Cachuma Water  
Rights Hearing**

**Heather Cooley  
Peter Gleick**

**Pacific Institute  
Oakland, California**

**September 27, 2007**

654 13th Street, Preservation Park, Oakland, California 94612, U.S.A.  
510-251-1600 | fax: 510-251-2203 | email: [pistaff@pacinst.org](mailto:pistaff@pacinst.org) | [www.pacinst.org](http://www.pacinst.org)

## **Comments on the Revised Draft EIR for the Cachuma Water Rights Hearing**

**Heather Cooley**

**Peter Gleick**

**September 27, 2007**

### **Introduction**

In 2003, the Pacific Institute assessed the potential for improving water-use efficiency among the five major water districts that withdraw water from the Santa Ynez River (the Cachuma contractors): Carpinteria Valley Water District (CVWD), Goleta Water District (GWD), Montecito Water District (MWD), City of Santa Barbara (SB), and the Santa Ynez River Water Conservation District, Improvement District #1 (SYRWCD, ID#1).<sup>1</sup> Because a full assessment of the conservation potential was beyond the scope of the study, the analysis focused on the potential for a limited number of technology-based water conservation and efficiency measures to save water, including installing residential high-efficiency clothes washers, ultra-low-flow toilets in residential and non-residential settings, and more efficient residential landscapes. Based on that 2003 analysis, Haasz and Gleick estimated that between 5,000 and 7,000 acre-feet per year (AFY) could be conserved cost-effectively, allowing the Cachuma contractors to “reduce their take of water from Santa Ynez River without a loss of service or quality of life.” Misty Gonzales provided rebuttal testimony that questioned the validity of the 2003 Pacific Institute analysis. We provide a detailed assessment of her testimony below.

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<sup>1</sup> Haasz, D. and P.H. Gleick. 2003. Comments on the Draft EIR for the Cachuma Water Rights Hearing.

In July 2007, a Revised Draft Environmental Impact Report (RDEIR) was released. This assessment reviews that RDEIR, particularly the analysis of water supply impacts, and updates the original 2003 analysis of the potential for additional efficiency improvements to return water to the Santa Ynez River. We conclude the following:

- The conclusions from the original 2003 Haasz and Gleick testimony – that 5,000 to 7,000 acre-feet of water could be conserved by Cachuma contractors, cost-effectively, remain valid, and they are still pertinent to the RDEIR.
- Rebuttal testimony from Ms. Gonzales on the previous Pacific Institute analysis contains numerous factual errors and omissions, and we stand by our original conclusions.
- Water demand projections used in the 2007 RDEIR are based on outdated estimates and ignore more recent water demand projections from the contractors themselves.
- Even the recent estimates from the contractors, however, fail to incorporate cost-effective, widely-available water efficiency improvements. In their 2020 demand projections, the Cachuma contractors ignore continued investment in conservation measures and naturally occurring conservation mandated under national plumbing codes.
- As a result, the 2020 demand estimates in the RDEIR likely overestimate future demand and potential shortages under the proposed alternatives.
- Cachuma contractors are failing to meet the requirements of the Memorandum of Understanding (MOU) of the California Urban Water Conservation Council, which all five contractors have signed.
- All of the Cachuma contractors could expand their current water conservation efforts, as indicated by their implementation record of the agreed-upon Best Management Practices (BMPs).
- Our review of Cachuma water utility rate structures suggest that the agencies are failing to implement common, well-understood economic policies for encouraging efficient water use.

- All of the Cachuma contractors could improve their rate structures by instituting inclining block rates with low fixed charges and larger price differentials between blocks.

The following analysis is based on data collected from the California Urban Water Conservation Council (CUWCC) Best Management Practice (BMP) reports and the Department of Water Resources Urban Water Management Plans (UWMPs). As signatories to the CUWCC Memorandum of Understanding, all Cachuma contractors are required to complete BMP reports annually and file them biennially with the CUWCC. Four of the five contractors submitted these reports for all of the filing periods; CVWD has not submitted these reports for 2005/2006 but has done so for all other years. According to the Urban Water Management Planning Act (Water Code Sections 10610 - 10656), agencies serving more than 3,000 customers or more than 3,000 acre-feet per year (AFY) are required to prepare urban water management plans at least once every five years in years ending in 0 and 5. CVWD, MWD, GWD, and SB submitted UWMPs to the Department of Water Resources (DWR) in 2001 and 2005. Although not required by law, the SYRWCD, ID#1 submitted a UWMP in 2001. SYRWCD, ID#1 did not prepare a UWMP in 2005.

### **Previous Pacific Institute Analysis**

In 2003, an analysis of the water conservation potential by Haasz and Gleick of the Pacific Institute found that the Cachuma contractors could conserve between 5,000 and 7,000 AFY by installing residential high-efficiency clothes washers, ultra-low-flow toilets in residential and non-residential settings, and more efficient residential landscapes. These estimates remain valid, as conservation efforts over the past four years have not intensified. In addition, the cost of many water conservation devices, such as high-efficiency clothes washers, has continued to decline, making these investments even more financially attractive. Additional conservation beyond the 5,000 to 7,000 AFY remains for both the urban and agricultural sectors.

13-1

The RDEIR notes that “The Member Units presented rebuttal testimony, however, that disputed the testimony of CalTrout’s witnesses.”<sup>2</sup> Direct quotes and general comments made by Misty Gonzales in her rebuttal testimony are shown in bold and are immediately followed by responses from the Pacific Institute.

13-2

**In Footnote 2, Ms. Gonzales notes that “The Pacific Institute Report has also not yet been peer-reviewed.”**

This is incorrect. See Ex. CT 63, page 1 for a partial list of reviewers. Since the prior Cachuma administrative proceedings, Waste Not, Want Not (which Ms. Gonzales refers to as “The Pacific Institute Report”) has been adopted in work of the California Department of Water Resources and CalFed.

13-3

**Ms. Gonzales testified that the Pacific Institute relies on a per-capita analysis to determine the conservation potential. She then states that “Per capita analyses are not generally the most reliable measure of achieved water conservation reductions. Measured end use information before and after the conservation retrofit is much more precise” (p.1, para. 2)**

Ms. Gonzales claim is incorrect: To determine the conservation potential, Ms. Haasz and Dr. Gleick utilized an end-use analysis, which is identified as the preferable analysis by Ms. Gonzales. See, Haasz and Gleick written testimony at 2 (“we quantify conservation potential from . . . end-uses”) [Ex. CT 50]. Haasz and Gleick calculated current consumption levels for each end-use evaluated (residential toilets, clothes washers, and landscape and non-residential toilets), with consideration given to water consumption for each individual member unit and the penetration rate of each end use evaluated. See, Id. at 3-5 (toilets); 6-7 (washers); 8-9 (landscape); 9-11 (CII)). Table 1 on page 2 of Haasz and Gleick’s testimony identifies per-capita water use for the Cachuma contractors for illustrative purposes only. These numbers, however, were not utilized to calculate potential water savings.

13-4

<sup>2</sup> State Water Resources Control Board, Division of Water Rights. July 2007. Revised Draft Environmental Impact Report. Consideration of Modification to the U.S. Bureau of Reclamation’s Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir). Page 4-32.

**Ms. Gonzales’ testimony argues that the Pacific Institute misidentifies Member Units per-capita usage (p.1, para. 2).**

The per-capita numbers included in the Pacific Institute are for *residential use only*, are explicitly identified as such, and are based on the water agencies’ own data as reported in their Urban Water Management Plans. They do not include water use for non-residential or agricultural purposes, as suggested by Ms. Gonzales’ testimony. Furthermore, the per-capita figures are included for illustrative purposes only. They are not utilized to calculate conservation savings.

13-5

**Ms. Gonzales states that “According to a study completed by the American Water Works Foundation in 1999, a household fully retrofitted with available water conservation equipment can reduce indoor per capita use to 49.6 gpcd. Lowering the figure to 35 gpcd will require additional conservation measures...beyond the scope of the current list of 14 BMPs” (p. 1, para.4).**

The Pacific Institute’s 35 gpcd figure is an estimate of the conservation potential (i.e., amount of water that would be used if the most efficient conservation technologies, available as of 2003, were installed). See, Haasz and Gleick at 2-3 [Ex. CT 50]. The AWWARF study does not evaluate conservation potential, and in this regard Ms. Gonzales appears to misunderstand the scope and purpose of the study. The AWWARF study reports observed water use characteristics in homes (for example, frequency of toilet flushing, duration of shower use, etc). Residential End Uses of Water at xxi [Ex. CT 66]. The 49.6 gpcd figure, for which Ms. Gonzales does not provide a citation, is presumably only the reported amount of water use for a household fully retrofitted with available water conservation equipment prior to 1999. This is an outdated number relative to the analysis conducted by the Pacific Institute.

13-6

Furthermore, Mary Ann Dickinson—executive Director of the California Urban Water Conservation Council—testified on behalf of the Member Units, supported the Pacific Institute’s conclusion that the BMPs do not represent full cost-effective conservation potential. Reporter’s Transcript (RT):1069. Pacific Institute analyzed the full potential for

13-7

improving water use efficiency among the Cachuma contractors, and did not limit its analysis to implementation of the BMPs, which represent the “floor” for water conservation practices. Haasz at RT:901.

13-7

**Ms. Gonzales notes that “the ‘achievable’ water savings for Cachuma agencies will appear lower than that of higher gpcd agencies” (p.2, para.1).**

Some of the Cachuma contractors have made conservation investments, and the Pacific Institute incorporates these investments into its calculations. Haasz and Gleick at 5-7, 10-12 [CT 50]. Additional, cost-effective conservation is still possible, (*Id.*) – a conclusion that Gonzales does not appear to refute.

13-8

**Ms. Gonzales comments that the Pacific Institute analysis does not account for the larger properties in Montecito (p.2, para.2).**

The Pacific Institute’s analysis of landscape conservation is based on outdoor water use. Haasz and Gleick at 9 [Ex. CT 50]. The Pacific Institute calculated water use from monthly sales data obtained from the Montecito Water Agency. These data identify how much water customers are using to water their lawns, and therefore do reflect the amount of water used at larger properties.

13-9

**Ms. Gonzales comments that the Pacific Institute does not account for the use of recycled water (p.2, para.3).**

Whether water is potable or recycled does not make a difference in the Pacific Institute results. Presumably, if potable water is conserved, it can be left in the river. If recycled water is conserved, it can be used to replace potable water currently used to meet non-potable demand, and the potable water in turn can be left in the river. If the member districts were using recycled water for every non-potable use, then this argument could be relevant but this is far from the case. See, SWB 2003 draft EIR at 4-26 – 4-30 [Staff Ex. 10].

13-10

**Ms. Gonzales argues that the Pacific Institute’s estimates of water savings potential from landscape savings are not realistic because they do not consider conservation**

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**savings already achieved or the programs in place to promote landscape conservation (p.3, para.1).**

As previously mentioned, the Pacific Institute **does** account for water savings that have already been achieved. Much of Haasz and Gleick’s landscape savings assumptions were based on data provided by the County of Santa Barbara in a CALFED grant proposal. See Almy, R. 2001. Santa Barbara County Distribution and Installation Program for the Weather TRAK ET Controller. CALFED Water Use Efficiency Proposal Solicitation Package. [Ex. CT 53].

13-11

**Ms. Gonzales argues that the Member Units have relatively low per capita residential water consumption (p.3, para.1), implying little conservation potential remains.**

Santa Barbara, Goleta and Carpinteria do have a relatively low per capita use, and that is acknowledged in the Pacific Institute report. It is still nowhere near potential use, and as noted above, the Institute’s analysis relied on an end-use approach, not simply reviewing per-capita estimates. Haasz and Gleick at 2 [Ex. CT 50]. We also note that the remaining Member Units’ per capita consumption is significantly higher, more than double, than Santa Barbara, Goleta, and Carpinteria. Id.

13-12

**Ms. Gonzales states “The potential savings or cost-effectiveness of weather based irrigation controllers have not yet been systematically quantified in a statistically significant study” (p.3, para.2).**

All data to date demonstrate that ET controllers are effective at saving water. Waste Not Want Not at 78 [Ex. CT 63]. Ms. Gonzales presents no data to indicate otherwise. Furthermore, the Pacific Institute’s cost estimates for implementation of the ET Controller Program are based on the County of Santa Barbara’s own estimates. Haasz and Gleick at 8 [CT 50].

13-13

**Ms. Gonzales states “Behavioral changes are difficult to estimate dependably for water supply planning purposes” (p.4).**

13-14

The Pacific Institute acknowledges that behavioral issues are more difficult to predict and measure than technical fixes, hence the focus of the analysis on non-behavioral improvements in water efficiency. Haasz and Gleick at 8 [Ex. CT 50]. The Pacific Institute conducted an extensive literature review and determined that 25-40 percent of outdoor water use could be quickly and economically saved through proven approaches, even considering this behavioral factor. Waste Not Want Not at 74-82 [Ex. CT 63]. Furthermore, ET controllers, in large part, address and mitigate the behavioral aspect of landscape conservation, and savings from implementation of this measure account for 25 of the estimated landscape savings. Haasz and Gleick at 8-9 [Ex. CT 50].

13-14

**Ms. Gonzales questions the methodology used to determine toilet savings (p.5-6).**

Haasz and Gleick used two commonly applied methods to estimate savings, one based on CUWCC assumptions and one based on population and toilet turnover. Haasz and Gleick at 3 [Ex. CT 50]. The CUWCC assumptions could only be utilized for Santa Barbara and Goleta because these agencies have data on their existing stock of toilets. Id. Savings for the other agencies were calculated as described in detail at p. 3-5 of Haasz and Gleick's written testimony.

Haasz and Gleick did not include leakage in their calculations of potential savings from ULFTs because their calculations estimated potential savings from future installations, and newer ULFT models are not as susceptible to degradation as some of the older models. Waste Not Want Not at 43 [Ex. CT 63].

13-15

Haasz and Gleick identify Santa Barbara at 50% ULFT penetration for multi-family units and 34% for single family units, not 50% for total ULFT penetration as indicated by Ms. Gonzales. Haasz and Gleick at 5-6 [Ex. CT 50]. Replacement of the remaining stock in Santa Barbara would likely only result in a negligible amount of savings. Id. at 6. Haasz and Gleick do quantify the savings from 100% implementation of ULFTs in the remaining Member Units to determine the full scope of potential savings. This level of implementation can be cost-effective. Haasz and Gleick at 12-13 [Ex. CT 50]. Ms.

Gonzales provides no reference or supporting material in support of her assertion that the costs to retrofit toilets increases exponentially near 100% saturation.

13-15

**Ms. Gonzales argues that the methodology to determine washing machine savings is “unorthodox” and questionable because it ignores load size. In addition, costs are not accurately depicted for high-efficiency washers (p.6-7).**

This is false: Haasz and Gleick do not use an “unorthodox” measure of water efficiency in their calculations; rather they use the well-understood and applied tool of “water factors.” The water factor identifies gallons per cubic foot of tub volume per load. Ex. CT 63 at 57. Thus, their calculations for water efficiency explicitly consider load size.

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Ms. Gonzalez asserts that costs identified for HE washers by the Pacific Institute are outdated, but herself relies on a study (“REUW Study,” dated 1999) that precedes the Waste Not Want Not report (dated 2003) by several years. Haasz and Gleick describe the significant number of California agency rebates provided for high-efficiency washers (64,000 since 1999). Haasz and Gleick at 6 [CT 50]. This information supports the Institute’s analysis, and demonstrates both that consumers are purchasing high-efficiency washing machines and that water agencies have determined that it is cost-effective to encourage such purchase through rebates.

**Ms. Gonzales argues that the Pacific Institute misapplies data and studies regarding urban landscape water conservation (p.7-9).**

The Pacific Institute estimates a range of 25-40% savings that could potentially be achieved through landscape conservation measures. Waste Not Want Not at 69 [Ex. CT 63]; Haasz and Gleick at 9 [Ex. CT 50]. The Pacific Institute conducted an extensive literature review and determined that this range of outdoor water use was conservative and could be quickly and economically saved through proven approaches. Waste Not Want Not at 74-82 [Ex. CT 63]. The studies identified by Ms. Gonzales informed the Pacific Institute’s estimate, but the quantitative values from these studies were not directly incorporated into the Pacific Institute’s estimates. See, e.g., Waste Not Want Not at 76, Table 3-3 (showing Pittenger estimates of potential savings at 65-75 percent, which

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exceeds the Pacific Institute’s estimated range), Table 3-5 (showing Seattle Public Utilities’ estimates of potential savings of up to 100 percent, which exceeds the Pacific Institute’s estimated range); Table 3-7 (showing CDWR, or WUCOL as referred to by Ms. Gonzales, estimates of potential savings at up to 80 percent, which also exceeds the Pacific Institute’s estimated range). Similarly, the Pacific Institute did not misuse data from the “Spectrum Study.” Contrary to Ms. Gonzales’ assertion, Haasz and Gleick do not attribute 100% of savings to scheduling, maintenance and practices. CT 63 at 75, FN 24.

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In sum, the rebuttal testimony from Ms. Gonzales contains numerous factual errors and omissions, and it does not refute the analysis or conclusions of the 2003 Pacific Institute testimony prepared by Haasz and Gleick for the Cachuma administrative hearing proceedings. We stand by our original conclusions as presented in that testimony: 5,000 to 7,000 acre-feet of water could be conserved by the Cachuma contractors and thus offset any potential water supply impacts from the newly identified range of alternatives in the RDEIR.

## Future Demand Projections

### ***2020 Demand Projections Fail to Include Most Recent Estimates***

The 2007 RDEIR “compares the Member Units’ demand to their water supply from all sources, including the Cachuma Project and the SWP, in a critical drought year like 1951 under the project alternatives” (pg. 4-21). The Cachuma contractors’ demand and supply from all sources is presented in Table 1. According to the 2007 RDEIR, the Cachuma contractors’ water demand in 2000 was 46,000 acre-feet per year (46 KAFY) and is projected to increase to 56 KAFY by 2020. Given current demand, the DEIR finds that a net shortage occurs under Alternatives 3B, 5B, and 5C and a surplus occurs under Alternatives 2, 3C, and 4B in a critical drought year (Table 1). In 2020, “there would be a

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net shortage for all alternatives under future year 2020 demand levels ranging from -8,612 af under Alternative 4B to -11,767 af under Alternative 5B.”<sup>3</sup>

**Table 1. Cachuma Contractors’ Supply and Demand in Critical Drought Year (1951)<sup>4</sup>**

	Alt 2	Alt 3B	Alt 3C	Alt 4B	Alt 5B	Alt 5C
Total Supply	47,218	45,764	47,131	47,675	44,520	45,620
Year 2000 Demand	46,007	46,007	46,007	46,007	46,007	46,007
Year 2000 Surplus or Shortage	1,211	-243	1,124	1,668	-1,487	-387
Year 2020 Demand	56,287	56,287	56,287	56,287	56,287	56,287
Year 2020 Surplus or Shortage	-9,069	-10,523	-9,156	-8,612	-11,767	-10,667

Source: Table 4-17 in the 2007 DEIR

The water demand projections used in 2007 RDEIR are based on outdated estimates and ignore more recent water demand projections from the contractors themselves. As a result, they overestimate future demand. Table 2 compares the Cachuma contractors’ 2020 water demand projections according to the 2003 DEIR<sup>5</sup>, the revised 2007 DEIR, and each agency’s 2005 UWMP. As shown in Table 1 above (and Table 4-17 of the DEIR), the 2007 RDEIR estimates that 2020 water demand will be 56,287 AFY. Citations indicate that these estimates are based on demand projections in the previous 2000/2001 UWMPs combined with input from water managers. The 2005 UWMPs, however, suggest that future demand will be closer to 51 KAFY, or 10% less than was previously forecasted. The 2005 UWMPs, however, were not mentioned in the 2007

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<sup>3</sup> State Water Resources Control Board, Division of Water Rights. July 2007. Revised Draft Environmental Impact Report. Consideration of Modification to the U.S. Bureau of Reclamation’s Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir). Page 4-24.

<sup>4</sup> Ibid.

<sup>5</sup> State Water Resources Control Board, Division of Water Rights. August 2003. Revised Draft Environmental Impact Report. Consideration of Modification to the U.S. Bureau of Reclamation’s Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir).

RDEIR. This suggests that the demand estimates in the 2007 RDEIR are based on outdated, overestimates of future demand. **By failing to use the more recent estimates, the DEIR overestimates potential shortages.**

**Table 2. Cachuma Contractors' 2020 Water Demands.**

	2003 DEIR <sup>6</sup>	2007 RDEIR <sup>7</sup>	2005 UWMP <sup>8</sup>
Carpinteria Valley Water District	5,423	5,833	4,906
Montecito Water District	6,835	6,835	7,305
City of Santa Barbara	17,760	18,200	14,000 - 15,000
Goleta Water District	16,000	17,300	15,890
Santa Ynez River Water Conservation District, ID#1	9,050	8,119	8,119
<b>Total</b>	<b>55,068</b>	<b>56,287</b>	<b>50,220 - 51,220</b>

Note: Because Santa Ynez has not completed a 2005 UWMP, we used the estimate from the 2007 RDEIR.

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### ***2020 Demand Projections Fail to Include Cost-Effective Conservation and Efficiency***

The Cachuma contractors' own estimates of 2020 demand are also too high because they fail to include a substantial amount of currently cost-effective efficiency improvements. Instead, the approaches used to project future demand in the 2000 and 2005 UWMPs include inappropriate forecasting methods. These flaws are then incorporated into the 2003 DEIR and the 2007 RDEIR. The most important flaws are described below.

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#### **The member agencies project future demand in a variety of ways.**

<sup>6</sup> Table 4-19 of the 2003 DEIR; page 4-36

<sup>7</sup> Table 4-19 of 2007 DEIR; page 4-24

<sup>8</sup> URS Corporation. December 2005. Goleta Water District Urban Water Management Plan. Goleta, California.

Kennedy/Jenks Consultants. July 2007. Carpinteria Valley Water District Urban Water Management Plan 2005 Update. Ventura, California.

City of Santa Barbara Public Works Department. 2005. Urban Water Management Plan. Santa Barbara, California.

Mosby, T. 2005. Final Urban Water Management Plan – Update 2005. Montecito Water District. Montecito, California.

- MWD estimates future demand by multiplying the average number of new connections per year (38 new connections per year) by the current water use per meter.<sup>9</sup> The value for “current water use” fails to include substantial cost-effective conservation improvements.
- SB developed two scenarios to estimate future demand. For the high estimate, they assume that water demand will increase at the same rate as population. For the low estimate, they assume that conservation offsets population growth, thereby maintaining demand at its current level of 14,000 AFY.<sup>10</sup> This approach simply assumes that the rate of conservation improvements is identical to the rate of population growth, independent of actual assessments of efficiency potential.
- GWD evaluated five demand scenarios. The scenarios were developed using previous District demand projections, applying a regional population growth rate to water demand, using historic water demand growth rates as a predictor of future demand, and combining data from other local jurisdictions. The demand projection in the 2005 UWMP was an average of the five scenarios.<sup>11</sup> Again, none of these scenarios are based on the potential for efficiency improvements, but are simple assumptions geared to historical trends.
- Few details are provided on the CVWD future demand projections; the UWMP, however, states that projections “are based on the small increases in the District’s customer base and the trend of increased residential demands.”<sup>12</sup>

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The methods described above assume that current water use will look much like today; none are based on real end-use analysis or efficiency evaluations. Table 3 compares the five Cachuma contractors’ current and projected residential per-capita demand. Not surprisingly given the above-described assumptions, per-capita demand is generally

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<sup>9</sup> Mosby, T. 2005. Final Urban Water Management Plan – Update 2005. Montecito Water District. Montecito, California.

<sup>10</sup> City of Santa Barbara Public Works Department. 2005. Urban Water Management Plan. Santa Barbara, California.

<sup>11</sup> URS Corporation. December 2005. Goleta Water District Urban Water Management Plan. Goleta, California.

<sup>12</sup> Kennedy/Jenks Consultants. July 2007. Carpinteria Valley Water District Urban Water Management Plan 2005 Update. Ventura, California.

expected to remain nearly constant. The largest decreases are around 10 percent, for the smallest contractors; while the contractor with the largest per-capita use, Montecito, actually appears to project a 50% *increase* in per-capita demand.

Table 3: Per-Capita Water Demand of the Cachuma Contractors

	Residential Per-Capita Demand (gpcd)		
	2000	2005	2020
Carpinteria	85	73	75
Goleta	82	65	79
Montecito	201	277	312
Santa Barbara	85	87	91
Santa Ynez	249	262	
<b>Total</b>	<b>101</b>	<b>96</b>	<b>100</b>

Note: Per-capita estimates for 2000 are based on data submitted to the CUWCC. Estimates for 2005 are based on the CUWCC reports for all agencies except Carpinteria. Carpinteria did not file BMP reports for the 2005/2006 reporting period. Carpinteria's 2005 estimates are based on their 2005 UWMP. Estimates for 2020 are based on the population and water demand estimates in each agency's 2005 UWMP. Note that Santa Ynez has not submitted a 2005 UWMP.

In reality, we would expect per-capita demand to **decline** as a result of continued investment in conservation measures and naturally occurring conservation mandated under national plumbing codes. New homes will have fixtures that meet current plumbing codes, such as 1.6 gallons per flush (gpf) toilets and 2.5 gallons per minute (gpm) showerheads. New homes are also more likely to have newer, more efficient clothes washers and dishwashers. In addition, fixtures and appliances in older homes will be replaced with more efficient models as the older ones wear out. Of course, indoor efficiency improvements can be offset by increases in outdoor waste, but a wide range of outdoor efficiency technologies and programs are also being implemented (or can be implemented cost-effectively) throughout California to address this water use. For example, landscape ordinances that limit turf area can help mitigate this effect and promote more efficient use, while irrigation timers, soil moisture monitors, or a wide range of other approaches are being implemented that show the potential to reduce outdoor landscaping from 10 to 50 percent.<sup>13</sup>

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<sup>13</sup> Seattle Public Utilities Commission. 1998. Water Conservation Potential Assessment. Appendix 1. Seattle, Washington.  
[http://www.seattle.gov/util/stellent/groups/public/@spu/@csb/documents/webcontent/spu01\\_002152.pdf](http://www.seattle.gov/util/stellent/groups/public/@spu/@csb/documents/webcontent/spu01_002152.pdf)

**In conclusion, demand projections used in the 2007 RDEIR are based on old estimates of future demand that are 10% higher than more recent estimates put forth by the Cachuma contractors themselves in their UWMPs. Even these recent estimates likely overestimate future demand because they fail to take account of cost-effective conservation improvements that could occur by 2020 as a result of agency conservation programs and the natural replacement of older fixtures and appliances with newer, more efficient models. Given these inadequacies, the RDEIR should, at a minimum, adjust the figures for future demand to reflect the Cachuma contractors' most recent estimates. The RDEIR should also include a more thorough analysis of future demand that combines multiple scenarios and as well as conservation improvements.**

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## **BMP Activity**

All of the Cachuma contractors have signed the CUWCC Memorandum of Understanding (MOU), thereby committing to develop and implement the designated BMPs. The CUWCC establishes implementation targets for each agency based on characteristics of the agency's service area and the year they signed the MOU. Agencies are given credit for conservation efforts implemented prior to signing the MOU. Every two years, agencies are required to submit reports that describe their progress towards implementing these BMPs. The CUWCC then determines whether the agency has met or is on track to meet the implementation requirements.

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Despite modest conservation efforts, the Cachuma contractors fail to meet the requirements set forth in the CUWCC MOU. The Cachuma contractors' progress on implementing the BMPs is shown in Table 4. **None of the five contractors has met the requirements for all of the BMPs.** GWD and SB are the best performers and have met or are on track to meet the requirements of eight and nine of the 14 BMPs, respectively. By contrast, CVWD, MWD, and SYRWCD, ID#1 have met or are on track to meet only five of the 14 BMPs.

**All of the Cachuma contractors could expand their current conservation efforts, as indicated by their implementation record of the BMPs.** It is important to note that the CUWCC BMPs were developed in the early 1990s and represent the most basic level of conservation that agencies should be implementing. As recommended in Haasz and Gleick 2003, “more detailed analysis is necessary to determine the mix of conservation options most appropriate for individual water agencies and the associated savings . . . .” (page 2). Below, we provide some guidance for evaluating current and future demand and developing effective conservation programs that go beyond the BMPs.

The first step towards developing an effective conservation program is to gather adequate and reliable information. In order to estimate the potential water savings of a conservation program targeting landscape use, for example, it is necessary to have a somewhat reliable estimate of current use. To the extent information is not available or resource prohibitive to obtain, proxy data can be used from similar regions throughout the state. The California Urban Water Conservation Council (CUWCC) is a good repository for such data. Ideally this data would be collected in such a way as to reflect seasonal and geographic variability, and should include the following:

- Total water use, by month: This allows agencies to estimate both indoor and outdoor demand;
- Identification of the “big” users, both in the residential and in the commercial, industrial, and institutional sectors;
- Indoor Residential Demand: estimate of the stock of appliances and fixtures currently in use, including the distribution of toilets by flush volume, the number of washing machines and dishwashers, and the percentage of machines that are high efficiency. Estimates for the penetration of high-efficiency machines are available from the Department of Energy if direct measurement is not feasible;
- Outdoor Residential Demand: total use by month, average lot size (with geographic variability), average ET (also allowing for spatial variability between coastal and inland lots), irrigation methods, and landscape type;

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- Commercial and Institutional Uses: in addition to the toilet, washing machine (if applicable) and landscape uses mentioned for the residential sector, a full audit of large sites would allow the agencies to better target their programs for maximum water savings.

Adequate and reliable information on the existing uses can help water agencies develop effective conservation programs. If the commercial and industrial sectors are the big users, then audits targeting these users and rebates for common process technologies may help curb their water demand. In many regions, however, future demand is of primary concern. A thorough understanding of the primary drivers of projected increases in water demand can provide key information for conservation managers. If outdoor demand is a primary driver, for example, then developing landscape ordinances that limit turf area or require the installation of soil moisture sensors or ET controllers may help lessen this demand.

Conservation efforts will likely be more cost-effective and successful if done on a regional scale. Collaboration allows the agencies to benefit from economies of scale and save more water for less money than it would cost them individually. The issue is a regional one and should be addressed as such.

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Table 4. BMP Coverage Reports

BMP	BMP Description	Goleta Water District	Montecito Water District	City of Santa Barbara	Carpinteria Valley Water District	Santa Ynez River Water Conservation District, ID#1
1	Residential Water Use Surveys	On Track	Not on Track	Met Requirement	Not on Track	Not on Track
2	Residential Plumbing Retrofit	Met Requirement	Met Requirement	Met Requirement	Met Requirement	Met Requirement
3	System Water Audit/Leak Repair	Met Requirement	Not on Track	Met Requirement	Not on Track	Met Requirement
4	Metering with Commodity Rates	Met Requirement	Met Requirement	Met Requirement	Met Requirement	Met Requirement
5	Large Landscape Programs	Not on Track	Not on Track	Not on Track	Not on Track	Not on Track
6	Washing Machine Rebates	Filed Exemption	Not on Track	Filed Exemption	Not on Track	Not on Track
7	Public Information Programs	Met Requirement	Met Requirement	Met Requirement	Met Requirement	Met Requirement
8	School Education Programs	Met Requirement	Met Requirement	Met Requirement	Met Requirement	Met Requirement
9	CII Conservation Program	Not on Track	Not on Track	On Track	Not on Track	Not on Track
11	Conservation Pricing	Met Requirement	Not on Track	Met Requirement	Not on Track	Not on Track
12	Conservation Coordinator	Met Requirement	Met Requirement	Met Requirement	Met Requirement	Met Requirement
13	Waste Water Prohibition	Not on Track	Not on Track	Not on Track	Not on Track	Not on Track
14	Residential ULF Replacements	Not on Track	Not on Track	Not on Track	Not on Track	Not on Track

Note: The data shown in Table 4 give credit for conservation efforts that occurred prior to the agency signing the MOU.

Source: CUWCC Coverage Reports. Available at [http://bmp.cuwcc.org/bmp/read\\_only/list.lasso](http://bmp.cuwcc.org/bmp/read_only/list.lasso)

## Water Rates

The RDEIR states that “Water rates are some of the highest in the state and constitute a strong incentive to conserve water.”<sup>14</sup> While rates are generally high among the Cachuma contractors, high rates alone do not necessarily send a strong conservation signal to customers. In this next section, we evaluate the rate structures of the Cachuma contractors and compare those with rate structures in other Western agencies. **Our analysis shows that all of the Cachuma contractors fail to implement rate structures and pricing policies that encourage water conservation and efficiency, even those that are in compliance with BMP 11.**

### *Unit Cost of Water*

Water agencies institute a variety of rate structures and pricing policies to collect sufficient revenue to recover costs, including flat rates, uniform rates, block rates, and seasonal rates. In the past, flat rates or decreasing block rates, in which the unit price of water decreases as use increases, were among the most common type of rate structures. As water agencies began to realize that pricing affects use, uniform rates and increasing block rates became common. With uniform rates, the unit price for water remains constant. With increasing block rates, however, the unit price for water increases as the volume consumed increases, with prices set for each “block” of water use; customers who use low or moderate volumes of water are charged a lower unit price and rewarded for conservation; those using significantly higher volumes pay higher unit prices.

The CUWCC BMPs includes conservation pricing (BMP 11). According to the CUWCC, “we view pricing not as a substitute for a utility’s existing or planned conservation programs but as something intended to work in tandem with them and enhance their

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<sup>14</sup> State Water Resources Control Board, Division of Water Rights. July 2007. Revised Draft Environmental Impact Report. Consideration of Modification to the U.S. Bureau of Reclamation’s Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir). Page 4-32.

impact.”<sup>15</sup> The CUWCC recognizes uniform, seasonal, and increasing block rates as forms of conservation pricing. As shown in Table 4, GWD and SB have implemented conservation pricing and are in compliance with BMP 11, while MWD, CVWD, and SYRWCD, ID#1, have not.

Although the CUWCC recognizes uniform rates as forms of conservation pricing, increasing block rates are considered a more effective way to promote water conservation and efficiency. A recent study on water rate structures in the southwest United States found that per-capita water use is typically lower in cities with dramatically increasing block rates.<sup>16</sup> In addition to encouraging water-use efficiency, increasing block rates provide a number of other benefits, such as providing water at a lower cost for basic needs and stabilizing revenue for the utility.<sup>17</sup>

Table 5 and Figure 1 show the current water rate structures for the Cachuma contractors. Irvine Ranch and Seattle are shown for comparative purposes. Water rates among the Cachuma contractors are generally high as a result of recent investment in capital-intensive water supply projects, such as the desalination plant in Santa Barbara and the Coastal Branch of the State Water Project, but these rates do not consistently include designs that encourage efficiency improvements. The MWD charges a uniform rate of \$5.01 per thousand gallons. SB, GWD, and CVWD have instituted increasing block rates. CVWD and GWD have modest increases between blocks, ranging from \$0.20 to \$0.89 per thousand gallons, which send a weak price signal to customers. SB, however, has a steep increase of \$2.40 per thousand gallons between the first and second blocks at a relatively low water use rate of 3,000 gallons per month, which places an early premium on water uses and sends a strong price signal to customers to reduce their water use. Increases between subsequent blocks are small (\$0.32 per thousand gallons) and send only a weak price signal to customers.

<sup>15</sup> California Urban Water Conservation Council. 1994. *Setting Urban Water Rates for Efficiency and Conservation: A Discussion of Issues*. Prepared by David Mitchell and Michael Hanemann.

<sup>16</sup> Western Resource Advocates. 2003. “Comparative Analysis of Water Providers in the Southwest: Water Use and Demand-Side Efficiency.” In *Smart Water: A Comparative Study of Urban Water Use Efficiency Across the Southwest*. Boulder, Colorado.

<sup>17</sup> Western Resource Advocates. 2006. *Water Rate Structures in New Mexico: How New Mexico Cities Compare Using This Important Water Use Efficiency Tool*. Boulder, Colorado.

In comparison, rate structures in Irvine Ranch and Seattle provide a much stronger incentive to conserve water. The unit price for water is relatively low at low use rates. As use increases, unit prices rise dramatically. In Seattle, for example, the unit price for the third block is 1.5 times higher than that of the second block. In Irvine Ranch, the unit price of water in the fifth block is twice as high as that of the fourth block.

**Table 5. Residential Water Rates, September 2007.**

Municipality [Water Provider]	Rate Structure Type	Fixed Monthly Service Charge	Unit Rate per 1,000 Gallons of Water Consumed
Carpinteria Valley Water District <sup>(1)</sup>	Increasing Block Rate (three blocks)	\$54.12	\$3.72 - up to 5,236 gal \$4.61 - 5,237 to 11,220 gal \$5.20 - over 11,220 gal
Montecito Water District <sup>(2)</sup>	Uniform	\$29.48	\$5.01
Goleta Water District <sup>(3)</sup>	Increasing Block Rate (two blocks)	\$18.42	\$4.76 – up to 2,992 gal \$4.96 – over 2,992 gal
City of Santa Barbara <sup>(4)</sup>	Increasing Block Rate (three blocks)	\$11.16	\$3.54 - up to 2,992 gal \$5.94 - 2,993 to 14,960 gal \$6.26 - over 14,960 gal
Santa Ynez River Water Conservation District <sup>(5)</sup>	Uniform	\$24.40	\$2.86
Irvine Ranch Water District <sup>(6)</sup>	Increasing Block Rate (five blocks)	\$7.50	\$0.82 - up to 40% of allocation \$0.98 - 41-100% of allocation \$1.96 - 101-150% of allocation \$3.92 - 151-200% of allocation \$7.84 - over 200% of allocation
Seattle Public Utilities Commission <sup>(7)</sup>	Increasing Block Rate (three blocks)	\$8.05	\$3.85 – up to 3,740 gal \$4.48 - 3,741 to 9,724 gal \$11.43 – over 9,724 gal

Source:

(1): Carpinteria Valley Water District Website: [http://www.cvwd.net/water\\_rates.htm](http://www.cvwd.net/water_rates.htm)

(2): Montecito Water District Website: [http://www.montecitowater.com/fees\\_charges.htm](http://www.montecitowater.com/fees_charges.htm)

(3): Goleta Water District Website: <http://www.goletawater.com/rates/index.htm>

(4): City of Santa Barbara Website:  
<http://www.santabarbaraca.gov/Government/Departments/PW/Rates.htm>

(5): Santa Ynez River Water Conservation District Website: <http://www.syrwd.org/view/53>

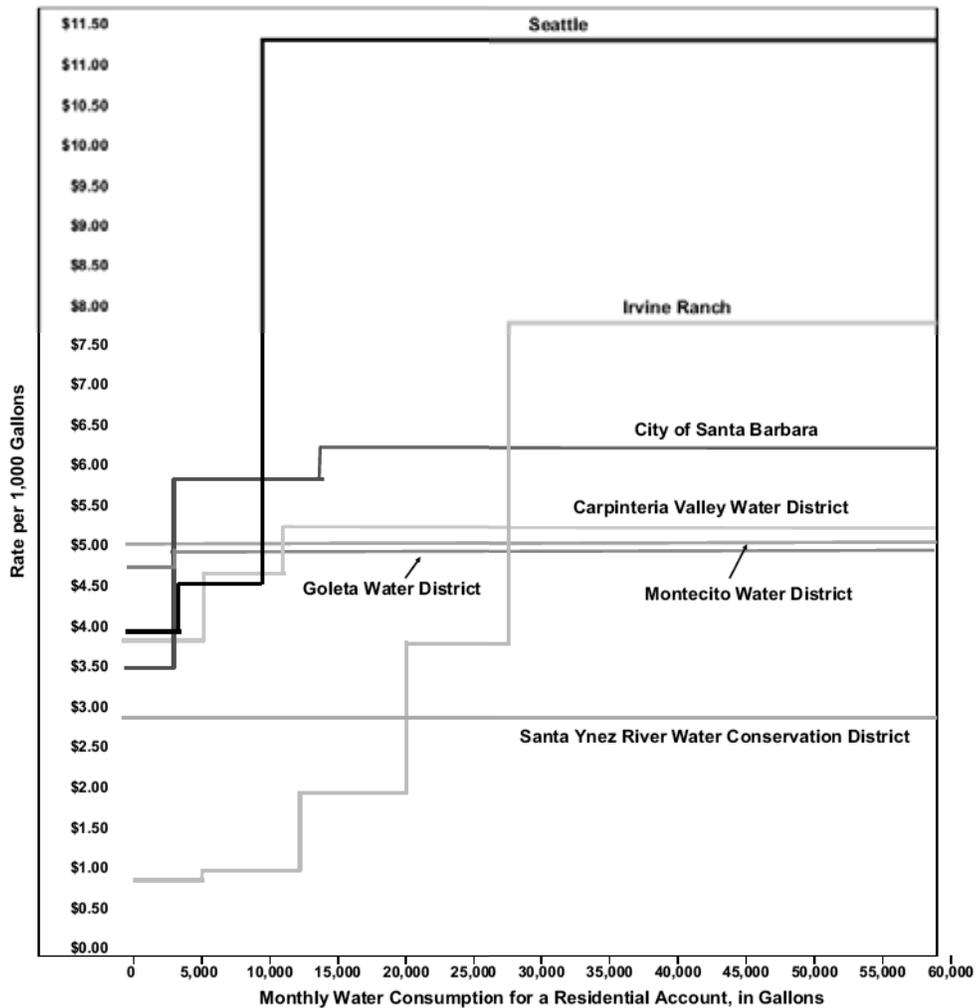
(6): Irvine Ranch Water District Website: [http://www.irwd.com/AboutIRWD/rates\\_residential.php](http://www.irwd.com/AboutIRWD/rates_residential.php)

(7): Seattle Public Utilities Website:  
[http://www.seattle.gov/util/Services/Water/Rates/RESIDENTIA\\_200312020910286.asp](http://www.seattle.gov/util/Services/Water/Rates/RESIDENTIA_200312020910286.asp)

Note: gal=gallons

Rates for Irvine Ranch are based on an average water allocation of 13,464 gallons.

13-21



13-21

Figure 1. Cachuma Contractors' Water Rates, September 2007.

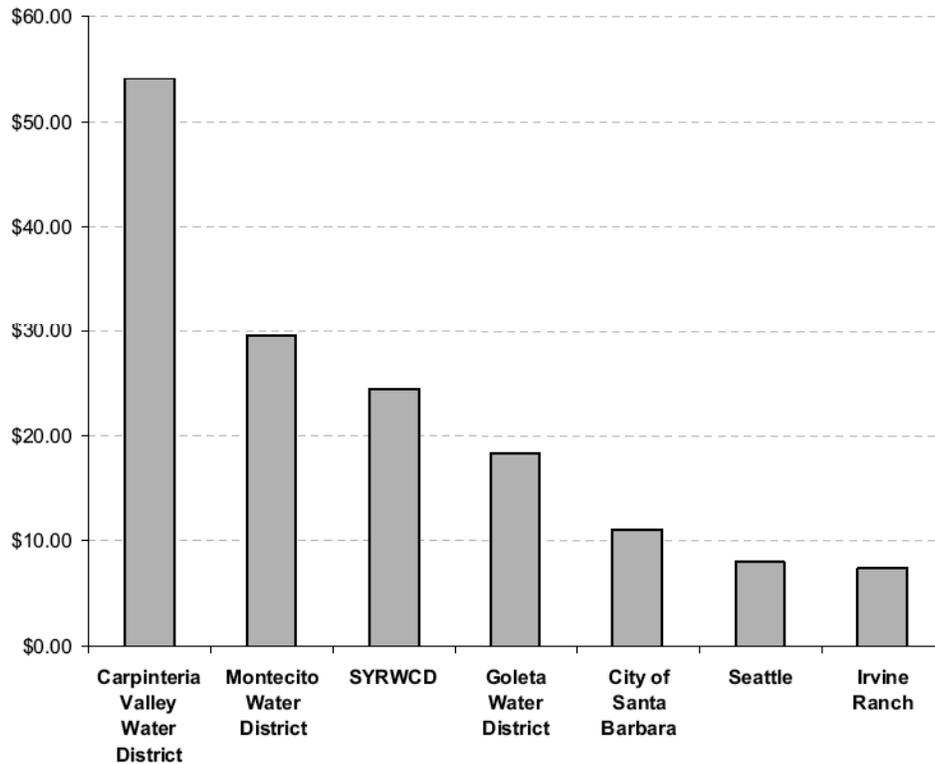
Of the Cachuma contractors, SB and CVWD provide their customers with the biggest incentive to conserve water. These agencies send a modest conservation price signal to their customers by rewarding moderate use through lower unit rates and penalizing excessive use through higher unit rates. In comparison to Irvine Ranch and Seattle, however, even the best rate structures among the Cachuma contractors falls short. **All of the Cachuma contractors could improve their rate structures by instituting inclining block rates with high price differentials between blocks.**

**Fixed Costs**

The customer’s water bill includes consumption charges as well as any fixed service charges. The customer then pays the average price for water, defined as the fixed service charge plus the total consumption charges, divided by the total volume used. A high fixed service charge relative to the customer’s overall bill can decrease the effectiveness of inclining block rates.

Figure 2 shows the fixed service charge for residents served by each of the Cachuma contractors, Irvine Ranch, and Seattle. The fixed service charges in Carpinteria and Montecito are particularly high, and thus likely send mixed price signals to their customers. Service charges are more moderate in Goleta and the City of Santa Barbara, but still higher than those in Seattle and Irvine Ranch.

13-21



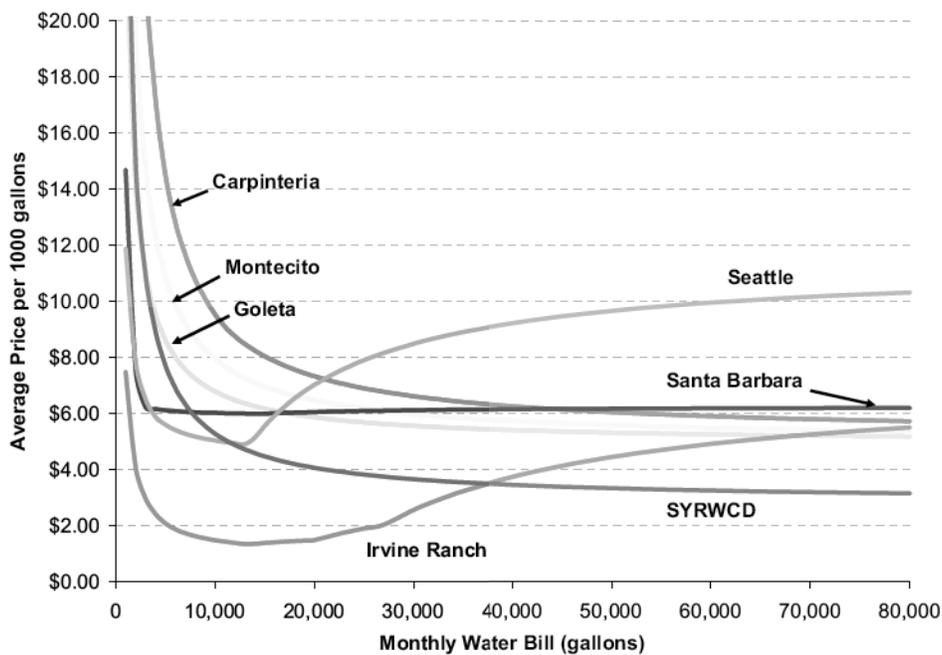
13-21

**Figure 2. Fixed Service Charges for Residents Served by the Cachuma Contractors.**

### ***Average Price Curve***

The average price curve provides an indication of the effectiveness of water rate structures. Typically, average price curves initially trend downward, as the fixed costs are distributed. The curve can then trend upward, downward, or remain flat. Curves that continue to trend downward indicate that the unit price decreases as use increases, thereby rewarding customers for high use. Curves that trend upward, by contrast, indicate that the unit price increases as use increases, thereby penalizing customers for wasting water. The steepness of the curve provides an indication of the strength of the price signal.

Figure 3 shows the average price curve for the Cachuma contractors, Irvine Ranch, and Seattle. The average price for the Cachuma contractors initially declines, as expected. For customers in CVWD, MWD, and GWD, the average price continues to decline as use increases, while it increases slightly for customers in SB. The average price for water in Seattle and Irvine Ranch initially decline, but rise steeply as use increases. Thus while two of the Cachuma contractors have inclining block rates; inclining block rate structures do not, in and of themselves, promote efficient use. Fixed rates that are too high or consumption charges that are too low can counteract efforts to promote efficient use.



13-21

Figure 3. Average Price Curve for the Cachuma Contractors

### Conclusions

The potential water supply impacts of the range of alternatives for modifying the U.S. Bureau of Reclamation’s water right permits for the Cachuma Project depend in part on the water that might be made available by increasing the efficiency of water use and reduce waste. The water demand projections in the RDEIR are a critical piece in

determining the ultimate impacts of the various alternatives and efforts to mitigate those impacts. Thus it is important to get these numbers correct. Our analysis indicates that the demand projections used in the 2007 RDEIR are based on old estimates of future demand that are 10% higher than more recent estimates put forth by the Cachuma contractors themselves in their Urban Water Management Plans. Even these recent estimates likely overestimate future demand because they fail to take account of continued conservation improvements that will occur by 2020 as a result of agency conservation programs and the natural replacement of older fixtures and appliances with newer, more efficient models.

An end-use analysis by Haasz and Gleick in 2003 found that the Cachuma contractors could conserve between 5,000 and 7,000 acre-feet per year (AFY) cost-effectively by adopting a limited number of widely-available technologies for the residential and commercial/industrial sectors. These estimates remain valid, as conservation efforts over the past four years have not intensified. In addition, the cost of many water conservation devices, such as high-efficiency clothes washers, has continued to decline, making these investments even more financially attractive. Additional conservation potential remains for both the urban and agricultural sectors.

Despite this potential, conservation efforts in the region have failed to keep pace with requirements set forth in the CUWCC MOU. While some agencies are performing better than others, all agencies still have significant room for reducing waste through proven programs. Our analysis provides recommendations for a detailed study to determine the conservation options most appropriate for each agency, which would include collecting adequate and reliable information about how water is used. In addition, these conservation efforts will likely be more cost-effective and successful if done on a regional scale. Collaboration allows the agencies to benefit from economies of scale and save more water for less money than it would cost them individually.

The Cachuma contractors have failed to implement water rate structures in the region that promote water conservation and efficiency improvements. While water rates are

generally high, reliance on high fixed rates combined with relatively low consumption charges has countered efforts to reward conservation and penalize waste. Adopting more conservation-oriented rate structures and pricing policies could reinforce and strengthen current and future conservation efforts and further minimize the potential for water supply impacts from the alternatives identified in the 2007 RDEIR.

**13. Pacific Institute, dated September 27, 2007.**

**Response 13-1:**

The comment states that in 2003, Haasz and Gleick of the Pacific Institute found that the Cachuma contractors could conserve between 5,000 and 7,000 acre-feet per year (afy) by installing residential high-efficiency clothes washers, ultra-low-flow toilets in residential and non-residential settings, and more efficient residential landscapes. The commenter suggests that these estimates remain valid, as conservation efforts over the past four years have not intensified and that in addition, the cost of many water conservation devices, such as high-efficiency clothes washers, has continued to decline, making these investments even more financially attractive.

The commenter responds directly to rebuttal testimony of Misty Gonzales on the Pacific Institute's prior analysis of the 2003 DEIR. The following responses are provided as to the commenter's responses.

**Response 13-2:**

The comment highlights that the 2007 RDEIR noted that the Member Units presented rebuttal testimony that disputed the testimony of CalTrout's witnesses.

The comment is noted.

**Response 13-3:**

The comment notes Ms. Gonzales' statement that "The Pacific Institute Report has also not yet been peer-reviewed," stating that this is incorrect. The comment suggests that since the prior Cachuma administrative proceedings, Waste Not, Want Not (which Ms. Gonzales refers to as "The Pacific Institute Report") has been adopted in work of the California Department of Water Resources and CalFed.

The comment is noted.

**Response 13-4:**

Ms. Gonzales testified that the Pacific Institute relies on a per-capita analysis to determine the conservation potential, stating that "Per capita analyses are not generally the most reliable measure of achieved water conservation reductions. Measured end use information before and after the conservation retrofit is much more precise." The comment disputes Ms. Gonzales claim, stating that to determine the conservation potential, Ms. Haasz and Dr. Gleick utilized an end-use analysis, which Ms. Gonzales identified as the preferable analysis. The comments states that Haasz and Gleick calculated current consumption levels for each end-use evaluated (residential toilets, clothes washers, and landscape and non-residential toilets), with consideration given to water consumption for each individual member unit and the penetration rate of each end use evaluated, and that identification of per-capita water use for the

Cachuma contractors was for illustrative purposes only; the numbers were not utilized to calculate potential water savings.

The methodology question (use of per capita analysis) has been adopted by DWR in determining water conservation goals. As stated above in response to 2007 RDEIR **Comment 10-12**, there is continuing discussion regarding the appropriate methodologies for use by the CUWCC. Whether the Pacific Institute uses a per capita or end-use analysis, the Member Units are required by both SBx7-7 and DWR in their 2010 UWMP Guidelines to address conservation in terms of per capita reductions (20 percent by 2020).

The comment is noted.

**Response 13-5:**

The comment states that Ms. Gonzales' testimony argues that the Pacific Institute misidentifies Member Units per-capita usage when really the per-capita numbers included in the Pacific Institute are for residential use only, are explicitly identified as such, and are based on the water agencies' own data as reported in their Urban Water Management Plans. The commenter notes that the numbers do not include water use for non-residential or agricultural purposes, are included for illustrative purposes only and are not utilized to calculate conservation savings.

The comment is noted.

**Response 13-6:**

Ms. Gonzales stated that "According to a study completed by the American Water Works Foundation in 1999, a household fully retrofitted with available water conservation equipment can reduce indoor per capita use to 49.6 gallons per capita per day (gpcd). Lowering the figure to 35 gpcd will require additional conservation measures...beyond the scope of the current list of 14 BMPs." The comment states that the Pacific Institute's 35 gpcd figure is an estimate of the conservation potential (i.e., amount of water that would be used if the most efficient conservation technologies, available as of 2003, were installed), which is not what the American Water Works Association Research Foundation (AWWARF) study evaluated. The comment notes that the AWWARF study reports observed water use characteristics in homes (e.g., frequency of toilet flushing, duration of shower use, etc.), whereas the 49.6 gpcd figure noted, without citation, is presumably only the reported amount of water use for a household fully retrofitted with available water conservation equipment prior to 1999, making this an outdated number relative to the analysis conducted by the Pacific Institute.

The comment is noted.

**Response 13-7:**

The comment notes that testimony put on by the Member Units supports the Pacific Institute's conclusion that the BMPs do represent full cost-effective conservation potential and merely represent the "floor" for water conservation practices.

The comment is noted.

**Response 13-8:**

Ms. Gonzales noted that "the 'achievable' water savings for Cachuma agencies will appear lower than that of higher gpcd agencies." The commenter states that some of the Cachuma contractors have made conservation investments, which the Pacific Institute incorporated into its calculations, and that additional, cost-effective conservation is still possible.

The comment is noted.

**Response 13-9:**

The comment states that Ms. Gonzales suggested that the Pacific Institute analysis does not account for the larger properties in Montecito, but, in fact, the Pacific Institute's analysis of landscape conservation is based on monthly outdoor water use sales data obtained from the Montecito Water Agency, which identifies how much water customers are using to water their lawns, and therefore the analysis does reflect the amount of water used at larger properties.

The comment is noted.

**Response 13-10:**

The comment notes that Ms. Gonzales commented that the Pacific Institute does not account for the use of recycled water, but the commenter explains that whether water is potable or recycled does not make a difference in the Pacific Institute results because, presumably, if potable water is conserved, that water can be left in the river, and if recycled water is conserved, it can be used to replace potable water currently used to meet non-potable demand, and the potable water in turn can be left in the river. The comment suggests that if the member districts were using recycled water for every non-potable use, then Ms. Gonzales' argument could be relevant, but that this is far from the case.

The comment is noted.

**Response 13-11:**

The comment states that Ms. Gonzales argued that the Pacific Institute's estimates of water savings potential from landscape savings are not realistic because they do not consider conservation savings already achieved or the programs in place to promote landscape conservation. The comment notes that the Pacific Institute does account for water savings that have already been achieved, and that much of Haasz and Gleick's landscape savings assumptions were based on data provided by the County of Santa Barbara in a CALFED grant proposal.

The comment is noted.

**Response 13-12:**

The comment states that Ms. Gonzales argued that the Member Units have relatively low per capita residential water consumption, implying little conservation potential remains. In response the comment notes that Santa Barbara, Goleta, and Carpinteria have a relatively low per-capita use, which is acknowledged in the Pacific Institute report, but that per capita use is still nowhere near potential use, and as previously noted, the Pacific Institute's analysis relied on an end-use approach, not simply reviewing per-capita estimates. The comment also notes that the remaining Member Units' per-capita consumption is significantly higher, more than double, those of Santa Barbara, Goleta, and Carpinteria.

The comment is noted.

**Response 13-13:**

Ms. Gonzales stated "The potential savings or cost-effectiveness of weather based irrigation controllers have not yet been systematically quantified in a statistically significant study." The comment states that all data to date demonstrate that ET controllers are effective at saving water and that Ms. Gonzales presented no data to indicate otherwise. The comment also notes that the Pacific Institute's cost estimates for implementation of the ET Controller Program are based on the County of Santa Barbara's own estimates.

The comment is noted.

**Response 13-14:**

Ms. Gonzales stated that "Behavioral changes are difficult to estimate dependably for water supply planning purposes." The comment acknowledges that behavioral issues are more difficult to predict and measure than technical fixes, which is why the Pacific Institute focused its analysis on non-behavioral improvements in water efficiency. The comment states that the Pacific Institute conducted an extensive literature review and determined that 25-40 percent of outdoor water use could be quickly and economically saved through proven approaches, even considering this behavioral factor, and that ET

controllers, in large part, address and mitigate the behavioral aspect of landscape conservation, and savings from implementation of this measure account for 25 of the estimated landscape savings.

The comment is noted.

**Response 13-15:**

The comment states that Ms. Gonzales questioned the methodology used by the Pacific Institute to determine toilet savings. In response, the comment states that Haasz and Gleick used two commonly applied methods to estimate savings - one based on California Urban Water Conservation Council (CUWCC) assumptions, and one based on population and toilet turnover. The comment further states that CUWCC assumptions could only be utilized for Santa Barbara and Goleta because these agencies have data on their existing stock of toilets (50 percent ultra-low-flow toilet (ULFT) penetration for multifamily units and 34 percent for single-family units in Santa Barbara; not 50 percent for total ULFT penetration as indicated by Ms. Gonzales), and that replacement of the remaining stock in Santa Barbara would likely only result in a negligible amount of savings. The comment notes, though, that Haasz and Gleick do quantify the savings from 100 percent implementation of ULFTs in the remaining Member Units to determine the full scope of potential savings and that this level of implementation can be cost effective.

The comment is noted.

**Response 13-16:**

The comment states that Ms. Gonzales argued that the methodology to determine washing machine savings is “unorthodox” and questionable because it ignores load size, and that costs are not accurately depicted for high-efficiency washers. The comment states that this is false - Haasz and Gleick do not use an “unorthodox” measure of water efficiency in their calculations; rather, they use the well-understood and applied tool of “water factors,” which identifies gallons per cubic foot of tub volume per load. The comment also rebuts Ms. Gonzales’ suggestion that the costs of high efficiency washers identified by the Pacific Institute are outdated, pointing to the fact that the study relied upon by Ms. Gonzales preceded the Pacific Institute’s report by four years.

The comment is noted.

**Response 13-17:**

The comment states that Ms. Gonzales argued that the Pacific Institute misapplies data and studies regarding urban landscape water conservation. The commenter refutes this, stating that the Pacific Institute estimates a range of 25–40 percent savings that could potentially be achieved through landscape conservation measures and that the Pacific Institute conducted an extensive literature review and

determined that this range of outdoor water use was conservative and could be quickly and economically saved through proven approaches. The comment notes that studies identified by Ms. Gonzales informed the Pacific Institute's estimate, but the quantitative values from these studies were not directly incorporated into the Pacific Institute's estimates, and, similarly, the Pacific Institute did not misuse data from the "Spectrum Study." The comment also notes that, contrary to Ms. Gonzales' assertion, Haasz and Gleick do not attribute 100 percent of savings to scheduling, maintenance, and practices.

The comment is noted.

**Response 13-18:**

The comment states that the 2020 demand projections fail to include most recent estimates noting that the 2007 RDEIR "compares the Member Units' demand to their water supply from all sources, including the Cachuma Project and the SWP, in a critical drought year like 1951 under the project alternatives" (pg. 4-21). The comment suggests that water demand projections used in 2007 RDEIR are based on outdated estimates and ignore more recent water demand projections from the contractors themselves. As a result, they overestimate future demand.

See response to 2007 RDEIR **Comment 1-16**. Updated information has been provided by the Member Units and included in the 2011 2<sup>nd</sup> RDEIR.

**Response 13-19:**

The comment states that 2020 demand projections fail to include cost-effective conservation and efficiency measures. The comment states that the Cachuma contractors' own estimates of 2020 demand are also too high because they fail to include a substantial amount of currently cost-effective efficiency improvements and the approaches used to project future demand in the 2000 and 2005 UWMPs include inappropriate forecasting methods. The comment states that these flaws are then incorporated into the 2003 DEIR and the 2007 RDEIR.

The Member Units are currently updating their UWMPs as required by state law. As part of the update, which is scheduled to be complete in mid-2011, the Member Units will be providing information on how they will meet state mandated conservation requirements (20 percent by 2020).

The Member Units provided updated data in February 2010 on water supply and demand, and that data was used in the 2011 2<sup>nd</sup> RDEIR. As the Member Units were in the process of completing their 2010 UWMPs to reflect the requirements of the SB7x-7 and a reduction of 20 percent by 2020, the data provided did not reflect project measures to reduce future water demands. As such, the demand estimates in the 2011 2<sup>nd</sup> RDEIR are considered "conservative".

**Response 13-20:**

The comment states that all of the Cachuma contractors have signed the CUWCC Memorandum of Understanding (MOU), thereby committing to develop and implement the designated BMPs. The CUWCC establishes implementation targets for each agency based on characteristics of the agency's service area and the year they signed the MOU. The comment notes that, despite modest conservation efforts, the Cachuma contractors fail to meet the requirements set forth in the CUWCC MOU.

The Member Units are currently updating their UWMPs as required by state law. As part of the update, which is scheduled to be complete in mid-2011, the Member Units will be providing information on how they will meet state mandated conservation requirements (20 percent by 2020).

**Response 13-21:**

The comment notes that, while rates are generally high among the Cachuma contractors, high rates alone do not necessarily send a strong conservation signal to customers. The comment evaluates the rate structures of the Cachuma contractors and compares those with rate structures in other Western agencies, and suggests its analysis shows that all of the Cachuma contractors fail to implement rate structures and pricing policies that encourage water conservation and efficiency, even those that are in compliance with BMP 11.

Comment noted. The Member Units are currently updating their UWMPs as required by state law. As part of the update, which is scheduled to be complete in mid-2011, the Member Units will be providing information on how they will meet state mandated conservation requirements (20 percent by 2020).

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DEPARTMENT OF WILDLIFE, FISH, AND CONSERVATION BIOLOGY  
COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES  
AGRICULTURAL EXPERIMENT STATION  
COOPERATIVE EXTENSION  
FAX: (530) 752-4154

ONE SHIELDS AVENUE  
DAVIS, CALIFORNIA 95616-8751

26 September 2007

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

Re: Santa Ynez River, Williams Analysis

Dear Ms Riddle:

This letter is in support of the analysis Of Dr. John Williams on the Revised Draft Environmental Impact Report (RDEIR), Consideration of Modifications to the U.S. Bureau of Reclamation’s Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir), dated July 2007. I have reviewed relevant portions of the RDEIR and Dr Williams’ analysis of the instream flow and migration requirements of steelhead (*Oncorhynchus mykiss*) in the Santa Ynez River. I agree with Dr. Williams’ conclusions that the RDEIR is seriously flawed and adoption of any of the discussed alternatives is not likely to result in much protection for steelhead. Like Dr Williams, I think that the flow alternative with the most reasonable annual hydrograph is the 3A2 alternative (not assessed in the RDEIR) with the original adjustment for dry years proposed by California Trout, rather than the adjustments found in Alternatives 5B and 5C.

14-1

14-2

In my professional opinion, steelhead in the Santa Ynez River will become extinct in the near future if a more protective flow regime is not adopted, along with other stream improvements. Such conservation efforts are important not only for the Santa Ynez River but for the entire endangered Southern California Steelhead ESU, of which the Santa Ynez river population is a significant portion. Basically, the steelhead need a river that has a flow regime and habitats managed to increase their numbers and not just to meet some minimum standard..

My basis for these statements, beyond my respect for Dr Williams’ knowledge and analytical abilities, is that I have been studying California salmonids since 1969 (see attached resume). I have testified before the SWRCB in the past on Santa Ynez issues. At the present time, I am completing a project that evaluates the status of all salmon and steelhead in California, including the Southern California Steelhead ESU.

Sincerely,

Peter B. Moyle  
Professor of Fish Biology

**14. Peter B. Movle, dated September 26, 2007.**

**Response 14-1:**

The comment states that the 2007 RDEIR is seriously flawed and adoption of any of the discussed alternatives is not likely to result in much protection for steelhead.

The comment is noted. SWRCB does not concur with the comment. The 2007 RDEIR considers alternatives specifically designed to incorporate Order WR 73-37, as amended by Order WR 89-18, and the Biological Opinion issued by the NMFS in order to protect *O. mykiss* populations and their habitat. In addition, **Alternative 4B** addresses water quality concerns in the Lompoc Basin and **Alternatives 5B** and **5C** incorporate measures recommended by CalTrout that would further protect *O. mykiss* resources beyond what is required by the Biological Opinion.

**Response 14-2:**

The comment suggests that the flow alternative with the most reasonable annual hydrograph is the 3A2 alternative, rather than the adjustments found in Alternatives 5B and 5C.

See responses to 2007 RDEIR **Comments 1-18** and **10-40**.

>>> Dan Silver <[dsilverla@earthlink.net](mailto:dsilverla@earthlink.net)> 8/25/2007 11:18 AM >>>  
August 25, 2007

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

RE: Water rights and public trust resources in Santa Ynez River (RDEIR for Bradbury Dam)

Dear Ms. Riddle:

The RDEIR does not include a range of alternatives that fulfill the project's objectives including protecting steelhead as a public trust resource in the Santa Ynez River, as required by state laws.	15-1
Of the five alternatives identified in the RDEIR Alternatives 5B and 5C would provide the most benefits for steelhead, but the RDEIR should also evaluate additional measures that can restore and protect steelhead as a viable, public resource, including additional flow regimes for the lower river and steelhead passage around Bradbury Dam. Currently, downstream water rights releases are made from Cachuma to replenish dewatered aquifers in the Santa Ynez and Lompoc areas. These short-term, high volume releases are made during mid- to late-summer after the river has dried out, and thus do little to benefit steelhead. The RDEIR should analyze alternative (more continuous) downstream water rights release patterns so that water released for groundwater recharge can concurrently improve conditions for steelhead.	15-2
Of all the alternatives, the RDEIR only identifies 5B as potentially resulting in a water-supply related impact caused by the need to tap alternative water supplies during the critical 3-year drought about once every 100 years. However, the State's leading authority on water conservation, Pacific Institute has concluded that water conservation in the urban areas served by Cachuma could offset a water supply shortfall.	15-3
	15-4

Sincerely,

Dan Silver  
Executive Director  
Endangered Habitats League  
8424-A Santa Monica Blvd., #592  
Los Angeles, CA 90069-4267

Tel 213-804-2750  
Fax 323-654-1931  
[dsilverla@earthlink.net](mailto:dsilverla@earthlink.net)  
[www.ehleague.org](http://www.ehleague.org)

15. **Endangered Habitat League, dated August 25, 2007.**

**Response 15-1:**

The comment states that the RDEIR does not include a range of alternatives that fulfill the project's objectives including protecting steelhead as a public trust resource in the Santa Ynez River, as required by state laws.

The comment is noted. SWRCB considers the 2003 DEIR and the 2007 RDEIR to provide a reasonable range of alternatives, each of which achieves the project objectives specified in **Section 3.1.1, Description of the Proposed Project**, including protection of public trust resources. The 2007 RDEIR addresses alternatives specifically designed to incorporate Order WR 73-37, as amended by Order WR 89-18C, and the Biological Opinion issued by the NMFS in order to protect *O. mykiss* populations and their habitat. In addition **Alternative 4B** addresses water quality concerns in the Lompoc Basin and Alternatives 5B and 5C incorporate measures recommended by CalTrout that would further protect *O. mykiss* resources.

Additional public trust resources discussed in the 2007 RDEIR, for which impacts are assessed, include lakeshore oak trees, riparian vegetation along the Santa Ynez River, sensitive plant species, and sensitive wildlife species, including southwestern willow flycatcher.

**Response 15-2:**

The comment states that Alternatives 5B and 5c of the five alternatives identified in the 2007 RDEIR, would provide the most benefits for steelhead, but additional measures that restore and protect steelhead as a viable, public resource should be evaluated, including additional flow regimes for the lower Santa Ynez River and steelhead passage around Bradbury Dam.

The comment is noted. The alternative entitled Alternative 3A2 in the Cachuma Contract Renewal EIS/EIR (1995) would provide the additional measures suggested by this comment. However, this alternative was rejected as infeasible due to its significant impact to water supplies for downstream Cachuma Project Member Units. Alternatives 5B and 5C incorporate the release criteria of Alternative 3A2 except in the event of a poor rain year, in which case releases would be configured to conform to the requirements of the Biological Opinion.

**Response 15-3:**

The comment states that 2007 RDEIR should analyze alternative (more continuous) downstream water rights release patterns so that water released for groundwater recharge can concurrently improve conditions for steelhead.

The comment is noted. SWRCB analyzed the alternatives in the 2007 RDEIR to realize the project objectives as described in **Section 3.1.1 Description of the Proposed Project** to simultaneously improve conditions for *O. mykiss* while improving ground water recharge potential for downstream water rights holders.

**Response 15-4:**

The commenter notes that the 2007 RDEIR identifies Alternative 5B as potentially resulting in a water-supply related impact caused by the need to tap alternative water supplies during the critical 3-year drought, however the commenter concluded that water conservation in the urban areas served by Cachuma could offset a water supply shortfall.

Since the 2007 RDEIR was circulated, the state has passed legislation (SB7X) requiring local water agencies to implement conservation programs to reduce their use and demand by 20 percent by 2020. As part of their 2010 UWMP update process, local water retail agencies will be identifying conservation measures and adjusting their use and demand estimates accordingly. To the degree this information is available, it has been incorporated into the 2011 2<sup>nd</sup> RDEIR.

See also responses to 2007 RDEIR **Comments 1-11, 1-16, and 1-18.**



Cox, Castle & Nicholson LLP  
 555 California Street, 10th Floor  
 San Francisco, California 94104-1513  
 P 415.392.4200 F 415.392.4250

R. Chad Hales  
 415.262.5158  
 chales@coxcastle.com

September 28, 2007

VIA EMAIL AND U.S. MAIL

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

Re: Comments on the Draft Environmental Impact Report Prepared in Connection with Consideration of Modifications to the U.S. Bureau of Reclamation's Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir) (SCH#1999051051)

Dear Ms. Riddle:

On behalf of Nancy Crawford-Hall and San Lucas Ranch, we provide the following comments on the Draft Environmental Impact Report ("DEIR") identified above:

**1. Cachuma Operation and Maintenance Board's ("COMB") has improperly asserted that it is the lead agency over flow-related projects over which the State Water Board has exclusive jurisdiction.**

COMB has prepared an EIR for the Fish Management Plan for the Lower Santa Ynez River ("FMP EIR"). In the FMP EIR, COMB purports to analyze the environmental impacts of numerous projects, many of which are "flow-related" projects, i.e., projects that involve the storage of water in, and/or flow of water from, the Cachuma Reservoir (Bradbury Dam). (See, Exhibit A (excerpts from FMP EIR).) COMB purports to be the lead agency in the FMP EIR, even for projects that are flow related and thus are clearly within the exclusive jurisdiction of the State Water Board. (*Id.*) Ms. Crawford-Hall and San Lucas Ranch have initiated legal action that challenges, in part, COMB's assertion as lead agency (*Crawford-Hall, et al. v. COMB*, Santa Barbara County Superior Court Case No. 1171135). In her briefing on the issue, Ms. Crawford-Hall demonstrated that COMB's assertion as lead agency in the FMP EIR was error. (See Exhibits B (opening brief) and C (reply brief).)

Similar to the FMP EIR, the DEIR analyzes flow-related projects concerning the Cachuma Reservoir, and properly identifies the State Water Board as the lead agency to conduct the environmental review for those activities. However, the DEIR fails to adequately discuss COMB's improper assertion in the FMP EIR as the lead agency over the same flow-related activities. As a

16-1

result, a fundamental confusion exists between the DEIR and the FMP EIR about who is the lead agency over the flow related activities concerning the Cachuma Reservoir. The DEIR's statement that the State Water Board is lead agency over flow-related projects is not sufficient to resolve the confusion. The DEIR must acknowledge and discuss the public confusion that has resulted over this issue, and must identify actions that can be taken to avoid and eliminate this confusion. Among other things, the DEIR should discuss efforts that the State Water Board can take towards decertification of the FMP EIR that improperly identifies COMB as lead agency over flow-related activities. The confusion created by COMB's improper assertion as lead agency over flow-related projects cannot be completely resolved unless the FMP EIR is decertified. Likewise, the DEIR remains inadequate and confusing so long as the FMP EIR remains certified because there are two public agencies purporting to assert lead agency status over the same activities. The DEIR must acknowledge, analyze, and resolve this confusion.

16-1

**2. The DEIR's cumulative impacts analysis is inadequate.**

The DEIR's cumulative impacts analysis is inadequate for failure to identify and avoid or mitigate the significant cumulative impacts resulting from implementation of non-flow projects by, among others, COMB and Reclamation. Specifically, as the State Water Board is aware, COMB and Reclamation are in the process of implementing a series of non-flow projects that are subordinate to, but integrally related with, the State Water Board's flow-related proposals analyzed in the DEIR. From the outset, COMB and others planned these non-flow projects as a quick and inexpensive (but ineffective) fix on the impacts to public trust resources (including the southern Steelhead) that result from the operation of the Cachuma Project. COMB and others ignored more effective solutions (such as creating passage over Bradbury Dam) and instead proposed to create fish habitat in tributaries in the Lower Santa Ynez River where fish do not reside due to, among other things, a complete lack of water. In order to ensure that their efforts would pay off in terms of ensuring water deliveries, COMB and Reclamation proposed a package to NOAA Fisheries that included both flow and non-flow elements—the Biological Assessment for the Fish Management Plan that combined the quick, cheap non-flow proposals with flow-related measures that would ensure COMB's desired water deliveries. The Biological Assessment became the Biological Opinion, which contains both flow and non-flow proposals.

16-2

COMB and Reclamation are now trying to implement the non-flow related measures, many of which will have a direct, adverse impact on public trust resources that the State Water Board is entrusted to protect. As one example, COMB, in conjunction with the California Department of Transportation, is attempting to modify a culvert that lies underneath Highway 154 where it crosses Hilton Creek. According to COMB, the culvert is a complete barrier to fish passage. The proposed modifications to the culvert will, according to COMB, allow Steelhead to pass upstream of the culvert to access the upper portions of Hilton Creek. Unfortunately, COMB proposed this suggested modification as part of the Biological Assessment before it had done any investigation or analyses as to the suitability of upper Hilton Creek as habitat for steelhead. Ms. Crawford-Hall, however, who owns upper Hilton Creek, caused a comprehensive study to be performed on upper

Hilton Creek by a renowned fish biologist, Dr. Alice Rich.<sup>1</sup> Dr. Rich's study concluded that upper Hilton Creek does not have suitable habitat for steelhead and that allowing steelhead to travel to upper Hilton Creek would be tantamount to "trout murder." (See Exhibit D (p. 18115); Exhibit E (DVD and transcript).)

First, upper Hilton Creek lacks sufficient water to be viable steelhead spawning or rearing habitat. Viable steelhead habitat requires, among other things: (1) flowing water containing an adequate amount of dissolved oxygen, (2) access to and from spawning habitat, and (3) access to and from rearing habitat. (Exhibit E (DVD 5:30).) Adequate stream flows are "absolutely critical" to the survival of steelhead. (*Id.* (DVD at 6:50).) Dr. Rich conducted multiple surveys of upper Hilton Creek in 2002 and 2003 in multiple months during all seasons of the year to determine the suitability of Hilton Creek as habitat for steelhead. (See generally, Exhibit D (pp. 18114-66); Exhibit E (DVD).) Dr. Rich concluded that upper Hilton Creek does not have suitable rearing or spawning habitat for steelhead because, among other things, it lacks sufficient water. (Exhibit D at pp. 18116, 18118, 18126.) In both 2002 and 2003, Dr. Rich observed that upper Hilton Creek went completely dry during the summer months, when steelhead need water for rearing. (*Id.* at 18121, 18125; see also Exhibit E (DVD at 7:45, 10:30, 11:30, 12:00).) A creek that completely dries during the summer, of course, is insufficient to support steelhead. (Exhibit D at p. 18117; Exhibit E (DVD at 2:45, 10:30).) Based on her multiple surveys, Dr. Rich concluded that it was absurd to proceed with the project to modify the Highway 154 culvert. (Exhibit D at p. 18129.) She concluded that if "any trout are able to immigrate under Route 154, they would be stranded in pools upstream early in the year and, ultimately, die of desiccation or predation by mammals and/or birds." (*Id.*) Thus, "[e]nticing rainbow/steelhead to immigrate to an area of the creek, which does not have year-round flowing water and which dries up at the earliest by spring and latest by summer, will result in more dead rainbow/steelhead, not an increased steelhead population." (*Id.* at p.18131; see also Exhibit E (DVD at 14:30) ("Encouraging adult fish to move upstream if water is temporarily available will certainly result in high fish mortality."))

COMB and Reclamation are well aware that upper Hilton Creek lacks water. COMB and Reclamation, in fact, artificially add water to lower Hilton Creek thereby demonstrating their realization is insufficient water for fish on Hilton Creek. Moreover, the lack of water in upper Hilton Creek is greater than it is in lower Hilton Creek. Below the Highway 154 culvert, the geology of Hilton Creek is bedrock (T<sub>1</sub>) overlain by a thin layer of river terrace deposits ((QOa2). (See Exhibit F.) Hilton Creek is filled with cobble-boulder fan gravel on top of Bedrock, which is thickest above Hwy 154 and thins out and disappears below the culvert. The fan gravel is composed of material ranging from sand to pebbles, rocks and boulders. Above the Highway 154 culvert, water seeps into the gravels down to the bedrock approximately 30 to 150 feet below. Then it flows along the bedrock surface. This results in much lower surface water flows than below the

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<sup>1</sup> Dr. Rich is highly qualified to analyze the suitability of Hilton creek as habitat for steelhead. For the last twenty years, she has, among other things, studied the thermal impacts on salmonids, including steelhead and rainbow trout (see Exhibit D at p. 18121) and has published dozens of articles on, and conducted multiple studies of, fish and fish habitat in California. (See *Id.* at pp. 18140-51.)

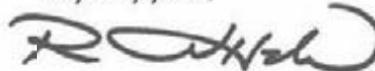
Diane Riddle  
September 28, 2007  
Page 4

Highway 154 culvert. Still, even below the Highway 154 culvert, COMB and Reclamation must resort to artificial water flows in order to create suitable habitat for fish. COMB and Reclamation, of course, have no ability to create artificial water flows above the Highway 154 culvert. Thus, any fish that are lured above the culvert during sporadic periods of rainfall will become stranded and will die, whereas if they were never lured to upper Hilton Creek in the first place, they may have found suitable habitat elsewhere, such as the mainstem Santa Ynez River.

Second, upper Hilton Creek does not contain steelhead spawning habitat. Dr. Rich and her associates took three dozen samples of the substrate material along various points along upper Hilton Creek—none contained suitable spawning habitat. (Exhibit E (DVD at 13:00).) The streambed of upper Hilton Creek either contains boulders too large for spawning, or has a high degree of fine silt that, even when water is flowing, smothers eggs. (*Id.* (DVD at 13:35).)

In short, upper Hilton Creek is naturally dry, even just days after significant rain, and that fish that are lured to the upper reaches, beyond existing boundaries, will have no hope of surviving the summer months, or traveling downstream to more favorable conditions. Accordingly, implementation of this non-flow project will have a significant adverse impact on public trust resources. The DEIR fails to analyze the cumulative impacts of its flow-projects with the non-flow projects proposed by COMB and others that will result in steelhead death. For the same reasons, the DEIR's analysis of the non-flow projects on a programmatic level is deficient for failure to identify, avoid and mitigate the adverse impacts to steelhead that will result from, among other actions, the proposed modifications to the Highway 154 culvert.

Very truly yours,



R. Chad Hales

Enclosures

cc: Nancy Crawford-Hall  
San Lucas Ranch

16-2

16. Nancy Crawford-Hall and San Lucas Ranch (Cox, Castle Nicholson), dated September 28, 2007.

**Response 16-1:**

The comment asserts that the Cachuma Operation and Maintenance Board (COMB) has improperly asserted that it is the lead agency over flow-related projects over which the SWRCB has exclusive jurisdiction.

CEQA (Section 21067) defines the lead agency as the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment.

The SWRCB is the lead agency under CEQA for water rights issues. While COMB may be an interested party, and a reviewing agency, it is not the lead agency for this project. The comment notes that COMB was the lead agency for the Fish Management Plan (FMP) EIR; that EIR did not involve water rights issues. Reclamation owns Bradbury Dam; COMB operates the project under agreement with Reclamation and is subject to other requirements beyond those of the SWRCB including the Biological Opinion (BO) issued by NMFS regarding the steelhead and the 2005 FMP/BO EIR/EIS.

**Response 16-2:**

The comment states that the 2007 RDEIR's cumulative impacts analysis is inadequate for failing to identify and avoid or mitigate the significant cumulative impacts resulting from implementation of non-flow projects by COMB and Reclamation, among others.

The petitions before the SWRCB are for water rights permits amendments. While there may be other projects that could involve actions in the Santa Ynez River, if they are not directly or indirectly attributable to this project, and this project is not likely to have an incremental effect on areas or resources potentially impacted by those projects, the effects of those projects are appropriately not analyzed in the CEQA documents for this project. Pursuant to the *CEQA Guidelines*, "an EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (*CEQA Guidelines* Section 15064, subd. (h)(1), emphasis added.) "The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." (*CEQA Guidelines* Section 15064, subd. (h)(4).)

**John G. Williams, Ph.D.**  
Environmental Hydrology

26 September 2007

Ms. Diane Riddle  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812-2000  
[driddle@waterboards.ca.gov](mailto:driddle@waterboards.ca.gov)

Dear Ms. Riddle:

Here are my comments on the Revised Draft Environmental Impact Report (RDEIR), Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir), dated July 2007. The RDEIR modifies and updates the State Water Resources Control Board's August 2003 Draft Environmental Impact Report. Changes include eliminating previously identified alternatives and adding two alternatives (5B and 5C). My review of the RDEIR focuses on the newly identified alternatives.

My qualifications for this review are detailed in the attached *c.v.* Briefly, I have worked on instream flow issues for many years, especially since I was appointed in 1990 as Special Master to supervise the court's continuing jurisdiction in *EDF v. EBMUD*, a case concerning the American River in which the instream flow needs of Chinook salmon and steelhead featured prominently. I have published several scholarly articles on methods for assessing instream flow needs, as well as a monograph on Chinook salmon and steelhead in the Central Valley that was commissioned by CALFED. I also served on the NMFS Central Valley Technical Recovery Team for listed salmonids, and on a panel that reviewed the Biological Opinion on the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan. I am also co-author of an article concerning stream-aquifer interactions, and have graduate training and publications in energy balance climatology. I am familiar with water-related modeling in general and with water system operations models from my years as Executive Director of the Bay-Delta Modeling Forum and from direct professional experience. Having served for seven years as an elected member of the Board of Directors of the Monterey Peninsula Water Management District, I am generally familiar with water management issues and CEQA.

After reviewing the RDEIR, with particular attention to its treatment of the instream flow and migration requirements of the population of steelhead (*Oncorhynchus mykiss*) in the Santa Ynez River, I have two main conclusions:

- 1) The RDEIR does not provide an adequate basis for comparing or selecting among the new range of alternatives considered; and**
- 2) The RDEIR does not provide an adequate basis for concluding that any of the new range of alternatives considered will meet the stated objective of the project.**

875 Linden Lane, Davis, CA 95616  
530 753 7081 (voice) 530 756 3784 (fax)  
[jgwill@dcn.davis.ca.us](mailto:jgwill@dcn.davis.ca.us)

John G. Williams, Ph.D.

I have also concluded that:

*The RDEIR fails to provide clear and meaningful descriptions of the alternatives;*  
*The RDEIR alternatives are too similar to be meaningful choices;*  
*The RDEIR fails to consider a large body of relevant science;*  
*The method used in the RDEIR for analyzing and scoring flow-related impacts is fundamentally flawed;*  
*The RDEIR ignores evidence considered in another EIR;*  
*The analysis of water temperature in the RDEIR is deficient;*  
*The RDEIR provides a disjointed and simplistic analysis of the condition of steelhead and other public trust resources that are affected by the project;*  
*The RDEIR fails to analyze the effects of water rights releases on steelhead;*  
*The RDEIR fails to analyze the effects of water quality in the mainstem Santa Ynez River on the success of incubating *O. mykiss* embryos and alevins;*  
*The RDEIR fails to show that the steelhead population in the Santa Ynez River will be viable under any of the alternatives considered;*  
*The RDEIR fails to show that fish below the dam will be in good condition under any of the alternatives considered.*

The basis for these conclusions is presented below. I have also offered suggestions for improving the analyses.

In reaching these conclusions, I have considered not just the information provided or referenced in the RDEIR, but also information from the scientific literature, and from agency reports concerning recovery planning for various species of Pacific salmon, as well as various documents regarding the Santa Ynez River that have been submitted to the SWRCB previously. There is also a large literature dealing with methods for assessing the instream flow needs of fishes, and especially salmonids, to which I have contributed; reviews of this literature include Korman et al. 1994, EPRI (2000) and Annear et al. (2004). The RDEIR should, but does not, place the assessment method it adopts in the context of the methods generally used. I try to do this below, but in short, the method used by the RDEIR is remarkably simplistic, and the literature provides no support for any claim that it is adequate to support an assessment of the alternatives considered in the RDEIR. There is also a substantial and highly relevant literature dealing with analysis and recovery planning for evolutionarily significant units (ESUs) or “distinct population segments<sup>1</sup>” of Pacific salmon in Washington, Oregon, and California listed as threatened or endangered under the federal Endangered Species Act (e.g., Beechie et al. 2003; Good et al. 2005, Lindley et al. 2007; Boughton et al. 2007). In addition, NMFS has recruited a panel of very highly qualified scientists, the Recovery Science Review Panel (RSRP), to provide scientific oversight and guidance for the recovery planning process. One of the reports of this panel, RSRP (2004), is particularly relevant to the Santa Ynez steelhead.

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<sup>1</sup> Usage by NMFS apparently is in flux, but out of habit I use the term ESU, without intending any distinction from “distinct population segment.”

From a scientific perspective, however, and particularly from an ecological perspective, existing methods for assessing instream flows are unsatisfactory<sup>2</sup> (Castleberry et al. 1996; Anderson et al. 2006). Anderson et al. (2006) provide a good critique of common methods for assessing instream flow needs, as well as a discussion of the kinds of concepts that are needed for better assessment methods. There is considerable overlap between the ideas developed in various salmon recovery documents and in articles such as Anderson et al. (2006).

Of course, instream flow decisions cannot wait on the development of better methods for assessing instream flow needs. The appropriate response to this situation is set forth in Castleberry et al. (1996:20), who cited the decision in *EDF v. EBMUD* as exemplary:

First, conservative (i.e., protective) interim standards should be set based on whatever information is available, but with explicit recognition of its deficiencies. The standards should prescribe a reasonable annual hydrograph as well as minimum flows. Such standards should try to satisfy the objective of conserving the fishery resource, the first principle of adaptive management (Lee and Lawrence 1986).

Second, a monitoring program should be established and should be of adequate quality to permit the interim standards to serve as experiments. Active manipulation of flows, including temporary imposition of flows expected to be harmful, may be necessary for the same purpose. This element embodies the adaptive management principles that management programs should be experiments and that information should both motivate and result from management action. Often, it also will be necessary to fund ancillary scientific work to allow more robust interpretation of the monitoring results.

Third, an effective procedure must be established whereby the interim standards can be revised in light of new information. Interim commitments of water that are in practice irrevocable must be avoided.

It should be noted that many of the authors of Castleberry et al. (1996) are highly distinguished. For example, Michael Healey is the interim Chief Scientist for CALFED, and Jennifer Nielsen is the past president of the American Fisheries Society. Below, I discuss the application of this approach to the Santa Ynez River.

**The RDEIR does not provide an adequate basis for comparing or selecting among the alternatives considered.**

17-1

*The RDEIR fails to provide clear and meaningful descriptions of the alternatives*

The descriptions of the new range of alternatives assessed in the RDEIR are difficult to interpret in physically meaningful terms. The problem is most easily explained by a counter-example, the description at p. 3-14 of an alternative that was assessed in the 1995 Cachuma Contract Renewal EIR/EIS:

17-2

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<sup>2</sup> I refer here to methods for assessing instream flows in advance of their implementation; instream flow regimes can be assessed by implementing them in a program of adaptive (i.e., experimental) management.

**Alternative 3A2** involves operation of Lake Cachuma with releases to maintain the following minimum streamflows at selected locations downstream of the dam in order to improve steelhead habitat and general aquatic and riparian habitat conditions.

- 48 cfs 15 February to 14 April, then
- 20 cfs to 1 June, then
- 25 cfs for one week, then
- Ramp releases to 10 cfs by 30 June, then
- Hold at 10 cfs to 1 October, then
- 5 cfs for the rest of the year.

Under this alternative, the above flows are to be maintained at both San Lucas and Alisal bridges. These flows would be created by both natural streamflow and releases from the dam.

In contrast, the RDEIR describes alternatives in terms of the Biological Opinion or similar non-physical terms, for example, at p. 3-6:

4B. Operations under the Biological Opinion assuming Reclamation achieves a 3.0-foot surcharge and the discharge of SWP water to the river near Lompoc in exchange for water available for groundwater recharge in the Below Narrows Account established by Order WR 73-37, as amended by Order WR 89-18.

5B. Operations under the proposed CalTrout Alternative 3A2 during wet and above-normal water year types, with operations under the Biological Opinion during below-normal, dry and critical water year types, assuming Reclamation achieves a 3.0-foot surcharge, except that releases for fish rearing and passage will be provided with a 1.8-foot surcharge.

Even in the technical appendices, flows are described mainly in terms of exceedence curves, which are of limited utility for assessing instream flows, since they convey no information about the order in which flows occur. Hydrographs are much more informative for instream flow assessment.

*The RDEIR alternatives are too similar*

With respect to steelhead, the alternatives considered in the RDEIR are too similar to allow the SWRCB to make choices among alternatives that make a difference to the fish in most years; meaningful differences occur only in wetter years. For example, sufficient access to the ocean is a key requirement for steelhead. However, the average number of “passage days” estimated for the various alternatives (other than the no project alternative) ranges only from 34 for 4B to 38 for 5B and 5C, and the percentage of years with 14 or more passage days ranges only from 62% for 4B to 65% for 5B and 5C (Table 2A in Stetson Draft Technical Memorandum No. 6). Similarly, the median flows for January to April (50% exceedence) from Bradbury Dam to Highway 154 for these alternatives range only from 5.5 cfs for 3B, 3C, 4B and 5B to 5.8 cfs for 5C; from Highway 154 to Refugio Road they are identical (5.0 cfs); and from Refugio Road to Alisal Road they range only from 4.5 cfs for 3B and 3C to 4.8 cfs for 5B and 5C (Table 1 in Stetson Draft Technical Memorandum No. 6).

There is somewhat more contrast with respect to rearing, but in effect there are really only two alternatives. For the Bradbury Dam to Highway 154 reach for July through September the

17-2

17-3

median flows for the alternatives (other than the no project alternative) are 11.7, 11.7, 11.2, 18.3 and 18.3 cfs (Table 1 in Stetson Draft Technical Memorandum No. 6).

The lack of adequate contrast among the new range of alternatives evidently results from concern about the potential effects of instream flow releases on water supplies (RDEIR, p. 3-14):

The new Alternatives 5B and 5C are based on a variation of CalTrout Alternative 3A2 Adjusted for Dry Years. These alternatives would operate under two different sets of hydrologic conditions for releases of water from Cachuma Lake for fish. In wet or above-normal years, the criteria for fish water releases would be based on the proposed CalTrout Alternative 3A2, which would entail the increased stream flows outlined in that alternative. In below-normal, dry, or critical years, the criteria for fish water releases would be under the long-term Biological Opinion. The idea is to attempt to reduce impacts to water supplies by switching to the long-term Biological Opinion operating criteria in years of below-normal,<sup>3</sup> dry, and critical runoff conditions.

17-3

The CEQA process would have been better served if the RDEIR had assessed CalTrout Alternative 3A2 with the dry year adjustment (20% of the years) proposed by CalTrout. This would have provided a more meaningful range of alternatives for the SWRCB to consider. Decisions whether and how to reduce impacts on water supplies should come at the end of the process, not at the beginning.

*The RDEIR fails to consider a large body of relevant science*

Most species and ESUs of Pacific salmon (genus *Oncorhynchus*) are in decline in California, Oregon, and Washington, and many are listed as threatened or endangered under the federal Endangered Species Act (ESA). The National Marine Fisheries Service (NMFS) has organized a coast-wide process for planning the recovery of these species, and in the process has summarized much information about salmon and has developed useful concepts such as the Viable Salmonid Population (VSP) concept. Much of this material, including material published after the 2003 SWRCB hearing on the Santa Ynez River, is relevant for assessing the alternatives in the RDEIR, as discussed below, and all of it has been ignored by the RDEIR. Essentially, the RDEIR ignores all of the science and recovery planning that NMFS has generated since the 2000 Biological Opinion.

17-4

*The method for analyzing and scoring flow-related impacts is fundamentally flawed.*

At p. 4-51, the RDEIR states that:

To provide an objective basis for comparing flow-related impacts among alternatives, a scoring system was developed to compare the effects of different flow regimes on fish habitat in the lower Santa Ynez and in Cachuma Lake using modeled flow. A scoring system to allow for comparison of the alternatives was set up on a relative scale of 0 to 5, with a score of 0 indicating little or no habitat value and a score of 5 indicating the higher habitat value.”

17-5

<sup>3</sup> It is widely known that in Lake Wobegon, all the children are above average. Somewhat similarly, according to the RDEIR, on the Santa Ynez River, 60% of water years are below normal. See Figure 2, Stetson Draft Tech. Memo. No. 5.

Such a scoring system is not “objective.” In reality, the RDEIR simply assigns ranks, based on the subjective judgment of the authors; each of the rankings could as well be bad, poor, ok, better, good. As shown below, the subjective judgment of the RDEIR authors is also biased in favor of water users and against the survival of steelhead. However, there is also a fatal technical deficiency with the rating system itself.

Besides using subjective rankings, the RDEIR misuses the rankings, by treating them as numbers from an interval scale, rather than as numbers from an ordinal scale. To understand this problem, consider other uses of numbers from an ordinal scale, such as the numbering of chapters in a book or the naming of kings. The numbers tell us the order in which the chapters or kings appear, but that is all, and it is obvious nonsense to talk about Chapter 3.5 or Charles the 3.5<sup>th</sup>. Similarly, the scoring system used in the RDEIR, for example in Table 4-41 (inserted below), tells us how the authors have ranked the associated conditions in nature, on a scale from worse to better. However, there can be no credible claim that conditions that score 3 are better than conditions that score 2 to just the same degree that conditions that score 5 are better than conditions that score 4. For example, Table 4-41 ranks 6 days of passage flows the same as 4 days, but 7 days is better than 6 days (Figure 1 shows this graphically). Therefore, the ratings cannot be manipulated by arithmetic, for example by taking averages. Unfortunately, this is what the RDEIR does, for example in the right-most column of Table 4-2 (inserted below), in an attempt to compare the alternatives. Looking at Table 4-2, we see that Alternatives 4B and 5B are given average scores of 3.5. However, talking about a score of 3.5 makes no more sense than talking about Charles the 3.5<sup>th</sup>. By reference to Table 4-1 or Figure 1, we can see that there are no conditions in nature that correspond to a score of 3.5 (the data here are the output of a computer model, which does not compute partial days). The number is essentially meaningless, and cannot serve to compare the alternatives. To the extent that the rankings are meaningful, they are only so within categories (e.g., passage). That alternatives are given the same average score is not evidence that they are equivalent, and that one alternative has a higher average score than another is not evidence that it is better.

17-5

**Table 4-41**  
**Scoring Criteria For Steelhead Habitat**

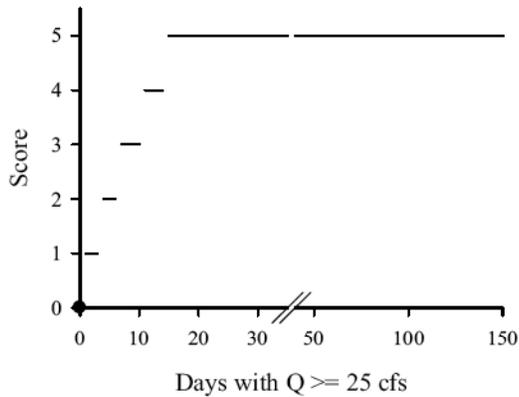
Life Stage	Flow Location	Months Considered	Scores					
			← better			worse →		
			(5)	(4)	(3)	(2)	(1)	(0)
Passage	Alisal Road	January - April	> 14 days*	11 to 14 days	7 to 10 days	4 to 6 days	1 to 3 days	0 days
Spawning	Highway 154	February - May	> 30 cfs	> 15 to ≤ 30 cfs	> 10 to ≤ 15 cfs	> 5 to ≤ 10 cfs	> 2.5 to ≤ 5 cfs	≤ 2.5 cfs
Fry Rearing	Highway 154	April - August	≥ 10 cfs	≥ 5 to < 10 cfs	≥ 2.5 to < 5 cfs	≥ 1.5 to < 2.5 cfs	> 0 to < 1.5 cfs	0 cfs
Juvenile Rearing	Highway 154	January - December	≥ 10 cfs	≥ 5 to < 10 cfs	≥ 2.5 to < 5 cfs	≥ 1.5 to < 2.5 cfs	> 0 to < 1.5 cfs	0 cfs

\* A 'passage day' is defined as a flow of ≥ 25 cfs at the Alisal Road Bridge.

**Frequency of Scores**

Alternatives	← better			worse →			(AVG)
	(5)	(4)	(3)	(2)	(1)	(0)	
2	21	4	2	5	5	15	2.7
3B	31	6	0	2	1	12	3.5
3C	31	6	0	2	1	12	3.5
4B	31	4	2	2	2	11	3.5
5B	33	2	1	3	2	11	3.5
5C	33	2	1	3	2	11	3.5

Figure 1: Graphical depiction of the RDEIR ranking for steelhead migration. Note that the ranking does not distinguish years with 14 days  $\geq$  25 cfs from days with 100 or more such days.



Besides being subjective, the RDEIR scoring system is biologically unsound. The scoring system is perhaps most deficient for steelhead migration (Figure 1), since it is based on a misreading of NMFS (2000) (hereafter also called the Biological Opinion) regarding the subject. At pp. 4-64 and 4-65, the RDEIR states that:

17-5

Travel times for salmonids are not well defined in the literature. NMFS cites several studies of salmonid travel times which range from 8 to 31 miles per day (Groot and Margolis 1991, cited in NMFS 2000) to 1.85 to 18.4 miles per day (average of 4.6 miles per day) for steelhead in the Carmel River (Dettman and Kelly 1986, cited in NMFS 2000). NMFS also considered an analysis of recession curves derived from the Los Laureles gage (located above Cachuma Lake), which demonstrated that the recession from 150 cfs to baseflow took 14 days. Based on these studies, NMFS considered 14 days of passage in a particular year to provide adequate passage opportunities (NMFS 2000). A score of 5 was equated with years in which the number of passage days exceeded this threshold (Table 4-41; Figure 1). A score of 0 was equated to years that provide no passage opportunity. The remaining scores were assigned passage days by dividing the remaining passage days evenly amongst the scores. This reflects that, given the uncertainty and variability in steelhead travel times, passage opportunities to portions of the mainstem may be provided even with smaller numbers of passage days.

Contrary to the claim in the RDEIR, NMFS (2000) did not consider 14 days with flows of 25 cfs at Alisal Bridge to provide adequate opportunity for migration. Rather, at p. 36, NMFS (2000) states that “Based on the limited information available, it is NMFS’s best professional judgment that 14 days of *consecutive* migration ability is likely to significantly increase successful migration of steelhead in the Santa Ynez River” (emphasis added).<sup>4</sup> This does not say that 14 days is “adequate,” especially if the days are not consecutive, and in any event, for “adequate” to have any meaning, the RDEIR would have to specify what the 14 days would be adequate for. Does it mean adequate for some steelhead to migrate, or adequate to allow enough migration for the population to persist in the long term? The first meaning might be correct, but neither NMFS (2000) nor the RDEIR provide any evidence to support the second.

<sup>4</sup> The failure to consider whether the days are consecutive probably results from using exceedence curves instead of hydrographs for the analysis.

Moreover, in context, it is clear that NMFS is referring to situations where the 14 *consecutive* days begin with a peak of 150 or more cfs, usually when a natural flow peak is supplemented; in the same paragraph, NMFS (2000) states that “As the supplementation will provide a storm flow tail out that starts at 150 cfs, NMFS concludes that the proposal will ensure steelhead passage ... during supplementation.” However, NMFS (2000:8) proposed that “The first storm [flow > 25 cfs] of the season not be supplemented, as it is considered a recharge storm to saturate the groundwater in the lower watershed for further releases.” The scoring system does not account for this, and for this reason as well does not accurately reflect the Biological Opinion. Further, at p. 35, NMFS (2000) states that “In the opinion of the NMFS fishery biologists and hydraulic engineers, these criteria [e.g. 25 cfs at Alisal Bridge] are close to the minimums at which passage is possible, not water depth and width that produce good migration habitat” (emphasis in original). Finally, the RDEIR scoring does not take into account whether the mouth of the river would be open, which is clearly necessary for the flows to provide an opportunity for migration to anadromous fish.

Additionally, the RDEIR does not mention language in NMFS (2000) that the rate of flow is an important determinant of the rate of steelhead migration (p. 35); that is, the fish tend to migrate faster in higher flows. Thus, while extending the duration of flows of 25 cfs or more after a period of higher flow might allow successful migration, 25 cfs for 14 days without a higher peak might well not, especially if the days are not consecutive. Moreover, the tendency of fish to migrate more slowly when flows are low undercuts the rationale for the scores for years with fewer than 14 days with flows of 25 or more cfs. In particular, returning to the point about scales, there is no basis for assuming that a year with 10 days with flow of 25 or more cfs is sixty percent as good as a year with several months of such flows; for this to be true, the scoring system would need to be a ratio scale, not just an interval scale.

Thus, the scoring system gives its highest score to conditions that are best described as marginal. This matters, because it means that the system cannot distinguish between an alternative or year that provides marginal conditions for migration, and one that provides better than marginal conditions. For example, it does not distinguish between a year such as 1967, with over 90 days with simulated flow greater than 25 cfs, and years with 14 such days. Similarly, it does not distinguish between the migration flows of 48 cfs for two months provided in some years by Alternatives 5B and 5C and the lower migration flows of shorter duration provided by other alternatives. Since it cannot make such distinctions, the scoring system does not provide a rational basis for distinguishing among alternatives. At the very least, if a scoring system is to be used it should be based on biological reality, so that the highest score for passage, for example, would only be given to years that are unquestionably good for steelhead, such as 1967.

The scoring systems for spawning and for fry and juvenile rearing are similarly flawed. According to the RDEIR (p. 4-66), “The minimum, long-term rearing target flow level established by the Biological Opinion is 2.5 cfs. This flow was equated with a score of “3,” which falls in the middle of the scoring range. Conditions without flow were scored “0.” A score of “5” was given to flows greater than 10 cfs because this is the maximum rearing flow required in the Biological Opinion for habitat maintenance.” In fact, a flow of 10 cfs in years with spills greater than 20,000 acre feet was simply part of the Bureau’s proposed action, not a flow recommendation independently developed by NMFS. (In the “reasonable and prudent

measures” section, the Biological Opinion states that “In addition to meeting the interim and long term flow targets described in the Description of the Proposed Action section, ...”, and then goes on to consider other measures.) NMFS (2000) offers relatively little analysis of the flow targets. The main point considered was that the proposed target flows would have higher exceedence values than existing conditions or historical flows (Table 1). However, nothing in NMFS (2000) suggests that habitat would not continue to increase as flows increase above 10 cfs. To the contrary, in discussing the water rights releases, the Biological Opinion (p. 45) states that “Thus available rearing habitat in water rights release years, including the area and depth of riffles, runs, and pools, will be temporarily increased while water rights releases occur.” Again, the analysis in the RDEIR cannot distinguish flows that provide some habitat and flows that provide more habitat. In particular, the scoring system is blind to the flows greater than 10 cfs that are provided in 40% of years by Alternatives 5B and 5C.

Flow Cfs	% exceedence			
	Highway 154		Alisal Road	
	Target	Historical	Target	Historical
10	40%	32%	34%	30%
5	78%	54%	40%	35%
2.5	98%	65%	45%	38%

Table 1: Estimated percent exceedence at different minimum flows, copied from Table 11 in NMFS (2000).

The RDEIR also inappropriately supports the scoring of 5 for all flows greater than 10 cfs by considerations regarding the width of the stream; “In addition, the top-width versus flow relationships developed during the habitat analysis show that the rate of increase of habitat (i.e., top-width) typically declines above 10 cfs (SYRTAC 1999).” Effectively, this equates habitat with the width of the stream, which has little relationship to reality.<sup>5</sup> The analysis does not even consider the relation between flow and the length of channel with suitable habitat, so this approach does not even take account of the area of wetted habitat. Even on its face, the RDEIR does not say that habitat ceases to increase as flows go above 10 cfs, but rather only that the rate of increase declines.

The “top-width” method described by SYRTAC (1999) appears to be a simplification of the “wetted perimeter” method, but examination of the citations given indicates some confusion on the matter, and I have not found anything in the literature that provides significant support for the use of top-width as a measure of habitat quality. Even according to SYRTAC (1999:2-2):

Generally, the greater the top width, the greater the amount of habitat. Changes in top width were considered from the standpoint of the absolute and relative change in top width from one flow to the next. Large changes in top width would indicate a large change in the amount of

<sup>5</sup> The analysis in SYRTAC (1999), to which the RDEIR refers, is not much better, although it considered width to depth ratios, maximum depth, and velocity at the thalweg at a relatively small number of transects in addition to width.

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potential living space available to steelhead. While top width is not the same as suitable habitat, it has been used as an index of the amount of habitat available in the past (Swift 1976, Annear and Condor 1983, Nelson 1984). While top width can be used as an index of habitat quantity, it does not address habitat quality. For instance, a section of stream that is 100 feet wide and two inches deep provides less habitat for fish than a channel that is 20 feet wide and two feet deep.

The three citations given by SYRTAC (1999) are Swift (1976), (Annear and Condor 1983), and Nelson (1984). I have not been able to locate Nelson (1984), which is an unpublished report, but I have reviewed Swift (1976) and Annear and Condor (1983). I have also reviewed Annear et al. (2004), which among other things describes various methods for instream flow assessment. The title of Annear and Condor (1983) is "Relative bias of several fisheries instream flow methods." The methods considered were the Tenant method, wetted perimeter curves, habitat retentions models, and the physical habitat simulation system (PHABSIM). According to Annear and Condor (1983:534), "An unbiased [maintenance flow] was defined for each stream as the mean (plus 95% confidence interval) of all recommendations for that stream. The recommendation from each method for each stream was then compared to this unbiased range to determine its predictive tendency." Thus, the study only compared the methods to each other; no real biological evaluation was involved. However, Annear and Condor (1983:532) do provide a brief definition of the method:

This [wetted perimeter] method assumes that a direct relationship between wetted perimeter and fish habitat exists in streams. By plotting the response of wetted perimeter to incremental changes in discharge, the investigator usually can identify an inflection in the resulting curve where small decreases in flow result in increasingly greater decreases in wetted perimeter. This point on the curve represents a flow at which the water surface recedes from the stream banks and fish habitat is lost at an accelerated rate. This flow is the instream flow estimate. ...

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Regarding the wetted perimeter method, Annear and Condor (1983) also reported that "None of the methods in this [wetted perimeter] category generated a significant number of unbiased [maintenance flow] estimates." That is, the recommendations were generally different from those of the other methods considered.

Annear and Condor (2004:163-164) give a similar description of the wetted perimeter method, and make the following observations:

**Appropriate Scale:** River reach. Should only be applied to riffle mesohabitat types.

...

**Assumptions:** The method application assumes that the flow represented by the breakpoint will protect the food producing riffle habitats at a level sufficient to maintain the existing fish population at some acceptable level of sustained production. The method further assumes that the stream channel is stable and unchanging over time.

...

**Historical Development:** Initially the model was based on multiple measurements to develop empirical relations. It is now common to use computer programs to analyze cross sections and develop stage-discharge relations and wetted perimeter plots (Grant et al. 1992). Gippel and Stewardson (1996) critically evaluated the "inflection point" and noted that the determination of the breakpoint is highly error prone. The also presented a technique for mathematically defining the point of maximum curvature. Annear and Condor (1983) likewise found considerable variation in using inflection points for determining instream flow levels when

compared to other methods. Early reports (Collings 1974) estimated that the discharge represented by the breakpoint protected 50-80% of the maximum available wetted perimeter. The Oregon Department of Fish and Wildlife recommended that at least 50% of available wetter perimeter be maintained (Ken Thompson, personal communication; Stalnaker and Arnette 1976), Tennant (1976b) found that discharges covering 50% of the wetted perimeter in Montana streams represented approximately 10% of the mean annual flow. Nelson (1980) attempted to demonstrate healthy standing crops of trout in Montana streams subject to flow flows defined by the wetted perimeter. Gippel and Stewardson (1996) found that the discharge represented by the wetted perimeter breakpoint in two high mountain streams in Australia was similar to the 95% exceedence flows. Dunbar et al. (1998) concluded that the discharge determined by the breakpoint still significantly reduced invertebrate production.

Thus, of the various studies cited, only Nelson (1980) and Dunbar et al. (1998) attempted any biological testing of the wetted perimeter method. It is not clear from Annear et al. (2004) what Nelson (1980) found (this is another unpublished report), and the findings of Dunbar et al. (1998) do not reflect well on the method, which is supposed to protect food producing riffle habitat. As noted by Annear et al. (2004), the method depends on an assumed relationship regarding invertebrate production, rather than empirical evidence. The method also assumes that the channel is stable. As is revealed by a quick examination of the Santa Ynez River on Google Satellite, the channel of the river is clearly not stable. In the 2003 SWRCB hearing, one of the biologists on the SYRTAC, Jean Baldrige, testified that "We ended up rejecting the PHABSIM in the reach below 154 because of the dynamic nature of the channel;" however, the same objection applies to the top-width method.

The other study cited by SYRTAC (1999) is Swift (1976). This describes a superficially similar but actually rather different method, which Annear et al. (2004) called the "Washington toe-of-bank width method." According to Swift (1976:2):

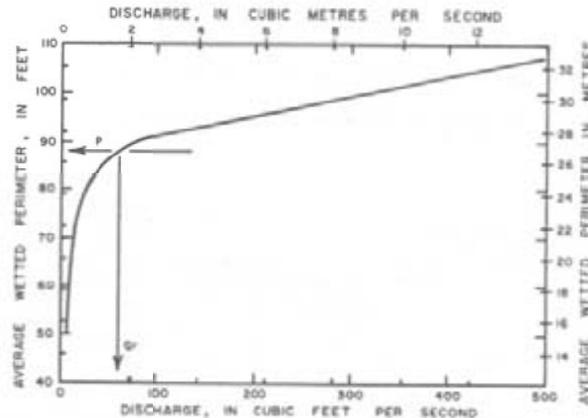
This report presents the results of studies made at 54 reaches on 18 streams in western Washington to (1) measure the stream discharges and spawnable areas corresponding to depths and velocities preferred by spawning steelhead, (2) measure the stream discharge and wetted perimeter of each stream channel corresponding to a water stage that covers the streambed but not the channel banks, as an evaluation of rearing conditions, and (3) develop equations relating the resulting stream discharges and wetted perimeters at the study reaches to drainage-basin and stream-channel parameters. Thus, estimates of discharges for the spawning and rearing characteristics preferred by steelhead trout can be derived from the equations presented herein. These equations, coupled with other requirements for steelhead propagation, can be used as a basis for allocating streamflows for steelhead at stream sites where measurements are not available.

In other words, Swift (1976) developed empirical relations from a set of streams in western Washington for application to other streams in the region. Swift (1976) used plots of average wetted perimeter over discharge to identify what he called "rearing discharge",  $Q_r$ , as shown one of his figures (copied below as Figure 2), but he did not describe  $Q_r$  as the discharge producing optimal habitat or as the appropriate discharge for a flow standard. Rather, he described it as the discharge that "just covers the streambed," and stated that flow standards should be higher than  $Q_r$  (pp. 9-10):

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4.  $Q_r$ , the rearing discharge, is the discharge that provides water that just covers the streambed. It is related to the availability of aquatic insects serving as a food supply for fish. The rearing discharges determined in this report are much less than the spawning discharge, and flows of less than the rearing discharge would be critical at any time during the year. Thus, maintaining flows *in excess of* the rearing discharge would be of prime importance in allocating streamflow for steelhead rearing. (Emphasis added)

Figure 2. A figure from Swift (1976), showing the relation between average wetted perimeter and discharge, and identification of  $Q_r$ . Copied from Swift (1976).



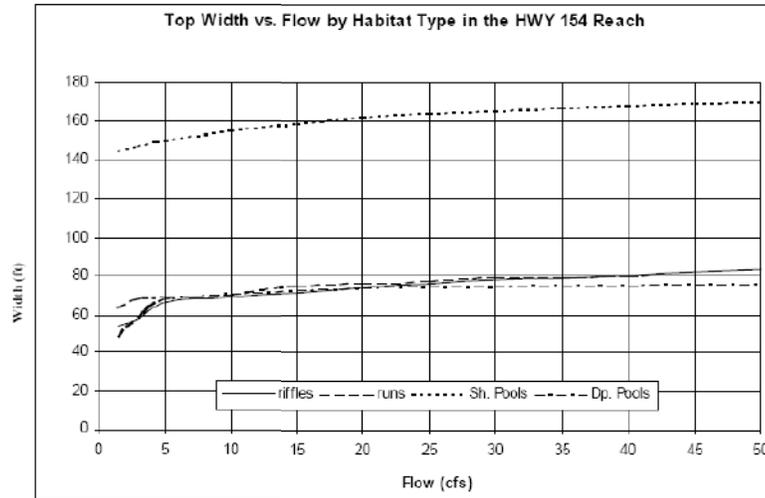
Although it is not discussed in the works cited above, it seems an implicit assumption of the wetted perimeter method that the river does not run out of water, that is, that the discharge in the stream is more or less constant through the study reach, so that that the width measured at transects more or less reflects the area of the stream. The Santa Ynez River in the summer is a losing stream that does run out of water, at least on the surface, so a more complex analysis is required to take account of the relation between flow released from the dam and the resulting area of habitat. The RDEIR does not provide such an analysis.

Additionally, the application of the top-width method by SYRTAC (1999a), like almost all of the instream flow literature, ignores basic statistical considerations. In particular, the curves of top width over flow are given without confidence intervals. The curves are estimated from data, either measured or modeled, and are therefore subject to error. The actual error is in general unknown, but the error can and should be estimated. The normal way to do this is to construct confidence intervals around the curves, which SYRTAC (1999a) did not do. In science, statistics are not an optional nicety; statistics is the science of collecting, analyzing, and presenting data. Studies that could but do not follow appropriate statistical procedures do not provide a suitable basis for management decisions.

Finally, the RDEIR does not describe the results of SYRTAC (1999) accurately. As noted above, the RDEIR states that "In addition, the top-width versus flow relationships developed during the habitat analysis show that the rate of increase of habitat (i.e., top-width) typically declines above 10 cfs (SYRTAC 1999)." Actually, to the extent that there is a "breakpoint" in the curves, it occurs around 5 cfs, rather than 10 cfs, as shown for the Highway 154 reach in Figure 4. Thus, the faulty top-width analysis contradicts, rather than supports, the 10 cfs flow target given in the Biological Opinion.

17-5

Figure 4: Top width v. flow in the Hwy 154 reach, copied from SYRTAC (1999).



17-5

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

*The RDEIR provides a disjointed and simplistic analysis of the condition of steelhead and other public trust resources*

Analyzing the effects of water projects on aquatic species and ecosystems is extremely difficult, and completely satisfactory methods for doing so have not yet been developed (Castleberry et al. 1996; Anderson et al. 2006). Nevertheless, a basic principle is clear: analyses of effects on particular species must deal with their life cycles in an integrated fashion, in the context of the ecosystems in which they occur. The RDEIR notes that anadromous steelhead must pass through a life cycle that involves two migrations along the river as well as incubation and rearing. Fish that cannot complete any of these phases will not reproduce. However, the RDEIR analyzes conditions for these life history phases separately, without consideration that fish must pass through them sequentially. As an example, the analysis of migration does not consider whether the mouth of the lagoon is open. Similarly, the analysis of migration opportunity does not consider whether years with adequate opportunity for smolt migration are preceded by good conditions for rearing. Rather than simply counting the frequency with which suitable or unsuitable conditions occur for migration, spawning, rearing, etc., the RDEIR should consider the frequency and consistency with which conditions occur that will allow steelhead to complete their life cycle.

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The shortcomings of this kind of analysis and methods such as the top-width approach are well known among fisheries biologists working on instream flow issues as well as among ecologists such as Anderson et al. (2006). According to Annear et al. (2004), in their book titled *Instream Flows for Riverine Resource Stewardship*, published by the Instream Flow Council (2004:4-5):

During the late 1960s and 1970s, the science of instream flow began to develop as reflected by a proliferation of methods to assess instream flow needs (Osborn and Allman 1976). Some of the attempts to develop “better” methods resulted from hydrologic statistics or “rules-of-thumb.” We now know that the resulting minimum flows for one life stage of one species, such as summer spawning, do not ensure that ecosystem functions, sustained aquatic communities, or adequate habitat protection will continue even for the species for which the minimum flow was established (Calow and Petts 1992, 1994). Increased access to computers in the 1970s and 1980s coupled with increased knowledge of aquatic system and organisms resulted in more sophisticated methods. However, even when approaches such as the Instream Flow Incremental Methodology (IFIM) were employed, the tendency was to focus on only one or a few river-dwelling species (usually sport fish), life stages, or habitat needs (Stalnaker 1993). A single species orientation remains the hallmark of instream flow analysis. Even methods such as the much used Physical Habitat Simulation System (PHABSIM) have often focused on assessing one species or setting one minimum flow (Stalnaker et al. 1995). ... Many of the methods developed in the mid-1970s remain in use today, and, while they are not appropriate for identifying all the requirements for effective stewardship, some may be useful in situations such as project screening or feasibility assessment (Stalnaker 1990).

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To try to improve on this situation, the National Instream Flow Program Assessment Committee, and later the Instream Flow Council (IFC), developed a conceptual model of the elements that are necessary for effecting instream flow protection (IFC 2004:5-6).

The main principle of this [conceptual model developed by the IFC] is that the flow regime is the dominant variable in determining the form and function of a river. Factors such as the shape of the channel, abundance and diversity of its fish and other organisms, and sustainability are directly determined by flow patterns (Hynes 1970; Poff et al. 1997). Consequently, to maintain or rehabilitate the integrity of flowing water ecosystems, instream flow practitioners must recognize the importance of both inter- and intrannual streamflow patterns for maintaining natural processes in streams. Wherever possible, managers should base their decisions on the concept of natural flow variability and the need to balance sediment input with transport capacity. Thus, a true minimum flow to maintain riverine processes is a quantity of water rather than a single, continuous *rate* of flow distributed over time in varying amounts to maintain natural stream processes. ...

*The RDIER ignores evidence considered in other EIRs*

As a practical matter, habitat assessment in the Santa Ynez River is complicated by the lack of access to a critical reach. The RDEIR states that “The Highway 154 Reach was selected as the index location for spawning and rearing habitat because it contains the best quality habitat available in the mainstem (SYRTAC 2000a). Much of this reach is located on private property and no additional data collection efforts have been undertaken except in the short reach near the dam.”<sup>6</sup> The Department of Water Resources did have access to this area in the 1980s, however,

17-7

<sup>6</sup> It seems strange, methodologically, to select as an index reach a part of the stream that is mostly inaccessible.

and in 1989 DWR produced a “Draft Santa Ynez River instream flow needs study.” Data on stream depth and velocity at transects were collected for that study, and SYRTAC (1999) used these data for the now-inaccessible part of the reach. Presumably, the DWR report was the basis for the following discussion of the Santa Ynez River in Chapter 8 of the 1993 California Water Plan, California Dept. of Water Resources Bulletin 160-93.

**Santa Ynez River.** The Santa Ynez River system historically supported the largest run of steelhead trout in Southern California. However, much of the main channel is now of poor quality or unsuitable for spawning and rearing due to low or nonexistent flows, high temperatures, passage barriers, and habitat degradation. A self-sustaining population of trout remains in one of the tributaries, Salsipuedes Creek, but numbers are low. Rearing habitat is especially limited in the creek and it appears that run size depends on the magnitude of winter storms.

The river is regulated in its upper reaches by Juncal Dam and Gibraltar Dam and downstream by Bradbury Dam and Lake Cachuma. There is presently [in 1993] no instream flow requirement for the river; Lake Cachuma is operated to fill the lower ground water basin and to protect downstream water users. Some information is available about the possible effect of different levels of instream flow from studies associated with the proposed enlargement of Lake Cachuma. Analyses show that if water quality is satisfactory and flows are constant, releases of 50 to 120 cfs are needed to provide optimal habitat between Bradbury Dam and Buellton. Maintaining flows in the reach between the ocean and the confluence with Salsipuedes Creek appears to be particularly important to allow steelhead to reach the highest-quality spawning habitat. Lower flows of from 6 to 50 cfs may also be beneficial if combined with habitat improvement.

If flows of anything like 50 to 120 cfs are needed to provide optimal habitat downstream from Bradbury Dam, then the scoring system used in the RDEIR, which gives no credit to flow increases above 10 cfs, seem hard to justify. The DWR study used PHABSIM, which I have criticized in the professional literature (e.g., Williams 1996; Williams et al. 1999; Kondolf et al. 2000; Williams 2006). Therefore, I do not endorse the report’s findings, although PHABSIM is more credible than simply considering stream width. It seems strange, however, that the RDEIR does not even mention this study, or the analysis in the 1995 Cachuma Contract Renewal EIR/EIR that depended on it.

Moreover, on general grounds it seems highly likely that increases in flow beyond 10 cfs will increase the quality or quantity of habitat for juvenile steelhead. The usual assumption is that for a given species and life stage in a given channel there is some dome shaped relationship between flow and habitat, such as in Figure 3.1 in Gillilan and Brown (1997), copied here as Figure 4.<sup>7</sup> In general, the bigger the channel, the larger will be the flow at which habitat peaks. Thus, within the range considered by the RDEIR, the alternatives that provide higher flows, 5B and 5C (or 3A2 as modified by CalTrout), should provide better habitat conditions for steelhead.

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<sup>7</sup> This does not apply to situations where high flows spill onto a flood plain and provide rearing habitat there, but such situations are now uncommon in the USA, because of flood control measures.

17-7

Figure 4. A generalized relationship between flow and habitat for a given species and life-stage, in a given channel, copied from Gillilian and Brown (1997). This figure is from a discussion of PHABSIM, but the idea depicted of a domed shaped relationship between flow and habitat is more general.

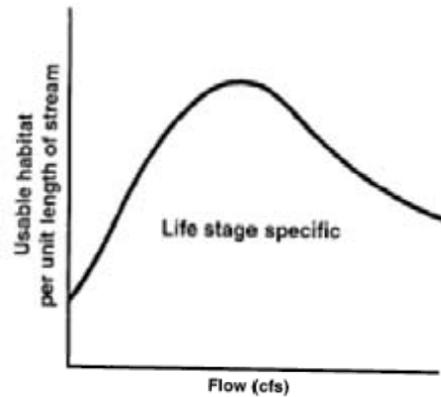
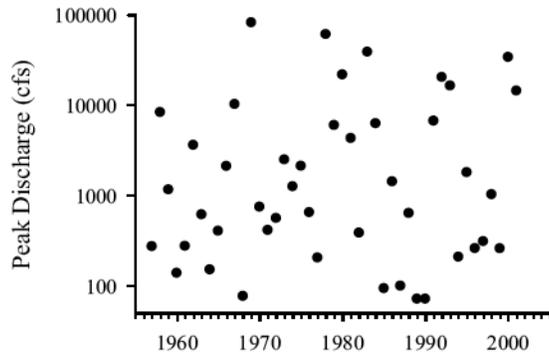


FIGURE 3.1

Peak flows greater than 10,000 cfs are common on the Santa Ynez River (Figure 5), and the channel can be expected to adjust to these flows, since the banks are generally non-cohesive. For a channel shaped by such large flows, it would be surprising if habitat did not continue to increase with flow well beyond 10 cfs.<sup>8</sup> Moreover, increased flows below Bradbury Dam should increase the longitudinal extent of suitable habitat, defined in terms of water quality, especially temperature, as well as the geometry of the channel. The potential effect of increased flows on the area of habitat can be seen in data from August 2005 (Figure 6). When releases from Bradbury Dam were increased from ~10 to ~13.7 cfs, flows farther downstream similarly increased, although with some time-delay. Note that the increase in releases resulted in more than a fourfold increase in discharge at Meadowlark, 5.4 miles below the dam. The RDEIR is deficient in not considering the longitudinal increase in potential habitat with increasing releases. Among other problems, this obscures the contrast between alternatives 5B and 5C and other alternatives that occur in simulated wet years.

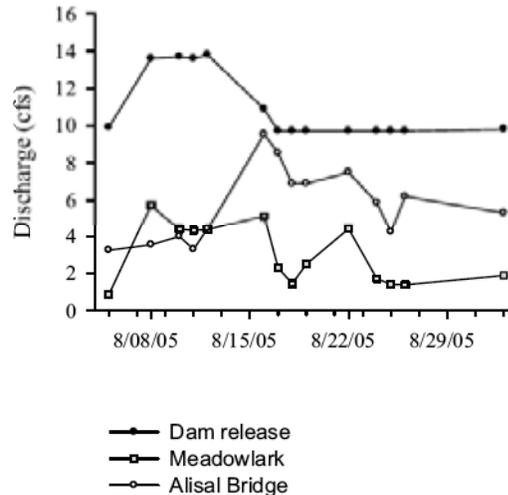
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Figure 5. Peak flows in the Santa Ynez River near Solvang; data from USGS gage 11128500.



<sup>8</sup> I have not visited the Santa Ynez River for some years, but my memory of the channel, reinforced by touring the river by Google Satellite, is consistent with habitat peaking at flows well above 10 cfs.

Figure 6. Flow in the Santa Ynez River, August, 2005, just below Bradbury dam (black circles), 5.4 miles downstream (gray squares), and 9.5 miles downstream (open circles). Data from summary of an August 23 Adaptive Management Committee conference call.



17-7

*The analysis of water temperature in the RDEIR is deficient*

The RDEIR includes a brief discussion of water temperature, but lacks data or analyses that are needed to assess the alternatives considered. The discussion of the effects of water temperature on steelhead habitat in the RDEIR is almost entirely limited to the following, at p. 4-70:

Water temperature may also be a limiting factor for steelhead/rainbow trout in the mainstem of the Santa Ynez River. Water temperature increases longitudinally in distance from Bradbury Dam (SYRTAC 1997). The Highway 154 Reach is about the limit of where releases from Bradbury Dam can provide water temperatures in the preferred range for steelhead/rainbow trout. Even with larger releases of water, such as the WR 89-18 releases, water temperature tends to remain high as distance increases from the Bradbury Dam (SYRTAC 1997). For example, before the 1996 WR 89-18 release, water temperatures were 18.6 to 19.6°C at 7.8 miles from Bradbury Dam (Alisal Reach). After the release, water temperatures were 17.0 to 25.1°C (SYRTAC 1997). At 9.5 miles from Bradbury Dam, water temperatures were 19.4 to 22.5°C before the release and 17.0 to 27.1°C after the release at the bottom of a pool (SYRTAC 1997). Cool water refuges, caused by groundwater upwelling, have been found in several pools in the Refugio and Alisal reaches, creating cool pockets of water in these reaches. These thermal refuges play an important role during periods of warm temperatures for steelhead/rainbow trout rearing.

17-8

The statement that “The Highway 154 Reach is about the limit of where releases from Bradbury Dam can provide water temperatures in the preferred range for steelhead/rainbow trout” is not supported by any useful data or analysis. The Highway 154 reach is only 2.9 miles long. The anecdotal information provided about temperatures 4.9 and 6.6 miles farther downstream does not adequately support the statement.

As a generality, water in a stream has an equilibrium temperature with respect to given environmental conditions, especially air temperature. (Since environmental conditions vary diurnally, the equilibrium temperature will similarly vary, so for a stream such as the Santa Ynez River it is reasonable to think about an equilibrium temperature cycle, but the principle is the same. Deas and Lowney (2000) provide a recent review.) When water is released from a dam at a temperature lower than the equilibrium temperature, it will gain heat as it moves downstream, until it reaches the equilibrium temperature. How far downstream this occurs will be affected both by the mass of the water and by its velocity, as well as by the difference between the release temperature and the equilibrium temperature. Both the mass of the water and its velocity increase with discharge, so it is reasonable to expect that the length of habitat with suitable or at least tolerable water temperature will increase with discharge. For example, the higher spring flows in some years in Alternatives 5B and 5C (and especially in the 3A2 alternative proposed by CalTrout) should result in a greater length of river with suitable habitat in the late spring than other alternatives. This can be evaluated with modeling, as described by Deas and Lowney (2000). Exchange of water between the surface and subsurface components of the flow may complicate the situation, but in any event the subject deserves much more data and analysis than the RDEIR provides.

17-8

*The RDEIR fails to analyze the effects of water rights releases on steelhead*

At p. 78, the Biological Opinion (2000) states that: “Water rights releases produce a number of adverse effects to steelhead attempting to rear in the mainstem, most notably to steelhead 3.5 to 10 miles downstream of Bradbury Dam. NMFS recommends Reclamation investigate and implement alternative means of providing water ... that would avoid and/or minimize adverse effects ...” More detail on the disruption of thermal stratification by the releases is provided at pp. 46-47 of the Biological Opinion. The RDEIR does not discuss this problem, nor does it consider alternatives that integrate the water rights releases with the instream flow releases, which it should.

17-9

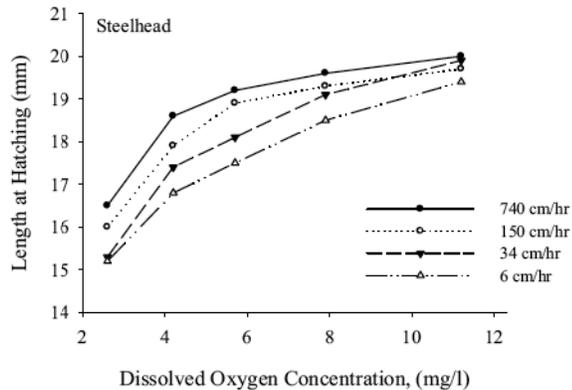
*The RDEIR fails to analyze the effects of water quality in the mainstem Santa Ynez River on the success of incubating steelheads embryos and alevins*

The RDEIR provides very little information on dissolved oxygen generally. However, according to the Biological Opinion (NMFS 2000; 48). “In the spring, fall, and winter, cooler temperatures and increases in flows appear to raise dissolved oxygen levels to 7-8 ppm in most cases.” The Biological Opinion further states that salmonids function normally at dissolved oxygen levels of 6-8 ppm. However, this is incorrect regarding embryos. The size of hatching steelhead is somewhat reduced at 7-8 mg/l,<sup>9</sup> compared to higher levels of dissolved oxygen (Figure 7), and dissolved oxygen in the redds will be lower than in the surface stream, likely by several mg/l, since dissolved oxygen is taken up by biological activity as it passes through the hyporheic (subsurface) zone (Hendricks and White 2000). Given the relatively low dissolved oxygen levels reported for the surface stream, dissolved oxygen in the hyporheic zone should be considered when assessing potential spawning habitat in the mainstem. Alternatives with higher flows during the incubation season for steelhead (i.e., 5B and 5C) should result in higher rates of hyporheic flow and better water quality in the hyporheic environment.

17-10

<sup>9</sup> Mg/l and ppm are essentially equivalent.

Figure 7. The relationship between dissolved oxygen concentration and the length of hatching steelhead, based on Silver et al. (1963). [Copied from Williams 2006]



17-10

**The RDEIR does not provide an adequate basis for concluding that any of the new range of alternatives considered will meet the stated objectives of the project.**

Besides failing to provide a rational basis for selecting among the alternatives considered, the RDEIR does not provide a reason for concluding that *any* of the alternatives considered will meet the stated objectives of the project. Moreover, a strong case can be made that measures to provide passage for steelhead around Lake Cachuma, not considered by the RDEIR, are necessary to meet the objectives.

The proposed project is, as defined at p. 1-1:

Development of revised release requirements and other conditions, if any, in the Reclamation water rights permits (Applications 11331 and 11332) for the Cachuma Project. These release requirements will take into consideration the National Marine Fisheries Service’s Biological Opinion and the draft Lower Santa Ynez River Fish Management Plan and other reports called for by Order WR 94-5. The revised release requirements are to provide appropriate public trust and downstream water rights protection. Protection of prior rights includes 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.

17-11

Assessing whether the proposed alternatives will “provide appropriate public trust ... protection.” requires some consideration of what level of protection for public trust resources is appropriate. Ultimately, this judgment must be made by the State Water Resources Control Board (SWRCB), but its discretion is guided by existing laws and public policy. In exploring this issue, I have used primarily two considerations, based in state and federal law. The first consideration is based in Fish and Game Code section 5937, which requires that enough water be released to keep fish below the dam in good condition. I have adopted and extended the definition of “good condition” described by Dr. Peter Moyle in Exhibit CT-70 and in greater detail in Moyle et al. (1998). The second consideration is based in the Endangered Species Act, which promotes the recovery of listed species and the protection of their environments. The Viable Salmonid Population (VSP) concept has been developed to assist in recover planning for Pacific salmon, including steelhead (McElhaney et al. 2000), and more recent documents discuss

application of the VSP concept to steelhead, including southern California steelhead (Lindley et al. 2007; Boughton et al. 2007).

17-11

*The RDEIR fails to provide reasonable evidence that the steelhead population in the Santa Ynez River will be viable under any of the alternatives considered*

Whether a population is viable under the VSP concept depends on two tests. First, the population must be independent, in the sense that its population dynamics or its risk of extinction “over a 100-year time period are not substantially altered by exchanges of individuals with other populations (McElhany et al. 2000: xiii).” The second test is whether the population has a “negligible risk of extinction due to threats from demographic variation, local environmental variation, and genetic diversity changes” over a period of 100 years. Whether a population is viable should be considered in terms of its abundance, growth rate, spatial structure, and diversity. In recognition of the diversity of situations in which the VSP concept will be applied, however, McElhany et al. (2000) provide guidelines rather than explicit rules by which the determination of viability should be made, leaving development of more explicit rules to the geographically specific technical recovery teams. Such rules have been developed for southern and south-central coast steelhead by Boughton et al. (2007), and for Central Valley Chinook and steelhead populations by Lindley et al. (2007). The Lindley et al. (2007) criteria are summarized in Figure 9, and I frame my discussion in terms of them because, as one of the et al., I am familiar with the thinking behind them. The RDEIR should have some analysis of this sort to determine whether the *O. mykiss* populations of the Santa Ynez River are viable.

17-12

Criterion	Risk of Extinction		
	High	Moderate	Low
Extinction risk from PVA	> 20% within 20 years – or any ONE of –	> 5% within 100 years – or any ONE of –	< 5% within 100 years – or ALL of –
Population size <sup>a</sup>	$N_e \leq 50$ –or– $N \leq 250$	$50 < N_e \leq 500$ –or– $250 < N \leq 2500$	$N_e > 500$ –or– $N > 2500$
Population decline	Precipitous decline <sup>b</sup>	Chronic decline or depression <sup>c</sup>	No decline apparent or probable
Catastrophe, rate and effect <sup>d</sup>	Order of magnitude decline within one generation	Smaller but significant decline <sup>e</sup>	not apparent
Hatchery influence <sup>f</sup>	High	Moderate	Low

<sup>a</sup> Census size  $N$  can be used if direct estimates of effective size  $N_e$  are not available, assuming  $N_e/N = 0.2$ .

<sup>b</sup> Decline within last two generations to a annual run size  $\leq 500$  spawners, or run size  $> 500$  but declining at  $\geq 10\%$  per year. Historically small but stable population not included.

<sup>c</sup> Run size has declined to  $\leq 500$ , but now stable.

<sup>d</sup> Catastrophes occurring within the last 10 years.

<sup>e</sup> Decline  $< 90\%$  but biologically significant.

<sup>f</sup> See Figure 1 for assessing hatchery impacts.

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Figure 9. Criteria for assessing the level of risk of extinction for populations of Pacific salmonids. Overall risk is determined by the highest risk score for any category. (Modified from Allendorf et al. 1977) [copied from Lindley et al. 2007.]

Whatever specific criteria are employed for assessing population viability, population size is critically important. Recent population data on Santa Ynez steelhead are scant. Good et al. (2005:283), discussing the populations in various tributaries as well as the main stem, state that “Run sizes are unknown, but likely small (<100 adults total), implying the populations are not viable over the long run.” Data on redd observations from Robinson et al. (2007), summarized in

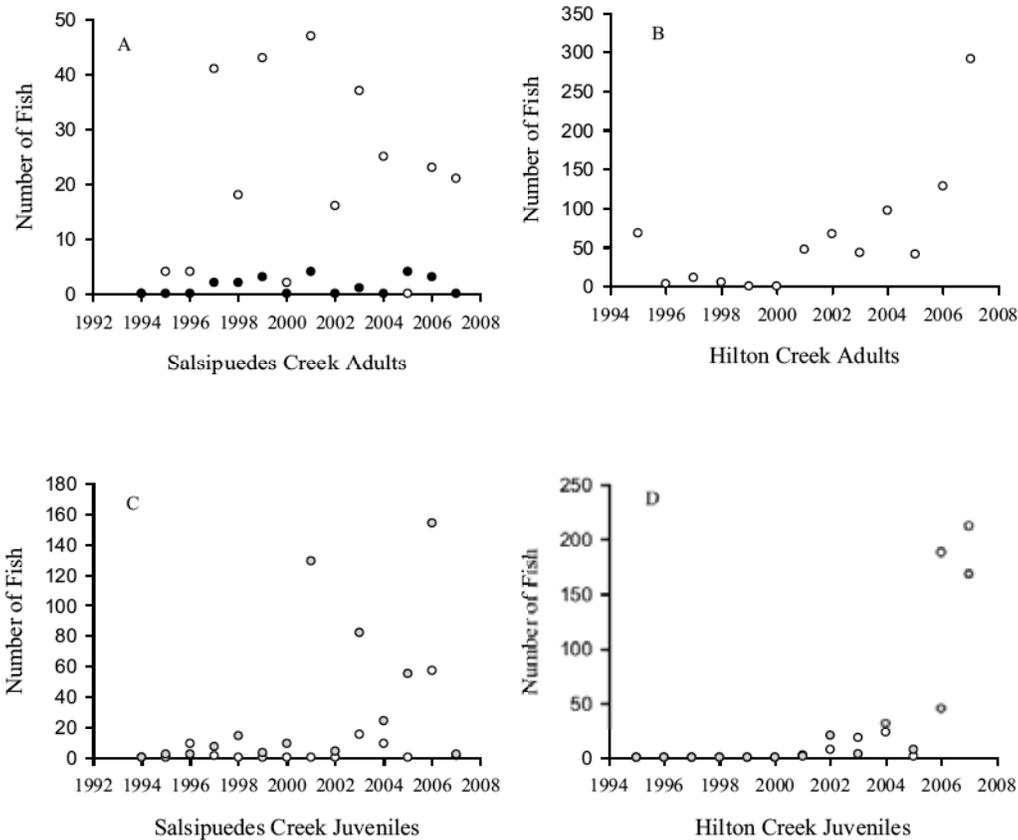
Table 2, are consistent with this estimate. These data need to be treated with caution, because not all redds would have been observed, on the one hand, and steelhead may dig more than one redd, on the other. However, for the five years with the most data, the number of redds observed averaged 48.6 for the mainstem and the tributaries combined, and Robinson et al. (2007) report that “The majority of redds observed appeared to be from resident rainbow trout inhabiting the basin (based on redd dimensions), particularly in dry and normal years.”

Robinson et al. (2007) also report data from traps in Hilton Creek and Salsipuedes Creek (Figure 9). High flows and other problems can interfere with trapping, but the data show that pumping water from Lake Cachuma into Hilton Creek, which began in 2000 has been helpful. Nevertheless, since the efficiency of the traps is reported to be high, the data indicate that the number of fish in these creeks is small. As noted below, it is also apparent that predominantly resident or hatchery fish are using the improved conditions in Hilton Creek.

Table 2. Redd observations reported by Robinson et al. 2007. The habitat columns are for Hilton Creek (HC), lower Salsipuedes Creek (LSC), upper Salsipuedes Creek (USC), El Jaro Creek (EJC), Los Amole Creek (LAC), Nojoqui Creek (NC), Quiota Creek (QC), San Miguelito Creek (SMC), Hwy 154 Reach Santa Ynez River (154R), Refugio Reach Santa Ynez River (RR), Alisal Reach San Ynez River (AR), and Avenue of Flags Reach Santa Ynez River (AFR). See cautions in the text regarding interpretation of the data.

17-12

Year	Habitat											
	HC	LSC	USC	EJC	LAC	NC	QC	SMC	154R	RR	AR	AFR
1996	--	7	0	6	--	--	--	--	--	--	--	--
1997	0	14	11	18	--	--	--	49	0	0	0	0
1998	0	0	3	0	--	0	--	1	0	0	0	0
1999	1	49	16	0	--	0	--	35	5	1	0	0
2000	0	5	14	0	--	0	1	0	0	0	0	6
2001	3	0	12	0	--	0	0	--	0	0	0	0
2002	0	--	--	--	4	--	3	--	2	--	--	--
2003	9	7	--	3	--	--	0	--	--	0	0	--
2004	15	0	--	0	1	0	0	--	0	0	0	--
2005	5	--	--	--	--	--	--	--	--	--	--	--
2006	10	--	--	--	4	--	--	--	--	--	--	--
2007	3	--	--	--	--	--	0	--	--	--	--	--



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Figure 9. Fyke trap data from Robinson et al. (2007) for Salsipuedes Creek (A and C) and Hilton Creek (B and D). Traps were fished in pairs, with one facing upstream and one downstream. The text is unclear, but probably the adult data are from the downstream-facing trap, and juvenile data from the upstream-facing trap. Open symbols show adults between 100 and 525 mm, and juveniles < 100 mm fork length. Black symbols show adults > 525 mm (assumed anadromous), and gray symbols show “smolts.” Traps were fished from January through May, except for 1998 and 2000, when trapping began in late March. Trap efficiency is reported to be >95%.

Lindley et al. (2007) did not explicitly consider spatial structure and diversity in assessing population viability, but did do so indirectly in terms of vulnerability to catastrophic events such as toxic spills, large forest fires or volcanoes, since a broader geographical distribution reduces the risk from catastrophes. Steelhead in the Santa Ynez River are now restricted to a relatively small area of habitat below Bradbury Dam; their risk from catastrophes would be much reduced if they also had access to habitat above the dam.

Diversity in life history patterns is particularly important for steelhead. In the Santa Ynez River, as in other coastal streams, anadromous and resident life history forms are probably best regarded as a polymorphism; that is, the Santa Ynez populations probably includes individuals exhibiting both life history types.

A report of the NMFS Recovery Science Review Panel, RSRP (2004, attached as an appendix) provides a good discussion of current knowledge of this matter. RSRP (2004:11-12) states that:

The collected evidence has important implications concerning the long-term viability of *O. mykiss* ESUs. In polymorphic populations, the occurrence of resident and anadromous life histories helps to buffer a population against fluctuating environmental conditions in fresh water and the ocean as well as variable access to the ocean from sandbars blocking estuaries. The loss of anadromous fitness in land-locked resident populations, and the unidirectional evolution from anadromous or polymorphic populations, clearly indicates that resident populations by themselves should not be relied upon to maintain long-term viability of an ESU. To be sure, a resident population *recently* created from an anadromous or polymorphic population will continue to produce anadromous fish that could, in principle, help to re-establish an anadromous run in the short term. However, the feasibility of re-reestablishing an anadromous from a resident population is expected to diminish rapidly in evolutionary time. If it could be done at all, it would be most easily accomplished within a few or perhaps several, but not many, generations after the extinction of a self-sustaining anadromous run.

... We believe that recovery plans for *O. mykiss* ESUs ... should place a high priority on the maintenance and restoration of naturally occurring life-history diversity ...

The available data on the size of the anadromous fraction of the Santa Ynez population (e.g., Figure 9) are not encouraging. For example, it appears that the spawning fish taking advantage of improved conditions in Hilton Creek are resident rather than anadromous (Figure 9B), and no more than four anadromous adults have been captured in Salsipuedes Creek in any recent year (Figure 9A). It is not even clear that the anadromous fraction of the run is self-sustaining, and by comparison to historical runs, even those remaining after a large fraction of the upper watershed had been blocked by dams (Good et al. 2005), the existing anadromous run barely exists at all. This suggests that conditions below Bradbury Dam may be selecting against the anadromous life history pattern, in an evolutionary sense. Thus, considerations regarding both life history diversity and spatial distribution indicate that passage around Bradbury Dam will be necessary to restore a viable population of steelhead in the Santa Ynez River (NMFS 2007b: 36).

Recent estimates of small effective population size ( $N_e$ ) for the populations in Hilton Creek (17-131) and Salsipuedes Creek (21-61) by Anthony Clemento of NMFS (Clemento 2007) also support the conclusion that this population is not viable. Thus, the existing Santa Ynez steelhead population does not rank as viable under the Lindley et al. (2007) criteria, nor would it rank as

17-12

viable under the Boughton et al. (2007) criteria. The RDEIR provides no analysis showing that the population is likely to become viable under any of the alternatives considered.

17-12

*The RDEIR fails to provide reasonable evidence that fish below the dam will be in good condition under any of the alternatives considered*

To show that the proposed project will meet the requirement of Fish and Game Code sec. 5937, it must show that the project will leave the fish in “good condition.” This issue has been addressed by Dr. Peter Moyle (Exhibit CT 70; Moyle et al. 1998): “condition” must be assessed at three levels: individual, population, and community. The RDEIR presents no such assessment, and does provide information by which the assessment could be made. From the discussion and data presented above, it is clear that steelhead in the San Ynez River are not now in good condition at the population level, and the RDEIR provides no reason to believe that any of the alternatives considered will make them so.

Recent developments in scientific understanding, moreover, show that evolution can occur within decades, that is, in a time-scale relevant to management (Hendry and Stearns 2004). This point is amplified in the quotation above from the RSRP (2004). Therefore, the condition of steelhead in the Santa Ynez River should also be considered at an evolutionary level as well. The historical record shows that the population had a strong anadromous component before Bradbury Dam blocked access to habitat farther up the watershed (Good et al. 2005). From the available data, it appears that the anadromous component is now very small. It seems likely that this reflects not just the decrease in the population size, but also selection for the resident life-history type. If this is so, then simply increasing the size of the population below the dam will not achieve “the maintenance and restoration of naturally occurring life-history diversity” in the population, the objective emphasized by the RSRP.

17-13

In my professional opinion, an alternative that provides for passage of steelhead around Bradbury Dam probably is necessary to meet the objectives of the project. Salsipuedes Creek and the other small tributaries below Bradbury Dam simply do not provide enough habitat to maintain a viable anadromous population, and conditions in the mainstem Santa Ynez River and Hilton Creek may select for the resident life history pattern, especially if opportunities for migration to and from the ocean continue to be marginal.

**What analyses should the RDEIR have included?**

Since I am criticizing the analyses of instream flow needs that have been done on the Santa Ynez, it is reasonable that I should explain how this could be done better.

*Habitat as a function of flow*

In my professional opinion, a structured “Demonstration Flow Assessment” is the best available approach for assessing habitat in the Santa Ynez River that can be implemented for an environmental impact report. An unpublished manuscript by Railsback et al., which is attached as an appendix, describes the application of such an approach on the Clackamas River, Oregon<sup>10</sup>.

17-14

<sup>10</sup> “The Demonstration Flow Assessment (DFA) method for instream flow evaluation uses direct observation of river habitat conditions at several flows and expert judgement to rank the alternative flows. The DFA method has the advantage of allowing long river reaches to be assessed at relatively modest cost. However, past applications have

Low altitude aerial photography could be used to apply this approach to the inaccessible reach above Highway 154. This is far from ideal, but is probably the best that can be done in the circumstances. Successful application of the method depends upon having a balanced group of experts on steelhead or stream fishes involved in the assessment who are insulated from outside interference. It is also critical that the experts involved articulate the reasoning behind their assessments, in ways that allow the reasoning to be tested in a program of actual adaptive management (Williams 1998), or by reference to the scientific literature. The reasoning should incorporate the ecological and geomorphic considerations emphasized by Anderson et al. (2006) and Annear et al. (2004).

17-14

Useful information on water temperature in different areas of the lower Santa Ynez River and tributaries could be dealt with by modeling, as described in Deas and Lowney (2000), or perhaps by developing an empirical relationship if appropriate data exist.

Assessing dissolved oxygen and flow rates in the hyporheic zone should be dealt with by measurements, using a statistically valid sampling design. Kondolf et al. (In press) will provide guidance regarding the measurements.

*Water rights releases*

To comply with Article 10, section 2 of the California Constitution and with common sense, the water rights releases from Bradbury Dam should be integrated with the instream flow releases. It is hard to imagine why this should not be done, except for deference to past practice; certainly the RDEIR does not describe any such reason. This issue probably can best be addressed using latest version of the USGS Modflow model<sup>11</sup>, which incorporates recent advances in modeling surface and groundwater interactions.

17-15

*Analyzing whether alternatives will meet the objectives of the project*

A conclusive affirmative answer to this question can only be provided by implementing one of the alternatives and demonstrating that it does support a viable population of steelhead with a substantial anadromous component. Therefore, the RDEIR cannot provide such an answer. However, the RDEIR could, and should, assess whether it is plausible that the alternatives will do so. This could best be done for steelhead using a suitable life cycle model, to assess whether the habitat conditions projected to exist under the alternative could plausibly support a viable steelhead population. Chapter 14 of Williams (2006), attached as an appendix, provides guidance

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often lacked procedures and documentation to assure that results are reproducible and reasonably free of uncertainty and bias... The procedures combine established concepts from stream ecology and decision analysis, and are general and adaptable to a variety of sites. Approaches are recommended for studies targeting both a few particular species or the general integrity of the aquatic community, and could be adapted for assessment of flow needs for other resources such as recreation and aesthetics. The procedures use habitat quantification: specific types of important habitat are defined and then quantified in the field during demonstration flows. The five major steps are: (1) Decision framing, establishing the fundamental assumptions, constraints, and expectations for the instream flow assessment; (2) Conceptual modeling developing high-level mechanistic, empirical, or theoretical/community models for how flow affects fish by affecting food production, feeding, mortality risks, or reproduction; (3) Metric development, defining specific, measurable habitat types to be quantified; (4) Field observations, quantifying the area of each habitat type at each demonstration flow, using visual estimation aided by detailed maps and other tools; and (5) Analysis, calculating the total area of each habitat type for each demonstration flows, then ranking flows according to habitat benefits and resource tradeoffs." [Railsback, et al., Unpublished]

<sup>11</sup> See <http://water.usgs.gov/nrp/gwsoftware/modflow2005/modflow2005.html> for documentation.

regarding the kind of model that would be appropriate for this inquiry. Hendry et al. (2004) provided a framework for assessing the evolutionary consequences of alternatives in terms of anadromy.

17-16

**The Santa Ynez River steelhead issue has been before the SWRCB for 20 years; what should the SWRCB do immediately?**

Instream flow conditions for steelhead below Bradbury Dam were brought to the attention of the SWRCB in 1987. Steelhead in the Santa Ynez River have since been listed as endangered, and recent population data (Figure 10A,B; Clemento 2007) are not encouraging. Prompt action is needed. The immediate problem for steelhead in the Santa Ynez River is the low population size and the small amount of suitable habitat below Bradbury Dam. Therefore, the SWRCB should follow the advice given by Castleberry et al. (1996), quoted above: implement protective interim instream flow standards, monitor the results within a framework of real adaptive management, and maintain the ability to make changes in the flow standards in light of new information.

17-17

In my professional judgment, the flow standard described in the RDEIR that best approximates a conservative (i.e., protective) standard with a reasonable annual hydrograph is the 3A2 alternative described but not assessed in the RDEIR, with the original adjustment for dry years proposed by CalTrout, rather than the extreme adjustment embodied in Alternatives 5B and 5C.

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17. **John Williams, Ph.D., dated September 26, 2007.**

**Response 17-1:**

The comment states that 2007 RDEIR does not provide an adequate basis for comparing or selecting among the alternatives considered.

See response to 2007 RDEIR **Comment 1-7.**

**Response 17-2:**

The comment states that the 2007 RDEIR fails to provide clear and meaningful descriptions of the alternatives and that the descriptions of the new range of alternatives assessed in the 2007 RDEIR are difficult to interpret in physically meaningful terms. The comment suggests that even in the technical appendices, flows are described mainly in terms of exceedance curves, which are of limited utility for assessing instream flows, since they convey no information about the order in which flows occur. The comment suggests that hydrographs are much more informative for instream flow assessment.

Comment noted. The project description (see **Section 3.0**) provides detailed information on each of the alternatives considered. *CEQA Guidelines* (Section 15124(c)) states that a project description should include “a general description of the project’s technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities.” The descriptions of each of the alternatives considered include detailed information and adequate data to allow for the technical analysis for each of the issues considered. Further, the project description states that each of the alternatives meet the requirements of the Biological Opinion and any technical demands and requirements included therein.

**Response 17-3:**

The comment states that with respect to steelhead, the alternatives considered in the 2007 RDEIR are too similar to allow the SWRCB to make choices among alternatives that make a difference to the fish in most years; meaningful differences occur only in wetter years.

See response to 2007 RDEIR **Comment 1-7.**

**Response 17-4:**

The comment states that the 2007 RDEIR fails to consider a large body of relevant science and ignores all of the science and recovery planning that NMFS has generated since the 2000 Biological Opinion.

The comment is noted. CEQA does not require an exhaustive analysis in an environmental document in order to provide the decision makers sufficient information upon which to approve a project. Nonetheless, **Section 2.6 Draft Steelhead Recovery Plan** has been added in the 2011 2<sup>nd</sup> RDEIR and

discusses the recommendations of the Draft Southern Steelhead Recovery Plan (NMFS 2009) for the Santa Ynez River. Additional updated information provided by numerous references since 2003 have been incorporated as appropriate throughout the document, especially in **Section 2.0 Overview of the Cachuma Project** and **4.7 Southern Steelhead and Other Fishes**. The 2011 2<sup>nd</sup> RDEIR incorporates the most recent information available concerning *O. mykiss* in the Santa Ynez River related to the Cachuma Project. Appendix G summarizes information related to *O. mykiss* distribution, abundance, habitat quality, and fish passage enhancements.

**Response 17-5:**

The comment claims that the method used for analyzing and scoring flow-related impacts in the 2007 RDEIR is fundamentally flawed, and that the 2007 RDEIR scoring system is not objective. The comment also suggests that the subjective judgment of the 2007 RDEIR authors is biased in favor of water users and against the survival of steelhead and that there is a fatal technical deficiency with the rating system itself.

The scoring criteria were developed over several years through extensive consultation and study with the agreement of the SYRTAC in consideration of the physical nature of the Santa Ynez River and access issues. The scoring system was based on stream conditions as mapped in 2000, which is prior to the implementation of the Hilton Creek Watering System and other fish enhancements in the tributaries and mainstem. Although qualitative observations indicate that since 2000 riparian vegetation has increased along the mainstem as a result of target flows, no quantitative data is currently available. Therefore the scoring analysis remains based on conditions prior to 2001 as explained in the 2011 2<sup>nd</sup> RDEIR **Section 4.7.2 Potential Impacts of the Alternatives**.

The 2007 RDEIR assigns ranks based on numerical scoring of historical data. The nature of any ranking system is to assign value along a scale, and whether “1, 2, 3, 4, 5” or “bad, poor, ok, better, good” is used is immaterial. Nevertheless, the division of historical data into classes based on streamflow, time available for passage, and spawning and rearing habitat is an objective and reasonable method that divides a continuous set of metrics into categories that can then be used to project likely outcomes of the various alternatives.

While not specifically cited as “consecutive” passage days in the 2007 RDEIR, this was implied as the scoring system criteria are based on the available parameters contained within the Biological Opinion. The inference that the scoring criteria are proportionally related to the number assigned is not accurate. For example, although the span of number of days may have been evenly distributed in Table 4-41 between the six categories, this does not equate to a certain percentage benefit or detriment of the next rank or scale.

See also response to 2007 **Comment 10-20**.

**Response 17-6:**

The comment claims that the 2007 RDEIR provides a disjointed and simplistic analysis of the condition of steelhead and other public trust resources, noting that anadromous steelhead must pass through a life cycle that involves two migrations along the river as well as incubation and rearing and that fish that cannot complete any of these phases will not reproduce. The comment notes that the 2007 RDEIR analyzes conditions for these life history phases separately, without consideration that fish must pass through them sequentially, and suggests that rather than simply counting the frequency with which suitable or unsuitable conditions occur for migration, spawning, rearing, etc., the 2007 RDEIR should consider the frequency and consistency with which conditions occur that will allow steelhead to complete their life cycle.

The comments are noted. The methodology to analyze project impacts was designed to provide an objective metric to provide repeatable results for the various alternatives proposed in the document. The criteria and methods for scoring are explained in 2011 2<sup>nd</sup> RDEIR **Section 4.7.2 Potential Impacts of the Alternatives**. See also response to 2007 RDEIR **Comment 17-6** for discussion of the scoring criteria.

**Response 17-7:**

The comment claims that the 2007 RDEIR ignores evidence considered in other EIRs that data on stream depth and velocity at transects have been collected, and that SYRTAC (1999) used these data for an inaccessible part of the reach.

The comments are noted. The Adult Steelhead Passage Flow Analysis for the Santa Ynez River (SYRTAC 1999) document was used as the basis for developing the model for potential fish passage. This document represents the best available data for managing flows to provide passage opportunities. The Biological Opinion represents the minimum flows identified to sustain *O. mykiss* passage.

The commenter provides details from other documents, but does not include citations from other project EIRs. It is not clear by what criteria the commenter is presuming that 50 to 120 cfs are needed for the maintenance of *O. mykiss* critical habitat. Nevertheless, the Biological Opinion states that there is very little difference in the frequency of higher flows downstream of the Bradbury Dam (not including flood flows from spills) between current and recent historic operations because flows over 50 cfs are primarily a result of natural runoff, not releases for water rights or fish protection. Therefore, it is not expected that adoption of any of the alternatives should alter this high-flow regime.

The 2007 RDEIR states that “The Highway 154 Reach was selected as the index location for spawning and rearing habitat because it contains the best quality habitat available in the mainstem. Much of this reach is located on private property and no additional data collection efforts have been undertaken except in the short reach near the dam.” Data on stream depth and velocity at transects were collected for that study,

and SYRTAC (1999) used these data for the now-inaccessible part of the reach. The Department of Water Resources (DWR) report was the basis for the following discussion of the Santa Ynez River in Chapter 8 of the 1993 California Water Plan, California Department of Water Resources Bulletin 160-93.

The data presented in the 2011 2<sup>nd</sup> RDEIR include a variety of sources and has been updated to reflect the most current data available. The commenter is referred to **Section 10.0** for a full list of references used.

**Response 17-8:**

The comment suggests that the analysis of water temperature in the 2007 RDEIR is deficient and lacks data or analyses needed to assess the alternatives considered.

The 2007 RDEIR provides information regarding the effects of water temperature on various fish species, hatching, and spawning. On page 4-60, Table 4-38 provides a relative evaluation of the Alternatives using the fish scoring system. Associated text is as follows: "While the results show a general decrease in the stability of spawning habitat over the course of the spring and early summer for all alternatives, the potential impacts of Alternatives 3B, 3C, 4B, 5B and 5C are not significant relative to the baseline operations alternative." Habitat scores are heavily influenced by seasons and temperatures, and these impact water temperatures. Considering that the fish scores for the alternatives differ insignificantly from the baseline score, this is an indication that temperature effects are not an important element in the impacts analysis and alternatives comparison. No conclusions were modified as a result of this comment.

Presently there is no comprehensive understanding of the effect of water temperature on *O. mykiss*. It is assumed that water temperature may be a limiting factor for *O. mykiss* in the mainstem of the Santa Ynez River. Water temperature tends to increase longitudinally in distance from Bradbury Dam when groundwater influences are not present (SYRTAC 1997). The Highway 154 Reach is about the limit of where releases from Bradbury Dam can provide water temperatures in the preferred range for *O. mykiss*. Even with larger releases of water, such as the Order WR 89-18 releases, water temperature tends to remain high due to thermal heating as distance increases from the Bradbury Dam (SYRTAC 1997). For example, before the 1996 Order WR 89-18 release, water temperatures were 18.6 to 19.6°C at 7.8 miles from Bradbury Dam (Alisal Reach). After the release, water temperatures were 17.0 to 25.1°C (SYRTAC 1997). At 9.5 miles from Bradbury Dam, water temperatures were 19.4 to 22.5°C before the release and 17.0 to 27.1°C after the release at the bottom of a pool. (SYRTAC 1997.) Cool water refuges, caused by groundwater upwelling, have been found in several pools in the Refugio and Alisal reaches, creating cool pockets of water in these reaches. These thermal refuges play an important role during periods of warm temperatures for *O. mykiss* rearing. Therefore, it may be concluded that the effect on water temperature from water releases has a limited range downstream.

**Response 17-9:**

The comment states that the 2007 RDEIR fails to analyze the effects of water rights releases on steelhead.

This comment is noted but SWRCB does not concur with the statement. A primary reason to prepare the EIR was to analyze the impacts of water rights releases from Bradbury Dam on *O. mykiss*. The project (**Section 1.1**) is defined as follows:

*Development of revised release requirements and other conditions, if any, in the Reclamation water rights permits (Applications 11331 and 11332) for the Cachuma Project. These release requirements will take into consideration the National Marine Fisheries Service's Biological Opinion and the draft Lower Santa Ynez River Fish Management Plan and other reports called for by Order WR 94-5. The revised release requirements are to provide appropriate public trust and downstream water rights protection. Protection of prior rights includes 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.*

The analysis of all releases and their scheduling necessarily includes those that may be categorized as "water rights releases."

Furthermore, the purpose of proposing **Alternatives 5B** and **5C** is to combine the Biological Opinion with CalTrout's and the Cachuma Member Units' concerns for the avoidance of significant impacts to *O. mykiss*, and with existing water rights.

Conservation Recommendation #1 recommends further study of alternative methods to provide downstream water right holders with water from the Cachuma Project. This study has not yet been completed and thus the data were not available for incorporation into the analysis as noted in 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

**Response 17-10:**

The comment states that the 2007 RDEIR fails to analyze the effects of water quality in the mainstem of the Santa Ynez River on the success of incubating steelhead embryos and alevins.

Updated information on water quality, including water temperature and dissolved oxygen levels based on SYRTAC (2004) has been added to 2011 2<sup>nd</sup> RDEIR and summaries describing specific reaches are found in 2011 2<sup>nd</sup> RDEIR **Section 4.7.1.2 Fish Communities**, **4.7.1.3 Status of Fish Habitat** and **Section 4.7.1.5 Threats to *O. mykiss***.

**Response 17-11:**

The comment claims that the 2007 RDEIR does not provide an adequate basis for concluding that any of the new range of alternatives considered will meet the stated objectives of the project, in particular, the protection of the public trust resources.

The comment is noted. An analysis of the benefits of and the impacts of all alternatives is discussed in 2011 2<sup>nd</sup> RDEIR **Section 4.7.2 Potential Impacts of the Alternatives**. The analysis of project alternatives includes comparisons of projected changes to Largemouth Bass Spawning in Cachuma Lake (**Table 4-37**), Sunfish Spawning in Cachuma Lake (Table 4-38), Bass and Sunfish Fry Rearing in Cachuma Lake Based on Reservoir Drawdown (Table 4-39), Median Available Bass and Sunfish Fry Rearing Habitat in Cachuma Lake (Table 4-40), Scoring Criteria For *O. mykiss* Habitat (Table 4-41), Adult *O. mykiss* Migration at the Alisal Road Bridge (Table 4-42), *O. mykiss* Spawning at the Highway 154 Bridge (Table 4-43), *O. mykiss* Fry Rearing at the Highway 154 Bridge (Table 4-44), *O. mykiss* Juvenile Rearing at the Highway 154 Bridge (Table 4-45), and Resident Fish Rearing at the Highway 154 Bridge (Table 4 46).

**Section 6.1** of the 2011 2<sup>nd</sup> RDEIR compares the various alternatives and summarizes their significant impacts as follows:

*Alternatives 3B, 3C, 4B and 5C would avoid water supply impacts and the associated potentially significant, unmitigable indirect environmental impacts that could occur under alternative 5B. alternatives 3B, 3C and 4B would not require as much water to be released for purposes of protecting the fishery as Alternatives 5B and 5C. In addition, alternatives 3C, 4B, and 5C would involve a 3.0-foot surcharge, which would create more storage in Cachuma Lake and offset the impact to the Member Units' water supply in a critical drought year. The impact to the Member Units' water supply would be partially offset by a 1.8-foot surcharge under alternative 5B, but the surcharge would not offset water supply impacts to a sufficient degree to reduce the indirect, environmental impacts to a less than significant level.*

Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2010, no studies have been made available that identify and evaluate the feasibility of providing passage over Bradbury dam. This is discussed further in 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

**Response 17-12:**

The comment claims that the 2007 RDEIR fails to show that the steelhead population in the Santa Ynez River will be viable under any of the alternatives considered.

The comment is noted. Information on the current status of *O. mykiss* in the Santa Ynez River is summarized in Appendix G. A discussion in 2011 2<sup>nd</sup> RDEIR **Section 2.6 Draft Steelhead Recovery Plan** provides viability criteria identified by NMFS.

All of the alternatives considered would, at a minimum, incorporate the requirements of the Biological Opinion, which, as determined by NMFS, “would not jeopardize the continued existence of the southern steelhead.”

**Response 17-13:**

The comment claims that the 2007 RDEIR fails to show that fish below the dam will be in good condition under any of the alternatives considered.

All of the alternatives considered would, at a minimum, incorporate the requirements of the Biological Opinion, which, as determined by NMFS, “would not jeopardize the continued existence of the southern steelhead.” A no jeopardy conclusion is assumed to correlate to the fish being in good condition, as this is the presumption within the Biological Opinion. The analysis in the 2011 2<sup>nd</sup> RDEIR addresses each stage of the life history of *O. mykiss*, including migration, spawning and rearing. Information on the current status of *O. mykiss* in the Santa Ynez River is summarized in Appendix G.

**Response 17-14:**

The commenter suggests that a structured “Demonstration Flow Assessment” approach be used for assessing habitat in the Santa Ynez River and that data on water temperature, dissolved oxygen, and flow rates in the near stream environment be used in the EIR.

See response to 2007 RDEIR **Comment 10-37**.

**Response 17-15:**

The comment suggests that the water rights releases from Bradbury Dam should be integrated with the instream flow releases using the latest version of the USGS MODFLOW model.

The 2007 RDEIR (**Section 4.6**, page 4-45) refers to the 2003 DEIR for discussions of the use of the USGS MODFLOW hydrology model, which are found in Technical Memorandum No. 4 (pages 3 and 4 of 28). The SYRHM was used to simulate flow conditions within the Santa Ynez River and specifically considers instream flow (page 4-34, **Section 4.2.2.1** of the 2011 2<sup>nd</sup>RDEIR) and water rights releases. The comment contains no specific information suggesting that the use of the SYRHM is not adequate for the intended purpose. No conclusions were modified as a result of this comment.

**Response 17-16:**

The comment states that the 2007 RDEIR cannot provide an affirmative answer that any alternative would support a viable population of steelhead with a substantial anadromous component. The comment suggests that the 2007 RDEIR should assess whether it is plausible that the alternatives will do so, which

it posits could best be done for steelhead using a suitable life cycle model, to assess whether the habitat conditions projected to exist under the alternative could plausibly support a viable steelhead population.

The scoring system and analysis of impacts used in the 2007 RDEIR take into account historical conditions relative to existing conditions in order to provide qualitative projections of habitat quality for *O. mykiss* with the adoption of each of the alternatives. The scoring indicates that all proposed alternatives would provide beneficial affects to *O. mykiss* relative to the baseline condition (Alternative 2), which reflects the impacts of the dam. The criteria considered in these analyses incorporates temporal considerations, such as month of the year, and time required to pass through waterways towards spawning grounds and therefore adequately addresses life-cycle considerations.

All of the alternatives considered would, at a minimum, incorporate the requirements of the Biological Opinion, which, as determined by NMFS, “would not jeopardize the continued existence of the southern steelhead.” Analysis of the benefits of and the impacts from all Alternatives is discussed in **Section 4.7.2 Potential Impacts of the Alternatives.**

**Response 17-17:**

The commenter suggests that the SWRCB should implement protective interim instream flow standards and use the annual hydrograph from CalTrout’s Alternative 3A2 with the original adjustment for dry years.

See responses to 2007 RDEIR **Comment 1-18** and **10-40**.

September 27, 2007

Ms. Diane Riddle  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812-2000  
[driddle@waterboards.ca.gov](mailto:driddle@waterboards.ca.gov)

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

Dear Ms. Riddle:

I have reviewed the Revised Draft Environmental Impact Report (RDEIR), dated July 2007. Several new alternatives were proposed within the RDEIR (Alternatives 5B, and 5C) that had not previously been introduced. These new alternatives propose to provide additional water supply for downstream fisheries habitat enhancement. Reestablishment of appropriate passage flows downstream of the dam is essential as a first step in the restoration of wild steelhead populations in the Santa Ynez River system. Emphasis should be placed on restoring, to the maximum extent practical, both the downstream and upstream flows necessary to enable the natural migration of wild-origin fish between the ocean and upstream spawning and rearing areas at the times commensurate with natural fish migration during winter and early spring rainfall events.

However, as I stated in my previous opinion regarding the 2003 Draft EIR (Zapel, 2004), reconnection of a passable migration corridor between the available upstream habitat above Bradbury Dam and the Pacific Ocean through the downstream river is a necessary component of recovery of anadromous steelhead populations in the Santa Ynez River system. The literature clearly indicates that the great majority of available oversummering rearing habitat and spawning habitat for steelhead lies above the Bradbury Dam reservoir (Chubb, 1997).

18-1

Successful recovery of these endangered wild anadromous fish will only be possible in the Santa Ynez if passage around Bradbury Dam is provided, along with sufficient downstream flows to ensure successful upstream adult steelhead migration and juvenile steelhead downstream migration from and to the Pacific Ocean, respectively. The alternatives proposed in the RDEIR do not satisfy these requirements, as they do not provide sufficient downstream passage flows, and the RDEIR as currently proposed is therefore unlikely to restore a viable natural Santa Ynez River steelhead population. Without access to the available original spawning and rearing habitat above Bradbury Dam, it is unlikely that steelhead populations will recover, and in fact the lack of access to upstream habitat may lead to eventual extirpation of wild-origin anadromous steelhead in the Santa Ynez River system as a result of nonviable reproductive populations downstream of the Dam.

18-2

In my prior opinion regarding the 2003 Draft EIR, I stated that an evaluation of adult and juvenile fish passage is warranted, described several potentially feasible methods of passage, and recommended further studies be conducted to determine the most effective solution for the Santa Ynez River. These comments are still pertinent to the RDEIR. Based on my review of the RDEIR, my prior reviews of

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available documents, studies, and proposed actions relating to the Santa Ynez River, and my participation in these administrative proceedings, I still believe that additional studies regarding the feasibility of restoring passage to upstream habitat above one or more of the three storage reservoirs for wild-origin anadromous steelhead are justified and necessary, and are of critical importance in eventual restoration of anadromous steelhead populations in the Santa Ynez watershed. I recommend that these studies should focus on investigation of alternative means of providing adult wild-origin steelhead fish passage to spawning habitat above Bradbury Dam, and effective emigration of wild-origin juvenile steelhead smolts located above Bradbury Dam downstream to the ocean. These investigations should be based upon fish passage criteria established by the California Department of Fish and Game and the National Marine Fisheries Service, and be prepared by an independent consultant, under the auspices of the State Water Resources Control Board, subject to review by the regulatory and trustee agencies (i.e., State Water Resources Control Board, California Department of Fish and Game, U.S. Bureau of Reclamation, and National Marine Fisheries Service.)

18-3

**Santa Ynez River Fish Passage Release Flows Analysis**

The upstream passage corridor leading adult spawning anadromous steelhead to Bradbury Dam must be supplied with sufficient flows to enable fish to reach trapping facilities or spawning areas in the vicinity of Bradbury Dam, including Hilton Creek. Alternatives 5B and 5C in the RDEIR are a first step in providing more reliable annual flows in sufficient quantity to enable a continuous migration corridor to the Dam from the Pacific Ocean. In addition, future flow studies should be considered an integral part of the evaluation of fish passage alternatives for moving fish above Bradbury Dam, as discussed below. Siting of any fish trapping or collection facility is highly dependent on available flow regimes within which wild-origin adult upstream migrant steelhead can reach the facility for collection and transport upstream.

18-4

**Santa Ynez River Fish Passage Feasibility Analysis for Bradbury Dam**

Based on similar studies of fish passage alternatives for other large dams throughout the Pacific Northwest and California, I believe that the lack of adequate migration corridor flows below the Dam, coupled with the absence of any upstream passage facilities leading to upper watershed spawning areas is the primary cause of the almost complete extirpation of wild Santa Ynez steelhead populations. Lack of upstream passage to the upper watershed has completely eliminated all anadromous wild steelhead in the upper watershed. As I've stated above, the available habitat area for spawning and rearing above the Dam is of several orders of magnitude greater than that below the Dam. Unless that habitat is made available once again through a focused, adaptive management program of adult fish transport upstream past the Dam, and downstream juvenile steelhead downstream past the Dam on their way to the Pacific Ocean, there is no hope of restoring wild steelhead to the Santa Ynez. The following studies are proposed as a means of exploring the viability of upstream and downstream passage within a phased, adaptive program that will allow integration of new information as it becomes available in future years, the unique topographical and hydrologic characteristics of the upper Santa Ynez, and the behavioral tendencies of wild steelhead into a continuous program of improvement that can build on the successes of the past year's work toward the eventual goal of restoring unrestricted access to the entire upper watershed. An adaptive, flexible program of upstream and downstream passage investigation will

18-5

minimize initial capital investment, and permit flexibility in reaching the goal of successful restoration of wild steelhead populations within the bounds of available science and funding.

18-5

**Underlying Principles**

To approach an assessment of the feasibility of providing fish passage on the Santa Ynez River, a phased and systematic methodology is recommended, framed by the following underlying principles.

- Assemble a wide array of possible passage alternatives for both upstream and downstream migrants
- Do not reject any fish passage alternative without adequate, detailed analysis
- Assume passage is feasible, rather than assuming it is not feasible, since there are numerous examples of fish passage practices regularly throughout the United States in widely varying geographic/geologic circumstances
- Comprehensive, objective analysis performed under the auspices and direct supervision of the public-trustee responsible agencies:
  - California Department of Fish and Game
  - NOAA Fisheries
  - Bureau of Reclamation
- Public participation via formal advisory consultation with water diversion/delivery contractors, public interest conservation groups, and any other interested parties, and
- Implementation in a phased, experimental approach under adaptive management methodology with measurable, objective performance criteria for gauging the success or failure of various actions as part of the experimental approach.

18-6

This assessment, performed by fish passage specialists from each of the public trustee agencies, should be done in as transparent a fashion as possible, with quarterly progress summaries made available to all interested parties, and Phase I should be completed in a timely fashion, within a period of 12-18 months. The Bureau, in consultation with the Department and NOAA, should begin any field work to implement fish passage recommendations emerging from the feasibility study within 6-12 months of receiving the recommendation.

**Recommended Phased Study Approach**

Clearly, any fish passage feasibility study done on the Santa Ynez River should be performed in a phased, adaptive management protocol. This begins with an analysis of temporary measures that might be taken at existing low steelhead population levels, and progresses to less temporary measures when fish passage actions taken at existing low population levels become effective at improving and stabilizing the size of the run in the Santa Ynez River (the goal of any fish passage program). For each of the phases in this stepwise approach, objective, measurable performance criteria must be established beforehand in order to provide a yardstick against which to measure success or failure of proposed fish passage actions to be taken.

18-7

Phase I of such an approach begins at current, low (endangered) population numbers, a starting point. The methodology consists of following up serial questions about feasibility: Can spawners be effectively trapped? Can they be safely transported? Do they use the translocation site habitat for spawning? Are more smolts produced as a result? Can smolts be effectively trapped and transported below Bradbury Dam? And so forth.

Phase II begins when Phase I results have shown that it is feasible to trap adult upmigrant spawner steelhead in the Santa Ynez River, and downmigrating smolts, have shown that spawners and smolts may be translocated without undue mortality, and that smolt production is rising over time in the Santa Ynez River as a result of these efforts, such that overall returning spawner numbers move out of the tens to the hundreds. More discussion of Phase II is given below.

Phase III would be implemented when the results of the less temporary measures proposed in Phase II begin to likewise show further improvements in run size on the Santa Ynez River, and returning spawners gain in numbers from the several hundreds to perhaps a thousand or more returning spawner steelhead in years the sandbar is open at Surf. See below for further discussion of Phase III.

Concurrent with Phase I of the fish passage feasibility study, but separate from such study, complementary studies should be undertaken or overseen by the responsible trustee agencies to examine carrying capacity and habitat qualities of all locations accessible to transported spawner steelhead, and an analysis or review of existing trout population genetic structure (above and below dam) should be completed to answer questions about any potential genetic effects, positive or negative, of translocating migrating spawner steelhead to above-Dam habitats. In fact, several studies have already been completed by the US Forest Service (Chubb, 1997) and the Cachuma Conservation and Release Board (Entrix & CCRB, 2006) characterizing some of the available habitat throughout the upper watershed area. The existing information could be readily expanded upon in the proposed work to obtain more complete estimates of carrying capacity of the upper watershed. There is no information required from these complementary studies to begin Phase I fish passage feasibility study, however, these studies can be useful to inform and manage subsequent fish passage implementation Phases.

#### **Possible Alternatives for Overall Feasibility Analysis of Upstream Migrant Collection and Passage**

As described above in the discussion of underlying principles, no alternative should be dismissed casually. Each should receive complete and detailed analysis before an assessment of feasibility is made. An explicit cost-benefit analysis should be provided for each component of the feasibility study. Some of the alternatives that should be analyzed are listed below, but this is by no means a comprehensive list; that list should be compiled by the Fish Passage Feasibility Study team.

- Complete fish ladder or fishway over Bradbury Dam
- Hilton Creek as partial instream passage route in addition to fish ladder with controlled descent into Cachuma reservoir (coupled with downstream migrant collection actions)
- Upstream migrant trap and haul facility on bureau property at stilling basin or in Hilton Creek
  - Instream on Hilton Creek: simple floating picket weir and temporary trap, and/or
  - Instream on mainstem on Bureau property: same floating picket weir, or a more permanent concrete weir and holding tanks

18-7

18-8

- Trap types: adaptive management will determine method depending on critical factors such as streamflow, debris, number of fish expected, etc. but may include a floating picket weir, or a more permanent concrete weir and holding tanks
- Transport methods: Again, adaptive management will determine the optimal method or combination of methods based on critical factors such as weather, road conditions, numbers of fish, holding capacity, etc. Methods may include ground vehicle, barge, or air transport.
- Release site:
  - Santa Cruz Creek and tributaries (closest tribs)
  - Mainstem between Red Rock Day Use Area and Gibraltar Dam
  - Mono and Indian Creeks
  - North Fork Juncal
  - Mainstem above Gibraltar Reservoir
  - Mainstem above Juncal
  - Alisal Creek above Alisal Dam

18-8

**Possible Alternatives for Overall Feasibility Analysis of Downstream Migrant Collection and Passage (including both kelts and smolts collected in a common facility)**

Clearly, moving spawners to good spawning and rearing habitat is only half of the issue of moving anadromous fish around dams. Downstream migrants, both adults (kelts: spawned out adults returning to the sea again) and smolts, must also be accounted for. A variety of methods are available to avail downstream migrating fish of effective passage to the ocean, placed at various locations about the reservoir and system.

- Floating collector at the reservoir outlet works: Facility would include holding tanks
- Floating collector/s at tributary inlets to Cachuma Reservoir: Facility/ies would include holding tanks
- Instream collectors on tributaries: Facilities with holding tanks either on board or shore-based, depending on the specific site constraints
- Floating collector barge with pumped attraction flow: Facility may or may not include guide nets in the reservoir
- Transport methods: adaptive management will determine optimal transport methods depending again on critical factors such as weather, road conditions, holding capacity, streamflows, debris, number of fish, etc.
- Downstream migrant release sites:
  - Mainstem below Bradbury Dam
  - Intermediate site between Bradbury Dam and the lagoon
  - Lagoon

18-9

**Phased Implementation Protocol based on Adaptive Management Principles**

For each of the implementation phases, objective and measurable criteria for determining success or failure should be established as yardsticks to gauge the results of actions against each question posed.

18-10

Phase I: Low Population Size Methodology—a starting point

Phase I Steps 1 through 4 actions (described below) could be accomplished entirely within one winter adult migration season, provided at least several dozen adult fish were trapped successfully. Radio telemetry tags would be attached to all transported adult fish. Step 5 could be accomplished that same year in the spring with screw and/or ramp traps in tributaries where spawning was observed by trapped and transported adult fish. Step 6 could be accomplished over the course of the following one or two years with the same screw or ramp traps deployed in spring and summer and possibly in winter, with adult trapping and transport occurring in each winter migration season. Step 7 would be accomplished beginning in the second spring following the initial adult trap and transport action, and would be continued every spring and early summer thereafter with screw traps, ramp traps, or temporary floating collectors in the reservoir to sample smolt-ready fish produced. Control groups could be established by collecting naturally produced juveniles from tributaries in which no trapped adults had been placed. Step 8 could be accomplished beginning in the second year following the initial adult trap and transport action by moving smolting steelhead downstream via several transport methods. Step 9 would begin as early as 4 seasons following the initial adult trap and transport action.

Step 1: Test Adult Trapping Efficacy

Question: Can adults be trapped with any regularity during migration period?

Suggested Method: Temporary upstream migrant trap facility at Bradbury Dam and/or Hilton Creek consisting of a hand-placed temporarily anchored floating picket weir assembly and temporary trap with/without holding tank.

18-10

Step 2: Test Transportation Efficacy

Questions: What is survivorship rate of transported adults under different transport length scenarios?  
 What is most effective method to transport: truck, barge, , helicopter,  
 some combination?

Suggested Method: Test different fish transfer, tagging, and transport methods to selected upstream release sites. Evaluate fish stress levels and note injury or mortality rate if any, route difficulty and trip timing, staffing needs to accomplish collection, transfer, and release activities, and behavior and disposition of fish once released.

Step 3: Test Release Efficacy, Alternate Release Sites

Questions: Do released adults move upstream or downstream?  
 Are some release points better than others to facilitate movement of spawners to spawning habitat?  
 Are some tributaries better than others at facilitating this? (This is a larger question and cross-relates to habitat surveys of tributaries)

Suggested Method: Radio-telemetry tags on released fish to monitor movement, using radio receivers positioned at strategic locations along the stream alignment. Note movement trends, congregational behavior if any, also timing of movement; correlate with stream discharges as recorded by available gages.

Step 4: Monitoring of use of spawning habitat by adult spawners

Questions: Do released adults actually use tributary or upper basin mainstem and/or tributary spawning habitats?

Are redds produced?

Suggested Method: Radio telemetry tags on released fish with on-ground spawning surveys

Step 5: Monitoring YOY production from redds

Questions: Do YOY fry successfully emerge from redds?

What is survivorship rate of fry to juveniles in tribs or upper basin mainstem rearing habitat?

Suggested Method: Temporary downstream migrant fry/smolt trap facility in tributary streams, monitoring, and either direct release or transport to release site below Bradbury Dam. Trapping method could be screw trap, hand seine, or ramp trap, depending on staffing availability.

Step 6: Monitoring juvenile survivorship in tributary/upper mainstem habitat

Question: What is survivorship rate of juveniles in tribs and upper mainstem?

Suggested Method: Same as above, repeated over the course of the summer, fall, and winter, using mark/recapture methods.

Step 7: Test smolt trapping and, Monitoring for Smolt production

Questions: Are smolts produced?

Can successful smolt trapping be carried out?

Suggested Method: Traps can be partial sample collection such as floating tributary conical or ramp traps, or more permanent full collection gulpers. Start with a floating instream smolt/fry trap and/or hand or boat seine to determine smolt readiness and estimated production, graduate to larger capacity, more permanent facilities in reservoirs if production is successful.

18-10

Step 8: Test Transport of Smolts below Bradbury Dam

Question: Can trapped smolts be effectively transported below Bradbury Dam?

What is most effective method of transporting smolts? Truck, Barge, Helicopter?

Do smolts transported below Bradbury Dam move downstream after release?

Are there ways to facilitate downstream movement (fences, flow pulses, etc?)

Suggested Method: Again, test various transport methods. Evaluate direct and delayed mortality, homing return efficacy, labor effort, weather and road constraints, load timing and holding capacity, etc.

Step 9: Monitoring for return of tagged smolts (pit tags, fin clips, etc)

Question: Can smolts be effectively tagged so that returning adult migrants can be tied to trap-and-transport-assisted smolt production?

Suggested Method: Pit tags, freeze marks, dye tags, and/or coded wire tags on a selected sub-sample of smolts. May be acceptable to use adipose fin clip marking method also if known straying from hatchery stock to the Santa Ynez is limited.

#### Phase II. Moderate Population Size Methodology

If the low population size efforts result in increased numbers of adults returning below Bradbury Dam, a moderate-duty system designed, say, for up to 1,000 annual adult spawners, could be tested in a phased adaptive management protocol similar to the one described above.

Such a system might include a semipermanent barrier weir and trap across both Hilton Creek and the mainstem with water-to-water transfer of captured fish from trap-to-transport tank and tank-to-release point. Pump-back attraction flow might be desirable to enhance adult fish attraction efficiency. Design and construction of such a semi-permanent trap facility would require approximately 2 years at the outside, assuming construction permits could be obtained without appeal from regulatory agencies. This activity could begin as early as the same winter season of the initial adult trap and transport action, with actual construction delayed until results of the initial spawning success and juvenile survival tests had been accomplished.

An alternative to trapping low in Hilton Creek and the nearby mainstem would be to use Hilton Creek as a partial ladder, ensuring configuration and attraction flows so that upmigrating adults are facilitated in finding Hilton Creek attractive. Integrated with the plunge-pool and chute barrier modifications, Hilton Creek at the highest elevation of US Bureau of Reclamation property can be modified to trap upmigrating spawners to be transported around Cachuma Reservoir into, for example, the closest high-quality tributary, Santa Cruz Creek and its tributaries.

Another permutation of this that should be given serious evaluation is the feasibility of constructing a small ladder or fishway from the upper Bureau property boundary on Hilton Creek upward and over the dam (less than 100 foot lift) using a false weir with a controlled variable length descent chute into a receiving pen in the Reservoir just below the Bureau's maintenance and office facility near the spillway gates. Fish may then be held in good condition for sorting, genetic identification as necessary, and subsequent transport to receiver tributaries for spawning. Design and construction of such a ladder and descent system would require approximately two to three years, and such effort could begin as early as the initial adult trap and transport action.

Phase II juvenile collection would be effected by construction of one or more floating collectors in the Cachuma and possibly Gibraltar reservoir, with or without guide nets. Design and construction of a floating collector that could be placed in either reservoir could be accomplished within 3 years, and could be initiated at beginning of the initial adult trap and transport action in Phase I.

### Phase III. Higher Population Size Methodology

If the first two phased steps prove successful, a larger, high-service trap system designed for up to several thousand adult spawners annually in high water years should be evaluated. This might consist of a permanent concrete barrier dam at Hilton Creek and across the mainstem at the foot of Bradbury Dam, a permanent ladder and constant head holding system, hopper hoist system, rail crowder panels, and associated handling equipment with at least three 1,000 to 2,000 gallon aerated, refrigerated tank transport systems. Pump-back attraction flow at the trap ladder entrance would facilitate adult fish attraction efficiency. This larger, permanent adult trap could be designed and constructed within 4 to 5 years from inception, and could begin concurrently with the initial adult trap and transport action.

In both Phases II and III, juvenile fish collection and bypass systems would likely be required for Bradbury Dam and reservoir, and, depending on locations selected for adult release, Gibraltar Dam/Reservoir, Juncal Dam/Reservoir, and Alisal Dam/Reservoir as well. Several feasible alternatives for collecting and bypassing smolt steelhead exist. Permanent, full-stream width instream barrier-type

18-10

collectors are not recommended due to the volume of woody debris and sediment in high flows rendering instream devices relatively unreliable. Development and evaluation of floating collectors located at the inlet of each tributary below adult release points into the respective reservoirs should be studied.

An alternative that should also be evaluated is the relative survivorship of downstream migrating smolts within the reservoirs with a structured experimental design using multiple collectors at several key locations along the length of the reservoirs and at or near the Dam sites. Design and construction of floating collectors could be accomplished within 4 years of, and concurrently with the initial adult trap and transport action. Smolt survival studies could be accomplished during the first outmigration season following the initial trap and transport action, which is likely to be from one to three years following inception of Phase I. These studies would be continued concurrently with the conceptual design of the juvenile collection system. The preferred site for collection would become known as a result of the smolt survival studies, with the final design of the smolt collection system dependent upon the preferred location.

Such floating collectors would include attraction flows provided by low-head electric pumps supplied with fixed-grid or generator power to produce attraction flows between 30-250 cfs. Each collector would include a barge with transfer boat and holding tanks, sorting and handling facility, and water-to-water transfer of juvenile fish to downstream transport tank system or bypass pipe to shore-based facility.

The simplest collector system would include a single floating collector at each dam, located near the existing outlet works. Reservoir migration survival studies would be required to verify the feasibility of this option. This can be accomplished via through-reservoir survival and radio tag tracking studies to assess potential losses to predators and migration success.

In the event that through-reservoir studies show an at-dam collector undesirable or infeasible due to poor survival in transit through the reservoir, individual collectors would likely be required at each tributary inlet into which adults have been transported and released. Each inlet collector would include an exclusion barrier net positioned far enough out in the reservoir to provide low average net approach velocity to below the structural strength of net material. Design and construction of multiple juvenile collectors would be accomplished at the same pace as for a single collector, with the required construction period increased proportionately to permit completion of each individual unit.

#### Alisal Dam, Alisal Creek, Tributary to Santa Ynez River below Bradbury Dam

For access above and below Alisal Dam, the scale of a passage system similar to that discussed above would be proportionally less than the systems designed for the much larger storage dams on the mainstem Santa Ynez River. A juvenile collection system may consist of nothing more than bypass outlets designed to meet bypass criteria for smolts (30fps max. velocity, smooth interior, gradual bends > 3 diameters in radius, no exit plunge in excess of 25 fps, etc.) A small fish ladder for adult passage might be feasible, and, if not, a simple floating picket weir or fixed Braille weir can be used. Design and construction of an adult passage system for Alisal Dam would require no more than 2 years, and such effort could begin entirely independent of mainstem Santa Ynez fish passage facility study and design. Similarly to the studies proposed above for the upper Santa Ynez fish passage, the Alisal Dam

18-10

work would include monitoring of spawning success in the tributaries to the Alisal Dam reservoir, juvenile survival and outmigration, predator-induced mortality, and all other issues associated with development of a fully successful passage program. To gauge success of this adaptive program for progressive enhancement of fish passage and production, a long term monitoring program would be required to continually improve the understanding of fish behavior, habitat requirements, and to guide additional phases of the adaptive passage program.

18-10

Respectfully Submitted,



Edwin T. Zapel, P.E.

**Literature Reviewed**

Chubb, Sara, 1997. Santa Ynez Steelhead Restoration Feasibility Study: Los Padres National Forest, Santa Barbara Ranger District.

Cachuma Conservation & Release Board & Entrix, 2006. Adaptive Management Committee, Draft Upper Basin Study – Habitat Synthesis, Memorandum. December 11, 2006.

State Water Resources Control Board, July 2007. Revised Draft Environmental Impact Report, Consideration of Modifications to the Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir).

**18. Edwin T. Zapel, dated September 27, 2007.**

**Response 18-1:**

The comment states that reconnection of a passable migration corridor between the available upstream habitat above Bradbury Dam and the Pacific Ocean through the downstream river is a necessary component of recovery of anadromous steelhead populations in the Santa Ynez River system.

The comment is noted. However, fish passage around the Bradbury Dam is not a component of the project and is not analyzed in the EIR.

**Response 18-2:**

The comment states that the alternatives proposed in the 2007 RDEIR do not satisfy the requirements for fish passage above the Bradbury Dam.

The comment is noted. The project objectives do not include, nor do they propose to provide fish passage above the Bradbury Dam. Protection of the public trust resources is possible without the development of fish passage around the Bradbury Dam.

**Response 18-3:**

The comment states that an evaluation of adult and juvenile fish passage is warranted and recommends further studies regarding the feasibility of restoring passage to upstream habitat be conducted to determine the most effective solution for the Santa Ynez River.

The comment is noted. As indicated in response to 2007 RDEIR **Comment 18-1** and **18-2**, restoring fish passage to upstream habitat is not part of the project. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2010, no studies have been made available that identify and evaluate the feasibility of providing passage over Bradbury dam. This is discussed further in the 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

**Response 18-4:**

The comment states that the upstream passage corridor leading adult spawning anadromous steelhead to Bradbury Dam must be supplied with sufficient flows to enable fish to reach trapping facilities or spawning areas in the vicinity of Bradbury Dam, including Hilton Creek.

As stated in 2011 2<sup>nd</sup> RDEIR **Section 3.1.1 Description of the Proposed Project**, protection of public trust resources, including *O. mykiss* in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, is one of the project objectives. Alternatives 5B and 5C were included to

incorporate the potential for additional flow releases while protecting the senior water right holders from injury due to any reduction in the quantity of water available to serve prior rights.

**Response 18-5:**

The comment states that the lack of upstream passage to the upper Santa Ynez watershed has completely eliminated all anadromous wild steelhead in the upper watershed and caused the almost complete extirpation of wild Santa Ynez steelhead populations elsewhere in the watershed. The comment makes recommendations for future studies.

The comment is noted. Please see responses to 2007 RDEIR **Comments 18-1** through **18-4** in regard to fish passage above Bradbury Dam. While a commendable goal, the connection of the upstream resident *O. mykiss* populations with the lower Santa Ynez River anadromous *O. mykiss* populations is not part of the Cachuma Project.

**Response 18-6:**

The comment proposes “a phased and systematic methodology” for assessing the feasibility of providing fish passage on the Santa Ynez River, and suggests specific underlying principles for the proposed approach.

The comment is noted. While a full assessment of fish passage on the Santa Ynez River may be undertaken in the future, such an assessment is beyond the scope of the proposed project.

**Response 18-7:**

The comment recommends that any fish passage feasibility study conducted on the Santa Ynez River be performed in a phased, adaptive management protocol.

The comment is noted. While further studies on fish passage feasibility to protect the public trust resources may benefit the public interest, the project objective is to simultaneously improve conditions for *O. mykiss* while improving ground water recharge potential for downstream water rights holders. No further studies are required on this point because the project does not propose a feasibility study for fish passage.

**Response 18-8:**

The comment recommends a variety of alternatives that should be analyzed and recommends that a broader list should be compiled by a Fish Passage Feasibility Study team.

The comment and recommendations are noted. Please see responses to 2007 RDEIR **Comments 18-1** through **18-7**. SWRCB has proposed a reasonable range of alternatives for consideration and evaluation in the EIR and further alternative designs do not need to be evaluated.

**Response 18-9:**

The comment proposes a number of possible alternatives for downstream migrating fish to encounter safe and effective passage to the ocean.

The comment is noted. See responses to 2007 RDEIR **Comments 18-1** through **18-8**

**Response 18-10:**

The comment proposes objective and measurable criteria for determining success or failure of fish passage within the Santa Ynez River.

The comment and list of criteria is noted. See responses to 2007 RDEIR **Comments 18-1** through **18-9**.

DKR

STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364  
SACRAMENTO, CA 95814  
(916) 653-4082  
(916) 657-5390 - Fax

STATE WATER RESOURCES  
CONTROL BOARD



2007 AUG 13 PM 1:59

August 2, 2007

DIV. OF WATER RIGHTS  
SACRAMENTO

Diane Riddle  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812

RE: SCH# 1999051051 Modifications to the U.S. Bureau Reclamation's Water Rights; Santa Barbara County..

Dear Ms. Riddle:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **No Sacred Sites Found as of August 2, 2007.**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

19-1

Sincerely,

*Katy Sanchez*  
Katy Sanchez  
Program Analyst

CC: State Clearinghouse

**Native American Contacts**  
Santa Barbara County  
August 2, 2007

Ernestine DeSoto  
1027 Cacique Street, #A Chumash  
Santa Barbara , CA 93103  
(805) 962-3598

Santa Ynez Tribal Elders Council  
Adelina Alva-Padilla, Chair Woman  
P.O. Box 365 Chumash  
Santa Ynez , CA 93460  
elders@santaynezchumash.org  
(805) 688-8446  
(805) 693-1768 FAX

Santa Ynez Band of Mission Indians  
Vincent Armenta, Chairperson  
P.O. Box 517 Chumash  
Santa Ynez , CA 93460  
varmenta@santaynezchumash.org  
(805) 688-7997  
(805) 686-9578 Fax

Coastal Band of the Chumash Nation  
Roberta Cordero  
4451 La Paloma Road Chumash  
Santa Barbara , CA 93105  
roberta.cordero@gmail.com  
805-681-9133

San Luis Obispo County Chumash Council  
Chief Mark Steven Vigil  
1030 Ritchie Road Chumash  
Grover Beach , CA 93433  
pshoemaker@santaynezchumash.org  
(805) 481-2461  
(805) 474-4729 - Fax

Santa Ynez Band of Mission Indians  
Sam Cohen, Tribal Administrator  
P.O. Box 517 Chumash  
Santa Ynez , CA 93460  
(805) 688-7997  
(805) 686-9578 Fax

John Ruiz  
1826 Stanwood Drive Chumash  
Santa Barbara , CA 93103  
(805) 965-8983

**This list is current only as of the date of this document.**

**Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.**

**This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#1999051051 Modifications to the U. S. Bureau Reclamation 's Water Rights; Santa Barbara County.**

**19. Native American Heritage Commission, dated August 2, 2007.**

**Response 19-1:**

This comment provides recommended actions to assess whether the project will have adverse effects on historical resources.

As described in the 2003 DEIR, the evaluation of impacts to cultural resources along the margins of Cachuma Lake is based on an assessment of the project area entitled "Data Recovery Excavation at Two Prehistoric Archaeological Sites on Cachuma Reservoir, Santa Barbara County, California" (Bever et. al., 2004) completed in October 2004. This assessment builds upon archaeological surveys conducted by Reclamation in 1986–1987 and 2001 (West and Slaymaker, 1987; West and Welch, 2001), and supplemented by archaeological site records and additional survey reports on file at the Central Coastal Information Center (Maki, 2001). With preparation of aforementioned reports, and subsequent CEQA analysis contained in the 2003 DEIR, SWRCB has implemented the recommended actions described in the comment letter.

September 25, 2007

State Water Resources Control Board  
Division of Water Rights  
1001 "T" Street  
Sacramento, CA 95814

Attn: Diane Riddle

Re: Revised DEIR Consideration of Modifications to the USBR's Water Right Permits 11308 and 11310 (applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir). State Clearinghouse #1999051051

Dear Ms. Riddle:

I represent Alisal Properties, a California Corporation, (hereafter "Alisal") which owns in excess of 10,000 acres of real property located in and contiguous to the Santa Ynez River in Santa Barbara County, East and South of the City of Solvang.

It is noted that, in the section of the DEIR relating to Downstream Water Rights (Sec. 3.1.2), you have listed "Riparian Diverters – Above the Narrows. The list, however, is incomplete in that it fails to include Alisal, which is a diverter in the Above Narrows reach of the River and in the Santa Ynez subarea.

We have contacted Stetson Engineers and have been assured by that firm that all of the hydrologic modeling studies, which are a part of the DEIR, include the Alisal's historic pumping in the baseline data. Consequently, the omission does not appear to impact any factual conclusions in the DEIR.

Alisal claims a continuing riparian right, paramount to all appropriators on the Santa Ynez River, including Permits 11308 and 11310 (Cachuma Project) for beneficial use on its riparian lands.

For your information in correcting this error:

Alisal owns significant riparian lands and owns riparian rights to divert Santa Ynez River flow, both surface and subsurface for use on their riparian lands in and adjacent to the Santa Ynez River. Their points of diversion are in the Above Narrows reach of the river in the Santa Ynez subarea. Much of the land owned by Alisal is part of a Mexican land grant called Rancho Nojoqui. Use of water dates back to a time that would justify a claim of pre-1914 appropriative rights appurtenant to the ranch. However, the ranch has for most of the last century relied on its riparian rights in the river

20-1

and other perennial streams which are all tributaries of the Santa Ynez River, including Alisal Creek and its tributaries, Nojoqui Creek and its tributaries and Quiota Creek. However, the subsurface flow of the Santa Ynez River has been the largest and most reliable year-round flow and has, consequently, been used in varying amounts over the years.

20-1

Alisal provides river well production information on a semi-annual basis to the Santa Ynez River Water Conservation District, which has in recent years been imposing a “groundwater charge.” Those semi-annual statements, over the past eight years indicate that Alisal’s Santa Ynez River water production from sub-surface flow has amounted to a low in Fiscal 2005-06 of 538.57 acre feet to a high in Fiscal 2002-03 of 829.88 acre feet. An excel spreadsheet summarizing that pumping history is attached for your information.

If any other information is required, please let us know.

Stanley C. Hatch  
For Hatch and Parent, PC

Cc: Palmer Jackson, Alisal Ranch

Stanley C. Hatch  
4352 Via Esperanza  
Santa Barbara, CA 93110  
805/682-3426  
[stanhatch@cox.net](mailto:stanhatch@cox.net)

## **Alisal Ranch Pumping from Santa Ynez River**

**Based on reports to SYRWCD**

*Fiscal Year is July 1 to June 30*

*Q1 & Q2 = July 1 to Dec. 31 Q3 & Q4 = January 1 to June 30*

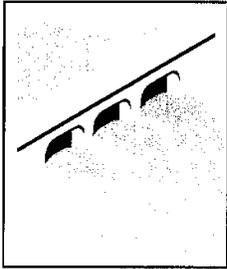
	<b><i>Acre feet</i></b>	<b><i>Annual Total</i></b>
Q1 & Q2 1999	479.120	
Q3 & Q4 2000	336.300	
		815.420
Q1 & Q2 2000	442.010	
Q3 & Q4 2001	305.330	
		747.340
Q1 & Q2 2001	395.570	
Q3 & Q4 2002	380.520	
		776.090
Q1 & Q2 2002	639.420	
Q3 & Q4 2003	190.460	
		829.880
Q1 & Q2 2003	443.340	
Q3 & Q4 2004	305.102	
		748.442
Q1 & Q2 2004	520.945	
Q3 & Q4 2005	148.980	
		669.925
Q1 & Q2 2005	344.030	
Q3 & Q4 2006	194.540	
		538.570
Q1 & Q2 2006	360.990	
Q3 & Q4 2007	224.540	
		585.530
Total FY 2000-2007		5711.197
Average Annual Production		713.900

20. **Stanley H. Hatch for Alisal Properties, dated September 25, 2007.**

**Response 20-1:**

The comment suggests that the list in **Section 3.1.2, Riparian Diverters–Above the Narrows** of the 2007 RDEIR, is incomplete by leaving out Alisal. However, the comment states that because the modeling did include the Alisal diversions, the omission does not appear to impact any factual conclusions in the 2007 RDEIR.

The comment is noted. The 2007 RDEIR list of riparian diverters above the Narrows should include Alisal as a diverter in the Above Narrows reach of the Santa Ynez River.



October 6, 2003

STATE WATER RESOURCES CONTROL BOARD  
2003 OCT -7 PM 2:34  
OFFICE OF THE CLERK  
SACRAMENTO

Mr. Andrew Fecko  
Division of Water Rights  
State Water Resources Control Board  
P. O. Box 2000  
Sacramento, CA 95812-2000

Re: Comments on 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)

Carpinteria Valley  
Water District

City of Santa Barbara

Goleta Water District

Montecito Water District

Dear Mr. Fecko:

The Cachuma Conservation Release Board ("CCRB") appreciates the opportunity to provide comments to the State Water Resources Control Board ("State Board") on the above-referenced Draft Environmental Impact Report ("EIR"). 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"). The members of CCRB and the Santa Ynez River Water Conservation District, Improvement District No. 1 are the Cachuma Project Member Units. The Cachuma Project 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 would face substantial, unmitigable water supply impacts if some of the alternatives set forth in the State Board draft EIR are implemented.

Unfortunately, these impacts are not necessarily apparent from a reading of the EIR since, in several instances, the document overestimates available water supplies, especially in drier years. When the overestimates are corrected, it will be seen that the water supply impacts from virtually all of the alternatives are substantially more severe than estimated in the draft EIR. Also, because necessary physical facilities are lacking, water cannot be simply transferred among and between the Member Units as the draft document presumes. Further, the EIR substantially overestimates the impacts to oak trees and to the County Park at Lake Cachuma. When the oak tree replacement program is better understood and when it is recognized that the County *does not object* to surcharging the Lake and is already underway in its efforts to relocate important facilities, it will be seen

3301 LAUREL  
CANYON ROAD  
SANTA BARBARA  
CALIFORNIA  
93105-2017

TEL 805 569-1391  
FAX 805 569-5825

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Mr. Andrew Fecko  
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State Water Resources Control Board  
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that the EIR incorrectly identifies the impact to oak trees and the Park as a Class I impact. At worst the impacts are Class II.

In short, after extensive review by CCRB's team of consultants, biologists and attorneys, we have identified inaccuracies in the EIR as currently written. In some instances, the analysis seriously under-estimates impacts that could result from the project. In other areas, the EIR over-estimates impacts. Thus, the resulting analysis for several of the alternatives is simply incorrect, calling into question all of the document's conclusions. We have also identified other technical comments that we have attached to this letter as Exhibit "A." As currently drafted, the EIR fails to comply with the requirements of the California Environmental Quality Act ("CEQA"). Additionally, comment letters have been submitted by the Santa Ynez River Water Conservation District and by the Santa Ynez River Water Conservation District, Improvement District No. 1. CCRB concurs with the comments in those letters.

Despite the errors and inaccuracies in the draft document, CCRB believes, nonetheless, that the EIR can be corrected prior to the Board's certification of the EIR and consideration of the project itself and thus, ensure compliance with CEQA. We welcome the opportunity to work with State Board staff and consultants to help bring the document into compliance with CEQA.

**I. Due to the EIR's Incorrect Conclusions Regarding Project Impacts, the Significance Conclusions for Alternatives 3 (A) and (C) are Inaccurate**

An EIR is an informational document that must be considered by a public agency before it approves or disapproves a project. Its purposes are 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 indicate alternatives to the project (Pub. Res. Code, § 21061.) The purpose of an EIR's alternatives analysis is to require lead agencies to implement feasible alternatives to reduce a project's significant environmental impacts. (Pub. Res. Code, § 21002.) Thus, an accurate analysis of impacts resulting from both the proposed project and the alternatives is vital to enable the lead agency to both inform other agencies of project impacts and to enable the lead agency to select the correct alternative.

1-1

**A. The EIR Inaccurately Describes Available Water Supply**

The EIR fails to meet basic CEQA requirements. The EIR inaccurately describes the volume of water supplies available to the Member Units and thus, significantly underestimates Project impacts.

1-2

kr/ccrb/swrcb hearings/draft\_eir\_comments\_CCRB100603

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Division of Water Rights  
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First, the EIR substantially overstates the amount of Cachuma Project water available during critically dry periods. The EIR uses SYRHM results that are based on perfect knowledge of historical hydrology. However, in real time planning, it is impossible to know in advance when a drought is over and water managers will set aside additional reserves during a drought to provide a buffer should the drought continue for another year. Table 4-16 (Impacts on Cachuma Project Deliveries to Member Units) assumes perfect forecasting using historical hydrology, where the exact length of the drought is already known. We have provided a new Table 4-16b that illustrates the sensitivity of supply deliveries to model assumptions and the risk involved in water supply real time management decisions. (Exhibit "A", Item 40) This table should be incorporated into the EIR to accurately reflect project impacts and the real shortages the Member Units will face in a critically dry period.

1-3

The EIR also incorrectly estimates dry year groundwater supplies for the Member Units:

- The amount of groundwater available to the Santa Ynez River Water Conservation District, Improvement District No. 1 ("ID No. 1") is substantially overstated. The EIR states that the ID No. 1 water supply from Santa Ynez River Underflow and Santa Ynez Uplands groundwater basins produce approximately 8,300 acre feet per year ("afy"). In fact, the dry year groundwater supply available to ID No. 1 is approximately 3,770 afy. See attached Exhibit "B". Table 4-24 of the EIR thereby overestimates the ID No. 1's drought supply from groundwater sources by about 4,530 acre-feet per year ( $8,300 - 3,770 = 4,530$ ) This 4,500 afy difference is an error that causes, along with other errors, much of the document's water supply analysis to be incorrect. It appears that the EIR errs by using nearly the maximum capacities of groundwater production for ID No. 1. The capacity of groundwater production from the Santa Ynez Upland groundwater basin has actually been reduced due to well destruction, water quality problems and, in dry and critical years by a lowering of the water table. Pumping from ID No. 1 river wells (4 and 6 cfs well fields) would be significantly reduced in drought year circumstances due to declines in water levels (dewatered storage) as determined by the Santa Ynez River Hydrology Model.
- The EIR also incorrectly describes Goleta's ability to pump groundwater to make up for reduced Cachuma Project supplies in a time of shortage. The basin from which Goleta pumps was adjudicated by the courts in the case of Wright v. Goleta Water District. Thus, the groundwater rights that Goleta has are limited. They cannot be increased without regard to the judgment in Wright v. Goleta Water District simply to make up for lost Cachuma Project supplies.

1-4

1-5

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Division of Water Rights  
State Water Resources Control Board  
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- The EIR understates the City of Santa Barbara's ability to pump groundwater during a critically dry period. The City's water supply strategy is to use its local groundwater conjunctively with its other supplies by keeping pumping low during periods of plentiful surface water and using groundwater to replace unavailable surface water supplies during drought periods.

1-6

The EIR overstates that amount of State Water that may be available during a drought and misapplies the CCWA drought buffer. Cachuma Member Units believe that for planning purposes State Water cannot be counted on for more than 50% delivery during a severe drought. The drought buffer cannot be added to the State Water delivery in its entirety. It must be added to the Table A amount prior to calculating the State Water delivery amount. See Exhibit "A", item 39.

1-7

The EIR also wrongly describes ways the Member Units can work together to minimize the water supply impacts of the alternatives.

- At page 4-36, it is suggested that the City of Santa Barbara, Goleta, and Montecito can address their deficits by buying water from ID No. 1 and Carpinteria. However, there is no surplus available to purchase.
- The EIR inappropriately groups all of the Member Units' water supplies to come up with a bottom-line Water Supply impact analysis. The Member Units cannot be grouped as if they were one public agency. These agencies do not act as one and cannot be treated as a single entity. Indeed, there is no existing program to implement sharing of water during a severe drought. Such a program, itself, would likely be subject to additional, future CEQA analysis.
- No infrastructure, legal or physical, exists to actually deliver such water regardless of available amounts to the Member Units. Even if physical delivery were possible and surplus water available, there are many overlying groundwater pumpers within the ID No. 1 service area who would object to significant amounts of water leaving the Santa Ynez River Valley during drought. Because the EIR analysis has grouped the Member Units' water supplies in addressing the impact analysis, these issues completely skew the results and must be corrected.
- Page 4-43 of the EIR states that "despite the fact that the Member Units already have implemented a number of conservation measures, it may be possible to implement

1-8

1-9

1-10

1-11

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additional drought contingency measures identified as part of the Member Units' urban water supply contingency analysis in order to make up for temporary water supply shortage in a critical drought year under Alternatives 3(A) and 3(B)." Again, the EIR makes assumptions regarding the abilities of the Member Units based on pure speculation.

1-11

The three-year drought analysis in Table 4-25 is much more complicated than shown. Table 4-25 multiplies the many errors in the single drought year analysis by three. Cachuma supply is much less than stated, and additional assumptions must be made for State Water deliveries and groundwater production, which is limited by hydraulic considerations. A new Table 4-25 that corrects the errors in the existing table is also provided in Exhibit "A" attached hereto.

1-12

Thus, the EIR significantly overestimates available water supplies and underestimates Project impacts to Member Units. For the above reasons, and the additional technical comments in Exhibit "A", the Water Supply Conditions section of the EIR must be substantially revised prior to certification.

**B. The EIR Significantly Misstates the Volume of Water Required for Fish Releases Under Certain Alternatives**

The draft EIR estimates the volume of water required to meet the Biological Opinion long-term release requirements to be 2,600 afy. (DEIR, p. 3-9.) This amount is incorrect. Not including spills and natural flows, the total annual water needed from Cachuma Reservoir to meet Alternative 3(a) rearing target flows in the BO is 3,900 acre-feet on average for the model period 1918 through 1993 (76 years). This amount does not include any releases from the 3,200 acre-feet Passage Account or 500 acre-feet Adaptive Management account. This annual average figure does include the contributions from WR89-18 water rights releases and leakage from the dam in the amounts of 1,220 and 500 acre-feet per year, respectively, in meeting rearing habitat target flows. The conjunctive use of WR89-18 water rights releases to meet target habitat flows has been incorporated into the Settlement Agreement. The breakdown of releases that meet the rearing target flows is as follows:

1-13

	Acre-Feet/Year
Project Releases	2,185
Water Right Releases	1,220
Leakage from the Dam	500
Total	3,905

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The leakage quantities as used in the model represent the historical rate of leakage from the spillway gates. To the extent the spillway gates are repaired to minimize the leakage, then an additional amount would be released for the purpose of fish habitat maintenance. But the total amount of water needed from Cachuma Reservoir for the final BO habitat target flows would still be about 3,900 acre-feet per year on average, according to the SYRHM.

1-13

The use of average annual numbers is also very misleading because the actual annual releases range from 800 to over 6,000 acre-feet in Alt 3(a), when releases for passage are considered. The effects of an "average" release also do not mean very much when assessing impacts in drought periods. It is recommended that the sentences regarding Cachuma water needed for providing interim and final BO habitat flow targets in the DEIR (pg. 3-8 3<sup>rd</sup> ¶, pg. 3-9, 1<sup>st</sup> ¶ and 3<sup>rd</sup> ¶) be deleted or substantially modified with the additional details described here.

**C. The EIR Significantly Overestimates Impacts to Oak Trees**

The EIR also overestimates impacts to oak trees. On pages ES-7 and 4-115, the EIR incorrectly concludes that a Class I impact will result to oak trees. For the reasons set forth below, these impacts will be mitigated to below a level of significance. Therefore, impacts to oak trees should not be classified as a Class I impact but Class II.

The water level in Cachuma Lake varies depending upon runoff, evaporation, downstream releases, and diversions to the Member Units. The current maximum lake level is 750.75 feet. The peak lake level is typically reached in April or May as the winter runoff has ended and before significant diversions and downstream releases. Under current operations, the median lake level is estimated to be 733.7 feet. The median lake level with the 3-foot surcharge and the releases for fish as required under the BO would be 734.6 feet. With surcharging, future lake levels would exceed the current maximum lake level (750.75 feet) about 16 percent of the time, and would exceed this level for about four months, on average. 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.

1-14

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

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more than 50 years. The loss of certain trees in the wave action zone would occur over a longer period of time, probably 20 or more years.

Not only will tree loss occur over a long period of time, but the EIR improperly minimizes the fact that potential impacts to oak trees will in fact be mitigated through implementation of an oak tree mitigation program. (See p. 6-19 of FMP/BO EIR/EIS.) To offset the loss of these trees, BOR and the Cachuma Operation and Maintenance Board ("COMB") will implement a long-term oak tree replacement program in which coast live and valley oak trees lost due to periodic surcharging would be replaced in a phased manner linked to the incremental loss of oak trees over time. Reclamation has determined that the most desirable and appropriate locations for planting new oak trees would be in portions of the County Park at Cachuma Lake. There is no recruitment of oak trees in the park due to the cumulative disturbance by park visitors over time. Hence, there is a critical need to plant young oak trees in the County Park to replace the mature trees that are expected to suffer future natural mortality. Implementing the oak tree replacement program in the Park would both offset the loss of trees due to surcharging, and benefit recreational uses at the park. The oak trees would be established in undeveloped grassland and existing oak savannah areas of the Park. In the event that additional land is required for planting, BOR would use portions of Storke Flats, Santa Ynez Point area, Bradbury Dam, and Live Oak area where suitable conditions are present for oak restoration.

1-14

BOR would implement the program in a phased approach designed to replace oak trees *prior* to the impacts to the trees. Under this approach, BOR would immediately plant new trees in the Park to replace one half of the estimated total number of trees that would be eliminated over time. BOR would then monitor the loss of trees during surcharge events over the next 10 years. The number of downed or dying trees in and above the inundation zone would be counted immediately after surcharging events, as well as during the months when the water level recedes and bank erosion could occur. The number of trees lost during that year would be replaced at the County Park. At the end of 10 years, BOR would conduct a final count of trees in and above the inundation zone to determine the remaining number of trees that are likely to be eliminated over time due to future inundation. Based on this information, the total number of the estimated trees that could be adversely affected would be revised, and BOR would plant trees to complete the replacement process. This phased approach will be used to ensure a precise count of trees affected by surcharging and to allow BOR and County Parks the opportunity to refine and enhance the oak restoration program over time based on actual planting and maintenance experience.

BOR would maintain the replacement trees for a period of 10 years after their planting to ensure successful establishment and evidence of being self-sustaining. Maintenance would include watering, weeding, pest control, protection from human disturbance, and replacement planting. At the end of 10 years, BOR would determine if additional special maintenance is required, or if the

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trees can persist in the Park under current habitat conditions and park maintenance. Oak trees would be replaced at a ratio that ensures a final 2:1 replacement ratio at the end of 20 years – that is, the target number of mature oak trees at 20 years would be twice the number removed by surcharging. Use of a target replacement ratio greater than 1:1 provides compensation for the loss of mature trees by establishing more trees and wildlife habitat than under current conditions. Reclamation will conduct a formal evaluation at 20 years to determine if additional Plantings are necessary to achieve the 2:1 replacement.

To achieve the target replacement ratio, oak trees will need to be planted at a higher initial replacement ratio to compensate for the expected loss of trees during early development due to predation, drought stress, disease, and vandalism. The mortality observed by County Parks during recent oak planting efforts at the park was about 33 percent. Based on this observed mortality rate, the initial replacement ratio to account for mortality would be 3:1 (incorporating a 2:1 replacement ratio and factor to account for mortality). The exact number of trees to be planted will be determined in 10 years after BOR has observed the effect of surcharge on shoreline trees. Coast live and valley oak trees would be planted in proportion to their occurrence in the surcharge impact zone.

1-14

Therefore, the effect of the proposed surcharge on oak trees along the lake shoreline is mitigable and would be fully offset by the proposed oak tree replacement program expected to die. Instead, because half of the total trees would be replaced immediately, and the loss of trees will occur slowly, visitors to the Lake will see more trees, not fewer trees, even in the initial years. Moreover, the program would utilize state of the art oak tree propagation and maintenance techniques, and would receive long-term care by Reclamation until the trees become self sufficient. The proposed oak tree replacement program is designed to minimize the time period between tree loss from surcharging and establishment of self-sustaining trees by planting one half of the replacement trees prior to, or current with, the first surcharge year. There is simply no reason to assume, as the EIR 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.

**D. The EIR Significantly Overestimates Impacts to Recreation**

With regard to impacts on Recreation, the draft EIR also *overestimates* impacts. The EIR concludes that Class I impacts will result if the relocation of certain facilities does not occur prior to surcharging or is deemed infeasible due to funding. (DEIR, p. 4-143.) This conclusion ignores the measures that will be implemented to reduce such impacts and this impact should also be reclassified to a Class II impact.

1-15

The Cachuma Lake Recreation Area (“Recreation Area”) is federal land designated for

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recreational uses. It includes Cachuma Lake and the surrounding land, which encompasses about 6,448 acres. After Reclamation constructed Bradbury Dam, the County of Santa Barbara ("County") agreed to manage recreation at the federally owned reservoir. A 50-year contract between BOR and the County was executed in January 1953. (See attached Exhibit "C") According to the contract, the County will develop, maintain and administer recreation at the Lake. The contract also requires that County facilities accommodate operational needs at the lake (see attached Exhibits "C" and "D"). The contract expired in January 2003. BOR issued an interim 2-year contract to the County to provide time to negotiate a new contract and complete a Resource Management Plan for the lake.

CCRB agrees that higher lake levels due to surcharging would affect recreational facilities at the County Park, which could disrupt recreational activities. However, County Parks already has begun to take action to accommodate a 3-foot surcharge. In 2000, they completed an engineering feasibility study to identify preliminary facility relocation concepts and costs. They have applied for, and received, several grants from Reclamation and the State of California to design and relocate certain facilities to accommodate surcharging. BOR, COMB, and County Parks are currently exploring potential short-term interim measures to protect facilities that cannot be relocated prior to surcharging. Through these efforts, the impacts of surcharging on recreational facilities and uses at Cachuma Lake can be avoided or greatly reduced. Therefore, the EIR's conclusion that there is a potential for a permanent or ongoing-term disruption of recreational uses at Cachuma Lake is simply inaccurate and ignores the effectiveness of the measures that will be imposed.

1-15

Based upon the above-described inaccurate conclusions, the impact assessment in the EIR regarding alternatives impacts is incorrect. Alternative 3(C) in fact has fewer impacts than identified in the EIR; while in Alternative 3(A), which was identified as having the fewest total impacts has a much more severe impact on water supplies than assumed in the DEIR. (p. 6-3.) Table 6-1, which purports to summarize the impacts of the alternatives is inaccurate and must be revised. For these reasons alone, unless the EIR is revised to reflect the actual impacts, certification of the EIR and approval of the project based upon that certification, violates CEQA.

## **II. Alternative 3(A) is Poorly Defined**

Alternative 3(A) allegedly incorporates water release requirements under order WR 89-18, releases to meet long term rearing and passage target flows under the Biological Opinion, and other steelhead conservation actions described in the Biological Opinion. (p. 3-9) However, the alternative is so poorly defined that it is impossible for an EIR reviewer to understand potential impacts that may result from this alternative if selected and implemented. When would this alternative begin--immediately or when the reservoir fills and spills? Does it allow surcharge? If so, to what level? If it fails to allow surcharge to 3.0' (elevation 753.00) it appears to be contrary to the Biological Opinion issued for the Cachuma Project. Also, if the conditions anticipated by Alternative 3(A) occur how are the volumes of the passage account and adaptive management

1-16

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account to be determined? In this later regard, the EIR fails to recognize that passage flows are experimental in nature and were accepted by Reclamation and the Member Units *only* when they were linked by the Biological Opinion to a 3.0' surcharge of Lake Cachuma.

1-16

**III. In View of the Settlement Agreement Entered Into By the Member Units and Downstream Interests, Alternatives 4(A) and 4(B) Are Not Required**

The Member Units and downstream water interests including the City of Lompoc and the Santa Ynez River Water Conservation District worked hard over many months to resolve long-standing water rights and water quality issues. By virtue of their Agreement, they have resolved water quality issues without the necessity of drastic changes in Cachuma Project operations or water right deliveries. The terms of the Settlement Agreement thus render Alternatives 4(A) and 4(B) unnecessary

1-17

Moreover, as summarized on p. 6-3 (Section 6.1.2 dealing with "Impacts of Proposed Alternatives") Alternatives 4(A) and 4(B) would have substantial environmental effects. Other additional effects resulting from Alternatives 4(A) and 4(B) are identified in comments offered by the Santa Ynez River Water Conservation District and CCRB supports those comments.

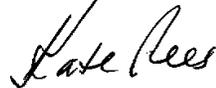
**III. Additional Comments on the EIR**

As noted above, we also have a number of additional technical comments set forth in the attached Exhibit "A".

1-18

In conclusion, as stated above, despite the corrections required prior to certification and project approval, CCRB believes that the EIR can be corrected. We would be happy to meet with you to discuss these issues further.

Very truly yours,



Kate Rees, Manager  
Cachuma Conservation Release Board

KR:slf

Enclosures

cc: Cachuma Project Service List

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### 2.4.3 Written Responses to Comments on the 2003 DEIR

#### 1. Cachuma Conservation Release Board, dated October 6, 2003.

##### Response 1-1:

The comment states that due to the 2003 DEIR's incorrect conclusions regarding project impacts, the significance conclusions for Alternatives 3A and 3C are inaccurate and that an accurate analysis of impacts resulting from both the proposed project and the alternatives is vital to enable the lead agency to both inform other agencies of project impacts and to enable the lead agency to select the correct alternative.

The commenter does not clarify how the 2003 Draft EIR draws incorrect conclusions regarding project impacts or how the significance conclusions for Alternatives 3A and 3C are inaccurate. The analysis provided in the 2011 2<sup>nd</sup> RDEIR includes an independent review of the data and issues. The range of alternatives was vetted through substantial public input through the 2003, 2007 and 2011 CEQA processes, and has resulted in a set of project alternatives that meet the project objectives and provide the SWRCB with a range projects (as defined by CEQA) that can reasonably be considered to address the applicant request to amend the subject water rights permits.

##### Response 1-2:

The commenter suggests that the 2003 DEIR inaccurately describes the volume of water supplies available to the Member Units and thus, significantly underestimates Project impacts and fails to meet basic CEQA requirements.

Water supply and water demand tables from the 2003 DEIR were updated for each of the Member Units in the "Draft Technical Memorandum No. 5 Hydrologic Impact Analysis of Possible Cachuma Operations Alternatives" found in the 2007 RDEIR (Tables 18A through 18E). These updated values were used in the hydrologic modeling to estimate impacts in a manner consistent with CEQA requirements.

##### Response 1-3:

The comment suggests that the 2003 DEIR substantially overstates the amount of Cachuma Project water available during critically dry periods and therefore does not accurately reflect project impacts and the real shortages the Member Units will face in a critically dry period.

On page 4-35, the 2003 DEIR indicates that "The analysis depicted in Table 4-18 assumes that the amount of water available to CVWD, GWD, and SYRWCD, ID#1, and the amount of groundwater available to MWD and the City of Santa Barbara, as set forth Tables 4-10 through 4-14, would remain the same in a critical drought year." This assumption was changed for the 2007 RDEIR and the lower critical drought year supply values for Cachuma Project water are provided in Tables 18A through 18E. These values

were used in the hydrologic modeling to estimate impacts in the 2007 RDEIR, **Section 4**. Input and model results were modified, in part, as a result of this comment. Some impacts were modified based on these changes.

**Response 1-4:**

The commenter suggests that the amount of groundwater available to the Santa Ynez River Water Conservation District, Improvement District No. 1 (ID No.1) is substantially overstated.

Water supply and water demand tables from the 2003 DEIR were updated for the Santa Ynez River Water Conservation District, Improvement District No. 1 (ID No.1) in the “Draft Technical Memorandum No. 5 Hydrologic Impact Analysis of Possible Cachuma Operations Alternatives” found in the 2007 RDEIR (Tables 18A through 18E). These updated values were used in the hydrologic modeling to estimate impacts in a manner consistent with CEQA requirements

**Response 1-5:**

The comment suggests that the 2003 DEIR incorrectly describes Goleta's ability to pump groundwater to make up for reduced Cachuma Project supplies in a time of shortage due to the case of Wright v. Goleta Water District (GWD).

The 2003 DEIR indicates on page 4-28 that “GWD extracts approximately 2,350 afa [acre-feet per annum] of groundwater from the Goleta Basin.” The 2008 City of Goleta Water Supply Assessment (WSA)<sup>37</sup> states:

*The Wright Judgment provides the District appropriative right to Basin water of 2,000 AFY. In addition, the District has the right to surplus waters, injected water, return flows, and rights transferred from private pumpers, which are identified in the Wright Judgment as Exchange Service and Augmented Service. As reported in the Tenth Annual Report, the District has provided 226.41 AF of Exchange Service and 324.77 AF of Augmented Service. As a conservative planning tool, the District has consistently reported to the Court and planned to utilize an entitlement of 2,350 AFY. This value is considered conservative and is used in this analysis as the District's annual appropriative right. The 2,350 does not include stored water from the District's conjunctive use program, which the District may also withdraw subject to SAFE restrictions.*

The WSA details GWD's compliance with the Wright judgment. This indicates that the 2,350 afa is a conservative groundwater supply value for planning purposes, which is why this value was used in the 2007 RDEIR hydrologic modeling. No conclusions were modified as a result of this comment.

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<sup>37</sup> Goleta Water District, 2008, Water Supply Assessment: City of Goleta Proposed Amended General Plan/Coastal Land Use Plan, dated May 22, 2008, page 10. [www.goletawater.com](http://www.goletawater.com).

The 2003 DEIR (page 4-28) states that the “GWD extracts approximately 2,350 afa of groundwater from the Goleta Basin. GWD estimates the safe yield of the basin is 3,410.” However, there is no reference to the adjudication in the 2003 DEIR.

The 2011 2<sup>nd</sup> RDEIR has been modified to note that the Goleta Basin is adjudicated to include the language from the WSA as noted above.

**Response 1-6:**

The commenter suggests that the 2003 DEIR understates the City of Santa Barbara's ability to pump groundwater during a critically dry period.

In the 2003 DEIR (Table 4-12) the available “local groundwater” supply was indicated to be 1,400 afa. This value was raised in the 2007 RDEIR to 4,150 afy (Table 4-18), reflecting the ability of the City of Santa Barbara to pump more water during a critical drought period. Input and model results were modified in the 2007 RDEIR (Stetson Technical Memorandum No. 5, Tables 16 and 18C), in part, as a result of this comment.

**Response 1-7:**

The comment suggests that the 2003 DEIR overstates that amount of State Water Project water that may be available during a drought and misapplies the Central Coast Water Authority drought buffer.

The commenter provided revised tables (Exhibit A item #39) to replace Tables 4-10 through 4-15 and 4-19 through 4-24 in the 2003 DEIR. The suggested replacement tables were used in the 2007 RDEIR as reflected in the “Draft Technical Memorandum No. 5 Hydrologic Impact Analysis of Possible Cachuma Operations Alternatives” Tables 18A through 18E. These updated values were used in the hydrologic modeling to estimate impacts in a manner consistent with CEQA requirements. Input and model results were modified (as noted in Draft Tech Memo No. 5), in part, as a result of this comment.

**Response 1-8:**

The commenter states that at page 4-36 of the 2003 DEIR, it is suggested that the City of Santa Barbara, Goleta Water District (GWD), and Montecito Water District (MWD) can address their deficits by buying water from ID No. 1 and Carpinteria (CVWD); but the commenter suggests that there is no surplus available to purchase.

In the 2003 DEIR (page 4-36) it is suggested that shortages would exist for City of Santa Barbara (6,003 af), GWD (1,015 af), and MWD (1,373 af), and that surpluses would exist for CVWD (1,008 acre-feet [af]) and ID No. 1 (5,443 af). In the 2007 RDEIR (page 4-24) using the revised Member Units water supply and demand values, it is indicated that (1) surpluses would exist at CVWD (2,895 acre-feet [af]) and the City

of Santa Barbara (534 af) and (2) shortages would exist at ID No. 1 (1,060 af), GWD (1,637 af), and MWD (2,219 af). Considering this information, the 2007 RDEIR concludes “MWD, GWD, and SYRWCD, ID#1 could make up for these shortages in part by buying water from other Member Units.”

SWRCB agrees that it is unlikely that all of the shortages could be made up, but some could. The 2011 2<sup>nd</sup> RDEIR does not consider Member Units buying water from each other.

**Response 1-9:**

The comment states that the 2003 DEIR inappropriately groups all of the Member Units' water supplies to come up with a bottom-line Water Supply impact analysis and that since the Member Units do not act as one public agency, there is no existing program to implement sharing of water during a severe drought.

Member Unit's supply and demand estimates in the 2003 DEIR are treated separately in Tables 4-10 through 4-14 of **Section 4.3.1**, as are customer deliveries (Table 4-15). These values were updated in the 2007 Revised Draft EIR. In order to perform the necessary hydrologic modeling it is necessary to consider natural supplies (e.g., rainfall, runoff, spring flow) as well as the interrelationship between all Cachuma and SWP supplies, and all Member Units' demands. These were analyzed collectively in the hydrologic model for the Santa Ynez River basin without consideration to the relationships between agencies.

As indicated in the 2003 DEIR (page 4-38), the hydrologic analysis assumed each Member Unit's share of both the water available from the Cachuma Project in a critical drought year and the amount of SWP supply claimed by each Member Unit was calculated by reducing each Member Unit's share pro rata in accordance with supplies claimed in Tables 4-10 through 4-14. This was not meant to indicate that the Member Unit's constitute an agency, but that there is an interrelationship between these supplies and Member Unit's demands that must be analyzed in order to assess the environmental impacts associated with the proposed actions.

**Response 1-10:**

The commenter suggests that no infrastructure, legal or physical, exists to actually deliver such water to the Member Units regardless of available amounts and therefore the 2003 DEIR's impact analysis using the aggregated water supplies skews the results.

Please see response to 2003 DEIR **Comment 1-9**.

In the 2003 DEIR there is no intent to indicate that delivery of water to and between Member Units would require new facilities or infrastructure. Under any alternative requiring new facilities (e.g., a new 10-inch diameter pipeline) the impacts (if any) were analyzed in the 2003 DEIR. Please see response to 2003 DEIR **Comment 1-8** with regard to buying surplus water.

**Response 1-11:**

The comment suggests that the statement on page 4-43 of the 2003 DEIR, that it may be possible for the Member Units to implement additional drought contingency measures in order to make up for temporary water supply shortage in a critical drought year under Alternatives 3A and 3B, is pure speculation.

Additional drought water supply contingency measures are identified as part of each Member Unit's Urban Water Management Plans water shortage contingency plan. This required contingency plan identifies a number of measures that can be used during a drought period, including building moratoria, water rationing, adjusting water rates, and instituting additional water conservation measures such as water use restrictions and prohibitions and public outreach campaign to help customers minimize water use. It is therefore reasonable to conclude that options exist to implement additional drought contingency measures where possible.

**Response 1-12:**

The commenter suggests that the three-year drought analysis in Table 4-25 is much more complicated than shown and provides a new Table 4-25 that provides suggested corrections to the existing table.

The SWRCB appreciates receiving the updated information. The new Table 4-25 (letter page 13) provided by the commenter was used in the 2007 RDEIR analysis with minor modifications as shown in Tables 4-25b (2007 RDEIR page 4-29), 19A and 19B (Draft Technical Memorandum No. 5, pages 31 and 32). The analysis of this information in the three-year drought analysis was a part of the overall detailed SYRHM hydrology analysis conducted and summarized in **Section 4** of the 2007 RDEIR. Input and model results were modified in the 2007 RDEIR, in part, as a result of this comment.

**Response 1-13:**

The comment states that the 2003 DEIR significantly misstates the volume of water required for fish releases under certain alternatives. The 2003 DEIR estimates the volume of water required to meet the Biological Opinion long-term release requirements to be 2,600 afy. The comment states that this amount is incorrect, and that not including spills and natural flows, the total annual water needed from Cachuma Reservoir to meet Alternative 3(a) rearing target flows in the Biological Opinion is 3,900 acre-feet on average for the model period 1918–1993 (76 years). The comment states that this amount does not include any releases from the 3,200 acre-feet Passage Account or 500 acre-feet Adaptive Management account, but this annual average figure does include the contributions from Order WR 89-18 water rights releases and leakage from the dam in the amounts of 1,220 and 500 acre-feet per year, respectively, in meeting rearing habitat target flows. The comment states that the conjunctive use of WR 89-18 water rights releases to meet target habitat flows has been incorporated into the Settlement Agreement.

The alternatives embody the Biological Opinion (BO) and the amount of water and flow requirements stated in the BO. Further, Alternative 3C, as updated in the 2011 2<sup>nd</sup> RDEIR, embodies the Settlement Agreement and specific flow and water requirements identified by downstream users to meet a variety of uses. The 2011 2<sup>nd</sup> RDEIR has been revised as necessary to make any technical corrections.

**Response 1-14:**

The comment states that the 2003 DEIR overestimates impacts to oak trees and incorrectly concludes that a Class I impact to oak trees would result.

The 2003 DEIR estimated that 247 oaks would be impact around Lake Cachuma with a 1.8 foot surcharge and 412 oak trees would be impacts by the full 3.0 foot surcharge. **Section 4.8.2.2, Impacts to Lakeshore Oak Trees** (page 4-114) of the 2003 DEIR clearly states that these numbers are an estimate. The conclusion that this impact would be a Class I significant, unmitigable impact was a conservation one based on the length of time (about ten years) required to replace the trees to a comparable size.

The 2007 Revised Draft EIR estimated that a total of 452 oak trees would be impacted with the implementation of a surcharge of 3.0 feet. When the surcharge was initially implemented in 2005, a subsequent survey found that 612 oaks had actually died as a result of the 2005 and 2006 surcharges, with an additional 263 oaks deemed at risk for failure. Mature oak trees are identified as significant resources by local, state, and federal authorities, recognizing that in many cases, an oak tree, which takes approximately 50 years to mature, represents an ecosystem in and of itself. There is a large temporal loss of habitat functions between the time when a mature oak is lost and a replacement tree reaches comparable size and function. Thus the loss of oaks remains a Class I significant, unmitigable impact.

In recognition of this impact, an Oak Restoration Management Plan was initiated in 2005, with the intention of planting sufficient replacement trees to meet the goal of a 2:1 ratio of self-sustaining reproducing oaks after 20 years. The mitigation plan was based on the agreement between COMB and Santa Barbara County as outlined in the 2004 EIR/EIS. As of 2010, a total of 1,881 oaks and associated understory plants have been installed at several locations within Reclamation's property (see discussion in **Section 4.8 Riparian and Lakeshore Vegetation**). Survival of these trees has been between 83 to 100 percent. As these trees continue to grow, the impact will be reduced to a Class II, significant but mitigable impact.

**Response 1-15:**

This comment states that the 2003 DEIR overestimates impacts when current and planned measures are included in the analysis.

As discussed in response to 2007 RDEIR **Comment 8-7**, updated information regarding boat ramp upgrades and the planned water treatment plant have been included in the 2011 2<sup>nd</sup> RDEIR. Subsequently, the 2011 2<sup>nd</sup> RDEIR has also been updated to reflect the reduced impact associated with these facilities. Impacts are now considered less than significant (Class III) as presented in the 2011 2<sup>nd</sup> RDEIR.

**Response 1-16:**

The comment states that Alternative 3A allegedly incorporates water release requirements under Order WR 89-18, releases to meet long-term rearing and passage target flows under the Biological Opinion, and other steelhead conservation actions described in the Biological Opinion, however, the alternative is so poorly defined that it is impossible for a 2003 DEIR reviewer to understand potential impacts that may result from this alternative if selected and implemented.

See response to 2007 RDEIR **Comment 1-1**.

**Response 1-17:**

The comment states that, in view of the Settlement Agreement entered into by the Member Units and downstream interests, Alternatives 4A and 4B Aare not required.

Alternative 4A was dropped from consideration as part of the review in the 2007 RDEIR. Alternative 4B continues to provide for an alternative that explores a wide range of options for the SWRCB to consider. The feasibility of Alternative 4B is discussed in the 2011 2<sup>nd</sup> RDEIR and the fact the voters on the Lompoc Plain have rejected participation in SWP infrastructure is noted.

**Response 1-18:**

The additional technical comments identified have been incorporated into the 2011 2<sup>nd</sup> RDEIR as appropriate.



State of California - The Resources Agency

GRAY DAVIS, *Governor*

**DEPARTMENT OF FISH AND GAME**

http://www.dfg.ca.gov  
4949 Viewridge Avenue  
San Diego, CA 92123  
(858) 467-4201



October 7, 2003



**BY FACSIMILE AND U.S. MAIL**

Mr. Andrew Fecko  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812-2000  
Fax No.: (916) 341-5400

**Draft Environmental Impact Report for the Consideration of Modifications to the  
Bureau of Reclamation's Water Right Permits 11308 and 11310  
SCH # 2003081074, Santa Barbara County**

Dear Mr. Fecko:

The Department of Fish and Game (Department), has reviewed the above referenced Draft Environmental Impact Report (DEIR) for impacts to biological resources. The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Guidelines §15386) and pursuant to our authority as a Responsible Agency (CEQA Guidelines §15381) over those aspects of the proposed project that come under the purview of the Fish and Game Code Section 1600 et seq. In addition we are incorporating, by reference, comments submitted to the Cachuma Operation & Maintenance Board, dated September 30, 2003 (attached) to address issues involving Alternatives 3B and 3C (Loss of Oak Woodland Resulting From Cachuma Lake Surcharging).

The proposed project consists of potential modifications to the U.S. Bureau of Reclamation's (Reclamation) water right permits for the Cachuma Project (Order WR 94-5) to provide appropriate protection of downstream water rights and public trust resources on the Santa Ynez River. The Cachuma Project provides water to Cachuma Project Member Units for irrigation, domestic, municipal and industrial uses. Member Units consist of the City of Santa Barbara, Goleta Water District, Montecito Water District, Carpinteria Valley Water District, and the Santa Ynez River Water Conservation District. Permit conditions require Reclamation to release enough water to satisfy downstream users with senior rights to surface water and to maintain percolation of water from the stream channel, and not reduce natural recharge of

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groundwater from the Santa Ynez River. Potential adverse impacts from the project include, but are not limited to, the loss of oak woodland along the margin of Cachuma Lake, changes in riparian vegetation along the Santa Ynez River, and disruption of breeding bird behavior. Wildlife with the potential to be impacted by the project includes a long list of State and Federally listed and otherwise sensitive species of plants, animals, and communities, including the Federally Endangered southern steelhead (*Oncorhynchus mykiss*), the Federal and State Endangered southwestern willow flycatcher (*Empidonax traillii extimus*), the Federally Threatened and State Species of Special Concern California red-legged frog (*Rana aurora draytonii*), the State Species of Special Concern southwestern pond turtle (*Clemmys marmorata pallida*) and two-striped garter snake (*thamnophis hammondi*).

### Project Scope

The DEIR describes public trust resources for this project on page 3-4 of the document. This description limits the scope of the project to those resources found only at Cachuma Lake or downstream of Bradbury Dam. The SWRCB clarified the scope of the Cachuma Project water right hearing by reiterating that key issue 4a asks what terms, conditions, or recommendations contained in the Biological Opinion, if any, should be incorporated into Reclamation's permits (Letter from Peter Silva to Cachuma Hearing Service List, dated May 29, 2003). Since the Biological Opinion includes a conservation recommendation that Reclamation study effective passage for steelhead to spawning and rearing habitat upstream of Bradbury Dam, the SWRCB declared that it will allow parties to present evidence concerning whether Reclamation's permits should be modified to address impacts of Cachuma Project operations to public trust resources above Bradbury Dam, including evidence concerning requirements that would apply above the dam.

Based on the migratory nature of Steelhead Trout (SH), and the life cycle and habitat requirements of other aquatic and riparian species within the Santa Ynez river drainages the Department feels the DEIR should expand the area of project impact to include all fish and wildlife resources affected by the project. This area of impact would include the upper portion of the watershed as well as the lake and below the dam to the mouth.

2-1

Furthermore, the SWRCB has not defined what constitutes protection of public trust resources. The Department requested this clarification at the Pre-hearing Conference on May 13, 2003, and the Hearing Officer stated that the SWRCB would do this. Without this clear definition, the DEIR lacks the basis for making any determination as to whether or not any of the alternatives meet the stated objective of protection of public trust resources.

2-2

### Impacts to Southern Steelhead

Gibraltar Dam, completed in 1920, blocked access to much of the steelhead spawning habitat of the river and the Cachuma Project, including Bradbury Dam, completed in 1953, eliminated access to nearly all historic spawning and rearing habitat (McEwan and Jackson 1996).

The remaining steelhead spawning and rearing habitat is reduced to approximately 10 miles of the mainstem Santa Ynez River and some habitat in tributaries below Bradbury Dam. Prior to the construction of Bradbury Dam both the U.S. Fish and Wildlife Service and the Department recommended that sufficient water be released below the dam to provide migration, spawning, and rearing flows for steelhead. In addition, trapping and holding facilities were recommended for salvage of adult steelhead migrating as far as the dam. However, these two recommendations were not included in the project because the water releases required to maintain a steelhead run would amount to about 33% of the firm yield and would impact the full allotments for domestic and irrigation purposes (CDFG 1975).

The Department's Steelhead Restoration and Management Plan for California (McEwan and Jackson 1996) affirms that the two most important long-term restoration recommendations for steelhead on the Santa Ynez River are: 1) a permanent flow regime from Bradbury Dam to restore the steelhead resource to a reasonable level and maintain it in good condition, and 2) to initiate a feasibility study for providing adult and juvenile passage around Bradbury Dam, followed by implementation of the recommendations accordingly. Nearly all historic spawning and rearing habitat is located upstream of Bradbury Dam, therefore blocked access is probably the most significant limiting factor for steelhead.

The pre-project mitigation recommendations and the 1996 restoration recommendations have not been adequately pursued and as a result steelhead in the Santa Ynez watershed have been nearly extirpated (CDFG 1975, McEwan and Jackson 1996). A consequence of this inaction and similar conditions in other southern California watersheds is the 1997 listing of southern steelhead as endangered under the federal Endangered Species Act (ESA). A result of this listing had been the development of the aforementioned Biological Opinion for the Cachuma Project and the definition of an ESU (Evolutionarily Significant Unit) for the species. The reference to the "ESU" should be deleted throughout the document since it refers to a distinct population segment that occurs over a much larger geographic area; not just the Santa Ynez River.

The effect of different downstream flow regimes under the various alternatives is described by Entrix (2000b) and is used in this DEIR. The reference for Entrix is not listed in the Reference section of the DEIR. This analysis uses a scoring system that assigns a higher score for flows that are more likely to provide more habitat and a lower score for flows that are likely to provide less habitat. The underlying assumption is that more habitat is better for steelhead. The DEIR should clarify how specific steelhead habitat attributes (e.g., water temperature, depth, velocity) would vary as a function of flow to demonstrate that steelhead and their habitat are

2-3

2-4

2-5

protected by the proposed flow regime. Otherwise, the assumption that more habitat is equivalent to better habitat is not supported. In addition, the analysis relies on the jeopardy standard used in the biological opinion.

2-5

The analysis for fish passage in the lower reach uses a criterion of 25 cfs at the Alisal Road Bridge. It states that this is sufficient flow to pass critical riffles between the dam and the lagoon 92% of the time. Therefore, for suitable access to mainstem and tributary spawning habitat, there must be a sufficient number of days with flow at the Alisal Road Bridge greater than or equal to 25 cfs. The NMFS Biological Opinion states that 25 cfs is a minimum flow for passage (at 8 feet of contiguous wetted channel and ½ foot of depth), but does not provide “water depth and width that produce good migration habitat” (NMFS 2000).

The number of passage days used in the analysis is 14. Reclamation proposed in its biological assessment to supplement storm flows to ensure that there are approximately 14 days for migration. The statement in the DEIR that “NMFS considered 14 days of passage in a particular year to be an adequate passage opportunity (NMFS 2000), and therefore this was given a score of 5 (Table 4-41)” is inaccurate. The conclusion NMFS made was based on Reclamation’s modeling results which showed that supplemental flows to assist steelhead migration would be applied in approximately 24% of the years and would double the amount of normal years when 14 or more consecutive days of migration would be available. The 14 days of fish passage is not per year, but per storm event in a given year. The Biological Opinion stated that based on the limited information available, 14 days of consecutive migration availability is likely to significantly increase successful migration by steelhead compared to recent operating conditions. However, migration opportunity below the dam will continue to be reduced over the life of the project when compared to natural conditions associated with the larger historic steelhead population in the Santa Ynez River. Therefore, a flow of 25 cfs for 14 or more days per storm event should be considered a minimum criterion for fish passage and should be scored in the lower end of the range, not at the highest.

2-6

The Highway 154 reach was selected as the index location for spawning and rearing habitat. The spawning flows range from 0 cfs (score = 0) to >30 cfs (score = 5). NMFS concluded that supplemental flows for migration may increase spawning habitat, but because of a lack of data, NMFS could not conclude that spawning habitat could be increased or decreased. Regardless of NMFS findings, the DEIR concludes that the alternatives would result in beneficial impacts (Page 4-100). The relationship between flow and spawning habitat quantity and quality needs to be determined.

2-7

The minimum long-term flow used in the biological assessment and Biological Opinion is 2.5 cfs and this flow is given a score of 3, middle of the scoring range. The Biological Opinion

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notes that flows between 0 and 2.5 cfs result in lethal dissolved oxygen levels and water temperatures. Therefore, as a minimum flow this should have been scored at the lowest end of the range.

The method of analysis and scoring system used in the DEIR is based on flow standards and location criteria that are scored too high given the information provided in the Biological Opinion. For the purpose of comparing the alternatives in the DEIR, the inflated results shouldn't make any difference (page 4-100 and 101). However, to determine whether or not any of the alternatives protect steelhead a comparison should be made between the proposed alternatives and pre-dam conditions.

2-8

#### **Impacts to Riparian Zones and Southwestern Willow Flycatcher from Downstream Releases**

Water releases from Cachuma Lake via Bradbury Dam to enhance fish passage in the Santa Ynez River are considered, on page 4-132 of the DEIR, a beneficial impact to aquatic and terrestrial wildlife between the dam and the Alisal Road Bridge in Solvang. The Department has reservations about the depiction of this impact as beneficial.

2-9

One benefit identified in the DEIR of downstream releases could be to "... increase the vigor and extent of wetland and riparian vegetation along the river to Alisal Bridge." The Santa Barbara County Flood Control District (SBCFCD) implements a Routine Maintenance Plan which includes the Santa Ynez River and the removal or reduction of riparian vegetation in areas where it constitutes a threat of flooding. Any increase in vigor and extent of riparian vegetation in the Santa Ynez River above Alisal Bridge may therefore lead to initiation or intensification of riparian vegetation management by SBCFCD. This would constitute a foreseeable indirect effect of the proposed project as defined in CEQA Guidelines §15064(d), and as such should receive analysis in the DEIR to determine if the effect would be adverse.

2-10

Southwestern willow flycatchers (SWF) are known to nest in areas along the Lower Santa Ynez River which have potential to be affected by the proposed project. As stated on page 4-133 of the DEIR, "Releases from the ANA and BNA to recharge downstream groundwater basins have the potential to adversely affect willow flycatcher nesting." SWF sometimes build nests in vegetation growing directly over the river channel, sometimes as close as 0.5-1m above the surface of the water. A rise in water levels as little as 0.5m could therefore result in the destruction of occupied SWF nests. Although the DEIR does not anticipate an increase in flows along the reaches of river where SWF are known to nest, it was not clear to us how proposed releases might combine with natural flows to produce a rise in river water levels which could impact nesting SWF. An analysis of this issue should be included in the Sensitive Wildlife Species section of the DEIR. One method for avoiding possible negative impacts to nesting SWF would be to end water releases prior to May 20<sup>th</sup> of each year.

2-11

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### Streambed Alteration Permitting

This project will require issuance of a Streambed Alteration Agreement (SAA), under Section 1600, et seq. of the California Fish and Game Code prior to commencing work. You may call our South Coast Regional office at (858) 636-3160 to initiate the 1600 process. You may also obtain a Notification package for an SAA online by visiting the Department's website at <http://www.dfg.ca.gov/1600/1600.html>. The Department emphasizes that in order to protect sensitive resources, substantial revisions to the proposed project may be required in the SAA.

2-12

### Proposed Alternatives

The DEIR, rather than describing one project and presenting alternatives, describes seven alternatives, without presenting any one alternative as the preferred project. Each alternative would result in at least one significant, unmitigable impact (Class I). The environmentally superior alternative, Alternative 3A, has the fewest environmental impacts, and the fewest Class I impacts. CEQA Guidelines §15021(a)(2) establishes a duty for public agencies to not approve a project if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects the project would have on the environment.

2-13

However, the DEIR limits the range of alternatives to those that address downstream water rights and public trust resources on the Santa Ynez River downstream of Bradbury Dam (Page 3-1). It does not include any alternatives that take into consideration the upstream public trust resources and none of the alternatives take into consideration the recommendations contained in the Biological Opinion and Fish Management Plan (FMP) for evaluation of fish passage at Bradbury Dam. The DEIR does not contain a range of reasonable alternatives that would satisfy the stated objective of protection of public trust resources.

All of the alternatives go no further than the flow related measures contained in the Biological Opinion. The jeopardy standard used in an ESA Section 7 consultation is not necessarily equivalent to the SWRCB responsibility to protect public trust resources. Jeopardy is defined as any action that would appreciably reduce the likelihood of both the survival and recovery of a listed species in the wild by reducing species reproduction, number or distribution (50 CFR § 402.02). The impacts of the alternatives on surface water hydrology are based on "target flows." The comparisons between the alternatives are based on the frequency of occurrence assuming these target flows are achieved. The DEIR should make this distinction clear.

2-14

The DEIR should include a comparison of the predicted surface water hydrology (using SYRHM) under Alternative 2 (current conditions) to actual surface water hydrology since September 2000 when the Biological Opinion was issued. This illustrates the value of the Santa

2-15

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2-15

Ynez River Hydrologic Model (SYRHM) and the potential differences between predicted and actual hydrology. Providing this information would assist the SWRCB and trustee agencies in determining whether or not the protection of public trust resources is likely to occur under the various alternatives.

Thank you for this opportunity to provide comment. Should you have questions regarding this letter, please contact Ms. Mary Larson, Senior Biologist Specialist, at (562) 342-7186 for steelhead issues, and Mr. Martin Potter, Environmental Scientist at (805) 640-3677 for all other issues.

Sincerely,



C. F. Raysbrook  
Regional Manager

**Attachment**

cc: MPotter; MWehtje; NLOhmus; MCardenas; Mary Larson; Scott Morgan-SCH;  
Larry Week-NAFWB; Katie Perry-NAFWB; Harlee Branch-Gen'l Counsel office;  
CFR-Chron; HCP-Chron

*mwehtje\SWRCB\_SantaYnezRiver\_EIR.doc*

**References:**

California Department of Fish and Game. 1975. An assessment of federal water projects adversely affecting California's salmon and steelhead resources. Report. Series mandated by the Calif. State Legislature under Senate Concurrent Resolution No. 64. Rpt. No. 4, Cachuma Project. 4pp.

McEwan, D. and T. A. Jackson. 1996. Steelhead Restoration and Management Plan for California. California Department of Fish and Game.

National Marine Fisheries Service 2000. Biological Opinion issued to the U. S. Bureau of Reclamation for operation and maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California. Dated September 11, 2000.



**DEPARTMENT OF FISH AND GAME**

http://www.dfg.ca.gov  
4949 Viewridge Avenue  
San Diego, CA 92123  
(858) 467-4201



September 30, 2003

**BY FACSIMILE AND U.S. MAIL**

Ms. Kate Rees, Project Manager  
Cachuma Operation & Maintenance Board  
3301 Laurel Canyon Road  
Santa Barbara, CA 93105  
Fax No.: 805-569-5825

**Draft Environmental Impact Report for  
The Lower Santa Ynez River Fish Management Plan and  
Cachuma Project Biological Opinion for Southern Steelhead Trout  
SCH # 2003071160, Santa Barbara County**

Dear Ms. Rees:

The Department of Fish and Game (Department) has reviewed the Draft Environmental Impact Report (DEIR) for impacts to biological resources. The Cachuma Operation & Maintenance Board (COMB) proposes several management actions and projects to improve habitat conditions for the Federally Endangered southern steelhead (*Oncorhynchus mykiss*) and other aquatic species on the Santa Ynez River downstream of Bradbury Dam, in accordance with the Lower Santa Ynez River Fish Management Plan (FMP) and Cachuma Project Biological Opinion (BO). In addition to steelhead, wildlife with the potential to be impacted by the projects includes a long list of State and Federally listed and otherwise sensitive species of plants, animals, and communities, including the Federal and State Endangered southwestern willow flycatcher (*Empidonax traillii extimus*), the Federally Threatened and State Protected and Species of Special Concern California red-legged frog (*Rana aurora draytonii*), and the State Protected and Species of Special Concern southwestern pond turtle (*Clemmys marmorata pallida*) and two-striped garter snake (*thamnophis hammondi*).

The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Guidelines §15386) and pursuant to our authority as a Responsible Agency (CEQA Guidelines §15381) over those aspects of the proposed project that come under the purview of the Fish and Game Code Section 1600 et seq.:

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 of other habitat restoration actions that will further enhance the watershed and aid in the restoration of the steelhead population.

As a Program EIR, the DEIR describes some proposed actions and activities which do not contain a thorough analysis of impacts to sensitive species (e.g., California red-legged frog).

The Department therefore assumes COMB will produce appropriate environmental documents in the future to address these issues, in accordance with the requirements for Program EIRs outlined in CEQA Guidelines §15168(c).

In addition, the DEIR overlaps with the DEIR recently released by the State Water Resources Control Board (SWRCB) that considers modifications to the U.S. Bureau of Reclamation's water right permits to protect public trust values and downstream water rights on the Santa Ynez River below Bradbury Dam. The upcoming water rights hearings, scheduled to begin on October 21, 2003, may result in changes to the amount and timing of water releases. Therefore, the range of alternatives evaluated in this DEIR would be expected to change. The Department recommends that the final EIR be delayed until after the SWRCB certifies its final EIR and that it incorporate any revisions to the USBR water right permits and any required fish habitat enhancement measures.

#### **Loss of Oak Woodland Resulting From Cachuma Lake Surcharging**

The proposed additional Cachuma Lake surcharging (to support releases under the Fish MOU) will result in the gradual inundation and loss of 24.1 acres of oak woodland along the margins of the lake. The Oak Tree Restoration Program (OTRP) proposed to mitigate this loss involves oak tree replacement at an initial replacement ratio of 3 replacement trees for every tree lost (3:1), and a final ratio (after ten years) of 2 mature replacement trees for every tree lost (2:1).

The DEIR estimates 452 oak trees would be lost as the result of inundation of the root zone from lake surcharging. One thousand, three hundred, fifty-two replacement trees would be planted initially (3:1), and monitored to assure long-term survival of 904 trees (2:1). The 3:1 initial planting ratio was derived from the observed oak tree mortality rate of about 33% during recent oak tree planting efforts at the Cachuma Lake County Park. About 78% of the trees (1,054) would be planted at the Park, identified as having areas in need of oak tree restoration. No sites were identified for planting the remaining 298 replacement trees. About two-thirds of the 1,054 Park replacement trees would be planted in areas of low oak-tree density (1-12 trees per acre), with the remainder planted in moderate density (2-24 trees per acre) and high density (> 25 trees per acre) areas.

Mitigation measure OK-1, on page 6-23 of the DEIR, states the OTRP would be designed to create new oak woodlands and enhance existing oak woodland in the Park. However, the description of the OTRP in the DEIR is limited to only discussing oak tree planting. The Department considers the oak woodland around the lake lost as a result of the proposed project to have biological value beyond the individual trees. This value includes oak woodland understory vegetation of native shrubs and grasses. Oak woodland restoration therefore should include oak trees and understory species planted in appropriate soils and spaced appropriately, primarily in the low oak-tree density areas of the Park. We recommend the Department be given the opportunity to provide input and review the OTRP prior to its implementation. The OTRP should also be consistent with CEQA Guidelines §15126.4 (D) which requires discussion of significant effects caused by mitigation measures. Analysis of the location(s) of the OTRP sites is needed to determine if a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project. For example, new woodland areas proposed in the OTRP may impact other habitats (such as grasslands).

We also are concerned with the lack of identification of oak tree replacement planting sites to accommodate all 1,352 proposed replacement trees. Because the Park has adequate space for 1,054 trees, and the target number of trees after 10 years is 904, we recommend the

2-16

2-17

OTRP include measures for nurturing oak trees to increase their survival rate beyond 66% (such as supplemental watering). We also recommend replacement trees that die be re-planted and monitored for 10 years to assure the target final mitigation ratio of 2:1. This would allow all replacement planting to occur in the Park and eliminate the need to find additional sites at some future time.

#### **Hilton Creek Channel Extension**

This action would improve habitat for steelhead and was presented in the DEIR at a programmatic level. We acknowledge, as stated on page 10-85 of the DEIR, the intention to produce a supplemental environmental report at some future date to address impacts resulting from this action, prior to its implementation.

The preliminary preferred alignment (Alternative B in the FMP) for the channel extension would result in the loss of an unknown amount of dense riparian forest. As stated on page D-3-10 of the Hilton Creek Enhancement Report (Appendix D of the FMP), "...trees adjacent to the proposed alignment support a heron rookery." The potential impact to this rookery was not discussed in the DEIR, and the supplemental document will have to address this and other potential significant effects, as required by CEQA Guidelines §15064(d).

#### **Impacts to Riparian Zones and Southwestern Willow Flycatcher from Downstream Releases**

Water releases from Cachuma Lake via Bradbury Dam to enhance fish passage in the Santa Ynez River are proposed to occur during the period January to May, according to page 2-18 of the DEIR. COMB considers this, on page 5-72 of the DEIR, a beneficial impact to sensitive aquatic and terrestrial wildlife between the dam and the Alisal Road Bridge in Solvang (the DEIR anticipates that flow rates from proposed project releases will diminish with distance from the dam, and flow rates below Alisal Road will not be above the current condition.) The Department has reservations about the depiction of this impact as beneficial.

One benefit identified in the DEIR of downstream releases could be to "...increase the vigor and extent of wetland and riparian vegetation along the river to Alisal Bridge." The Santa Barbara County Flood Control District (SBCFCD) implements a Routine Maintenance Plan which includes the Santa Ynez River and the removal or reduction of riparian vegetation in areas where it constitutes a threat of flooding. Any increase in vigor and extent of riparian vegetation in the Santa Ynez River above Alisal Bridge may therefore lead to initiation or intensification of riparian vegetation management by SBCFCD. This would constitute a foreseeable indirect effect of the proposed project as defined in CEQA Guidelines §15064(d), and as such should receive analysis in the DEIR to determine if the effect would be adverse.

Southwestern willow flycatchers (SWF) are known to nest in areas along the Lower Santa Ynez River which have potential to be affected by the proposed project. SWF sometimes build nests in vegetation growing directly over the river channel, sometimes as close as 0.5-1m above the surface of the water. A rise in water levels as little as 0.5m could therefore result in the destruction of occupied SWF nests. Although the DEIR does not anticipate an increase in flows along the reaches of river where SWF are known to nest, it was not clear to us how proposed releases might combine with natural flows to produce a rise in river water levels which could impact nesting SWF. An analysis of this issue should be included in the Sensitive Wildlife Species section of the DEIR. One method for avoiding possible negative impacts to nesting SWF would be to end water releases prior to May 20<sup>th</sup> of each year.

### Impacts to California Red-Legged Frog

California red-legged frog (*Rana aurora draytonii*) - The California red-legged frog (CRLF) is listed as threatened by the U.S. Fish and Wildlife Service (USFWS). The CRLF also is listed as a Protected Amphibian by the Department (Title 14 CCR, § 41). The project site is within the USFWS established range for CLRF. At this time the Department does not have descriptions of proposed fish passage enhancement projects or other proposed projects on tributaries of the Lower Santa Ynez River which may impact CRLF. We will therefore address the proposed project mitigation measures in a generic form with the understanding that as details become available in subsequent environmental documents, the Department biologist will develop specific mitigation measures for each.

In general, where impacts to CRLF are likely, mitigation and avoidance measures should include:

1. At least 15 days prior to the onset of activities, the applicant shall submit the name(s) and credentials of the biologist who will conduct activities specific to the following measures. Project activities will not begin until COMB has received approval from the Department to conduct work.
2. Two weeks prior to any activities, a Department-approved biologist shall survey the work site(s) according to USFWS protocols. If CRLF adults, tadpoles, or eggs are found, the approved biologist shall contact the Department. Only approved biologists are authorized to capture, handle, and monitor CRLF.
3. COMB will implement best management practices as defined by the Regional Water Quality Control Board (San Luis Obispo Office).
4. To prevent access of adult CRLF to the work site(s), silt fencing will be placed along the perimeter of the work site(s). The silt fencing will be keyed into the ground approximately six inches. If screening the streamflow is required, the mesh size will be no larger than 0.2 inches (largest dimension). If CRLF tadpoles are identified upstream and in proximity of the work site(s), the angle of the screen to the streamflow will be such that water velocities will not impinge tadpoles onto the screen. To minimize screen failure, screens will be cleaned as required. COMB will notify the Department Biologist at telephone number 805.640.1852 prior to construction activities.
5. If stream flows require screens to prevent fish passage, screens shall be constructed such that CRLF tadpoles will not become impinged on screen surfaces.

### Upper Basin Alternatives

The description and evaluation of fish passage alternatives is cursory and may lead to false conclusions. Although achieving passage at Bradbury Dam is filled with challenges, providing passage at Bradbury will overcome "probably the most significant limiting factor for steelhead" in the basin (McEwan and Jackson 1996). With such a severity of need, these challenges should not be viewed as insurmountable obstacles. The DEIR does not adequately evaluate the actions in terms of benefits to the steelhead population. Furthermore, these sections of the DEIR did not include the full suite of passage options for consideration. Lastly, the Institutional Concerns sections presume inflexibility on the part of the agencies that may not exist as specific alternatives are advanced in a credible process. Also note that Figure 10-1 (referenced on page 10-93) is not included in Appendix A or in the List of Figures.

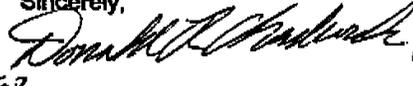
Ms. Kate Rees  
September 30, 2003  
Page 5 of 5

**Streambed Alteration Permitting**

These projects will require issuance of Streambed Alteration Agreements (SAA), under Section 1600, et seq. of the California Fish and Game Code prior to commencing work. You may call our South Coast Regional office at (858) 636-3160 to initiate the 1600 process. You may also obtain a Notification package for an SAA online by visiting the Department's website at <http://www.dfg.ca.gov/1600/1600.html>. The Department emphasizes that in order to protect sensitive resources, substantial revisions to the proposed project may be required in the SAA.

Thank you for this opportunity to provide comment. Should you have questions regarding this letter, please contact Ms. Mary Larson, Senior Biologist Specialist, at (562) 342-7186 for steelhead issues, and Mr. Maurice Cardenas, Fisheries Biologist, at (805) 640-1852 for all other matters.

Sincerely,

  
FOR  
C. F. Raysbrook  
Regional Manager

cc: Mr. Martin Potter, Ojai  
Ms. Morgan Wehtje, Camarillo  
Ms. Natasha Lohmus, Santa Barbara  
Mr. Maurice Cardenas, Santa Barbara  
Ms. Mary Larson, Los Alamitos  
CFR-Chron; HCP-Chron  
Department of Fish and Game - South Coast Region

Mr. Scott Morgan  
State Clearinghouse, Sacramento

Mr. Larry Week  
Department of Fish and Game - NAFWB

Mr. Harlee Branch  
Department of Fish and Game - Legal Office

sl  
Corresp\_HQ/LowerSantaYnez\_fishmgmplanEIR\_9-03

**2. California Department of Fish and Game, dated October 7, 2003**

**Response 2-1:**

The comment states that the Department of Fish and Game feels the 2003 DEIR should expand the potential project impacts to include all fish and wildlife resources affected by the project, including the upper portion of the watershed as well as the lake and below the dam to the mouth because of the migratory nature of steelhead within the Santa Ynez River drainages.

Based on the project description, the area of potential impact is Lake Cachuma, Bradbury Dam, and the Santa Ynez River downstream of the dam. Upstream portions of the river above the dam, where public trust resources also occur, were outside the scope of the project and thus consideration of these upper river resources were not included in the scoring analysis. The purpose of the EIR is not to evaluate the impacts of the Cachuma Project on the fishery (including the impact of the dam and reservoir on fish passage) and develop measures to mitigate those impacts (such as fish ladders, trap and haul, etc.). That was the purpose of the public trust hearing. The purpose of the EIR is to evaluate any incidental environmental impacts of the public trust measures proposed during the hearing. The hearing record doesn't support the imposition of passage requirements at the present time. Instead, NMFS and DFG recommended that the feasibility of passage should be studied. Conducting a study of the feasibility of providing for passage, by itself, will not have an environmental impact, and therefore it was not necessary to evaluate the potential impacts of such a study in the EIR.

**Response 2-2:**

The comment states that the SWRCB has not defined what constitutes protection of public trust resources in the 2003 DEIR.

The project objectives are listed in **Section 3.1.1 Description of the Proposed Project** of the 2011 2<sup>nd</sup> RDEIR. These objectives include:

- Protecting public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, taking into consideration: (1) the water supply impacts of measures designed to protect public trust resources, and (2) the extent to which any water supply impacts can be minimized through the implementation of water conservation measures;
- Protecting senior water right holders from injury due to changes in water quality resulting from operation of the Cachuma Project, including water quality effects in the Lompoc Plains groundwater basin that impair any senior water right holder's ability to beneficially use water under prior rights; and
- Protecting senior water right holders from injury due to a reduction in the quantity of water available to serve prior rights.

The 2011 2<sup>nd</sup> RDEIR (**Section 3.1.3**) describes the public trust resources in the area of the Cachuma project. Not all public trust resources, however, are susceptible to impacts from the project under consideration here. See response to **Comment 2-1**, above.

**Response 2-3:**

The comment states that the term “ESU” should be deleted throughout the 2003 DEIR since it refers to a distinct population segment that occurs over a much larger geographic area; not just the Santa Ynez River.

The reference to the Southern Evolutionarily Significant Unit (ESU) of *Oncorhynchus mykiss*, the anadromous form of southern steelhead is not used incorrectly in the 2003 DEIR, which refers to the larger ESU population that extends beyond the Santa Ynez River area. It is this larger population of *O. mykiss* that was designated as endangered by NMFS in 1997. It is acknowledged that the Santa Ynez River population of anadromous *O. mykiss* does not constitute the entire genetic range Southern ESU populations.

**Response 2-4:**

The comment states that the 2003 DEIR uses the effect of different downstream flow regimes under the various alternatives as described by ENTRIX (2000b), but that reference is not listed in the **Reference Section** of this 2003 DEIR.

The reference to ENTRIX 2000b was an oversight. The correct reference is cited as follows:

Santa Ynez River Technical Advisory Committee (SYRTAC). 2000a. *Lower Santa Ynez River Fish Management Plan*. Volumes I and II. Prepared for the Santa Ynez River Consensus Committee, Santa Barbara, California. Final Report. October 2, 2000.

Note that ENTRIX provided technical support to SYRTAC in the preparation of the Fish Management Plan.

**Response 2-5:**

The comment states that the scoring system used to analysis habitat values should clarify how specific steelhead habitat attributes (e.g., water temperature, depth, velocity) would vary as a function of flow.

The 2000 Fish Management Report included in the 2003 DEIR **Section 2.4 Habitat Conditions** describes both the habitat attributes that affect fish populations and the existing habitat attributes of the various habitat locations within the lower Santa Ynez River system. The commenter is referred to this technical appendix to the 2003 DEIR.

**Response 2-6:**

The comment states that use of 14 as the number of passage days used in the analysis inaccurately reflects NMFS's conclusions.

This comment references the scoring criteria used to analyze potential impacts of the Alternatives proposed in the 2003 DEIR and the 2007 RDEIR. Text in 2003 DEIR **Section 4.7.2.3 Impacts on Southern California *O. mykiss* along the River** originally misquoted NMFS in stating that NMFS considered 14 days of passage in a particular year to provide the minimum adequate passage opportunities for *O. mykiss*. This has been corrected in the 2011 2<sup>nd</sup> RDEIR to state that 14 days is the minimum passage to be considered adequate in a particular storm event.

**Response 2-7:**

The comment states that the 2003 DEIR concludes that the alternatives would result in beneficial impacts (page 4-100). The comment recommends that the relationship between flow and spawning habitat quantity and quality be determined.

A description of spawning habitat is provided in the 2007 RDEIR **Spawning and Rearing Habitat** subheading of **Section 4.7.2.3 Impacts on Southern California *O. mykiss* along the River**. Reference to flows and habitat quality is included in the description.

**Response 2-8:**

The comment states that the method of analysis and scoring system used in the 2003 DEIR is based on flow standards and location criteria that are scored too high given the information provided in NMFS's Biological Opinion. The comment also recommends that to determine whether or not any of the alternatives would protect steelhead a comparison should be made between the proposed alternatives and pre-dam conditions.

Please see response to 2007 RDEIR **Comment 11-5**.

**Response 2-9:**

The comment states that the 2003 DEIR considers water releases from Cachuma Lake via Bradbury Dam to enhance fish passage in the Santa Ynez River as a beneficial impact to aquatic and terrestrial wildlife between the Bradbury Dam and the Alisal Road Bridge in Solvang, and that the Department has reservations about the depiction of this impact as beneficial.

Please see response to 2007 RDEIR **Comment 11-6**.

**Response 2-10:**

The comments states that any increase in the vigor and extent of riparian vegetation in the Santa Ynez River above Alisal Bridge would constitute a foreseeable indirect effect of the proposed project as defined in *CEQA Guidelines* Section 15064(d) because the increased riparian vegetation may require the Santa Barbara County Flood Control District to initiate or intensify a riparian vegetation management program, and as such should receive analysis in the 2003 DEIR to determine if the effect would be adverse.

While it is correct that the Santa Barbara County Flood Control District (SBCFCD) may implement a riparian vegetation management program where there is a threat of flooding along the Santa Ynez River, it is speculative to know where riparian vegetation may increase to the stage where SBCFCD would require a riparian vegetation removal program and to what extent that removal may impact *O. mykiss* and other sensitive wildlife species.

**Response 2-11:**

The comment states that an increase in flows along the reaches of river where southwestern willow flycatcher are known to nest could impact nesting of this species and recommends that an analysis of this issue should be included in the Sensitive Wildlife Species section of the 2003 DEIR.

An analysis of potential impacts to southwestern willow flycatcher was included in **Section 4.9.1.2 Sensitive Bird Species** of the 2007 RDEIR to address this comment. In addition Mitigation Measure WL-1 is proposed to reduce any potential impact to less than significant.

**Response 2-12:**

The comment states that this project requires a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, prior to any direct or indirect impact to a lake or streambed, bank or channel or associated riparian resources.

Please see response to 2007 RDEIR **Comment 11-7**.

**Response 2-13:**

The comment states that the 2003 DEIR limits the range of alternatives to those that address downstream water rights and public trust resources on the Santa Ynez River downstream of Bradbury Dam. The comment also states that none of the alternatives take into consideration upstream public trust resources or the recommendations in the BO and Fish Management Plan for evaluation of fish passage at Bradbury Dam.

The 2011 2<sup>nd</sup> RDEIR includes a broad range of alternatives. See response to 2007 RDEIR **Comment 1-3**, and 2003 DEIR **Comment 2-1**.

**Response 2-14:**

The comment suggests that the impacts of, and comparisons amongst, the alternatives considering surface water hydrology are based on “target flows” and the 2003 DEIR should make it clear that the Draft EIR assumes these target flows are achieved.

The 2003 DEIR analyzes and compares the alternatives based on the SYRHM hydrologic analysis using the criteria shown in Table 2-7 for the long-term target flows. The 2003 DEIR concludes on page 5-1 that “Modifications to reservoir operations will provide sustained target flows via Hilton Creek and/or the mainstem Santa Ynez River of approximately 2.5 to 5 cfs at Highway 154 depending on reservoir elevation, or of approximately 10 cfs at Highway 154 Bridge in years when the dam spills.” Many assumptions were required, including assuming compliance with requirements and target flows.

The 2007 RDEIR (Draft Technical Memorandum No. 5, page 9) indicates that: “Aside from the above changes in the criteria for releases of fish water from Cachuma Reservoir, all other modeling assumptions and limitations in the SYRHM are the same for these new Alternatives 5B and 5C. The model analysis for Alternatives 5B and 5C is consistent with the previous hydrologic analyses performed for the 2003 DEIR.” Again, a range of reasonable assumptions were built into the 2007 RDEIR hydrologic analysis that lead to these conclusions regarding target flows.

**Response 2-15:**

The commenter suggests that the 2003 DEIR should include a comparison of actual surface water hydrology since September 2000, when the Biological Opinion was issued, to the predicted surface water hydrology (using SYRHM) under Alternative 2 (2003 conditions).

Because of the substantial period (1918–1993) considered in the SYRHM for analysis of Alternative 2 (2003 conditions/No Project), the results of the suggested comparison over such a short period (less than three years) would have no statistical significance and would therefore not provide significant input to the overall impact analysis or comparison of alternatives. The 2007 RDEIR describes the hydrology analysis for September 2000 through 2006 period in the context of the 2.47-foot surcharge initiated in May 2005.

As indicated on page 4-3 of the 2007 RDEIR: “Hydrologic conditions that existed in 2003 are described in the 2003 DEIR.” As described below, some changes in surface water hydrology have occurred since 2003. For the reasons explained in **Section 3.2.2, Description of Alternatives**, (see page 3-9) however, the baseline conditions that existed in August of 2003 are used to analyze the project alternatives.

**Response 2-16:**

The comment states that impacts and mitigation to oak tree loss as a consequence of dam surcharging do not accurately describe the loss of oak woodland that will result from the surcharging and that the proposed mitigation only discusses the planting oak trees. The comment recommends that understory vegetation of shrubs and grasses be included in the oak tree replacement program.

**Section 4.8.2 Potential Impacts of the Alternatives** of the 2011 2<sup>nd</sup> RDEIR includes a description of the oak woodland replacement efforts undertaken since the 2003 DEIR was first circulated. In addition, **Section 4.8.2.2 Impacts to Lakeshore Oak Trees** Includes a summary of the oak trees that were impacted by inundation caused by the surcharging of the dam. Details of the number of plantings and the location of the plantings, including understory species of shrubs and herbs, is described in **Section 4.8.3 Mitigation Measures** of the 2011 2<sup>nd</sup> RDEIR.

**Response 2-17:**

The commenter is concerned with the lack of identification of oak tree replacement planting sites to accommodate all of the proposed replacement trees. In addition, the comment raises concerns about Hilton Creek channel extension, impacts to riparian zone and southwestern willow flycatcher from downstream releases, impacts to California red-legged frog, alternatives to allow fish passage around Bradbury dam, and streambed alteration permitting.

Figure 4-19 and Figure 4-20 of the 2011 2<sup>nd</sup> RDEIR indicate the locations where oak tree replacement plantings have occurred. These plantings have taken place at Storke Flats, at the southeastern end of Lake Cachuma, and also at the base of Bradbury Dam. The success rate of the plantings range from 98.6 percent to 83.3 percent.

A feasibility analysis for the Hilton Creek channel extension (also known as a rearing channel) is still ongoing and no design has been completed.

Potential impacts to California red-legged frogs is discussed in **Section 4.9.1.1, Amphibians and Reptiles** of the 2011 2<sup>nd</sup> RDEIR. Red-legged frogs are not likely to occur in Cachuma Lake due to the presence of predatory fish. However, they are likely to be present in tributaries to the lake. Much of the Santa Ynez River above Alisal Road becomes dry by early summer, and is, therefore, unlikely to support California red-legged frogs due to the lack of permanent water. However, portions of the river downstream from Buellton support large areas of habitat for the California red-legged frog, and pools in this area probably contain permanent water due to agricultural and urban runoff and discharges from wastewater treatment plants. The presence of bullfrogs, largemouth bass, and green sunfish may limit the potential for red-legged frogs. Frogs were not located along the lower Santa Ynez River during the 1994 surveys. In 1996, the SYRTAC biologist found an individual in the mainstem of the Santa Ynez River, northwest of the

Santa Rosa Hills. The California Natural Diversity Database includes a 2007 record of this species approximately two miles west of Solvang along the south side of the Santa Ynez River. As the water releases from Bradbury Dam are not expected to impact any potential red-legged frog habitat, the proposed project would have less than significant impact on the species.

The Santa Ynez River reaches upstream of Bradbury, Gibraltar, and Juncal dams are not included as *O. mykiss* critical habitat, however, populations of *O. mykiss* that exist upstream of the introduced dam barriers are largely or entirely descended from relic *O. mykiss* populations historically ascending the watersheds (Boughton and Goslin, 2006<sup>38</sup>). Nielsen (1998<sup>39</sup>) found that the native fish found upstream of the Bradbury Dam appear to be historically descended from anadromous *O. mykiss*, despite extensive stocking with hatchery fish over the years. Thus, hatchery fish do not appear to have significantly interbred into the wild strain, potentially as a result of different life cycle patterns. Finally, the Draft Recovery Plan emphasizes restoring access to the approximately 40 river miles upstream of the barriers in the Santa Ynez River in order to promote ecological traits such as capacity to migrate long distances and withstand warmer temperatures. There are no current plans to construct fish passage around these barriers and further analysis is not a part of the 2011 2<sup>nd</sup> RDEIR. No further discussion is needed. See also the response to **Comment 2-1**, above.

Please see response to 2003 DEIR **Comment 2-10** for impacts to riparian zone vegetation and Response 2-11 above for impacts to southwestern willow flycatcher. Please see response to 2003 DEIR **Comment 2-12** in regard to streambed alteration permitting.

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<sup>38</sup> Boughton, D. A. and M. Goslin. 2006. *Potential steelhead over-summering habitat in the south-central/southern California coast recovery domain: Maps based on the envelope method*. NOAA- NMFS, SW Fisheries Center Technical Memo No 391. Santa Cruz, CA.

<sup>39</sup> Nielsen, J. L. 1998. Molecular genetic population structure in steelhead/rainbow trout (*Oncorhynchus mykiss*) from the Santa Ynez River, 1994-1997. Final Technical Report submitted to ENTRIX, Walnut Creek, CA November 20, 1998. 32pp.



October 7, 2003

Andrew Fecko  
State Water Resources Control Board  
Division of Water Rights  
1001 I Street  
Sacramento, CA 95812  
facsimile: (916) 341-5400

**VIA FACSIMILE**

**RE: Cachuma Project -- Comments On SWRCB's Draft Environmental Impact Report**

Dear Mr. Fecko:

The Environmental Defense Center is submitting comments, on behalf of California Trout, regarding the State Water Resources Control Board's Draft Environmental Impact Report for the proposed Modifications to the U.S. Bureau of Reclamation's Water Rights Permits 11308 and 11310 to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River.

Per my phone message, we are submitting these comments by facsimile and by email. Following is the facsimile portion of our submission, which is comprised of Attachments 1-16 to our comment letter. I will be sending you separately, by email, our comment letter and Attachments 17-21. A courtesy copy of our entire submission will also be mailed to you today.

Please call me if you have any questions.

Sincerely,

Karen M. Kraus  
Staff Attorney

906 Garden Street, Santa Barbara, CA 93101 Phone (805) 963-1622 FAX (805) 962-3152  
2021 Sperry Avenue, Suite 18, Ventura, CA 93003 Phone (805) 677-2570 FAX (805) 677-2577  
[www.edcnet.org](http://www.edcnet.org)

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October 7, 2003

Mr. Andy Fecko  
State Water Resources Control Board  
Division of Water Rights  
1001 "I" Street  
Sacramento, CA 95812  
Facsimile: (916) 341-5400  
[afecko@waterrights.swrcb.ca.gov](mailto:afecko@waterrights.swrcb.ca.gov)

*VIA FACSIMILE AND EMAIL*

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

Dear Mr. Fecko:

The Environmental Defense Center ("EDC") submits these comments regarding the State Water Resources Control Board ("SWB") Draft EIR for the proposed Modifications to the U.S. Bureau of Reclamation's Water Rights Permits 11308 and 11310 To Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam ("DEIR") on behalf of our client California Trout ("CalTrout"). CalTrout is a non-profit river conservation organization with a substantial interest in the public trust resources of the Santa Ynez River including the endangered Southern California Steelhead.

In sum, we submit that the DEIR fails to comply with the California Environmental Quality Act ("CEQA," California Public Resources Code §§21000 et seq.) because the DEIR:

- fails to adequately identify the project objectives and fails to provide the specificity required;
- fails to analyze a reasonable range of alternatives that fulfill the basic objectives and substantially lessen or avoid significant impacts;
- fails to include alternatives that will protect public trust resources;
- includes a vague and unstable project description;
- fails to include an appropriate baseline for measuring protection of public trust resources;

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- lacks an adequate analysis or mitigation for many project impacts;  
and
- fails to analyze consistency with applicable laws and policies.

For these reasons, CalTrout submits that this document is inadequate for the SWB to rely on in making its final decision as to whether the Bureau of Reclamation's water rights permits for the Cachuma Project should be modified to protect public trust resources. The DEIR should be revised in accordance with this comment letter and re-circulated for public and agency review and comment.

In particular, the DEIR should be revised to analyze the three alternatives proposed by CalTrout: the IFIM Alternative, Public Trust Alternative, and Maximum Beneficial Use Alternative.

**I. The DEIR Fails to Adequately Identify the Project Objectives and Fails to Provide the Specificity Required by CEQA.**

Under CEQA, objectives must contain the basic underlying project purpose. A clearly written statement of objectives helps identify a range of reasonable alternatives that can fulfill most of the underlying purposes of the project (CEQA Guidelines Section 15124(b)). In this case, the DEIR apparently includes a CEQA objective to provide "appropriate protection of public trust resources," however, this objective lacks definition. As such, this objective is too vague for CEQA purposes and too ambiguous to determine if the alternatives can fulfill it.

3-1

**A. The DEIR Fails to Adequately Define the Project's Objective of Protecting Public Trust Resources.**

The DEIR limits its identification of public trust resources to the resources "that occur" at Lake Cachuma and along the Santa Ynez River below Bradbury Dam. This definition is incomplete because it does not also address the public's use and interest in those resources. See National Audubon Society v. Superior Court of Alpine County, 33 Cal. 3d 419, 446 (1983). Accordingly, the DEIR must also identify the specific public uses that the SWB is striving to protect in the Santa Ynez River. The uses traditionally protected by the public trust include navigation, commerce and fisheries. The doctrine has since been extended to include the public's interest in recreational fishing, preservation of resources in a natural condition, ecological study and aesthetic enjoyment. See Marks v. Whitney, 6 Cal. 3d 251 (1977); National Audubon, supra, 33 Cal. 3d at 434-435.

3-2

In addition, the DEIR fails to accurately or adequately describe the historic public trust resources of the River. "Historically, the Santa Ynez River supported the largest steelhead run in southern California." (Shapovalov 1945, Attachment #1) "Prior to the building of Cachuma/Bradbury Dam project on the Santa Ynez River (completed in 1952) professional fishery biologists estimated that up to 25,000 adult steelhead migrated into the Santa Ynez River on an annual basis into the 1940s and produced progeny into the millions annually.

These steelhead provided a flourishing recreational fishery and efforts to rescue some of their fry providing for stocking of streams in both Santa Barbara and Ventura Counties.” (August 28, 2003 letter from Ed Henke Historical Research to Mr. David Young of the Bureau of Reclamation and Ms. Kate Rees of the Cachuma Operations and Maintenance Board, Page 1, Attachment #2). Thus, the public use of that fishery, as well as the public’s interest in the Santa Ynez watershed in a natural condition, for ecological study, and aesthetic enjoyment are public uses that must be considered under the public trust doctrine. These interests should be explicitly incorporated into the CEQA objectives for this project.

Moreover, in circumstances such as these, where previous water allocation decisions have been made without any consideration of public trust resources, and such decisions have already significantly impacted the public’s use and interest in those public trust resources, protection of public trust resources should involve some level of restoration. It is not enough to only assess the resources “that occur” now. In order to clearly define the objective of providing “appropriate protection of public trust resources” in the Santa Ynez River, the SWB must also assess the condition of public trust resources prior to alteration of the natural hydrology of the river, and use this baseline information to help identify the conditions that would have to be restored in order to preserve the public’s interest in those resources.<sup>1</sup> For example, Shapovalov estimated the pre-Bradbury dam run size at 13,000 to 25,000 in 1944. See also, Preliminary Report of Thomas P. Keegan 2003 (Attachment #19).

Assessing the historical conditions and restoring them is also consistent with the Porter-Cologne Act and the federal Clean Water Act, pursuant to which the Regional Water Quality Board has designated several beneficial uses for the Santa Ynez River (including migration and spawning).<sup>2</sup>

3-2

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<sup>1</sup> The feasibility of restoring public trust resources to their natural condition is a separate question. Although the Board may approve a diversion or allocation of water despite foreseeable harm to public trust resources, it must always “bear in mind its duty as trustee to consider the effect of the taking on the public trust.” National Audubon, supra, 33 Cal.3d at 446. Thus, preliminary to any final decision regarding the feasibility of particular measures, the Board must first identify and assess the past and potential impacts to public trust uses from the Cachuma Project and the measures necessary to restore those uses.

<sup>2</sup> Whether these beneficial uses are being achieved should be evaluated in light of the overarching objective of the Clean Water Act “. . . to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 101. The SWB has previously interpreted “physical integrity” to mean the maintenance of “the temperature, hydrologic regime, geomorphology, and other physical characteristics . . . within the ranges that fully supports the beneficial uses historically provided by that water” (emphasis added). March 11, 2003 letter from Arthur G. Baggett, Jr. to U.S. EPA, p. 6 (comment on ANPRM on Definition of “waters of the United States”). Similarly, the SWB has identified “biological integrity” as meaning that “the biological processes and diversity and abundance of organisms associated with a water body are within the ranges historically supported by that water” (emphasis added). Id. at 7.

The SWB should identify these conditions in terms of a measurable population-based objective or success criteria. This may include identifying an increasing population range over time (e.g., X,000 – Y,000 adults by year Z and A,000 to B,000 by year C), an average (e.g., D,000 adults), or a defined increasing population trend (e.g., P% per year excluding years of below average rainfall). (Keegan 2003). Without clarifying the vague objective by providing a measurable performance standard, i.e., success criteria, there is no way to ascertain if the alternatives in the DEIR, or if other alternatives, can fulfill most of the underlying objectives as required under CEQA. Additionally, as noted below, defining this CEQA objective as a measurable success criteria will facilitate effective use of the Adaptive Management strategy proposed by the Bureau.

3-2

Finally, the use of the term “appropriate” to qualify public trust resource protection as an objective is vague and undefined. One interpretation of this term is that it is meant to articulate the Board’s public trust responsibility: that is, the Board’s obligation “to take the public trust into account in the planning and allocation of water resources, and to protect public trust resources, whenever feasible” (emphasis added). National Audubon, supra, 33 Cal.3d at 446. If this is the case, then the Board should clarify the project objective as “protection of public trust resources, to the extent feasible,” and should identify the specific factors it will consider in determining whether or not it is feasible to protect public trust resources, so that the DEIR project alternatives can be evaluated for their ability to fulfill this objective.<sup>3</sup>

B. The DEIR Fails to Define the Project’s Objective of Protecting Public Trust Steelhead Resources Above Bradbury Dam.

One objective appears to be to protect public trust resources and water rights downstream from Bradbury Dam. However, to protect steelhead downstream from Bradbury Dam as a public trust resource, the SWB must consider the fact that the vast majority of steelhead habitat is above the dam. Moreover, an objective limited to protection of downstream public trust resources is inconsistent with the September 25, 2000 hearing notice, the May 29, 2003 letter from Peter Silva to the Cachuma Service List, and the August 13, 2003 letter from Peter Silva to the Cachuma Service List. These communications from the SWB all indicate that the scope of the Phase 2 Hearing (one purpose of which is to determine whether modifications to the Bureau’s water rights permits are necessary to protect public trust resources) includes consideration of impacts to public trust resources above Bradbury Dam as well as requirements to address those impacts. The EIR should specifically set forth the project objectives consistent with the SWB’s stated objectives for its decision regarding Reclamation’s water rights permits, and include public trust resources above Bradbury Dam that are affected by the Cachuma Project.

3-3

<sup>3</sup> Note, however, that under Fish and Game Code section 5937, sufficient water is required to keep steelhead in “good condition,” regardless of the potential adverse impacts to other users.

Such an objective is called for under the Public Trust Doctrine, which protects public trust **uses**. National Audubon, *supra*, 33 Cal.3d at 446. To the extent a public trust use (e.g. an anadromous fishery) is impacted by a water diversion, the SWB has jurisdiction to consider and remedy the impact whether or not the impact is above or below the diversion. In this case, the Cachuma Project has impacted steelhead along the entire Santa Ynez River: blocking access of steelhead above the dam (“landlocked”) to the ocean, and blocking steelhead below the dam (“anadromous”) from accessing the majority of spawning and rearing habitat. The US Forest Service notes that at least 40% of the watershed is now blocked to steelhead migrating up from the ocean, that the best spawning habitat was concentrated in the mid to upper third of the river basin, and that the population has plummeted from 10,000 - 20,000 down to less than 200 since construction of Gibraltar and especially Bradbury Dams. (Santa Ynez Steelhead Restoration Feasibility Study, Draft, June 3, 1997, Attachment #3.) Limiting the public trust objective to protection of steelhead below the dam is therefore inconsistent with the legal obligation under the public trust doctrine. It is also inconsistent with modern ecological theory, restoration ecology practice, and modern resource management practice, all of which evaluate waterway impacts from a watershed perspective. Reiterating the public trust objective in basin-wide terms would help ensure that the intent of the objective is met: that public trust resources are protected.

CalTrout believes that despite the approximate 98% to 99% reduction in the steelhead population in the Santa Ynez River estimated by the US Forest Service (U.S. Forest Service Santa Ynez Steelhead Restoration Feasibility Study, 1997) and by CalTrout, the public trust interest in this species can be restored and preserved. However, meeting this objective will be significantly impaired if the Board limits its consideration to steelhead and the limited habitat available below the dam and to below-dam measures. “The Santa Ynez River historically supported one of the most productive steelhead runs in southern California and still contains substantial amounts of high quality spawning and rearing habitat within the watershed, with a majority of the spawning and rearing habitat located above Bradbury Dam.” (September 19, 2001 letter from Rebecca Lent, Ph.D of NMFS to Harry Schueller, Chief, Division of Water Rights, SWB, Attachment #4.) See also, CDFG Steelhead Restoration and Management Plan, February 1996, Page 196 (“The construction of the Cachuma Project (which includes Bradbury Dam) in the early 1950s eliminated access to nearly all historic spawning and rearing habitat”), Attachment #5; NMFS Biological Opinion at 1; and Forest Service’s 1997 Santa Ynez Steelhead Restoration Feasibility Study. According to evidence CalTrout submits for your consideration, the available spawning and rearing habitat below the dam is relatively insignificant compared to that available above the dam, and is of significantly lower quality (Keegan 2003).

By clarifying the public trust protection objective in this manner, the lead agency will ensure proper consideration of a range of alternatives capable of fulfilling the public trust project objective, as required under CEQA. More specifically, by clarifying the geographic scope of the public trust protection objective, the SWB will clarify whether fish passage

3-3

alternatives should be considered as potentially feasible alternatives to protect the public trust resources.

The operation of the dam continues to block migratory access to a significant majority of, and the most suitable steelhead spawning and rearing grounds in, the River system. Despite this fact the DEIR does not mention the ongoing impact to migration caused by the dam. Nor does it discuss the impacts of the dam on the landlocked steelhead (i.e., preventing access to the ocean and thereby interfering with a significant portion of the steelhead life cycle). “At the currently suspected low population size (<200 spawning adults) even minor disturbances could be devastating,” (U.S. Forest Service Santa Ynez Steelhead Restoration Feasibility Study, Page 15). Steelhead above Bradbury Dam need to be reconnected to steelhead below Bradbury Dam in order to eliminate this threat of extinction and restore and preserve the public trust in the steelhead resource in the River (Keegan 2003). Therefore, the objectives should reflect the Public Trust Doctrine and the SWB’s articulation of the scope of its decision regarding Reclamation’s water rights permits and ensure consideration is given to public trust resources throughout the Santa Ynez River that are impacted by the Cachuma Project – not merely those that happen to occur below the dam.

3-3

C. The DEIR Fails to Identify Other Relevant Requirements That Define SWB Objectives.

3-4

1. *The DEIR Fails to Identify Compliance with Fish and Game Code §5937 and other Fish and Game Policies.*

Fish and Game Code §5937 requires the owner of a dam to allow sufficient water to pass over, around or through a dam to keep in “good condition” any fish that exist below the dam. The Board has previously stated that Fish and Game Code Section 5937 “is a legislative expression concerning the public trust doctrine that should be taken into account when the SWRCB acts under its public trust authority.” See, e.g., Decision 1644, p. 30 (Lower Yuba River, March 2001, citing California Trout, Inc. v. State Water Resources Control Board, 207 Cal. App. 585, 626, 631 (1989)). In addition, the Board has stated that operation of the Cachuma Project is subject to the requirements of Fish and Game Code § 5937 (Order No. WR 95-2 (1995)). Reclamation’s compliance with Fish and Game Code Section 5937 should therefore be included as a project objective.

3-5

The phrase “good condition” is not defined in the Fish and Game Code or in the DEIR. However, Dr. Peter B. Moyle defines it at three successive levels: individual, population, and community. “To satisfy Section 5937, a fish has to be in good condition at all three levels ... At the individual level, fish in good condition needed to be healthy ... At the population level, to be in good condition under my (and the DFG) definition, each population must: (1) be made up of healthy individuals ... (2) have multiple age classes, ... and (3) have a viable population size ... large enough so it will not go extinct from random factors or unusual events, such as a major drought ... At the community level, ‘good condition’ ... means that a dynamic assemblage of fish exists that will predictably inhabit a given range of

environmental conditions, usually the historic range that existed on or near the site prior to the construction of a given dam.” (Statement of Peter B. Moyle 2003, Attachment # 20.)

3-5

The DEIR should be modified to include as an objective, compliance with Fish and Game Code Section 5937, including Dr. Moyle’s definition of “good condition.”

2. *The DEIR Fails to Identify Compliance with Article X, § 2 of the California Constitution.*

The DEIR fails to identify Article X, Section 2 of the California Constitution and Water Code Section 100 which require that water resources be put to beneficial use “to the fullest extent of which they are capable.” These legal requirements also prohibit the waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of water. The SWB is directed, under Water Code Section 275, to take all appropriate proceedings or actions to prevent violations of the reasonable use standard.

3-6

The DEIR should be modified to include as objectives: (1) the achievement of maximum beneficial use of water in the Santa Ynez River; and (2) the prevention of waste, unreasonable use and unreasonable method of use of water in the Santa Ynez River.

B. Proposed Project Objectives.

Objectives are suggested below to guide formulation of an adequate range of feasible alternatives in the EIR:

1. Protect public trust resources along the Santa Ynez River whenever feasible, both below and above Bradbury Dam;
2. Protect downstream water rights in the Santa Ynez River below Bradbury Dam;
3. Restore a healthy, sustainable steelhead run in the Santa Ynez River for the public’s enjoyment and use;
4. Keep steelhead in Santa Ynez River in good condition pursuant to Fish and Game Code §5937;
5. Make maximum beneficial use of water in the Santa Ynez River; and
6. Prevent waste, unreasonable use and unreasonable method of use of Santa Ynez River water.

3-7

**II. The DEIR Fails to Analyze a Reasonable Range of Alternatives that Fulfill the Basic Objectives and Substantially Lessen or Avoid Significant Impacts.**

Under CEQA, an EIR must analyze a range of reasonable alternatives that fulfill most of the basic underlying objectives of the project (CEQA Guidelines §15126.6(a)). Factors that may be used to eliminate an alternative from consideration in an EIR include: failure to meet most of the basic objectives, infeasibility or inability to avoid significant impacts (CEQA Guidelines Section 15126.6(c)). The alternatives in the DEIR are comprised of alternative modifications to the terms and conditions of the Bureau's SWB water rights permits and are limited to flows consistent with the Biological Opinion's ("BO") "target flows." These alternatives are too narrow and do not fulfill the basic underlying objectives of protecting public trust resources as set forth above.

The DEIR merely repackages the same alternative – implementation of the BO - with different water supply impact mitigation measures (the 3 series) and with alternative methods for delivering water to downstream interests (the 4 series). With regards to protection of public trust resources, Alternatives 3A – 3C are essentially identical and 4A and 4B differ from 3A – 3C insignificantly. Under CEQA, an EIR must analyze a range of reasonable alternatives (CEQA Guidelines Section 15126.6(a)). In this case it is clear that the EIR does not present a range of alternatives to protect public trust resources and instead presents only the BO as the method in which to purportedly fulfill the public trust protection objective.

As an example, the evaluation of impacts to steelhead caused by the 3 and 4 series alternatives concludes that the quantified impacts of the 3 and 4 series are virtually identical (see Tables 4-42, 4-43, 4-44, 4-45 and 4-46). Thus, while the alternatives do differ with regards to recreational and oak tree impacts caused by surcharging and with regards to delivering water to downstream users, the alternatives do not differ meaningfully with regards to their ability to protect public trust resources along the river and thus in their ability to fulfill the project's basic objectives. Compared to current operations and other alternatives such as those proposed herein by CalTrout, these options do not result in significant improvement of steelhead habitat and do not fulfill the public trust objective. (Keegan 2003.)

Feasible alternatives that include measures in addition to those in the Fish Management Plan ("FMP") and BO and that may be capable of restoring and preserving the public trust in the steelhead resource must be considered to ensure that the EIR conforms to CEQA's requirements and analyzes a range of alternatives that are capable of fulfilling the basic project objectives. For example, the EIR should analyze alternatives that incorporate water release requirements for fish in excess of the BO's target flows, and that also incorporate the BO's non-mandatory conservation recommendations. The SWB must expand its alternatives analysis beyond the narrow focus of the BO and include other approaches to protecting steelhead.

3-8

In addition, all of the alternatives identified in the DEIR assume the continued implementation of Order No. WR 89-18. This order is the culmination of a series of SWB decisions designed to ensure protection of downstream water rights holders. These decisions did not weigh or consider public trust uses of the water, and may therefore be incorrect in light of current knowledge or inconsistent with current needs. There is no legal basis to assume that implementation of Order No. 89-18 should continue without an assessment of the impacts of that Order on public trust resources. In fact, “the case for reconsidering a particular decision . . . is even stronger when that decision failed to weigh and consider public trust uses.” National Audubon, *supra*, 33 Cal.3d at 447. Thus, in order to fulfill its public trust responsibilities, the SWB should modify the DEIR to include an assessment of the impacts of implementation of WR 89-18 on public trust uses (including the impacts of withholding water from release until called for by downstream water rights holders and the impacts of timing and amount of water releases). At least one alternative that includes modification of 89-18 should be included for consideration in the EIR, as discussed below. (See CalTrout’s Public Trust Alternative, Maximum Beneficial Use Alternative and IFIM Alternative described below.)

3-9

**III. The Alternatives Analyzed in the DEIR are Incapable of Restoring or Preserving the Public Trust in Steelhead and thus do not Fulfill the Project Objective.**

The DEIR project objectives apparently include protecting the public trust resources and the downstream water rights on the Santa Ynez River below Bradbury Dam. As discussed above, protecting the public trust resources in the Santa Ynez River includes restoring and preserving the steelhead fishery, as well as the public’s interest in the Santa Ynez watershed in a natural condition, for ecological study, and aesthetic enjoyment. The DEIR alternatives merely consist of the mandatory measures in the BO with options for surcharging and with options for delivering water to downstream water rights holders. These alternatives do not fulfill the public trust resource objective. NMFS has only concluded that these measures are “not likely to jeopardize the continued existence of the Southern California steelhead ESU,” and are “not likely to destroy or adversely modify steelhead critical habitat” (BO at page 68). In other words, the BO concludes that the proposed measures will not cause a decline of this highly endangered species. While the DEIR alternatives, since they are based on the BO, do not further jeopardize southern steelhead, they also do not improve conditions in the Santa Ynez River much beyond the historical operations and thus are not capable of restoring or protecting public trust resources.

3-10

“Because these alternatives are based on Reclamation’s proposed action which NMFS analyzed in its biological opinion, they address only the more limited issue of ensuring the continued existence of the Southern California steelhead ESU, rather than the larger issue of recovery of the ESU.” (September 19, 2001 letter from Rebecca Lent, Ph.D to Harry Schueller, Chief, Division of Water Rights, SWB, Page 5.) The BO does not address, nor is it intended to address, the fundamental issue before the SWB – what River conditions above and below Bradbury Dam must be restored to achieve restoration and protection of the steelhead runs and other public trust resources of the Santa Ynez River.

The EIR finds numerous beneficial impacts to steelhead as a result of the 3 and 4 series of alternatives (which implement the BO). However, the DEIR fails to demonstrate that these modest improvements are adequate to protect the public trust resources of the river, which is one of the two key objectives currently identified in the DEIR. Avoiding jeopardy to an endangered species is environmentally beneficial but does not necessarily equate with protecting public trust resources pursuant to the Public Trust Doctrine or maintaining fish in "good condition." Steelhead have been reduced by approximately 99% in the Santa Ynez River (i.e., 10,000 – 20,000 to <200) (U.S. Forest Service Santa Ynez Steelhead Restoration Feasibility Study) and are an endangered species. Even tripling a population that has been reduced by 99% still results in a population that has been reduced by 97%. Some meaningful level of recovery is necessary to ensure that steelhead are in good condition and are protected as a public trust resource.

3-11

The currently proposed alternatives may modestly enhance current conditions for the seriously endangered southern steelhead if the target flows are mandatory, but they are not capable of achieving the public trust objective or of maintaining them in good condition below the dam. (Keegan 2003.) In addition, Keegan identifies several deficiencies in the DEIR's analysis and conclusions regarding protection of public trust resources, including the methodology and criteria for evaluation of passage flows, the methodology and criteria for evaluation of instream flows for spawning and rearing and lack of consideration of impacts of dam to migration. Keegan also identifies the importance of the lagoon for smolt rearing, and the DEIR's failure to consider this portion of the watershed in its analysis.

3-12

The DEIR does not identify any alternatives capable of achieving the project objectives, much less evaluate their feasibility. As discussed below, feasible alternatives other than the measures required by the BO are available. In addition to the BO-based alternatives, the EIR should evaluate alternatives that include measures to restore and preserve the steelhead fishery, as well as the public's interest in the Santa Ynez watershed in a natural condition, for ecological study, and aesthetic enjoyment. CalTrout has identified additional feasible alternatives below, including measures in addition to those in the BO, for instance the "Conservation Recommendations," fish passage around Bradbury Dam, increased mandatory target flows, etc., that will be more effective at protecting public trust resources than the BO's measures alone. Absent such alternatives, the EIR is inadequate because the current alternatives are not capable of fulfilling the project objectives.

3-13

#### **IV. The DEIR Suffers from Lack of a Clear, Stable Project Description.**

The DEIR fails to include a clear project description, as required by CEQA. Under CEQA, an EIR must include: a map, preferably topographical, depicting the project's precise location and boundaries; a clearly written statement of the objectives sought by the proposed project; a general description of the proposed project's technical, economic, and environmental characteristics; a statement describing the intended uses of the EIR, including a list of the agencies that are expected to use the EIR in their decision-making, a list of permits

3-14

and other approvals required to implement the project, and a list of related environmental review and consultation requirements mandated by federal, state, or local laws, regulations, or policies. CEQA Guidelines §15124. The project description must be accurate and consistent throughout an EIR. “An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.” County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 195 (italics in original). “An accurate project description ... is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity.” McQueen v. Board of Directors of the Mid-Peninsula Regional Open Space District (1988) 202 Cal.App.3d 1136, 1143.

In this case, the project description is comprised of the vague statement that “the project analyzed in this EIR 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.” (DEIR, p. 3-1.)

3-14

First, the project description reads like a statement of project objectives, rather than a description of a proposed project. Second, it improperly limits protection of public trust resources to those downstream of Bradbury Dam, in contradiction to SWB orders and actions cited above. Finally, the DEIR relies on various alternatives to fill out the project description; however, the descriptions of such alternatives are flawed because (1) they fail to specify whether “target flows” are mandatory minimums or are contingent upon surcharging; (2) they fail to specifically identify what “other measures” are included in the project description; and (3) they include adaptive management without providing any mandatory guidelines or requirements.

A. The Description of Alternatives is Vague and Unclear Because it Fails to Specify Whether “Target Flows” are Mandatory Minimums or are Contingent upon Surcharging.

3-15

1. *The DEIR Fails to Describe Whether “Target Flows” are Mandatory.*

The DEIR’s alternative project descriptions are vague and unclear with regards to the requirement for “target flows” pursuant to the BO. The use of the term “target” is confusing, because the DEIR does not identify whether target flows are enforceable mandates or mere goals, to be determined at the Bureau of Reclamation’s discretion. This hinders assessment of the alternatives’ impacts and the alternatives’ abilities to fulfill the objectives pursuant to CEQA.

3-16

The DEIR’s project description for the alternatives is flawed because it refers to and relies upon unclear target flow release requirements contained in the BO<sup>4</sup>. The BO and thus

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<sup>4</sup> On pages 6 and 7, the BO describes reservoir storage and spill conditions that dictate target flows at downstream points along the river. For instance, the BO refers to a minimum of 2.5 cfs target flow that is to be maintained at Highway 154 in a year when the reservoir storage

the DEIR do not specify whether the “target flows” are minimum requirements that must be met at all target sites at the specified times or are contingent upon reservoir surcharging and water accounts for fish releases. The DEIR relies on the BO’s vague “target flows” as part of the alternatives description but, like the BO, it fails to specify that the “target flows” are mandatory minimum flows. Therefore the alternative project descriptions are not defined with enough specificity, and it remains unclear if the target flows – a primary element of this project – must be made at all times to support endangered steelhead or only after infrequent reservoir surcharging provides water into accounts for the steelhead.

Due to the EIR’s failure to specify whether or not the target flows are mandatory minimum flows (i.e., required regardless of surcharging), impact evaluation by the public and by the lead and responsible agencies is impossible. Without knowing if the flows would be available every year or only following reservoir surcharging, it will be extremely difficult to evaluate the relative impacts of alternatives. For example, the DEIR states that Alternatives 3A – 3C and 4A and 4B in the DEIR include “releases to meet long-term rearing and passage target flows under the Biological Opinion.” (DEIR, page 3-9, emphasis added.)

3-16

**The DEIR should be revised to indicate whether the target flows are mandatory.** If so, the DEIR must specify that the long-term target flows are mandatory minimums to be met at the target sites and between the target sites and the dam and are not dependent on surcharging. By specifying for its readers that the flow requirements are mandatory minimums and providing a stable project description, the EIR will adequately describe the alternative projects and will foster informed impact assessment and comparison of alternatives.

2. *Beneficial Impacts to Steelhead Reflect DEIR Assumption that Target Flows are Minimum Mandatory Requirements.*

The DEIR’s biological impact assessment section assumes that the target flows are minimum mandatory requirements, but the DEIR does not describe them as such and instead relies on the unclear BO. Alternative 3 and 4’s modest beneficial impacts to steelhead are largely derived from “higher releases for rearing under these alternatives” (DEIR page 4-101). However, the DEIR fails to acknowledge that the long-term target flows “required” under the BO and incorporated in the alternatives descriptions may be dependent on infrequent reservoir surcharging and thus may not be reliable flows necessary to protect public trust resources. The BO is unclear as to whether long-term target flows are only required if infrequent<sup>5</sup>

3-17

level drops to below 120,000 but is above 30,000 AF (i.e., without surcharging occurring that year). However, the BO also describes flow accounting (page 8) in which it appears that water will be available for steelhead releases only when water is stored during surcharging (approximately every third year on average). Thus the BO and as a result the CEQA alternatives descriptions are ambiguous regarding whether target flows are contingent upon surcharging or are mandatory minimums to be met at all times.

<sup>5</sup> Cachuma Reservoir currently spills an average of one out three years.

surcharging has occurred. Therefore, the DEIR's reliance on the ambiguous BO as part of the project description results in inadequate alternative project descriptions for Alternatives 3A – 3C and 4A and 4B, which compromises the public's, the lead agency's and the responsible agencies' ability to understand the environmental effects and the alternatives' abilities to fulfill the objectives.

If the BO's long-term, post-3.0 foot surcharging target flows are dependent on infrequent surcharging, the beneficial steelhead impacts of Alternatives 3A – 3C and 4A and 4B may actually be less beneficial than current conditions because under the current conditions the interim target flows, while less, are at least guaranteed at all times. To support the conclusions that Alternatives 3 and 4 benefit steelhead more than Alternative 2's guaranteed flows do, and to support the findings in Tables 4-42 through 4-46, **the SWB should make it very clear that for the purposes of describing the EIR's alternatives that the long-term flows prescribed in the BO are minimum mandatory requirements to be met at the target sites and throughout the reach above the target sites all times regardless of surcharging.**

3. *Alternative 3A Suggests that Long-Term Target Flows are Required Independent of Surcharging but the DEIR Fails to Describe the Target Flows as Mandatory and not Contingent upon Surcharging.*

Alternative 3A requires releases as described in the BO, but does not include reservoir surcharging. This implies that the long-term post-surcharging target flows are mandatory and independent of surcharging. However, since the DEIR relies on the vague BO as a major part of the alternative project descriptions, it needs to clarify for CEQA purposes that the long-term target flows are *minimums* that must be provided between the dam and the target sites at all times regardless of surcharging. If the DEIR instead continues to rely heavily on the BO - without clarification regarding target flows – then the impact assessment should be changed to reflect that the long-term flows for steelhead under Alternatives 3 and 4 would only be made if water was present in the limited accounts developed during surcharging years (only ~1/3 years on average). Under this scenario, target flows may not be met unless the reservoir was surcharged and therefore the modest beneficial steelhead impacts of Alternatives 3A, 3B, 3C and 4A and 4B would be considerably less than as stated in the EIR. If the target flows are not clarified and remain contingent upon surcharging, the EIR should analyze whether these alternatives benefit steelhead as much as Alternative 2, which does have guaranteed, albeit lesser flows, does. Until the long-term target flows included in Alternatives 3A – 3C and 4A and 4B are clarified, they must be considered non-mandatory goals dependent on surcharging and the Adaptive Management Committee (“AMC”). With non-mandatory target flows dependent on surcharging and the AMC, public trust resources would be less protected than as described in the DEIR, and the steelhead impact assessment would require considerable changes to reflect the unreliable nature of long-term target flows.

3-17

3-18

4. *Target Flows At Highway 154 Are Not Being Met.*

During the SWB site visit on September 8, 2003, COMB described significant difficulties with measuring and maintaining flows at the Highway 154 Target Site. In fact, despite the BO's interim (pre-3.0 foot surcharge) target flows of 1.5 to 2.5 cfs at Highway 154 (depending on whether the reservoir has more than or less than 120,000 AF in storage), there was no surface flow or even ponded water at Highway 154 or within view upstream or downstream on September 4, 2003. (See photographs, Attachment #6.)

According to COMB, this was reportedly due to gravel accumulation in the river at this location; however the BO requires surface flows (not subterranean flows) of 1.5 to 2.5 cfs to support steelhead. The BO target flows are not being met, indicating that the target flows are not mandatory minimum flows, at least in the opinion of COMB and of the Bureau, which operates the Cachuma Project. Since the DEIR alternatives rely on the BO's target flows, how can the SWB assure the public and responsible agencies that the target flows will be monitored, met and verified?

3-19

The Bureau surely knows how much water has to be released from Bradbury Dam to meet the target flows at Highway 154, and steps should be taken to ensure this target flow is met and verifiable at all times. However, if it proves ineffective to measure flows at Highway 154, where the project sponsors propose to measure flows pursuant to the BO, the project itself should be modified to make sure the flow is meeting minimum target flows and can be verified at a more downstream location. Surface flow should be continuous from Bradbury Dam downstream to the chosen, technically functional flow measurement site.

B. The Description of Alternatives is Inadequate for Failing to Describe what "Other Measures" are Included.

The descriptions of Alternatives 3A, 3B, 3C, 4A and 4B include "other steelhead conservation actions described in the Biological Opinion (and the Fish Management Plan)," but fail to specify those actions. Under CEQA, a project description must provide enough information to facilitate evaluation of the alternatives' impacts and abilities to fulfill the project objectives. In this case, without knowing if the alternatives descriptions include all or some of the "steelhead conservation actions" or any of the BO's non-mandatory "conservation recommendations" it is difficult or impossible to determine if the alternatives meet the project objectives of protecting public trust resources. Do the alternative descriptions include all steelhead conservation actions in the FMP and BO including the BO's Conservation Recommendations?

3-20

C. The Project Description Is Not Stable Because The Adaptive Management Committee can Reduce the Target Flows Without Approval by the SWB, Without a Public Process, and With No Defined Guidelines for Changing the Target Flows.

3-21

“Adaptive Management” is part of the description of the alternatives. Through adaptive management, management strategies are changed when and if needed in order to attain a pre-determined goal or standard for success. According to the DEIR, an Adaptive Management Committee (“AMC”) appears to have the authority to reduce the target flows or determine that target flows need not be met. No clear criteria are set forth for when the AMC can modify the target flows, and the DEIR contains no discussion of whether such changes would be subject to future environmental analysis. As a result, the project description is not stable and the public and lead agencies cannot assess the alternatives relative impacts or ability to fulfill the objectives.

Without established success criteria, adaptive management is not an effective tool to protect and enhance steelhead or steelhead habitat. Adaptive Management is described in Principles for the Restoration of Aquatic Ecosystems (USEPA 2000) as follows:

**Monitor and adapt where changes are necessary.** Every combination of watershed characteristics, sources of stress, and restoration techniques is unique and, therefore, restoration efforts may not proceed exactly as planned. Adapting a project to at least some change or new information should be considered normal. Monitoring before and during the project is crucial for finding out whether goals are being achieved. If they are not, "mid-course" adjustments in the project should be undertaken. Post-project monitoring will help determine whether additional actions or adjustments are needed and can provide useful information for future restoration efforts. This process of monitoring and adjustment is known as adaptive management. Monitoring plans should be feasible in terms of costs and technology, and should always provide information relevant to meeting the project goals.

3-21

(Emphasis added.) As noted by USEPA above, measurable goals or success criteria are necessary for adaptive management because without such criteria, there is no way to know when or if to modify the management approach. See also, Successful Adaptive Management – The Essential Need for Pre-Determined Fisheries Performance Objectives, Jim Edmondson, February 3, 2000, Attachment #14; Keegan (2003).

The SWB’s Battle Creek Salmon and Steelhead Restoration Project DEIR/S includes an Adaptive Management Plan (“AMP”). Appendix D of this document includes the draft AMP and describes the importance of having measurable criteria for success. Amongst these criteria, “The first four adaptive management objectives specifically address fish populations in an effort to measure the progress toward the AMP goal of restoring chinook salmon and steelhead populations to the point they are viable and fully utilizing ecosystem carrying capacity. To do this, accurate assessments of the population size, trends in productivity, population substructure, and population diversity will be critical.” As noted above, absent measurable, population-based criteria for success, adaptive management is ineffective because there is no way to ascertain whether the project is achieving those criteria and thus there is no way to determine when or even if to modify management approaches.

The DEIR should provide a more specific project description and objective including average number(s) of steelhead (or a range) that constitute good condition and protection of public trust resources, and that can be used as a goal for adaptive management. With numerical standards for success, the SWB will have a yard stick to ascertain if the alternatives will render fish in good condition and protect public trust resources pursuant to the CEQA project objectives. In addition, the Bureau's use of adaptive management will have a measurable goal and can thus be an effective management strategy.

3-21

The SWB's EIR must clearly describe Alternatives 3A – 3C and 4A and 4B as requiring the target flows as mandatory minimum flows that are to be met or exceeded at the target sites and throughout the reach above the target sites at all times pursuant to the BO's schedule, regardless of water being present in limited accounts accrued through infrequent surcharging, and regardless of the AMC.

D. Recommendations for project description.

To address the problems with the stability of the project description, CalTrout proposes that:

1. The project and alternatives descriptions shall be revised to ensure that the BO-prescribed target flows are mandatory minimum flows, to be met at the target sites and throughout the reaches between the target sites and Bradbury Dam at all times;
2. The project and alternatives descriptions should be revised to state with specificity which "other measures" are included;
3. The Adaptive Management Committee can increase but not decrease target flows; and
4. Compliance with the target flows shall be verifiable at all times by the public and responsible agencies by checking one of the USGS gauging stations which already provide a "real time" report that is available over the internet. For example, see "USGS 11128500 SANTA YNEZ R A SOLVANG CA," which is available at [http://waterdata.usgs.gov/nwis/uv?site\\_no=11128500](http://waterdata.usgs.gov/nwis/uv?site_no=11128500).

3-22

V. **The Environmental Baseline Should be Modified to Analyze Protection of Public Trust Resources.**

The DEIR uses a suitable CEQA baseline to assess impacts of Alternatives 3A – 3C and 4A and 4B compared to current conditions with BO interim flows being made (Alternative 2). It also uses the recent historic baseline (operations under WRO 89-18,

3-23

Alternative 1) to show how the current operations (Alternative 2) have improved conditions for steelhead somewhat.

As discussed above, however, the SWB must also assess pre-Cachuma Project conditions in order to determine whether the DEIR objectives are met by any of the alternatives. Only through identification of the historical, pre-project steelhead population conditions is it possible to identify the conditions the SWB is seeking to restore and preserve. Thus, an assessment of pre-Cachuma Project conditions is necessary for this DEIR to adequately support the SWB's decision regarding the measures necessary to protect public trust resources in the Santa Ynez River, including measures necessary to restore and maintain steelhead in "good condition."

3-23

**VI. The DEIR Fails to Include Adequate Analysis or Mitigation for Many Project Impacts.**

3-24

A. The Indirect Water Supply Impacts Associated With the Use of Alternative Water Supplies May be Avoided or Mitigated to Less than Significant.

The SWB EIR finds that none of the Alternatives result in significant direct or indirect water supply impacts based on average annual yield (DEIR page 4-33). According to the EIR, Alternative 3A may result in an indirect Class I impact (e.g., saltwater intrusion caused by groundwater pumping along the coast and/or air pollution caused by seawater desalination) if the member units utilize these two alternative water sources to ensure supply exceeds demand during critical drought years. However, this preliminary conclusion in the DEIR utilized inaccurate per capita demand projections. According to Pacific Institute, the DEIR over-projected future demands by failing to account for increased future water use efficiency attributable to ongoing conservation programs, such as the replacement of old toilets with low-flow toilets, which are required (Pacific Institute's October 6, 2003 Comments on the Draft EIR, Attachment #18). Therefore, the EIR should reevaluate the potential reductions to water supply during critical droughts based on accurate future per capita demand figures, and should reduce the Class I indirect impact to Class II or Class III if appropriate.

3-25

According to the DEIR, this potentially significant indirect impact can be avoided if the member units utilize increased water conservation and/or implement drought contingency plans during critical drought years instead of utilizing feasible increased water conservation. (Pages 4-40 – 4-43.) However, during such critical drought years used for the DEIR's impact analysis, emergency measures are typically imposed to reduce demand, and this would lessen the need for alternative supplies that might cause indirect impacts (Pacific Institute 2003). While the DEIR finds that the indirect impacts associated with alternative water supplies during critical droughts can be avoided or mitigated through conservation, the DEIR does not provide sufficient detail regarding the feasibility of water conservation measures that can negate the need for alternative supplies and thereby avoid the indirect impacts associated with them.

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CalTrout concurs with the DEIR that reductions in water supply would, if ever, only occur during critical droughts, and that the indirect impacts can be avoided through increased conservation. Our evidence specifically confirms that the critical drought-time water supply reductions of the proposed alternatives and CalTrout's alternatives described below can be avoided or substantially minimized through feasible conservation measures to the point that increased use of alternative supplies would not result in significant indirect impacts such as saltwater intrusion from coastal aquifer pumping and air pollution from the desal plant. CalTrout has researched the feasibility of reducing the demand for water through urban water conservation and determined that it is feasible to utilize water conservation to avoid potentially significant indirect impacts caused by increasing use of alternative water sources during critical droughts (Pacific Institute 2003). Therefore, while further analysis is warranted, even without surcharging and its significant impacts to recreation, oaks and habitats, Alternative 3A and CalTrout's Public Trust, IFIM, and Maximum Beneficial Use Alternatives would likely not result in significant direct or indirect water supply impacts, even during drought years. We submit that the CalTrout Alternatives are environmentally superior feasible options that the SWB should consider in its CEQA process and hearings.

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B. The Biological and Recreational Impacts of Alternatives 3B, 3C, 4A and 4B Can and Should be Mitigated More Thoroughly.

CalTrout supports surcharging if deemed necessary by the SWB to protect public trust resources in the river or to mitigate significant water supply impacts, if any, associated with fulfilling the project Objectives. However, the impacts of surcharging are considerable and the EIR should adequately evaluate alternatives that can avoid those impacts (e.g., water conservation and alternative supplies) as well as the impacts caused by surcharging (e.g., loss of oak trees and recreational facility inundation). Alternatives which protect steelhead and keep steelhead and their population in the river in good condition, and which minimize or avoid water supply impacts without causing significant secondary impacts to oaks, lakeshore habitats and recreation, are environmentally superior to the proposed project.

3-28

1. *Impacts to Oak Trees Require Additional Mitigation.*

The DEIR finds that the loss of 452 oak trees around Lake Cachuma caused by Alternatives 3B, 3C, 4A and 4B's surcharging element is a Class I significant impact that may be mitigated to less than significant as a result of tree planting over time. However, while CalTrout supports surcharging if needed for steelhead protection, we note that impacts of surcharging on oak trees are currently not proposed to be fully mitigated to less than significant because the DEIR finds on page 4-121 that there is not adequate area onsite to accommodate oak tree planting at the 3:1<sup>6</sup> ratio included as mitigation for the impact of the

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<sup>6</sup> The proposed replacement of 3:1 for oak trees removed by the project is not consistent with Santa Barbara County's standard mitigation for replacement of oak trees, which is 10:1 for live oaks and 15:1 for deciduous oaks. The use of a 3:1 replacement ratio does not account for high mortality typically encountered with oak tree replacement program, and does not

3.0 foot surcharge (Alternatives 3C, 4A and 4B). No off-site oak tree planting locations are identified. The sheer numbers of oaks to be removed by surcharging under these alternatives underscores the need for additional mitigation to ensure that surcharging, if necessary, does not result in significant impacts to oak trees.

Approximately 10% of the 452 trees are rare Valley Oaks (*Quercus lobata*). According to the County of Santa Barbara's CEQA Thresholds and Guidelines Manual, removal of one native specimen tree or one rare native tree is a potentially significant effect, and removal of 10% of the trees on a project site may also be considered a significant impact (County of Santa Barbara, Environmental Thresholds and Guidelines Manual (Jan. 1995), pp. 6-9 – 6-10, Attachment #8). In addition, the DEIR notes that temporal impacts to oaks will be significant during the time the replacement trees are becoming established.

The DEIR is inconsistent and should be changed. It currently states that not enough space is available to mitigate oak losses caused by the 3 foot surcharge (page 4-121) yet finds that *the impacts to oak trees can be mitigated to less than significant* after 10 years (page 4-115). Adequate supplemental sites to accommodate oak tree replacement are needed before the SWB can find that impacts to oak trees will be mitigated to less than significant. In addition, considering success rates for previous oak tree replacement projects and the County's standard oak replacement ratios, unless replacement ratios are increased to 10:1 for live oaks and 15:1 for deciduous oaks, impacts to oak trees will not be sufficiently mitigated. The Bureau should team up with Santa Barbara County, the United States Forest Service and landowners to identify feasible off-site planting opportunities in the Santa Ynez Valley to mitigate significant impacts to oaks to less than significant.

3-29

Given the lack of space to mitigate for the loss of oak trees onsite at 3:1, the inadequate 3:1 ratio proposed to replace mature oaks, the impacts to rare native deciduous oak trees and specimen trees, the number of oaks to be removed, and the time it takes to replace mature oaks by planting acorns, additional mitigation for impacts to oak trees must be evaluated in the EIR. Additional mitigation should be required of the Bureau off-site, such as at adjacent private campgrounds, public lands, golf courses or ranches.

## 2. *Impacts to Oak Woodlands Require Mitigation.*

While the DEIR finds loss of oak trees to be a significant impact, it fails to find a significant impact to oak woodland habitats removed by surcharging. Impacts to oak woodlands are related to but are distinct and in addition to impacts to oak trees. Twenty-four

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adequately address temporal loss of mature oaks, some as old as 200 years ( Santa Barbara County Oak Protection Program EIR and Oak Tree Protection Ordinance excerpts, Attachment #7). When the Bureau undertook its seismic retrofit project in 2000, it planted oaks at a 10:1 ratio (Final Supplemental EA/FONSI for Bradbury Dam Seismic Modification Project). A 3:1 mitigation replacement ratio for oaks is insufficient to reduce impacts to less than significant, and additional mitigation of this impact is feasible.

acres of oak woodland habitat would be lost under the 3 foot surcharge alternatives. According to the attached County of Santa Barbara's CEQA Thresholds and Guidelines Manual, impacts to oak woodlands:

“may be considered significant due to changes in habitat value and species composition such as ... habitat fragmentation, removal of understory, alteration to drainage patterns, disruption of the canopy, or removal of a significant number of trees that would cause a break in the canopy or disruption in animal movement in and through the woodland.”

The DEIR did not evaluate or consider these factors when concluding that impacts to oak woodlands would not be significant. The surcharge alternatives would remove a substantial amount of oak woodland habitat, considered environmentally sensitive by the CDFG and by Santa Barbara County. Surcharging would change the drainage patterns causing the death of up to 452 mature trees and would affect the canopy area. The surcharging would remove rare native deciduous oaks and oaks that may act as raptor perches and nest and roost sites. The alternatives would remove understory through inundation, thus removing portions of the oak woodland plant community in addition to the trees. Certain oak woodland understory plants and wildlife species that may be affected by the project are rare (Catalina mariposa lily, a CNPS 4 species, Santa Barbara Bedstraw, a CNPS 4 species, Fish's milkwort, a CNPS 4 species, Hoffman's sanicle, a CNPS 4 species, Silvery legless lizard, Cooper's hawk, California Species of Concern, and Ringtail, a Fully Protected Mammal pursuant to the Fish and Game Codes), but the EIR does not mention or evaluate impacts to oak woodland understory species and wildlife species including rare species, or to oak woodland habitat. As noted in CDFG's September 30, 2003 comment letter regarding the Bureau of Reclamation and COMB's draft EIR/S, there should be mitigation proposed for loss of oak woodland habitat and understory (e.g., oak woodland habitat and understory restoration). The only proposed oak tree replacement would be in an active-use park where replacement of understory species and oak woodland habitat is not feasible.

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Therefore, given 1) the County's adopted standards for determining when impacts to oak woodlands are significant in Santa Barbara County, 2) the lack of space onsite to mitigate impacts to oak trees and habitats, 3) the inadequate 3:1 proposed oak tree replacement ratio, 4) the loss of rare oak trees, 5) the temporal impacts associated with replacing mature oaks with seedlings, and 6) the lack of proposed mitigation of impacts to the oak woodland plant community, the SWB EIR should reevaluate impacts to oak woodlands based on these thresholds and identify impacts to oak *woodlands* and to oak *trees* as two significant Class I impacts that cannot be mitigated absent additional space for oak tree and oak woodland habitat (including understory) planting/restoration.

### 3. *Impacts to Chaparral Require Mitigation.*

In addition, the permanent loss of 35.9 acres of chaparral due to inundation caused by the proposed surcharging should be considered a Class I impact rather than a Class III impact

3-31

and should be mitigated. The County's Environmental Thresholds and Guidelines Manual, pp. 6-3 – 6-5 (Attachment #9), includes a methodology for evaluating impacts to native habitats. This method entails determining if the habitat type is rare or common, how large the area to be removed will be, if it is designated as environmentally sensitive by the County, if it is a habitat link to other areas, if it is pristine or disturbed, if it supports rich or diverse plant or animal life, and is it a viable habitat. Other than a conclusory statement regarding the abundance of chaparral in the area, the DEIR did not undertake this evaluation.

The County Thresholds and Guidelines Manual sets forth what projects may cause significant impacts. These include projects that substantially:

- a) reduce or eliminate species diversity or abundance;
- b) reduce or eliminate quality or quantity of nesting areas;
- c) limit reproductive capacity through losses of individuals or habitat;
- d) fragment, eliminate, or otherwise disrupt foraging areas and or access to food sources;
- e) limit or fragment range and movement; or
- f) interfere with natural processes such as fire or flooding upon which the habitat depends.

The Thresholds and Guidelines Manual the sets forth examples of areas where impacts to habitat are presumed to be insignificant. These include:

- a) Small acreages of non-native grassland if wildlife values are low.
- b) Individuals or stands of non-native trees if not used by important animal species.
- c) Areas of historical disturbance such as intensive agriculture.
- d) Small pockets of habitats already significantly fragmented or isolated, and degraded or disturbed.
- e) Areas of primarily ruderal species resulting from pre-existing man-made disturbance.

Finally, the Threshold and Guidelines Manual describes "Impact Assessment Factors" used to help determine the significance of impacts to habitats. These factors include size of area to be impacted, the type of impact (e.g., degrade versus remove habitat), and timing (e.g., is it a permanent loss or temporary). Given these factors and the types of impacts listed above, as well as the list of impacts that are typically not significant, using the County's methodology, the EIR would find the impact to chaparral significant. The reasons for this finding include the large area to be impacted, the fact that the chaparral habitat would be removed from the area rather than merely degraded, the permanent nature of the impact, ecological connections between chaparral and other habitats nearby, and the presence of rare species that live in the chaparral<sup>7</sup>. Such species may include Plummer's baccharis, Hoffman's nightshade, loggerhead shrike, coast horned lizard, desert woodrat, Santa Barbara bedstraw, Ocellated Humboldt lily, Fish's milkwort, Hoffman's sanicle and Camas lily (Biological

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<sup>7</sup> The DEIR fails to describe or assess the presence of rare species in chaparral that would be affected by the surcharging alternatives (DEIR at Page 4-105, and 4-113).

Assessment for Tajiguas Landfill Expansion Project, Hunt and Associates, May 29, 2001). The EIR should evaluate impacts to chaparral and associated rare species pursuant to the County's established methodology, should find these impacts potentially significant, and should prescribe appropriate mitigation measures including a 2:1 replacement of chaparral acreage removed by the project (similar to the mitigation that the County will undertake as part of its Tajiguas Landfill Expansion Project, that will eliminate a similar number of chaparral acres).

3-31

4. *The Mitigation Measures for Impacts to Recreation are Speculative.*

The impacts of surcharging on recreation are stated in the DEIR to be Class II (i.e., significant but mitigable to less than significant). However the DEIR notes on page 4-143 that these impacts would be Class I "if the relocation of a critical facility does not occur prior to surcharging, or is deemed infeasible due to funding." There is currently substantial disagreement between the Bureau and Santa Barbara County Parks Department regarding which agency would have to pay for relocation of these facilities, and the County may not be in a financial position to afford such actions. The Bureau has taken the position that County Parks must pay to relocate the facilities and the County believes the Bureau should pay to relocate the facilities because the Bureau is being required to surcharge the reservoir. (Feb. 19, 2002 letter from Chuck Evans to Board of Directors (CCRB), Attachment #10).

Relocation and / or modification of the eighteen facilities listed in Table 4-51, including Bait and Tackle Shop, UCSB Crew Building, trails, picnic areas, stairs, docks and boat launch ramps, and sewer lift stations, will cost at least \$10.4 million according to the DEIR, and may cost as much as \$12 million according to the County in Attachment #13. This may be an infeasible cost for the County. The County is applying, or may apply, for grants to pay for the relocation of these facilities. However, under CEQA mitigation measures must be known, feasible and effective. Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692. Securing competitive grant funding, with restricted funds available, is not a certain proposition and cannot be relied upon to mitigate impacts from Class I to Class II.

3-32

CalTrout supports the concept of surcharging, but only if necessary to provide some of the water needed to protect public trust resources. However, there is enough question over the feasibility of mitigating the adverse recreational impacts of surcharging, including who will pay for it, to conclude under a reasonable scenario that recreation impacts will require additional, reliable mitigation. Additional mitigation measures or alternatives, such as phasing in surcharging as facilities and biological resources are replaced, would help minimize these significant impacts. Water conservation and/or alternative water supplies may be sufficient to eliminate the need for surcharging and avoid the above impacts while freeing up sufficient water for steelhead protection.

**VII. CalTrout's Proposed Public Trust Alternative, Maximum Beneficial Use Alternative and IFIM Alternative are Feasible and are Capable of Fulfilling the CEQA Project Objective of Appropriate Protection of Public Trust Resources.**

While the SWB's decision is likely to be months away and must be made after FEIR certification, under CEQA, the SWB cannot adopt an alternative if there is another feasible alternative that fulfills most of the basic project objectives and avoids or substantially lessens a significant impact. CEQA Guidelines §§15002(a)(3) and 15021(a)(2); Public Resources Code §21081(a)(3); Mountain Lion Foundation v. Fish and Game Commission (1997) 16 Cal.App.4<sup>th</sup> 105, 134. "The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." Public Resources Code §21002. The lead agency's decision with regards to the feasibility of alternatives must be based on substantial evidence in the record. Citizens for Goleta Valley v. Board of Supervisors (2d Dist. 1988) 197 Cal.App.3d 1167. Decisions regarding whether or not alternatives substantially lessen or avoid significant impacts must also be based on evidence in the record. When the SWB acts in this matter, it is limited in which alternative it can approve. It must ensure that the alternative it approves is feasible and results in the fewest, and / or substantially least severe, significant impacts of all the alternatives in the administrative record.

3-33

A. Alternative 3A is the Environmentally Superior Alternative of Those Analyzed in the DEIR.

CalTrout agrees with the SWB DEIR that Alternative 3A is environmentally superior to all other alternatives considered in the DEIR.<sup>8</sup> Alternative 3A is the environmentally superior alternative because it results in fewer, and less significant, Class I, unavoidable impacts than the other alternatives. It also results in fewer Class II and Class III impacts. It results in only one purported potential Class I indirect impact, related to the increased or renewed use of alternative water supplies (e.g., desal) to compensate for potential reductions in water supplies predicted to occur only during the "critical drought" year. These reductions result from the BO's target flow requirements for passage, spawning and rearing coupled with the lack of surcharging in Alternative 3A. The alternatives that use 1.8 foot or 3.0 foot surcharging (3B, 3C, 4A and 4B) result in a greater number of Class I impacts (to oak trees, habitats and recreation) than 3A does (the indirect impact of developing alternative water supplies during critical drought years) and are therefore environmentally inferior to Alternative 3A.

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<sup>8</sup> However, as discussed above, it still fails to achieve the basic objective of protecting public trust resources in the river.

The indirect impacts associated with Alternative 3A during critical droughts can be avoided through enhanced water conservation according to Pacific Institute. 3A also avoids the impacts of surcharging and is therefore environmentally superior to other alternatives in the DEIR. Alternatives that include enhanced conservation avoid the indirect effects of Alternative 3A, and may avoid the need for surcharging and thus avoid the recreational and biological impacts. CalTrout supports analysis of measures to reduce the biological and recreational impacts of surcharging if surcharging is needed to reduce indirect water supply impacts. However the evidence CalTrout submits shows that water conservation and alternative supplies can mitigate the drought-time water supply impacts and that surcharging (and its impacts to oaks, vegetation and recreation) may not be necessary. Therefore the DEIR properly identifies Alternative 3A as the environmentally superior alternative in the DEIR. **Nonetheless, 3A does not fulfill the basic objective of protecting the public trust resources and the EIR must consider new alternatives that can feasibly protect steelhead without causing significant secondary impacts.**

3-34

B. CalTrout's Alternatives will Meet the Project Objectives and Reduce or Avoid Project Impacts.

CalTrout offers the following alternatives for consideration in the environmental review process for the proposed action. These alternatives are offered because they are consistent with the objectives discussed above, are feasible, and are capable of fulfilling the objective of restoring and preserving the public trust in the Santa Ynez River steelhead. Obtaining additional information is still necessary in order to determine the full range of measures that should be implemented to protect public trust resources and comply with Fish and Game Code §5937. However, in the interim, CalTrout's alternatives better fulfill the project objectives because they feasibly maintain steelhead in a better condition than proposed in any of the DEIR alternatives through increased rearing flows, and they require the studies necessary to make a final decision regarding protection of steelhead as a public trust resource.

3-35

1. *IFIM Alternative*

The IFIM Alternative is described as Alternative 3A2 in the 1995 Cachuma Contract Renewal EIR/S ("EIR/S"). This alternative is identical to the CalTrout Public Trust Alternative – and both are based on the same 1989 Physical Habitat Simulation System - except for one significant distinguishing feature. Under the IFIM Alternative, the flows specified as minimums are required every year regardless of whether or not it is a drought year. According to the EIR/S, under Alternative 3A2, "operational criteria would be modified to improve instream resources," "the Cachuma Project would be operated to improve environmental resources, and "would give first priority to meeting the water supply needs of the Member Units, followed by the water requirements of the environment" (excerpts from Final EIS/EIR for Cachuma Project Contract Renewal, Attachment #10).

3-36

This alternative would significantly improve habitat for spawning, rearing and passage (Keegan 2003), however it could result in a greater need to tap alternative water supplies

during critical drought years compared to CalTrout's Public Trust Alternative. Despite its potentially greater drought-time water supply reduction, the report prepared by Pacific Institute suggests that this reduction (and any indirect impacts related to it) could be mitigated through conservation. The IFIM Alternative is capable of fulfilling the project objectives, including compliance with the Fish and Game Code section 5937. Therefore the SWB should analyze this alternative in the EIR.

3-36

## 2. *Public Trust Alternative*

CalTrout proposes the Public Trust Alternative as a feasible method potentially capable of fulfilling the public trust objective and compliance with § 5937, until additional information is available to make a final determination on instream flow and other measures that may be needed to comply with the Public Trust Doctrine and Fish and Game Code §5937. CalTrout's Public Trust Alternative incorporates the measures of the BO and FMP, however it replaces the BO's fish release requirements with the fish release requirements adapted from Alternative 3A2 in the 1995 Cachuma Contract Renewal EIR/S. These flows were determined using a physical habitat simulation system ("PHABSIM")<sup>9</sup> and are based on sound hydrological modeling accepted as part of that certified EIR/S. Under this alternative, the flows cannot be reduced by the AMC and are not contingent upon surcharging. Surcharging is not part of this Alternative, but can be accommodated if deemed necessary. CalTrout's Public Trust Alternative also includes the Conservation Recommendations of the BO, including studies, and a re-opener provision for the SWB permit that states that the SWB will affirmatively review the permit terms when NMFS releases the steelhead recovery plan.

3-37

This alternative would result in similar adverse environmental impacts as Alternatives 3A, 3B, or 3C depending on whether or not surcharging to 3 feet occurs, but unlike those options it may fulfill and at a minimum it comes closer to fulfilling the public trust objective. The SWB should evaluate this option's potential to fulfill the objectives and its relative impacts compared to those of the EIR's alternatives which do not come close to achieving the basic project objective. This alternative could also include time series habitat monitoring to verify that the PHABSIM predicted outputs occur.

The specific project elements are described below:

- a. *Releases of water to protect steelhead and other public trust resources.*

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<sup>9</sup> The PHABSIM is part of the Instream Flow Incremental Methodology ("IFIM"), a decision-making tool to determine instream flow. This method has been identified as a preferred methodology by the CDFG to develop instream flow recommendations. (June 23, 1987 letter to Jim Edmondson from Pete Bontadelli (CDFG), Attachment#12.) Keegan (2003) discusses the benefits of this methodology compared to methodology supporting the flow regime in the DEIR alternatives.

Releases from Cachuma Reservoir would be required to augment any natural River flows to maintain the following minimum surface stream flows to enhance fish passage and steelhead spawning and rearing habitat primarily between Bradbury Dam and Refugio Road:

- 48 cfs 15 February to 14 April for spawning, then
- 20 cfs to June 1 for incubation and rearing, then
- 25 cfs for one week for emigration, then
- gradually decrease releases to 10 cfs by 30 June, then
- hold at 10 cfs to 1 October for steelhead rearing and resident fish, then
- 5 cfs the rest of the year for resident fish.

These flows may not completely restore and preserve the public trust resources or return and maintain steelhead in good condition, but the best information available suggests that these come the closest, and so they should be 1) analyzed in the EIR and 2) implemented as an interim measure until additional studies are completed. These flows are not dependent on surcharging or presence of water in accounts. Based on hydrological modeling done in Section 6.1 of the Contract Renewal EIR/S, the above minimum stream flows could be maintained at both San Lucas and Alisal bridges in all years; however CalTrout's Public Trust Alternative implements the BO's long-term target flows during dry years. CalTrout's analysis of the potential to reduce the demand for water use by the COMB member units indicates that indirect impacts of alternative water supplies can be avoided through increased water conservation. The Pacific Institute (2003) concludes that between 5,000 and 7,000 AFY of water can be cost-effectively conserved, and that demand can thereby be reduced so that the impacts of a critical dry year are considerably less.

b) *Other measures in BO.*

CalTrout's Public Trust Alternative includes all of the proposed operations, maintenance and conservation actions described on pages 4 – 15 of the BO, except that 1) reservoir surcharge is optional and only included if water conservation and alternatives supplies would not result in less impacts than surcharging; 2) "Flow-Related Fish Support Measures" and "Flow Accounting" are replaced by the flow regime described above; 3) "Adaptive Management" includes measurable performance standards pursuant to Keegan's recommendation; and 4) the AMC can increase but not decrease flows rates specified above. The remaining BO actions incorporated into the Public Trust Alternative (also included in the DEIR's Alternatives 3 and 4) include: water rights release ramping, Hilton Creek Water Supply, limitations on "State Water Deliveries," "Emergency Winter Operations," "Maintenance Activities," Hilton Creek passage impediment and barrier removal projects, "Fish Rescue," "Conservation Easements," "Tributary and Mainstem Enhancements," "Watershed Monitoring Program," and "Public Education and Outreach."

In addition, CalTrout's Public Trust Alternative includes all "Terms and Conditions" that implement that 15 Reasonable and Prudent Measures in the BO. Finally, this alternative also includes the three "Conservation Recommendations" described on pages 81 –

82 of the BO. The DEIR acknowledges that the BO's "Conservation Recommendations" - not clearly described as part of any alternative in the DEIR - were designed to contribute to the recovery of the species. These Recommendations include studies of 1) steelhead passage around Bradbury Dam<sup>10</sup>, 2) alternative methods for delivering downstream water rights water to protect steelhead (e.g., modifications to WRO 89-18's mandate that the river be dewatered before any down stream water rights releases can be made), and 3) how the operation of the Cachuma Project has affected the river geomorphology and habitat for steelhead. Under the Public Trust Alternative, the goal for fulfilling the conservation recommendations is two years after the SWB's decision regarding modification of the Bureau's water rights permits.

In order to reinforce observations made during the September 8, 2003 site visit, CalTrout submits for the SWB's consideration evidence that the physical and ecological features relating to habitat for steelhead (e.g., gravel beds, depth, size and frequency of pools, bedrock outcroppings, geology, springs, riparian habitat, etc.) are more conducive to steelhead spawning and rearing in the portion of the river and its tributaries above Cachuma Reservoir than those below it (Statement of E.A. Keller, October 6, 2003 (Attachment 21); Keegan 2003). In fact Dr. Keller notes that the River below Bradbury cannot be returned to anything like it was prior to Bradbury Dam. As discussed above, the majority of stream habitat suitable for steelhead in the SYR Watershed lies above Cachuma, therefore this area will be an important component of protecting the public trust steelhead resource if passage is provided. The attached list indicates that there may be as much as 422 miles of blue-line and intermittent river and tributary miles (Attachment #13). Other evidence submitted also indicates that fish passage will be necessary to restore the public trust (Keegan 2003). The USFS assessed the potential to restore steelhead in the Santa Ynez River and finds that restoring access above the three major dams on the SYR could increase the steelhead run conservatively from current population estimates of approximately <200 fish<sup>11</sup> to 1,800 to 4000 adult fish (USFS Santa Ynez Steelhead Restoration Feasibility Study, 1996, page 15).

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<sup>10</sup> The DEIR fails to describe how the Cachuma Project impacts steelhead migration and fails to offer alternatives that would provide steelhead passage around Cachuma as a feasible way to protect public trust resources and fulfill the project objectives. The DEIR's discussion of impacts to steelhead (Section 4.1.1) describes the environmental conditions in the vicinity of the project and says: "These conditions have been influenced by past and ongoing operations of the Cachuma Project, which directly affect fluctuations of the reservoir and the amount and timing of flows below the dam." It emphasizes the dam's impact on downstream flows but it does not mention the impact to steelhead migration caused by past and ongoing operations of the Cachuma Project and Bradbury Dam absent fish passage. This is how the Cachuma Project most severely impacted and continues to impact steelhead as a Public Trust resource. In order to protect steelhead for the Public Trust, the alternatives must include a thorough fish passage study.

<sup>11</sup> The BO on Page 17 finds that the run on the Santa Ynez River was less than 100 adult fish in 1996.

The attached Opinion of E.T. Zapel (October 3, 2003) (Attachment #17) demonstrates that there are at least several feasible methods of securing passage around Bradbury and other Santa Ynez River dams, and that an evaluation of adult and juvenile fish passage is warranted to determine the most effective solution. Therefore, CalTrout's alternatives include a term and condition in the Bureau's water rights permits requiring a detailed feasibility study of alternative methods of fish passage, based on the Zapel recommendations, and with input and concurrence by NMFS and CDFG. The report would be required by a date certain following the SWB's decision in these proceedings to ensure the actions potentially necessary to protect the public trust are not put off indefinitely.

c) *Re-opener Clause.*

The Bureau's permits already include a provision ensuring that the SWB retains jurisdiction to protect public trust resources. Given that additional studies are still necessary to determine the full range of measures necessary to protect public trust resources, implementation of these studies should be incorporated into the permits, and the SWB should include a provision in the permits to affirmatively revisit the public trust issue when these studies are complete. Specifically, this alternative includes a re-opener provision that automatically triggers reconsideration of the water rights permits by the SWB after NMFS releases its draft and final steelhead recovery plan and once the other studies (e.g. fish passage, long term flow regimes, use of ANA and BNA water, etc.) are completed. This is an important component of the Public Trust alternative in that it recognizes that additional information may still be necessary for the SWB to fully assess what measures should be incorporated into Reclamation's water rights permits to restore and preserve public trust resources in the Santa Ynez River, and ensures that as this information becomes available it can be considered and incorporated into the permit terms in a timely manner.

3. *CalTrout's Maximum Beneficial Use Alternative.*

The EIR is deficient for not analyzing an alternative that would include dual utilization of water stored in the Below Narrows Aquifers ("BNA") and Above Narrows Aquifers ("ANA") for subsequent groundwater recharge releases more continuously for steelhead and other aquatic resources. Currently, this water is released in large pulse flows during several weeks after the River bed aquifer (and thus the River) above the narrows has been dewatered by 10,000 acre feet, typically in August or September. The Maximum Beneficial Use Alternative is identical to the CalTrout Public Trust Alternative except that it includes continuous releases of the ANA and BNA water to support rearing and other steelhead life stages in the river. It would include studies, required as part of a modified term and conditions in the Bureau's water rights permits to evaluate how to implement WRO 89-18 water rights releases more continuously to better protect and support steelhead and recharge the groundwater basins concurrently. CDFG, on page 198 of the 1996 Steelhead Restoration and Management Plan, recommends investigating "the feasibility of modifying the release schedule of water released from Bradbury Dam to downstream water users so that it provides benefits to fish and wildlife." In 1997, CDFG noted that "Currently, the water is released on

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3-38

an as-needed basis as called for by the Santa Ynez River Water Conservation District, which provides relatively little benefit to aquatic species and habitat.” In addition, NMFS recommends similar studies in the BO’s Conservation Recommendations. Additional hydrological studies, amongst others, are necessary to better understand how the Cachuma Project can be operated to protect steelhead. Such studies should include how the water currently stored for subsequent pulse releases to recharge groundwater aquifers downstream from the dam pursuant to WRO 89-18 may be used conjunctively through continuous releases for groundwater recharge and to support steelhead in the river.

While the water agencies’ settlement uses the term “Conjunctive Use,” the release of downstream water rights water in a large pulse in September after the ANA have been dewatered by 10,000 AF or more, as called for in the Settlement and WRO 89-18, does little to benefit steelhead. In fact, it may be detrimental to steelhead (Keegan 2003). True conjunctive use would make efficient dual use of the downstream water rights releases in a pattern that would maximize benefits of use to steelhead and to downstream users. To accomplish this, WRO 89-18 could be modified so that the downstream releases can occur continuously and not only after the river alluvial aquifer above the narrows has been dewatered by 10,000 AF. The Maximum Beneficial Use Alternative includes water rights permit terms and conditions requiring the Bureau to work with CDFG and NMFS to study utilizing the ANA and BNA water conjunctively for fish and groundwater replenishment.

3-38

This approach may enhance public trust resources such as wetlands and steelhead throughout the river by providing more continuous flows. While it may slightly increase instream growth of riparian vegetation more than the current alternatives, this is not considered a significant impact for other alternatives in the DEIR or by the Flood Control District, as described below. It requires investigation, however, it could result in protection of public trust resources by releasing water that is destined to be released anyway. This released water would benefit steelhead with the goal of protecting steelhead in good condition in the river below the dam, while at the same time recharging downstream aquifers.

The EIR, or subsequent studies required of the Bureau by the SWB as part of the water rights permits, should consider how much water may be available through alternative water supplies and water conservation and assess how much of the BNA and ANA water should be utilized under this conjunctive use scenario. Given that conservation alone may provide several thousand acre feet per year, only a portion of the ANA and BNA may be necessary for this conjunctive use, and the remainder would remain in the reservoir for future releases as needed to keep the downstream aquifer recharged and/or as a drought buffer. The SWB should require a study of this alternative before determining what measures are necessary to protect steelhead as a public trust resource. Using the downstream water rights releases stored from the ANA and BNA conjunctively for continuous rearing flow support, this alternative is consistent with an objective of maximizing beneficial use and preventing unreasonable use. Also note that this is consistent with the BO’s conservation recommendation.

**VIII. The DEIR Fails to Analyze Consistency with Applicable Plans and Policies and Fails to Acknowledge the Project's Inconsistency with such Plans and Policies, Resulting in a Potentially Significant Land Use Impact.**

As part of an EIR, CEQA requires an analysis of the project's consistency with the plans and policies of all agencies with jurisdiction over the project to ensure that potential environmental issues are not overlooked. The CEQA Guidelines Appendix G (Environmental Checklist Form) and Appendix I set forth the format of a sample Initial Study, which includes a checklist of potential environmental effects that should be assessed, if applicable, in every EIR. Included in this list of 16 categories of potential environmental effects is Impact IX, "Land Use Planning" Impacts. Within this category is Impact IX(b), "Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect" (Appendix G of CEQA Guidelines, Attachment #15; see also CEQA Guidelines Section 15063(d)(5)). This DEIR does not analyze Land Use Impacts including conflicts with existing plans and policies.

3-39

For instance, the DEIR must assess consistency with the CDFG Steelhead Restoration and Management Plan for California, CDFG Steelhead Restoration Policies such as the Salmon, Steelhead Trout, and Anadromous Fisheries Program Act (Fish and Game Code Section 6900 et. seq.), and other pertinent Fish and Game Code sections including §5937, because the CDFG has jurisdiction over many aspects of this project pursuant to Fish and Game Code Section 1601. Streambed Alteration Agreements are required for project elements including modifications to the lakeshore (surcharging), to tributaries (passage improvements), and to the mainstem (modified flows and their physical effect on stream bank morphology, fish and wildlife and vegetation). The project is not consistent with the state-approved CDFG Steelhead Restoration and Management Plan's policies and recommendation regarding additional investigation into fish passage at Bradbury Dam.

3-40

In addition, the DEIR must assess consistency with the Porter-Cologne Act and the Clean Water Act, including the Basin Plan, and must assess compliance with the beneficial uses because the Regional Water Quality Control Board has jurisdiction over portions of the project including release of water into the river and tributary projects. The alternatives identified do not achieve beneficial use protection and raise consistency issues with the Basin Plan. The project does not achieve beneficial use of the State's waters with regards to migration, spawning, rare species, cold water fish, wildlife habitat, municipal water supplies and other beneficial uses. These beneficial uses were identified pursuant to the federal Clean Water Act (Section 303), and whether they are being achieved should be evaluated in light of the overarching objective of the Clean Water Act – ". . . to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 101. The SWB has previously interpreted "physical integrity" to mean the maintenance of "the temperature, hydrologic regime, geomorphology, and other physical characteristics . . . within the ranges that fully supports the beneficial uses historically provided by that water." March 11, 2003

3-41

letter from Arthur G. Baggett, Jr. to U.S. EPA, p. 6 (comment on ANPRM on Definition of “waters of the United States”). Similarly, the SWB has identified “biological integrity” as meaning that “the biological processes and diversity and abundance of organisms associated with a waterbody are within the ranges historically supported by that water.” *Id.* at 7. As discussed above, the DEIR does not even identify or assess the historical conditions of the Santa Ynez River and the steelhead population. Nor do any of the alternatives in the DEIR include measures that would be capable of restoring steelhead migration, spawning and rearing to its historical conditions or even significantly. The DEIR does not address how these alternatives are consistent with the Basin Plan. Furthermore, the DEIR does not address how increased water conservation and/or use of alternative supplies or conjunctive use of downstream water rights releases for fish rearing could result in placing the State’s water to higher use by better fulfilling the beneficial uses specified in the Basin Plan.

3-41

Additionally, Santa Barbara County has approval authority over some project elements (tributary passage and enhancement projects, relocation of recreational facilities and authorizing use of County Parkland for oak tree mitigation plantings). Thus, the SWB should provide a detailed assessment of the proposed project’s consistency with the Santa Barbara County General Plan, including the Conservation Element, to ensure that the proposed project is in compliance with locally adopted standards for protecting the environment from impacts.

3-42

As discussed above under the discussion regarding the DEIR’s objectives, the project’s consistency with the Public Trust Doctrine, Fish and Game Code §5937, Article X, Section 2 of the California Constitution, and Water Code Section 100 are especially integral to the project’s evaluation. The DEIR needs to analyze the alternatives’ respective consistency with these provisions.

3-43

**IX. Other Comments Regarding the DEIR.**

3-44

A. Flood Control Impacts, Page ES 6, Table ES-1

The DEIR finds potential flood hazard impacts to be adverse, yet the COMB/Bureau DEIR/S and the Flood Control District have not classified this impact as adverse. The Santa Barbara County Flood Control District (“District”) submitted a September 3, 2003 letter to the SWB regarding the DEIR (Attachment #16). The District made it clear that it does not intend to and has no funds to conduct maintenance in this section of the river. It has no permits and no sites for habitat mitigation that would be required. Moreover, this section of the river above the Narrows is not characterized by the low lying flood prone fields below the Narrows and the threat of flooding is much lower. The threat of bank erosion may exist in this reach, however, continuous flows would promote riparian vegetation that could stabilize the river banks in this reach, reducing bank erosion.

3-45

Page 4-24 of the DEIR states that the impact would occur regardless of the project because the BO requires releases for fish. Is this statement then not true of all impacts related to increased releases for fish?

The DEIR finds that the potentially adverse flood hazard impact could be mitigated by increased river maintenance by the Santa Barbara County Flood Control District, but the EIR fails to analyze the feasibility of this mitigation measure. Neither the SWB nor the project applicant can direct the District to begin clearing the river and the District has stated that it does not intend to begin clearing the river in this reach.

3-45

With regards to increased river maintenance by the District, the EIR fails to assess the impacts, the permitting issues, and the funding and habitat mitigation difficulties identified by the District. Pursuant to CEQA, the impacts of mitigation measures must be described and assessed, but they have not been. This impact is not expected to be significant and the EIR should dismiss discussion of this infeasible, unnecessary and problematic mitigation proposal.

3-46

B. Protection of Public Trust Resources in other Streams affected by the Cachuma Project.

Page 2-1 describes the Cachuma Project Facilities as including four dams on creeks supporting Public Trust and Fish resources on the South Coast of Santa Barbara County, which receive Cachuma water deliveries. These dams impound water in these streams and do not make releases to support public trust resources. The DEIR fails to address the SWB's duty to protect the public trust resources on these creeks that are affected by the proposed ongoing operation of the Cachuma Project under new SWB permit terms and conditions. It is currently unclear whether the Bureau operates all or some of these dams, which are part of the Cachuma Project. At least one of these creeks (Tecolotito / Glen Annie) supports red-legged frogs and supported steelhead prior to the construction of Glen Annie Dam as part of the Cachuma Project.

3-47

As with the Santa Ynez River, the SWB has a duty to comply with the Public Trust Doctrine and must ensure that all public trust impacts from the Cachuma Project are considered and mitigated whenever feasible and protect steelhead and other public trust resources in Tecolotito / Glen Annie Creek in good condition. The State Water Board should require additional information from the Bureau regarding its operation of Cachuma Project support facilities, including the Glen Annie / Tecolotito Dam, require target flows below the dam to be sustained for fish, wetlands and other public trust resources, and subsequently revisit the matter to rule what measures, including fish passage, flows and/or restoration may be required to protect the public trust resources in all waterways affected by the Cachuma Project.

C. Cumulative Impacts.

The proposed project will cause impacts to biological resources along the lake shoreline. The Cachuma Reservoir Resource Management Plan is being developed by the Bureau. This project may also cause impacts to the same resources affected by the SWB's project, including raptors and rare species. In addition, the County Flood Control District has

3-48

an ongoing vegetation removal project in the Lower Santa Ynez River (at Lompoc) and the river clearing project has resulted in significant impacts to riparian habitats and rare species according to environmental review conducted for that project upon its initial undertakings during the 1990's. Therefore the EIR must analyze and mitigate the cumulative impacts of these projects.

3-48

D. Infiltration into Tecolote Tunnel, Page 2-4.

The DEIR notes that 2000 AFY infiltrates Tecolote Tunnel from surrounding aquifers as part of the Cachuma Project. The EIR should evaluate the impact of this infiltration on natural resources, such as riparian areas and springs. Specifically, where would this water infiltrate to otherwise? Would it support public trust resources or fisheries that are now deprived of water due to the project operation and resulting infiltration into the tunnel (e.g. Tecolotito Creek, Ellwood Creek, or Tecolote Creek)? Such evaluation is necessary to ensure that the SWB can protect public trust resources affected by the Cachuma Project. The objectives should be broadened to include protection of all public trust resources affected by the Cachuma Project, including those outside of the Santa Ynez River Watershed, to ensure the SWB fulfills its duties under the Public Trust Doctrine. The SWB's duty is not limited to protecting only those public resources within the Santa Ynez Watershed, and thus should consider assigning adequate water from to 2000 AFY of infiltration to support public trust resources in affected streams and the river. Also, is this 2,000 AFY factored into the member agencies' yield from the Cachuma Project? This should be considered another potentially feasible source of water for reducing the indirect, potentially significant impacts associated with increasing alternative water supplies during critical droughts.

3-49

E. Implementation of BO Measures, Page 2-12.

The DEIR states that the Bureau is currently implementing these measures from the BO. However, it fails to specify the progress of the Bureau in accomplishing these requirements. The Bureau is not meeting the BO's deadlines for: 1) maintaining target flows at Highway 154; 2) studies of alternative ways to deliver water pursuant to WRO 89-18 to protect steelhead better; and 3) developing alternative passage flow releases strategies. BR did not meet this BO deadline. This is relevant to the SWB's considerations and EIR because if the Bureau is not complying with the BO or meeting the deadlines of the BO, then the SWB reliance on the BO to protect Public Trust resources appears to be unwarranted. Full implementation of the BO is adequate only to prevent further jeopardy of steelhead and is inadequate to protect steelhead as a public trust resource or to keep steelhead below Bradbury Dam in good condition.

3-50

**Conclusion**

CalTrout supports the SWB's lead agency status in this matter and shares the SWB's concern that COMB and the Bureau have a largely duplicative EIR/S for essentially the same project. While we agree that the SWB is the proper agency under CEQA to consider the

Mr. Andy Fecko: Bradbury Dam DEIR  
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environmental effects of the proposed modifications to the Bureau's water rights permits to protect public trust resources, the SWB's DEIR is inadequate pursuant to CEQA and is inadequate to support the SWB's decision as to whether the Bureau's water rights permits should be modified to protect public trust resources.

The DEIR must be revised to identify all of the relevant objectives required by law; to ensure a clear, stable and specific project description; to include a range of alternatives that will fulfill the basic project objectives; and to include a full analysis of the baseline, project impacts and potential mitigation measures and alternatives. In particular, the DEIR should be revised to analyze the alternatives suggested by CalTrout, as these alternatives will not only reduce project impacts but they are the only alternatives that will fulfill the project objective of protecting public trust resources and comply with other state laws, plans and policies.

Sincerely,

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Karen Kraus  
Staff Attorney

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Brian Trautwein  
Environmental Analyst

3. **Environmental Defense Center/California Trout, Inc., dated October 7, 2003.**

**Response 3-1:**

The comment states that the 2003 DEIR fails to adequately identify the project objectives and fails to provide the specificity required by CEQA.

See response to 2007 RDEIR **Comment 1-1**. While the objectives potentially could have been more clearly expressed in the 2003 DEIR or 2007 RDEIR, they were articulated in various discussions in both documents. The objectives have been clearly stated in the 2011 2<sup>nd</sup> RDEIR.

**Response 3-2:**

The comment states that the 2003 DEIR fails to adequately define the project's objective of protecting public trust resources. The comment continues that the DEIR fails to accurately describe the historic public trust resources of the river.

See response to 2007 RDEIR **Comment 1-1**. While the objectives potentially could have been more clearly expressed in the 2003 DEIR or 2007 RDEIR, they were articulated in various discussions in both documents. The objectives have been clearly stated in the 2011 2<sup>nd</sup> RDEIR.

There is no requirement that an environmental document must provide an historical setting beyond that of the baseline conditions. While the Santa Ynez River was once a robust habitat for *O. mykiss*, this is not the baseline for the current environmental analysis. However, the 2011 2<sup>nd</sup> RDEIR does include more historical background information in Chapter 2.0, Overview of the Cachuma Project.

**Response 3-3:**

The comment states that the 2003 DEIR fails to define the project's objective of protecting public trust steelhead resources above Bradbury Dam.

See response to 2007 RDEIR **Comment 1-1**. While the objectives may not have been explicitly addressed in the 2003 DEIR or 2007 RDEIR, they were articulated in various discussions of both documents. The objectives have been clearly stated in the 2011 2<sup>nd</sup> RDEIR (see **Section 3.1.1**).

The objectives for the project include:

- Protecting public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, taking into consideration: (1) the water supply impacts of measures designed to protect public trust resources, and (2) the extent to which any water supply impacts can be minimized through the implementation of water conservation measures;

Protection of public trust resources above Bradbury Dam is not a project objective.

**Response 3-4:**

The comment states that the 2003 DEIR fails to identify other relevant requirements that define SWRCB objectives.

See responses to 2003 DEIR **Comments 3-5** and **3-6**.

**Response 3-5:**

The comment states that Fish and Game Code Section 5937 requires the owner of a dam to allow sufficient water to pass over, around or through a dam in order to keep in “good condition” any fish that exist below the dam. The comment also states that operation of the Cachuma Project must comply with the requirements of Fish and Game Code Section 5937 (Order No. WR 95-2 (1995)). Finally, the comment recommends that the project objectives include compliance with Fish and Game Code Section 5937.

All of the alternatives considered would, at a minimum, incorporate the requirements of the Biological Opinion, which, as determined by NMFS, “would not jeopardize the continued existence of the southern steelhead.” Information on the current status of *O. mykiss* in the Santa Ynez River is summarized in Appendix G.

The 2011 2<sup>nd</sup> RDEIR (**Section 4.13, Relationship to Other Plans**) identifies the applicable plans and policies of other state and federal agencies and discusses the consistency of this project with the various plans, policies and codes. The 2011 2<sup>nd</sup> RDEIR did not find the project to be inconsistent with any plans, policies, codes, or requirements.

**Response 3-6:**

The comment states that the 2003 DEIR fails to identify compliance with Article X, Section 2 of the California Constitution.

The 2011 2<sup>nd</sup> RDEIR (**Section 4.13, Relationship to Other Plans**) identifies the applicable plans and policies of other state and federal agencies and discusses the consistency of this project with the various plans, policies and codes. The 2011 2<sup>nd</sup> RDEIR did not find the project to be inconsistent with any plans, policies, codes, or requirements.

**Response 3-7:**

The comment suggests proposed project objectives.

See response to 2007 RDEIR **Comment 1-1**. While the objectives potentially could have been more clearly expressed in the 2003 DEIR or 2007 RDEIR, they were articulated in various discussions in both documents. The objectives have been clearly stated in the 2011 2<sup>nd</sup> RDEIR. (See **Section 3.1.1**.)

**Response 3-8:**

The comment states that the 2003 DEIR fails to analyze a reasonable range of alternatives that fulfill the basic objectives and substantially lessen or avoid significant impacts.

See response to 2007 RDEIR **Comment 1-7**.

**Response 3-9:**

The comment states that all of the alternatives identified in the 2003 DEIR assume the continued implementation of Order No. WR 89-18, which, the comment states, did not weigh or consider public trust uses of the water, and may therefore be incorrect in light of current knowledge or inconsistent with current needs. The comment states that there is no legal basis to assume that implementation of Order No. 89-18 should continue without an assessment of the impacts of that Order on public trust resources, and that, in order to fulfill its public trust responsibilities, the SWRCB should modify the 2003 DEIR to include an assessment of the impacts of implementation of WR 89-18 on public trust uses (including the impacts of withholding water from release until called for by downstream water rights holders and the impacts of timing and amount of water releases). The comment suggests that at least one alternative that includes modification of Order WR 89-18 should be included for consideration in the EIR,

The 2007 RDEIR included additional alternatives (5B and 5C) as suggested by CalTrout that provide for alternative scenarios for releasing water for the benefit of the public trust resources. The commenter is directed to **Section 3.2.2.5** of 2007 RDEIR and 2011 2<sup>nd</sup> RDEIR).

**Response 3-10:**

The comment states that alternatives analyzed in the 2003 DEIR are incapable of restoring or preserving the public trust in steelhead and thus do not fulfill the project objective.

See **response** to 2003 DEIR **Comment 1-3** and **3-9**.

**Response 3-11:**

The comment states that the 2003 DEIR finds numerous beneficial impacts to steelhead as a result of the 3 and 4 series alternatives (which implement the BO) but fails to demonstrate that the public trust resources of the river are protected, which is one of the key objectives identified in the 2003 DEIR.

The comment is noted. Alternatives 3B, 3C, 4A, and 4B would be beneficial to *O. mykiss* and because these alternatives implement the BO, they would provide protection for that public trust, consistent with NMFS's determination that implementation of the BO measures "would not jeopardize the continued existence of the southern steelhead." Other public trust resources such as tidewater goby, California red-legged frog and southwestern willow flycatcher would also be protected by these Alternatives.

See also response to 2007 RDEIR **Comment 10-4**.

**Response 3-12:**

The comment states that the proposed alternatives are not capable of achieving the public trust objective or of maintaining southern steelhead in good condition below the dam. In addition, the comment suggests there are several deficiencies in the 2003 DEIR's analysis and conclusions regarding protection of public trust resources.

See responses to 2003 DEIR **Comments 3-5, 3-10 and 3-12**.

**Response 3-13:**

The comment claims that the alternatives in the 2003 DEIR do not achieve the project objectives and recommends that the EIR evaluate alternatives that include measures to restore and preserve the steelhead fishery by restoring in the Santa Ynez River watershed to a natural condition.

The comment is noted. Measures to restore the Santa Ynez River watershed to a natural condition are beyond the scope of the project. The purpose of the EIR is not to evaluate the impacts of the Cachuma Project on the fishery (including the impact of the dam and reservoir on fish passage) and develop measures to mitigate those impacts (such as fish ladders, trap and haul, etc.). That was the purpose of the public trust hearing. The purpose of the EIR is to evaluate any incidental environmental impacts of the public trust measures proposed during the hearing.

**Response 3-14:**

The comment states that 2003 DEIR fails to include a clear project description as required by CEQA. Under CEQA, an EIR must include a map, preferably topographical, depicting the project's precise location and boundaries; a clearly written statement of the objectives sought by the proposed project; a general description of the proposed project's technical, economic, and environmental characteristics; a statement describing the intended uses of the EIR, including a list of the agencies that are expected to use the EIR in their decision-making, a list of permits and other approvals required to implement the project, and a list of related environmental review and consultation requirements mandated by federal, state, or local laws, regulations, or policies. The comment suggests that, in this case, the project description is comprised of the vague statement that the project analyzed in this EIR 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.

See response to 2007 RDEIR **Comment 1-2**.

**Response 3-15:**

The comment states that the description of alternatives is vague and unclear because it fails to specify whether "target flows" are mandatory minimums or are contingent upon surcharging.

The project description of each alternative has been modified to reflect the BO. The BO establishes the flow conditions that are required. The BO has various target flows that reflect both minimum requirements and release requirements based upon completion of surcharging.

**Response 3-16:**

The comment states that the 2003 DEIR does not adequately or clearly describe the project alternatives target flows required to implement the BO and that the 2003 DEIR does not identify whether target flows are minimum requirements or are contingent upon reservoir surcharging and water accounts for fish releases.

**Section 3.2.2 Description of Alternatives** of the 2007 RDEIR describes each alternative. Alternative 3B incorporates the water rights release requirements under Order WR 89-18, in order to meet long-term rearing and passage target flows under the Biological Opinion, and other steelhead conservation actions described in the Biological Opinion. Alternative 3C includes all the elements of Alternative 3B except that this alternative assumes that Reclamation will modify the spill gates for a 3.0-foot surcharge. Under this alternative, long-term rearing and passage releases for fish pursuant to the Biological Opinion would be met with the 3.0-foot surcharge. Alternative 4B includes water release requirements under Order WR 89-18, releases for steelhead to meet long-term rearing and passage target flows under the Biological Opinion, and other steelhead conservation actions described in the Biological Opinion. It also includes 3.0-foot surcharging, conveyance of SWP water through the Cachuma Project facilities, and emergency winter storm operations.

**Response 3-17:**

The comment states that the 2003 DEIR analyzes biological impacts assuming that the target flows are minimum mandatory requirements, but the 2003 DEIR does not describe them as such, relying on the BO, which depends on infrequent reservoir surcharging. The comment states that BO is unclear as to whether long-term target flows are dependent on infrequent surcharging, which may hinder the beneficial steelhead impacts of Alternatives 3A, 3C, 4A and 4B because under the current conditions, the interim target flows, while less, are at least guaranteed at all times.

Target flows are both minimum mandatory requirements as well as target flows based upon the successful completion of surcharging. The target flows must be met regardless of surcharging, so when the surcharge water is depleted, target flows are provided from project yield. Target flows are designed to meet minimum *O. mykiss* migration passage opportunities and were based on the Adult Steelhead Passage Flow Analysis for the Santa Ynez River (SYRTAC 1999).

The BO includes a long-term monitoring and reporting program, designed to collect data to determine the success of the various management actions and projects. The information collected is to be used to potentially modify the actions and projects to enhance success. In addition, The FMP/BO is based on an adaptive management strategy in which the performance of management actions is monitored and modified to improve their effectiveness or respond to annual variations in hydrologic conditions.

**Response 3-18:**

The comment states that the 2003 DEIR relies on the BO, which does not make long-term target flows mandatory minimums that must be provided regardless of surcharging. The comment continues that the 2003 DEIR reliance on the BO would change the impact assessment under Alternatives 3A, 3B, 3C and 4A and 4B for long-term flows for steelhead to be considerably less beneficial than stated in the 2003 DEIR because the alternative target flows must be considered non-mandatory goals dependent on surcharging and the Adaptive Management Committee (AMC). The comment states that with non-mandatory target flows dependent on surcharging and the AMC, public trust resources would be less protected than as described in the 2003 DEIR.

The comments are noted. See response to 2003 DEIR **Comment 3-17**.

**Response 3-19:**

The comment states that the BO target flows are not being met at Highway 154, indicating that the BO target flows are not mandatory minimum flows and suggesting the SWRCB cannot assure the public and responsible agencies that the target flows will be met and verified.

Based on monitoring of release volumes and applying the hydrologic model approved by NMFS, target flows (see 2011 2<sup>nd</sup> RDEIR **Table 2-7 Long-Term Mainstem Rearing Target Flows**) were met to the Highway 154 bridge (Reasonable and Prudent Measure 11) between the years of 2000 and 2010. The hydrologic model incorporates variables such as evapotranspiration rates, riparian vegetation density, and tributary inflow. The model is calculated to guarantee meeting the target flows and is used to guide flow releases.

**Response 3-20:**

The comment states that Alternatives 3A, 3B, 3C, 4A and 4B are described as including other steelhead conservation actions described in the Biological Opinion (and the Fish Management Plan), but the 2003 DEIR fails to specify those actions, as required under CEQA. The comment suggests the project description should include whether all steelhead conservation actions in the FMP and BO including the BO's Conservation Recommendations will be implemented or not.

Additional conservation actions, Reasonable and Prudent Measures and Status of Compliance required by the BO, are described in the 2011 2<sup>nd</sup> RDEIR **Section 2.4.1.1 Summary of Reasonable and Prudent Measures, Status of Compliance**. A description of the tributary passage projects implemented to date is found in **Section 2.4.3.1 Tributary Passage Impediment Removal Measures**.

**Response 3-21:**

The comment states that the 2003 DEIR appears to grant authority to an Adaptive Management Committee (AMC) to reduce the target flows or determine that target flows need not be met, without clear criteria for when the AMC can modify the target flows.

Condition 10 of the BO requires that all decisions by the Adaptive Management Committee that could affect steelhead must be approved by NOAA Fisheries before they are implemented.

**Response 3-22:**

The comment makes the following recommendations for the project description to address what it states to be the problems with the stability of the project description:

1. The project and alternatives descriptions should be revised to ensure that the BO-prescribed target flows are mandatory minimum flows, to be met at the target sites and throughout the reaches between the target sites and Bradbury Dam at all times;
2. The project and alternatives descriptions should be revised to state with specificity which other measures are included;
3. The Adaptive Management Committee should be able to increase but not decrease target flows; and
4. Compliance with the target flows should be verifiable at all times by the public and responsible agencies by checking one of the USGS gauging stations that already provides a real time report that is available over the internet.

See response to 2007 RDEIR **Comment 3-1**.

**Response 3-23:**

The comment suggests that their environmental baseline should be modified to analyze protection of public trust resources and that the SWRCB must also assess pre-Cachuma Project conditions in order to determine whether the 2003 DEIR objectives are met by any of the alternatives. The comment suggests that only through identification of the historical, pre-project steelhead population conditions is it possible to identify the conditions the SWRCB is seeking to restore and preserve and, as such, an assessment of pre-Cachuma Project conditions is necessary for this 2003 DEIR to adequately support the SWRCB's decision regarding the measures necessary to protect public trust resources in the Santa Ynez River, including measures necessary to restore and maintain steelhead in good condition.

See response to 2007 RDEIR **Comment 1-6**.

**Response 3-24:**

The comment states that the 2003 DEIR fails to include adequate analysis or mitigation for many project impacts.

See responses to 2003 DEIR **Comments 3-25** through **3-32**.

**Response 3-25:**

The comment suggests that the indirect water supply impacts associated with the use of alternative water supplies may be avoided or mitigated to less than significant based on the use of accurate future per capita demand figures, thereby reducing the Class I indirect impact, if appropriate.

Indirect water supply impacts are discussed in the 2003 DEIR on page 4-40 and the Class I impact is indicated on pages ES-7 and 6-4. The 2007 RDEIR used revised water demand information provided by the Member Units to evaluate these impacts and reached the same conclusion (pages ES-8, 4-32, and 6-2) as the 2003 DEIR. The proposed mitigation measure (pages ES-8 and 4-33) remains the same. Also see response to 2003 DEIR **Comment 1-11** regarding the required drought water supply contingency plan.

**Response 3-26:**

The comment suggests that, while the 2003 DEIR finds that the indirect impacts associated with alternative water supplies during critical droughts can be avoided or mitigated through conservation, it does not provide sufficient detail regarding the feasibility of water conservation measures that can negate the need for alternative supplies and thereby avoid the indirect impacts associated with them.

Please see responses to 2003 DEIR **Comments 1-11** and **3-25**.

**Response 3-27:**

The comment indicates that CalTrout concurs with the 2003 DEIR in that reductions in water supply would, if ever, only occur during critical droughts, and that the indirect impacts can be avoided through increased conservation. The comment also considers the CalTrout Alternatives to be environmentally superior alternatives.

The 2007 RDEIR (page ES-1 and **Section 3.2.2.5**), states “In response to CalTrout’s comments, the SWRCB has developed two new alternatives, Alternatives 5B and 5C, which are modified versions of Alternative 3A2. The SWRCB has revised the 2003 DEIR to analyze those alternatives.” On page 3-6 of the 2007 RDEIR, it is explained that “Like Alternative 3B, Alternative 5B assumes a 1.8-foot surcharge. Like Alternative 3C, Alternative 5C assumes a 3.0-foot surcharge.” It was determined that Alternatives 5B and 5C would result in the fewest and second fewest impacts. (See 2007 RDEIR Table 6-1, page 6-1).

**Response 3-28:**

The comment states that CalTrout supports surcharging if deemed necessary to protect public trust resources in the river or to mitigate significant water supply impacts. The comment also states that the impacts of surcharging are considerable and the EIR should evaluate the impacts caused by surcharging (e.g., loss of oak trees and recreational facility inundation) as well as alternatives that can avoid those impacts (e.g., water conservation and alternative supplies).

The 2007 RDEIR and 2011 2<sup>nd</sup> RDEIR both include alternatives that evaluate the continued operation of Bradbury Dam without surcharging the reservoir. Alternative 2B reflects conditions prior to surcharging and impacts associated with those “baseline” conditions have been evaluated.

Further, the 2011 2<sup>nd</sup> RDEIR **Section 4.3.3 Mitigation Measures** includes provisions requiring that any drought contingency measures identified in the Member Units’ urban water management plans be implemented to the extent necessary to make up for a shortage in water supply in a critical drought year. In addition, Table 4-26, Member Unit Drought Contingency Planning, specifies conditions under which water conservation contingencies would be enacted.

**Response 3-29:**

The comment states that the 2003 DEIR finds the loss of 452 oak trees around Lake Cachuma caused by surcharging to be a Class I significant impact that may only be mitigated to less than significant as a result of tree planting over time. However, the comment suggests that the impacts of surcharging on oak trees are not proposed to be fully mitigated to less than significant because the 2003 DEIR finds on page 4-121 that there is insufficient area to accommodate oak tree planting on site to achieve stated mitigation results.

The 2007 RDEIR estimates that a total of 452 oak trees would be impacted with the implementation of a surcharge of 3.0 feet. When the surcharge was initially implemented in 2005, a subsequent survey found that 612 oaks had actually died as a result of the 2005 and 2006 surcharges, with an additional 263 oaks deemed at risk for failure. Mature oak trees are identified as significant resources by local, state, and federal authorities, recognizing that in many cases, an oak tree, which takes approximately 50 years to mature, represents an ecosystem in and of itself. There is a large temporal loss of habitat functions between the time when a mature oak is lost and a replacement tree reaches comparable size and function. Thus the loss of oaks remains a Class I significant, unmitigable impact.

In recognition of this impact, an Oak Restoration Management Plan was initiated in 2005, with the intention of planting sufficient replacement trees to meet the goal of a 2:1 ratio of self-sustaining reproducing oaks after 20 years. The mitigation plan was based on the agreement between COMB and Santa Barbara County as outlined in the 2004 EIR/EIS. As of 2010, a total of 1,881 oaks and associated understory plants have been installed at several locations within Reclamation's property (see discussion in **Section 4.8 Riparian and Lakeshore Vegetation**). Survival of these trees has been between 83 to 100 percent. As these trees continue to grow, the impact will be reduced to a Class II, significant but mitigable.

**Response 3-30:**

The comment states that the 2003 DEIR finds loss of oak trees to be a significant impact, but does not find impacts to oak woodland habitats removed by surcharging to be a significant impact, with the loss of 24 acres of oak woodland habitat. The comment continues that surcharging would remove understory through inundation, in addition to the trees comprising the oak woodland plant community.

The comments are noted. See response to 2003 DEIR **Comment 3-29**.

The 2003 DEIR did not describe impacts specific to sensitive plant communities such as oak woodlands. However, the mitigation provided for the replacement of oaks trees lost through surcharging would compensate for the oak woodland habitat loss as understory species would establish beneath the canopy of the oaks with time. The 2007 RDEIR provides a discussion of impacts to oak woodland as a habitat in **Section 4.8.2, Potential Impacts of the Alternatives**.

**Response 3-31:**

The comment states that the permanent loss of 35.9 acres of chaparral as a result of inundation caused by the proposed surcharging should be considered a Class I impact rather than a Class III impact and should be mitigated.

As the chaparral habitat is not considered a sensitive plant community, impacts to this biological resource is not considered to be significant and therefore no mitigation is proposed or needed. **Section 4.8.2.1 Impacts to Lakeshore Vegetation** of the 2003 DEIR discusses impacts of the various alternatives on lakeshore vegetation and concludes the destruction of upland vegetation types, excluding oak woodlands, is considered an adverse but not significant impact (Class III) because of the small acreage involved compared to the total acreage of these common vegetation types in the area. The oak woodland impacts were assessed in **Section 4.8.2.2, Impacts to Lakeshore Oak Trees**. The 2007 RDEIR states that chaparral communities are not afforded any special protection, either within Santa Barbara County or on a state level, despite their obvious importance in supporting a suite of plants and wildlife which are an integral part of the Lake Cachuma ecosystem.

**Response 3-32:**

The comment states that mitigation measures for recreation facilities are speculative.

As discussed in response to 2007 RDEIR **Comment 8-7** and 2003 DEIR **Comment 1-15**, the 2011 2<sup>nd</sup> RDDEIR has been revised to reflect updated information regarding improvements to park facilities. The boat ramp and associated facilities, such as staircases, have been upgraded to operate properly at surcharged lake levels. In addition, the gabion barrier is an adequate measure to protect the water treatment plant from impacts until the planned new water treatment facility is built. The water treatment plant would be funded equally by the County and Reclamation and is expected to be completed in the year 2013. The sewer lift station mentioned in the comment is scheduled to be replaced in the near future by a new lift station that is currently under construction. As a consequence of this updated information, the analysis has been revised, and impacts are now considered to be less than significant (Class III) as presented in the 2011 2<sup>nd</sup> RDEIR.

Other facilities mentioned by commenter, including Bait and Tackle Shop, UCSB Crew Building, trails, picnic areas, and docks, are not expected to experience impacts from lake surcharging. No other facilities are expected to be impacted by lake surcharging.

**Response 3-33:**

The comment states that CalTrout's proposed public trust alternative, maximum beneficial use alternative and Instream Flow Incremental Methodology (IFIM) alternative are feasible and are capable of fulfilling the CEQA project objective of appropriate protection of public trust resources.

In response to comments raised on the 2003 DEIR by CalTrout, additional alternatives (Alternatives 5B and 5C) were included in the 2007 RDEIR and have been included in the 2011 2<sup>nd</sup> RDEIR. Please see response to 2007 RDEIR **Comment 1-7** for more information on the process used to establish the range of alternatives considered.

**Response 3-34:**

The comment states that CalTrout agrees with the 2003 DEIR that Alternative 3A is environmentally superior to all other alternatives considered in the 2003 DEIR. The comment additionally states the indirect impacts associated with Alternative 3A during critical droughts can be avoided through enhanced water conservation according to Pacific Institute and that Alternative 3A also avoids the impacts of surcharging and is therefore environmentally superior to other alternatives in the 2003 DEIR. The comment suggests that alternatives that include enhanced conservation avoid the indirect effects of Alternative 3A, and may avoid the need for surcharging and thus avoid the recreational and biological impacts. CalTrout supports analysis of measures to reduce the biological and recreational impacts of surcharging if surcharging is needed to reduce indirect water supply impacts. However, the commenter suggests the evidence CalTrout submitted shows that water conservation and alternative supplies can mitigate the drought-time water supply impacts, making surcharging (and its impacts to oaks, vegetation, and recreation) unnecessary and that, therefore, the 2003 DEIR properly identifies Alternative 3A as the environmentally superior alternative in the 2003 DEIR. Nonetheless, the commenter suggests Alternative 3A does not fulfill the basic objective of protecting the public trust resources and the EIR must consider new alternatives that can feasibly protect steelhead without causing significant secondary impacts.

Neither the 2003 DEIR nor 2007 RDEIR identifies an environmentally superior alternative. The alternatives have been re-evaluated in the 2011 2<sup>nd</sup> RDEIR and an environmentally superior alternative identified. Additionally Alternative 3A was not considered for analysis in the 2007 RDEIR. The 2007 EIR considered additional alternatives (Alternatives 5B and 5C) to address the concerns expressed.

**Response 3-35:**

The comment suggests additional alternatives (specifically outlined in responses to 2003 DEIR **Comments 3-36 to 3-38**) for consideration in the environmental review process for the proposed action that it believes are consistent with the objectives discussed above, are feasible, and are capable of fulfilling the objective of restoring and preserving the public trust in the Santa Ynez River steelhead. The comment states that obtaining additional information is still necessary in order to determine the full range of measures that should be implemented to protect public trust resources and comply with Fish and Game Code Section 5937 but that, in the interim, the suggested alternatives better fulfill the project objectives because they feasibly maintain steelhead in a better condition than any of the 2003 DEIR alternatives through increased rearing flows, and they require the studies necessary to make a final decision regarding protection of steelhead as a public trust resource.

See response to 2003 DEIR **Comment 3-33**.

**Response 3-36:**

The comment states that the IFIM Alternative is described as Alternative 3A2 in the 1995 Cachuma Contract Renewal EIR/EIS (EIR/EIS), and that this alternative is identical to the CalTrout Public Trust Alternative, and both are based on the same 1989 Physical Habitat Simulation System, except for one significant distinguishing feature - under the IFIM Alternative, the flows specified as minimums are required every year regardless of whether or not it is a drought year. The comment states that, according to the EIR/EIS, under Alternative 3A2, operational criteria would be modified to improve instream resources, and the Cachuma Project would be operated to improve environmental resources and would give first priority to meeting the water supply needs of the Member Units, followed by the water requirements of the environment.

See response to 2003 DEIR **Comment 3-33**.

**Response 3-37:**

The comment states that CalTrout proposes the Public Trust Alternative as a feasible method potentially capable of fulfilling the public trust objective and compliance with Section 5937, until additional information is available to make a final determination on instream flow and other measures that may be needed to comply with the Public Trust Doctrine and Fish and Game Code Section 5937. CalTrout's Public Trust Alternative incorporates the measures of the Biological Opinion and FMP; however, it replaces the Biological Opinion's fish release requirements with the fish release requirements adapted from Alternative 3A2 in the 1995 Cachuma Contract Renewal EIR/EIS.

See response to 2003 DEIR **Comment 3-33**.

**Response 3-38:**

The comment states that Reclamation's permits already include a provision ensuring that the SWRCB retains jurisdiction to protect public trust resources. The comment suggests that implementation of additional studies to determine the full range of measures necessary to protect public trust resources be incorporated into the permits, and the SWRCB should include a provision in the permits to affirmatively revisit the public trust issue when these studies are complete. Specifically, this alternative includes a re-opener provision that automatically triggers reconsideration of the water rights permits by the SWRCB after NMFS releases its draft and final steelhead recovery plan and once the other studies (e.g., fish passage, long-term flow regimes, use of Above Narrows Aquifer (ANA) and Below Narrows Aquifer (BNA) water, etc.) are completed.

The comment states that the 2003 DEIR is deficient for not analyzing an alternative that would include dual utilization of water stored in the BNA and ANA for subsequent groundwater recharge releases more

continuously also for steelhead and other aquatic resources. The 2007 RDEIR states that the Maximum Beneficial Use Alternative is identical to the CalTrout Public Trust Alternative except that it includes continuous releases of the ANA and BNA water to support rearing and other steelhead life in the river.

**Response 3-39:**

The comment states that the 2003 DEIR fails to analyze consistency with applicable plans and policies and fails to acknowledge the project's inconsistency with such plans and policies, resulting in a potentially significant land use impact. The comment states that CEQA requires an analysis of the project's consistency with the plans and policies of all agencies with jurisdiction over the project to ensure that potential environmental issues are not overlooked. The comment suggests that the 2003 DEIR does not analyze Land Use Impacts including conflicts with existing plans and policies.

A discussion of land use policies and the relationship of the project to policies and plans at multiple governmental levels are provided in **Section 4.13 Relationship to Other Plans**, which has been added in the consolidated 2011 2<sup>nd</sup> RDEIR.

See also response to 2003 DEIR **Comment 3-5**.

**Response 3-40:**

The comment states that the 2003 DEIR must assess consistency with the California Department of Fish and Game (CDFG) Steelhead Restoration and Management Plan for California, CDFG Steelhead Restoration Policies such as the Salmon, Steelhead Trout, and Anadromous Fisheries Program Act (Fish and Game Code Section 6900 et. seq.), and other pertinent Fish and Game Code sections including Section 5937, because the CDFG has jurisdiction over many aspects of this project pursuant to Fish and Game Code Section 1601. The project is not consistent with the state-approved CDFG Steelhead Restoration and Management Plan's policies and recommendation regarding additional investigation into fish passage at Bradbury Dam.

The 2011 2<sup>nd</sup> RDEIR includes a discussion of plan and policies (see comment 3-1c1 above). Further, the 2011 2<sup>nd</sup> RDEIR includes a discussion of NMFS' 2009 Draft Steelhead Recovery Plan (see **Section 2.6** of the 2011 2<sup>nd</sup> RDEIR).

Fish and Game Code Section 5937 provides protection to fisheries by requiring the owner of any dam allow sufficient water to pass downstream to keep in good condition any fisheries that may be planted or exist below the dam. Fish and Game Code Section 6900 sets the state's policy to recognize and encourage fish rehabilitation efforts within California. The implementation of the BO, and therefore of the alternatives analyzed in the 2007 RDEIR, each of which incorporate the BO requirements, is consistent

with these goals as it provides for releases over Bradford Dam that are determined to provide long-term sustainability for steelhead within the Santa Ynez River system.

**Response 3-41:**

The comment states that the 2003 DEIR must assess consistency with the Porter-Cologne Act and the Clean Water Act, including the Basin Plan, and must assess compliance with the beneficial uses because the Regional Water Quality Control Board has jurisdiction over portions of the project including release of water into the river and tributary projects.

The 2011 2<sup>nd</sup> RDEIR includes a discussion (see **Section 4.13**) of plan and policies including the relevant water resource plans. (See response to 2003 DEIR **Comment 3-5**).

**Response 3-42:**

The comment states that the SWRCB should provide a detailed assessment of the proposed project's consistency with the Santa Barbara County General Plan, including the Conservation Element, to ensure that the proposed project is in compliance with locally adopted standards for protecting the environment from impacts.

The 2011 2<sup>nd</sup> RDEIR includes a discussion (see **Section 4.13**) of plan and policies including the relevant Santa Barbara County general plans (See response to 2003 DEIR **Comment 3-5**).

**Response 3-43:**

The comment states that the project's consistency with the Public Trust Doctrine, Fish and Game Code Section 5937, Article X, Section 2 of the California Constitution, and Water Code Section 100 are especially integral to the project's evaluation.

The comment is noted. See responses to 2003 DEIR **Comments 3-5** and **3-40**.

**Response 3-44:**

The commenter provides additional comments regarding the 2003 DEIR

See response to 2003 DEIR **Comments 3-45** through **3-50**.

**Response 3-45:**

The commenter suggests that the 2003 DEIR finds flood control hazards and impacts to be adverse (page ES 6, Table ES-1), however the Cachuma Operations and Maintenance Board (COMB) and Reclamation Draft EIR/Draft Environmental Impact Statement (Draft EIS) and the Santa Barbara County Flood Control District (SBCFCD) have not classified this impact as adverse. The comment also states that the 2003 DEIR

determined that the potentially adverse flood hazard impact could be mitigated by increased river maintenance by the SBCFCD, but the 2003 DEIR fails to analyze the feasibility of this mitigation measure.

The 2003 DEIR states (page 4-25) that: "The potential increase in flood hazard is considered a potentially adverse, but not significant impact," therefore does not require mitigation having the same effect as the 1995 Reclamation-COMB Draft EIR/Draft EIS conclusion.

Flooding potential due to increased vegetation along the river is discussed on page 4-18 of the 2007 RDEIR and there is no suggestion that the SBCFCD conduct channel maintenance. The 2007 RDEIR states: "In summary, Alternatives 3B, 3C, 4B, 5B, and 5C are not expected to significantly increase the potential for flooding hazards along the lower Santa Ynez River as the result of an increase in instream woody riparian vegetation and a minor reduction in spill frequency."

**Response 3-46:**

The comment states that, with regard to increased river maintenance by SBCFCD, the 2003 DEIR fails to assess the impacts, the permitting issues, and the funding and habitat mitigation difficulties identified by the SBCFCD. The comment suggests that the impacts of mitigation measures have not been described and assessed as required by CEQA, that the impacts are not expected to be significant and the EIR should dismiss discussion of this infeasible, unnecessary, and problematic mitigation proposal.

As the comment notes, the potential impacts are not expected to be significant. *CEQA Guidelines* (Section 15126.2(a)) state that "An EIR shall identify and focus on the significant environmental effects of the proposed project." CEQA does not require the lead agency to consider potential impacts not expected to be significant. Further, *CEQA Guidelines* state that "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved." Again, direct and indirect effects merit identification and consideration only if they are significant.

The EIR does provide a discussion of hydrology (surface water) and flooding. (See **Section 4.2.2.4** of the 2011 2<sup>nd</sup> RDEIR).

**Response 3-47:**

The comment states that the 2003 DEIR describes the Cachuma Project Facilities as including four dams on creeks supporting public trust and fish resources on the South Coast of Santa Barbara County, which receive Cachuma water deliveries. The comment suggests that the 2003 DEIR fails to address the SWRCB's duty to protect the public trust resources on these creeks that are affected by the proposed ongoing operation of the Cachuma Project under new State Water Board (SWB) permit terms and

conditions and that it is unclear whether Reclamation operates all or some of these dams, which are part of the Cachuma Project.

The comment suggests that the SWRCB require additional information from Reclamation regarding its operation of Cachuma Project support facilities, including the Glen Annie/Tecolotito Dam, require target flows below the dam to be sustained for fish, wetlands, and other public trust resources, and subsequently revisit the matter to determine what measures, including fish passage, flows, and/or restoration, may be required to protect the public trust resources in all waterways affected by the Cachuma Project.

The scope of the proposed project does not include or involve the above referenced facilities. *CEQA Guidelines* (Section 15126.2(a) note that “the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area.” To the degree that the above referenced facilities are impacted by the surcharge, they have been discussed in the 2011 2<sup>nd</sup> RDEIR.

**Response 3-48:**

The comment states that the proposed project will cause impacts to biological resources along the lake shoreline. The comment notes that the Cachuma Reservoir Resource Management Plan is being developed by Reclamation, which may cause impacts to the same resources affected by the SWRCB’s project, including raptors and rare species. The comment notes also that SBCFCD has an ongoing vegetation removal project that has resulted in significant impacts to riparian habitats and rare species according to environmental review conducted for that project upon its initial undertakings during the 1990s and suggests that, therefore, the EIR must analyze and mitigate the cumulative impacts of these projects.

The 2011 2<sup>nd</sup> RDEIR provides a discussion of the Resource Management Plan (RMP) prepared by Reclamation (see **Section 4.13.1.1**). Reclamation has completed its environmental review (June 2010) of this plan and is currently finalizing the Record of Decision. The RMP identifies the proposed surcharging under consideration by Reclamation and all of the alternatives in the RMP provide for the surcharging to proceed.

Efforts by Santa Barbara County Flood Control are addressed in the 2011 2<sup>nd</sup> RDEIR with regards to river impacts. (See 2011 2<sup>nd</sup> RDEIR **Section 4.2.2.3**).

**Response 3-49:**

The comment suggests that 2003 DEIR should evaluate the impact of infiltration to Tecolote Tunnel from surrounding aquifers on natural resources such as riparian areas and springs.

Since 1955 the Cachuma Project water deliveries have included infiltration into Tecolote Tunnel. (See 2003 Draft EIR, pp. 2-4; 2007 Revised Draft EIR, pp. 1-2.) The general nature of this infiltration will not change based on the project being considered. Because the project would not have an impact beyond the existing conditions, infiltration into Tecolote Tunnel need not be addressed in the EIR.

**Response 3-50:**

The comment states that the 2003 DEIR states that Reclamation is implementing the measures from the BO, but fails to specify the progress in accomplishing these requirements. The comment further claims that Reclamation is not in compliance with the BO's deadlines for a variety of requirements.

Revisions to the 2007 RDEIR recognize the efforts made by Reclamation and the Member Units to implement the Biological Opinion and incorporate all progress made to date in meeting and exceeding the requirements of the Biological Opinion. (See **Section 2.4.1.1 Summary of Reasonable and Prudent Measures Status of Compliance, Section 2.4.2 Operational Changes, Section 2.4.2.3 Mainstem Rearing Releases, Section 2.4.3.1 Tributary Passage Impediment Removal Measures, and Section 2.4.3.2 Additional Measures on Hilton Creek**).

The successful implementation of supplemental passage releases is discussed in **Section 2.4.4.2 Alternative Passage Flow Releases** of the 2007 RDEIR.

Additional information compiled by SYRTAC has been incorporated into the 2011 2<sup>nd</sup> RDEIR and a new **Appendix G** summarizes fish monitoring results to date.

AJF

**SOMACH, SIMMONS & DUNN**

A PROFESSIONAL CORPORATION  
ATTORNEYS AT LAW

813 SIXTH STREET  
THIRD FLOOR  
SACRAMENTO, CA 95814-2403  
(916) 446-7979  
FACSIMILE (916) 446-8199

OCT 7 11 51 AM '03

October 7, 2003

**BY MESSENGER**

Mr. Andrew Fecko  
Division of Water Rights  
State Water Resources Control Board  
1001 I Street, 14<sup>th</sup> Floor  
Sacramento, CA 95814

Re: City of Lompoc's Comments on Draft Environmental Impact Report prepared in Connection with Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 And 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam (Cachuma Project)

Dear Mr. Fecko:

The City of Lompoc has long participated in proceedings before the State Water Resources Control Board ("SWRCB") on the Cachuma Project. As a downstream user of water, the City has an obligation to its citizens to protect the quantity and quality of its downstream water rights. To that end, the City of Lompoc submits the following comments on the Draft Environmental Impact Report for the State Water Resources Control Board's Consideration of Modification to the U.S. Bureau of Reclamation's Water Rights Permits for the Cachuma Project. The City of Lompoc's comments are in two parts. The following are comments regarding the alternatives and certain assumptions underlying the alternatives. The City of Lompoc also submits as attachments certain technical comments prepared by its technical consultants, Tim Durbin, Consulting Hydrologists (Attachment A), and Paul Bratovich, Surface Water Resources Inc. (Attachment B).

**Section 3.2.2 (pages 3-10 to 3-12)**

Alternatives 4A and 4B provide for the delivery of water from the State Water Project ("SWP") to the City of Lompoc. Neither is a feasible alternative from the City of Lompoc's perspective. Alternatives 4A and 4B constitute an impermissible effort to impose a new water supply on Lompoc. Both versions of Alternative 4 would require the City of Lompoc to approve and accept state water as its primary water source despite Lompoc voters having twice rejected the delivery of SWP water.

4-1

The Draft EIR states that the implementation of either Alternative 4A or 4B would require cooperation by all involved agencies, completion of the project-specific environmental review and permitting, and securing funding and operational agreements. The City of Lompoc would not be agreeable to participating in the implementation, funding, or an operational agreement for either Alternative 4A or 4B. The City of Lompoc's opposition to these alternatives is noted in the Draft EIR (page 3-11) and in a letter dated June 18, 1999 from Donald B. Mooney to James Canady, which comments are incorporated by reference herein.

4-1

Alternatives 4A and 4B, as proposed, also fail to address situations in which SWP water deliveries are not available or are substantially reduced. Under such a scenario, Reclamation continues to be obligated to protect downstream water rights in accordance with its water right permits. Therefore, if the SWRCB pursues either of these alternatives, it must contain a release schedule from Bradbury Dam to maintain downstream water rights, including water quality, to ensure compliance with its legal obligations.

4-2

Alternatives 4A and 4B fail to identify which agencies would have to approve the new water supply for the City of Lompoc and other downstream water users. Initially, it appears that the Santa Ynez River Water Conservation District ("SYRWCD"), the Central Coast Water Authority, and the City of Lompoc would have to approve implementation of either Alternative 4A or 4B. The SWRCB, however, does not have any regulatory authority over the City of Lompoc and the SYRWCD with respect to the downstream groundwater rights and, therefore, cannot require their respective approvals.

4-3

**Section 4.2.2.3 (page 4-22)**

The Draft EIR states that the releases for purposes of satisfying downstream water rights under Alternatives 3A, 3B and 3C would be less than under current operations because the releases for fish purposes earlier in the year reduce the need for releases to replenish groundwater basins. The Draft EIR, however, needs to clarify that Reclamation's obligations regarding downstream water rights are not reduced, but that a portion of the obligation is achieved through the fish releases.

4-4

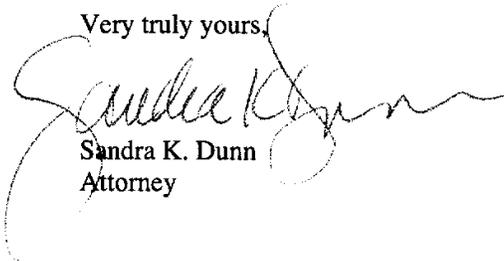
The Draft EIR also states that "releases for water rights under Alternatives 4A-B would be less than under current operations because releases from the BNA would not be made from the dam. Instead, SWP would be delivered to Lompoc pursuant to an exchange agreement." Again, the Draft EIR needs to clarify that Reclamation's obligations regarding downstream water rights would not be reduced through implementation of Alternatives 4A-B, but that a portion of the obligation would be achieved through the release of SWP water.

4-5

Mr. Andrew Fecko  
October 7, 2003  
Page 3

The City of Lompoc incorporates by reference the Significant Comments submitted by the Santa Ynez River Water Conservation District regarding the deficiencies of Alternatives 4A and 4B and Resolution of Downstream Water Quality Issues.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Sandra K. Dunn", is written over the typed name and title.

Sandra K. Dunn  
Attorney

SKD:sb

Encl.

cc: Service List (attached)  
Gary Keefe  
Jim Beck

**4. City of Lompoc (Somach, Simmons & Dunn), dated October 7, 2003.**

**Response 4-1:**

The commenter states that the City of Lompoc considers Alternatives 4A and 4B (delivery of water from the State Water Project ["SWP"]) to impose a new primary water supply on the City of Lompoc and are therefore infeasible, particularly since Lompoc voters have twice rejected this idea.

Alternative 4A was not considered as a feasible alternative in the 2007 RDEIR. As noted in **Section 3.2.1** (page 3-5) of the 2007 RDEIR "the SWRCB no longer considers Alternative 4A, which required the cooperation of the City of Lompoc, to be feasible, as a result of that city's choice not to pursue the proposed arrangement." Therefore, this portion of the comment no longer applies.

With regard to Alternative 4B **Section 3.2.2.4** (page 3-13) of the 2007 RDEIR states: "The City of Lompoc, through its legal representative, has notified the SWRCB in a letter regarding the EIR dated June 18, 1999, that the City does not consider this alternative to be feasible because the residents of the City have twice rejected SWP water as a new water supply." Alternative 4B was considered in the 2007 RDEIR and continued to be considered in the 2011 2<sup>nd</sup> RDEIR due to its projected reduction in the Lompoc Groundwater Basin salinity over time; however, as shown on page 6-1 (Table 6-1) this alternative has the highest number of adverse impacts. The 2011 2<sup>nd</sup> RDEIR found that Alternative 4B, along with Alternative 3C, was an environmentally superior alternative. However, the 2011 2<sup>nd</sup> RDEIR also determined that due to issues related to implementing Alternative 4B, that alternative was not feasible.

**Response 4-2:**

The comment suggests that Alternatives 4A and 4B fail to address situations where SWP water deliveries are not available or are substantially reduced.

Please see response to 2003 DEIR **Comment 4-1** with regard to Alternative 4A.

With regards to Alternative 4B discussed in the 2003 DEIR (**Section 3.2.2**, page 3-11), deliveries of SWP water consider the following:

- 1) The availability of SWP water varies from year to year depending upon runoff in northern California and demands on the statewide system; and,
- 2) The average annual delivery of SWP water to the Member Units is estimated to be 77 percent of the full entitlements, but can be reduced to 20 to 30 percent during drought years.
- 3) Shortages of SWP water can be addressed in two ways, either the City of Lompoc would be guaranteed its full amount of SWP water each year, and any shortages in the SWP water deliveries would be taken by the Member Units, or the City of Lompoc would take shortages in the SWP water deliveries in the same proportions as the Member Units.

If requests for recharge under the BNA that are not met by the SWP water deliveries, the Member Units would request releases from Cachuma Lake.

**Response 4-3:**

The comment suggests that Alternatives 4A and 4B fail to identify which agencies would approve the new water supply for the City of Lompoc and other downstream water users.

Please see response to 2003 DEIR **Comment 4-1** with regard to agency approvals needed for Alternative 4A and Alternative 4B.

**Response 4-4:**

The comment states that the 2003 DEIR needs to clarify that Reclamation's obligations regarding downstream water rights are not reduced, but that a portion of the obligation is achieved through the fish releases.

The 2011 2<sup>nd</sup> RDEIR clarifies the project objectives and Reclamation's obligations.

**Response 4-5:**

The comment states that the 2003 DEIR needs to clarify that Reclamation's obligations regarding downstream water rights would not be reduced through implementation of Alternatives 4A-B, but that a portion of the obligation would be achieved through the release of SWP water.

Alternative 4A was dropped from further consideration as part of the 2007 RDEIR. The description of Alternative 4B indicates that exchange water (including SWP water) would be required for implementation. The 2011 2<sup>nd</sup> RDEIR clarifies the project objectives and Reclamation's obligations.

**Response 4-6:**

The comment incorporates by reference the comments submitted by the Santa Ynez River Water Conservation District regarding the deficiencies of Alternatives 4A and 4B and resolution of downstream water quality concerns.

Please see responses to 2003 DEIR **Comments 16-3** and **16-4**.

STATE WATER RESOURCES CONTROL BOARD

2003 OCT -7 AM 1

SACRAMENTO



October 6, 2003

State Water Resources Control Board  
Division of Water Rights  
1001 I Street, 14<sup>th</sup> Floor [95814]  
P. O. Box 2000  
Sacramento, CA 95812-2000

Attention: Mr. Andrew Fecko

**Re: Comments on SWRCB DEIR on Cachuma Project (August, 2003)**

Dear Ladies & Gentlemen:

The City of Solvang appreciates the opportunity to comment on the above captioned subject. The residents of the City are also constituents of the Santa Ynez River Water Conservation District (SYRWCD). The City Council carefully reviewed the letter of comment prepared by the technical and legal experts of the SYRWCD and fully supports the contents of the letter. The Solvang City Council urges your Board to modify Reclamation's permits accordingly and implement the preferred alternative specified in the Environmental Impact Report.

5-1

Sincerely,

Beverly Russ  
Mayor

1644 Oak Street • P.O. Box 107 Solvang, CA. 93464-0107 • Telephone (805) 688-5575 • FAX (805) 686-2049

5. **City of Solvang, dated October 6, 2003.**

**Response 5-1:**

The comment states that the City supports the contents of the comment letter from SYRWCD and urges the SWRCB to modify Reclamation's permits accordingly.

Comment noted. Please see the responses to SYRWCD's 2003 DEIR comments.

GK/AJF



**CONCEPTION COAST PROJECT**

3887 STATE STREET SUITE 24  
SANTA BARBARA, CA 93105  
(805) 687-2073  
(805) 687-5103 (FAX)  
CCP@CONCEPTIONCOAST.ORG  
WWW.CONCEPTIONCOAST.ORG

STATE WATER RESOURCES  
CONTROL BOARD

2003 OCT -1 PM 1:50

DIV. OF WATER RIGHTS  
SACRAMENTO

9/25/03

Andy Fecko  
State Water Resources Control Board  
Division of Water Rights  
1001 "I" Street  
Sacramento, Ca 95812

RE: Comments on Draft EIR to Protect Public Resources in the Santa Ynez River

State Water Resources Control Board,

Southern Steelhead are an endangered species of great concern for our region. Conception Coast Project, our constituents and many of our collaborators are working to bring back Southern Steelhead from near extinction to their righteous place in our region. There is a great opportunity to recover this species in the Santa Ynez River where its numbers ranged upwards of twenty thousand. Our community and Southern Steelhead can coexist in order to save the species and strengthen our region.

Steelhead are a public trust resource, and the DEIR should have targets to restoring steelhead back to the Santa Ynez. It should be quantified with targets to monitor the success of restoration and returned flow efforts. This is not addressed in the DEIR and should be indicated because our community wants to restore a healthy population of Southern Steelhead.

6-1

DFG Section 5937 requires that steelhead are kept in 'good condition' below the dam. This is not currently happening and ensuring that the fish are in good condition needs to be indicated in the EIR. Greater minimum flows and continuous flows downstream need to be addressed in the DEIR to maintain healthy populations of fish in order to follow the guidelines of DFG Section 5937.

6-2

A healthy population requires quality habitat. The vast majority of quality spawning habitat occurs above Bradbury Dam at the historic spawning grounds. The DEIR does not look at bringing Southern Steelhead to the quality habitat above Bradbury Dam. There is a limited number of spawning areas below Bradbury but over eighty percent of the historic spawning areas are above the dam. We need to look long term about getting fish above the dam.

6-3

Our community and steelhead can live together. We can implement conservation methods that allow water to be available for both man and fish. We have the technologies and the community support to implement conservation methods.

We have a unique opportunity to bring Southern Steelhead back from near extinction. I hope you incorporate these changes to make every effort to ensure you protect the public trust resources of Southern Steelhead.

Sincerely,

James Studarus  
Operations Manager

6. Conception Coast Project, dated September 25, 2003.

Response 6-1:

The comment states that steelhead is a public trust resource, and the 2003 DEIR should include quantified targets for restoring steelhead in the Santa Ynez River.

The BO/FMP does not set quantitative goals for steelhead populations in the Santa Ynez River. **Section 1.2.1 Purpose and Need** of the BO defines the National Environmental Policy Act (NEPA) Purpose and Need and CEQA Objectives as follows:

*Reclamation has prepared the following purpose and need statement pursuant to NEPA:*

*The Purpose of the Project is for Reclamation to operate the Cachuma Project consistent with its water rights permits and to meet downstream public trust resources in an economical manner that would not affect project yield in a meaningful way.*

*The Need for the Project is to enhance and protect summer habitat and migration habitat for Southern California steelhead and improve conditions for the native fish in the Santa Ynez River watershed below Bradbury Dam.*

*COMB prepared the following CEQA objectives pursuant to CEQA Guidelines Section 15124(b).*

*The objective of the proposed FMP/BO management actions is to ensure that operation of the Cachuma Project is consistent with the federal Endangered Species Act regarding effects on the endangered southern steelhead and to improve conditions for native fish in the Santa Ynez River watershed below Bradbury Dam.*

*The proposed FMP/BO management actions must be economically feasible and initially focused on high priority river reaches and tributaries where habitat improvements would be most effective. The actions must not substantially affect the Cachuma Project yield, nor result in significant long-term effects on other aquatic species and habitats in the lower watershed.*

*The FMP/BO management actions are needed to comply with the federal Endangered Species Act and to continue the protection of downstream public trust resources in accordance with Reclamation's water rights permits for the project.*

These are qualitative goals, and as such are consistent with the objectives set forth in the Draft EIR, which include protection of public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest.

Quantitative goals for dynamic, living biological systems are difficult to establish because of the dependency on the environment and the possibility of natural disasters. Therefore, qualitative goals are used that provide as optimal an environmental setting as possible for the long-term survivability of each target species.

**Response 6-2:**

The comment states that Fish and Game Code Section 5937 requires that steelhead be kept in 'good condition' below the Bradbury Dam but claims that this is not currently happening. The comment recommends greater minimum flows and continuous flows downstream of the dam to maintain healthy populations of steelhead for compliance with the guidelines of Fish and Game Code Section 5937.

Fish and Game Code Section 5937 provides protection to fisheries by requiring the owner of any dam allow sufficient water to pass downstream to keep in good condition any fisheries that may be planted or exist below the dam. The implementation of the BO, and therefore of the alternatives analyzed in the EIR, each of which incorporate the BO requirements, is consistent with Section 5937 as it provides for releases over Bradford Dam that are determined to provide long-term sustainability for steelhead within the Santa Ynez River system.

**Response 6-3:**

The comment states that a healthy steelhead population requires quality habitat with the vast majority of quality spawning habitat occurring above Bradbury Dam at the historic spawning grounds. The comment continues by stating that the 2003 DEIR does not address bringing Southern Steelhead to the quality habitat above Bradbury Dam.

While the project objective includes the protection of public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, efforts to provide fish passage around Bradbury Dam is not a component of the proposed project. Therefore, an analysis of fish passage above Bradbury Dam was not included in the environmental analysis. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam. This is discussed further in 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

Marjorie Lakin Erickson  
128 East Carrillo Street  
Santa Barbara, California 93101

October 5, 2003

Andy Fecko  
State Water Resources Control Board  
Division of Water Rights  
1001 "I" Street  
Sacramento, California 95812

Re: Santa Ynez River Draft Environmental Impact Report (DEIR)

Dear Mr. Fecko,

I am writing to express my concerns regarding the Santa Ynez River DEIR. I am writing this letter in my personal capacity; although I am a Santa Barbara County Park Commissioner, the opinions I express are mine alone and not to be taken as the opinions of the Commission.

My primary, general concern, is that the range of alternatives addressed in the DEIR is too narrow. The DEIR addresses only the requirements of NOAA Fisheries Biological Opinion (BO) and makes no attempt to evaluate what is necessary to comply with the requirements of Fish and Game Code § 5937 that Bradbury Dam be operated so as to maintain the fish below the dam in good condition. Nor does the DEIR evaluate whether the requirements of the BO meet the constitutionally mandated requirement that the State Water Resources Water Control Board protect our public trust resources.

7-1

7-2

The problem with the BO is that it is merely a "no jeopardy" opinion. In this case, that means that if the Dam is operated pursuant to the BO, the operations will not further jeopardize the existence of steelhead trout in the river. But the trout are already endangered, so maintaining the status quo does not equate to protecting our public trust resources or keeping the fish in good condition. The fact that they are listed as endangered should point to the fact that they are not in good condition. We are talking about a river that once was home to 10,000 - 20,000 steelhead. Now you are about to approve a project that contemplates maintaining a mere 100 fish in the river. This vision is too shortsighted and does not meet the mandate to maintain public trust resources. If we only ensure the

continued existence of the fish in their currently endangered state, we will not save steelhead. The range of alternatives should be expanded to include actions that are calculated to recover the species.

The DEIR does not look at other project alternatives such as providing for passage of steelhead to its traditional spawning habitat above the dam. The project should look at the whole river, rather than just below the dam, both so that the fish have access to the best spawning habitat and so that the land-locked native rainbow trout above the dam might be afforded access to the ocean.

7-3

There are problems with the existing alternatives as well. At a minimum, the project should require objective measurable standards of success for any management action. This means that there should be a requirement that criteria be adopted to determine whether the population of fish is in fact increasing, as must happen if the fish are to survive.

7-4

Any flow regimes required should be based on data that show what water flow regimes are required to help the fish increase from their dismally low levels. Once that is determined, these flows should be implemented and the agencies should be required to implement conservation measures to provide the water needed for additional flows. Conservation was successfully used in Los Angeles to help save Mono Lake. The flow regimes must include an enforcement mechanism to ensure that they are followed. Currently, the river is dry in places where the flow regimes now in effect require water to be flowing. This must not be allowed to continue. Even if the BO is determined be all that is required, it is meaningless if not followed.

7-5

With regard to the impacts of a three-foot surcharge, I have some concerns. First, the minor point that you have mis-identified the Santa Barbara County Parks Department as Santa Barbara County Parks and Recreation. This is obviously a small point, but it is better for your report to correctly identify the affected agencies. Second, while it is true that the Parks Department contract with the Bureau of Reclamation expires in 2003, that contract has been extended for two years.

7-6

The record should be corrected in this respect.

More substantively, while I recognize that the SWRCB does not recommend a three-foot surcharge, I would like to point out that a three-foot surcharge would result in an impact to the recreational facilities that could not be mitigated in any reasonable time frame. The County has determined that relocation of the facilities would cost in excess of \$12 million. Currently the County does not have the funds available. It is estimated that once funds become available, if they do, it will take five years to complete relocation. Thus the mitigation cannot be

7-7

accomplished in less than at least seven years. And it is not at all clear that the Cachuma Operations Management Board and the Bureau of Reclamation can meet their CEQA mitigation responsibilities for their impacts by blithely asserting that someone else will do it.

I am not a hydrologist and don't profess to know what particular flow regimes or habitat restoration are required to help steelhead recover. I do know that what is proposed ignores the use of the only really good habitat for the fish and that is the habitat above the dam. Further, much of what is proposed may not be able to be accomplished because of insufficient numbers of willing landowners interested in helping the fish recover.

I hope the SWRCB will take a broader, long-term look at what is required to save these fish. I know we will never return the Santa Ynez River steelhead run to 10,000 fish, but it is shocking that the Bureau of Reclamation and the member water agencies think they can meet their obligation to the future generations by maintaining only 100 fish in the river that once provided the largest steelhead run in the southern ESU.

Thank you for your consideration.

Sincerely,

Marjorie Lakin Erickson

7. **Majorie Lakin Erickson, dated October 5, 2003.**

**Response 7-1:**

The comment states that the 2003 DEIR addresses only the requirements of NMFS Biological Opinion (BO) and makes no attempt to evaluate what is necessary to comply with the requirements of Fish and Game Code Section 5937, which requires Bradbury Dam to be operated so as to maintain the fish below the dam in good condition.

Fish and Game Code Section 5937 provides protection to fisheries by requiring the owner of any dam allow sufficient water to pass downstream to keep in good condition any fisheries that may be planted or exist below the dam. The implementation of the BO, and therefore of the alternatives analyzed in the EIR, each of which incorporate the BO requirements, is consistent with these goals as it provides for releases over Bradford Dam that are determined to provide long-term sustainability for steelhead within the Santa Ynez River system.

**Response 7-2:**

The comment states that the 2003 DEIR does not evaluate whether the requirements of the BO meet the constitutionally mandated requirement for the State Water Resources Control Board to protect our public trust resources.

**Section 2.7 Settlement Agreement** of the 2011 2<sup>nd</sup> RDEIR describes protection of the public trust resources as, "The Parties agree to mutually support the Terms and Conditions of the National Marine Fisheries Service (NMFS) Biological Opinion and the Fish Management Plan as the preferred operational program for the Cachuma Project in order to address public trust resource issues."

In addition, the project objectives are listed in **Section 3.1.1 Description of the Proposed Project** of the 2011 2<sup>nd</sup> RDEIR. These objectives include:

- protecting public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, taking into consideration: (1) the water supply impacts of measures designed to protect public trust resources, and (2) the extent to which any water supply impacts can be minimized through the implementation of water conservation measures;
- protecting senior water right holders from injury due to changes in water quality resulting from operation of the Cachuma Project, including water quality effects in the Lompoc Plains groundwater basin that impair any senior water right holder's ability to beneficially use water under prior rights; and
- protecting senior water right holders from injury due to a reduction in the quantity of water available to serve prior rights.

**Response 7-3:**

The comment states that the 2003 DEIR does not look at other project alternatives such as providing for passage of steelhead to its traditional spawning habitat above the Bradbury Dam.

While the project objective includes the protection of public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, efforts to provide fish passage around Bradbury Dam is not a component of the proposed project. Therefore, an analysis of fish passage above Bradbury Dam was not included in the environmental analysis. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam. This is discussed further in **Section 2.4.5 Conservation Recommendations**.

**Response 7-4:**

The comment states that the project should require objective measurable standards of success, including criteria to determine whether the population of fish is in fact increasing, for any management action.

The BO includes a long-term monitoring and reporting program, designed to collect data to determine the success of the various management actions and projects. The information collected is to be used to potentially modify the actions and projects to enhance success. In addition, The FMP/BO is based on an adaptive management strategy in which the performance of management actions are monitored and modified to improve their effectiveness or respond to annual variations in hydrologic conditions.

**Response 7-5:**

The comment states that any flow regimes required should be demonstrate what water flow regimes are required to help the fish increase in population size.

**Section 4.7 Southern California Steelhead and Other Fishes** of the 2011 2<sup>nd</sup> RDEIR presents habitat requirements for steelhead, including flow characteristics required for spawning, rearing, and passage. This section also presents analyses of impacts on steelhead resulting from implementation of the various alternatives, and takes into consideration flow data from 1942 – 1993. Results of the analyses indicated that all proposed alternatives would provide benefit affects to *O. mykiss* relative to the baseline condition (Alternative 2), which reflects the impacts of the dam. Therefore, at least several years of pre-dam conditions were included in the analysis and subsequent scoring found in **Section 4.7.2.3 Impacts on Southern California *O. mykiss* Along the River**.

**Response 7-6:**

The comment correctly points out that the Santa Barbara Parks Department is the correct title for the County department. These changes have been incorporated in the 2011 2<sup>nd</sup> RDEIR.

The *Agreement to Administer Recreation Area* contract between the County Parks Department and Reclamation has been extended to 2011 and the County anticipates a further extension of that contract prior to the 2011 expiration date. This updated information has been incorporated the 2011 2<sup>nd</sup> RDEIR.

**Response 7-7:**

The comment suggests that a three-foot surcharge would result in impacts to recreational facilities that could not be mitigated in any reasonable time frame due to lack of funding.

Please see response to 2007 RDEIR Comment 8-7, and 2003 DEIR **Comments 1-15, and 3-32.**

10-2-03

To: Andy Fecko

WATER RESOURCES CONTROL BOARD

GK/AJF

2003 OCT -6 PM

please add my support to preserve the endangered steelhead trout of the Santa Ynez River.

8-1

The Fish and Wildlife Service Recommendations regarding increased water flows, and amending the Environmental Impact Report to accomplish this goal is the correct course to success.

8-2

thank you for your consideration MARC CRONIN

Marc Cronin →

1053 Vereda Del Ciervo Goleta CA 93117-5303

8. Marc Guonin, dated October 2, 2003.

**Response 8-1:**

The comment states support for the preservation the endangered steelhead trout of the Santa Ynez River.

The comment is noted. One of the project objectives stated in **Section 3.1.1 Description of the Proposed Project** is to protect the public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest.

**Response 8-2:**

The comment states support for the U. S. Fish and Wildlife Service recommendations regarding increased water flows.

The comment is noted.

AK/AJF

784 Camino Cascada  
Santa Barbara, CA 93111  
October 1, 2003

STATE WATER RESOURCES CONTROL BOARD  
2003 OCT -6 PM 1:26

DIVISION OF WATER RIGHTS  
SACRAMENTO

Andy Fecko  
State Water Resources Control Board  
Division of Water Rights  
1001 "I" Street  
Sacramento, CA 95812

Dear Mr. Fecko,

I would like to comment on the State Water Resources Control Board's Draft Environmental Impact Report - Proposed Modifications to Bureau of Reclamation's Cachuma Project Water Rights Permits to Protect Public Trust Resources in the Santa Ynez River. My participation in this matter stems from my interest in steelhead natural resource conservation and restoration. In addition, I am involved with the UCSB Rowing Team. We use Cachuma reservoir extensively and I am also concerned about the consequences of surcharging on our lakeshore building.

9-1

I support maximum steelhead restoration. However, the DEIR fails to define what it will take to protect steelhead as a public trust resource. Protecting public trust resources includes restoration, not merely maintaining a species as endangered. Southern California steelhead have been listed as endangered under the Federal Endangered Species Act and are therefor entitled to measures to restore their population. The State Water Board should establish population-based success criteria to define and measure protection and restoration of steelhead in the Santa Ynez River. Without measurable criteria to gauge success, it will be impossible to determine if steelhead are being sufficiently protected pursuant to the Public Trust Doctrine and Fish and Game Code Section 5937.

9-2

The DEIR's alternatives would only maintain the population as endangered. They would not protect steelhead as a public trust resource and doe not provide plans for their restoration. Specifically, measures in the Biological Opinion for the Cachuma Project only prevent further jeopardy of steelhead and do not recover or restore the species so it can be protected as a public trust resource.

The DEIR fails to consider Fish and Game Code Section 5937 and what measures are needed to keep steelhead in below the dam in "good condition". Biological Opinion measures are not sufficient for "good condition" because they fail to protect individual steelhead and to keep the population in the river below Bradbury Dam healthy. More continuous water releases are required to turn the wide, flat lower river below Bradbury Dam into good steelhead habitat. However, even the insufficient flows proposed in the DEIR alternatives are not guaranteed. The Adaptive Management Committee comprised primarily of water agency interests can reduce proposed flows with no guiding criteria for their decisions.

9-3

The DEIR does not consider alternatives other than the Biological Opinion to protect steelhead. An EIR is required to analyze a range of alternatives that can fulfill the objectives while minimizing significant environmental impacts. This EIR fails to address a range of alternatives and merely proposes the BO

measures with and without surcharging and with alternative methods for delivering water to downstream users. There are no alternatives with greater flow regimes, fish passage or other measures that may be needed to protect Public Trust Resources. Possible alternatives include: steelhead passage to suitable habitat above Bradbury Dam, greater minimum mandatory flows below the dam, and maximum beneficial use of downstream water rights releases (i.e. continuous flows) for steelhead.

9-3

Restoration of a sustainable steelhead population would protect steelhead as required pursuant to Fish and Game Code Section 5937 and the Public Trust Doctrine. This will likely require access to the river's perennial headwaters. Bradbury Dam blocks steelhead migration to spawning areas. The proposed project should aim to protect steelhead throughout the basin including those trapped above and below the dam, or else the project will not protect steelhead as a public trust resource.

9-4

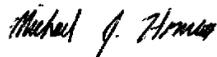
Finally, water supply impacts during droughts can be avoided or minimized by water conservation, alternative sources, or maximum beneficial use of downstream releases (i.e. using continuous downstream water rights releases to protect steelhead.

9-5

The DEIR is inadequate for failing to analyze a range of alternatives and for failing to analyze any alternatives that can comply with the basic objective of protecting public trust resources.

Thank you for your consideration of these comments.

Sincerely,



Mike Homes

9. Mike Homes, dated October 1, 2003.

**Response 9-1:**

The comment states concern about surcharging Lake Cachuma and the UCSB rowing team's lakeside building.

The UCSB Crew Building would not be impacted by the surcharge of the lake. The 3-foot surcharge would place the lake level at 753 feet. At this level, the UCSB building would still be located approximately 10 feet from the waters' edge.<sup>40</sup> No inundation or relocation of the building would be required. Therefore, surcharging of the lake would not cause a significant impact on this facility.

**Response 9-2:**

The comment states that the 2003 DEIR fails to define what is required to protect steelhead as a public trust resource, including protection under the Federal Endangered Species Act. The comment recommends that the SWRCB establish population-based success criteria to define and measure protection and restoration of steelhead in the Santa Ynez River, in compliance with Fish and Game Code Section 5937.

Fish and Game Code Section 5937 provides protection to fisheries by requiring the owner of any dam allow sufficient water to pass downstream to keep in good condition any fisheries that may be planted or exist below the dam. The implementation of the BO, and therefore of the alternatives analyzed in the EIR, each of which incorporate the BO requirements, is consistent with Section 5937 as it provides for releases over Bradford Dam that are determined to provide long-term sustainability for steelhead within the Santa Ynez River system. Furthermore, in keeping with the federal Endangered Species Act, the BO requirements were determined by NMFS, the trustee agency for steelhead, not to jeopardize the survival of steelhead within the Santa Ynez River system.

See also response to 2003 DEIR **Comment 2-2**.

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<sup>40</sup> Juan Beltranean, Project manager, County of Santa Barbara Parks Department, communication with ISI, August 4, 2010.

**Response 9-3:**

The comment states that the 2003 DEIR does not consider alternatives other than the Biological Opinion to protect steelhead and suggests a range of alternatives.

**Section 3.2.2 Description of Alternatives** describes each alternative. Alternative 3B incorporates the water rights release requirements under Order WR 89-18, in order to meet long-term rearing and passage target flows under the Biological Opinion, and other steelhead conservation actions described in the Biological Opinion. Alternative 3C includes all the elements of Alternative 3B except that this alternative assumes that Reclamation will modify the spill gates for a 3.0-foot surcharge. Under this alternative, long-term rearing and passage releases for fish pursuant to the Biological Opinion would be met with the 3.0-foot surcharge. Alternative 4B includes water release requirements under Order WR 89-18, releases for steelhead to meet long-term rearing and passage target flows under the Biological Opinion, and other steelhead conservation actions described in the Biological Opinion. It also includes 3.0-foot surcharging, conveyance of SWP water through the Cachuma Project facilities, and emergency winter storm operations.

**Response 9-4:**

The comment suggests that the proposed project should protect steelhead throughout the Santa Ynez River basin including those trapped by the barrier of Bradbury Dam, and that that is the only way to protect steelhead as a public trust resource.

While the project objective includes the protection of public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest, efforts to provide fish passage around Bradbury Dam is not a component of the proposed project. Therefore, an analysis of fish passage above Bradbury Dam was not included in the environmental analysis. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam. This is discussed further in **Section 2.4.5 Conservation Recommendations**.

**Response 9-5:**

The comment suggests that water supply impacts during drought years can be avoided or minimized by water conservation, alternative sources, or maximum beneficial use of downstream releases (i.e., using continuous downstream water rights releases to protect steelhead).

The SWRCB agrees that each of these three processes would play a role in minimizing water supply impacts during droughts. Comment is noted.

Water conservation is considered in Urban Water Management Plan (UWMP) for the Member Units. The 2010 UWMPs for the Member Units contain updated proposed water conservation measures as part of long-term supply and demand volumes.

GK/ AJF

STATE WATER RESOURCES CONTROL BOARD

Andy Fecko  
STATE WATER RES. CONTROL BOARD  
Div of Water Rights  
1000 I St  
Sacramento, CA 95812

2003 OCT 25 PM 2:36

DIV. OF WATER RIGHTS  
SACRAMENTO

Dear Sir

I am writing to voice my  
SUPPORT <sup>RE</sup> RESTORING WATER FLOW  
TO THE SANTA YNEZ RIVER  
IN ORDER THAT THE STEELHEAD  
SPECIES CAN BE SAVED FROM  
EXTINCTION IN THIS RIVER.

10-1

PLEASE CONSIDER IMPLEMENTING THE  
RECOMMENDATIONS OF THE FISH + WILDLIFE  
SERVICE, INCLUDING A LADDER OR  
OTHER MEANS OF PASSAGE. I URGE

10-2

THE BOARD TO CONSIDER VERY  
SERIOUSLY THIS REQUEST, TO  
AVOID LOSING THIS HISTORIC  
AND VALUABLE SPECIES.

10-2

Sincerely  
Cynthia Lara

553 Gazelle  
Sta Maria, Ct  
93455

10. Cynthia Lara, no date – received October 6, 2003.

**Response 10-1:**

The comment states support for saving steelhead trout from extinction in Santa Ynez River.

The comment is noted. One of the project objectives stated in the 2011 2<sup>nd</sup> RDEIR **Section 3.1.1 Description of the Proposed Project** is to protect the public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest.

**Response 10-2:**

The comment suggests considering implementing the recommendations of the Fish and Wildlife Service, including a ladder or other means of passage around Bradbury Dam.

The comment is noted. Efforts to provide fish passage around Bradbury Dam is not a component of the proposed project. Therefore, an analysis of fish passage above Bradbury Dam was not included in the environmental analysis. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam. This is discussed further in the 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

Elizabeth R. Mason  
4538-F Oak Glen Drive  
Santa Barbara, CA 93110

October 7, 2003

Attention: Andrew Fecko  
State Water Resources Control Board  
Division of Water Rights  
1001 "I" Street  
Sacramento, CA 95812

**Re: Draft Environmental Impact Report, Consideration of Modifications to the US Bureau of Reclamation's Water Right Permits 11308 and 11310. . . August 2003**

Dear Mr. Fecko,

I am writing to submit comments on the SWB DEIR regarding the State Water Resources Control Board Draft Environmental Impact Report, Consideration of Modifications to the US Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) To Protect Public Trust Values and Downstream Water Right on the Santa Ynez River Below Bradbury Dam (Cachuma Reservoir), August 2003.

I am submitting comments as a private citizen and I appreciate the opportunity to do so. My educational background is in biology with an emphasis in botany and population ecology, and I am employed as an environmental educator.

I support the SWB DEIR conclusion that identifies alternative 3A as environmentally preferred to all other alternatives (3B,3C, 4A, 4B). The health of native Steelhead Trout (*Onchorynchus mykiss*) can be recovered under Alternative 3A, and the impacts to oak woodland and chaparral plant communities, to cultural resources, and to recreational facilities could be avoided if Alternative 3A is implemented, by avoiding surcharge of Cachuma Lake.

11-1

All other alternatives achieve the goal of protecting native steelhead, yet because they each propose surcharge of Cachuma Lake, they have detrimental impacts on other resources that could also be considered "public trust resources." The Santa Ynez River is a biological system, albeit greatly deteriorated from its original functioning, and existing facets of the system, for example, oak woodlands, should not be further compromised needlessly.

11-2

The potential reduction in water supplies (due to target flow requirements for Steelhead in the Biological Opinion and no surcharge) during critical drought periods could be mitigated effectively through water conservation, and this potential should be studied. Santa Barbara residents are familiar with effective conservation measures due to

11-3

the drought in the 1980s, and the community can be called on again, were there need, to effectively conserve resources. If alternative 3A is adopted, such conservation measures could help to avoid the potential indirect Class I impact of saltwater intrusion due to groundwater pumping by water agency member units during critical drought years.

11-3

I have prepared the following comments to address impacts to natural resources at Cachuma Lake that would result from surcharge. Although the SWB DEIR proposes positive benefits for steelhead in the lower Santa Ynez, it is inadequate with regard to direct effects on several natural resources within the Cachuma Lake Recreation Area that would result from a surcharge as proposed under Alternatives 3B, 3C, 4A, and 4B. Water conservation and alternative supplies are feasible alternatives to expensive surcharging and would avoid identified significant impacts to recreational facilities, sensitive species, and oak woodland and chaparral plant communities as addressed below.

### **Impacts to Oak Woodland and Chaparral Plant Communities**

11-4

- DEIR section 4.8.3 proposes mitigating the loss of 452 oaks by implementing oak restoration within the County Park campgrounds. This proposal, while it would be beneficial to the park by virtue of the aesthetic value of additional trees, does not fulfill the intent of mitigation. The biological functioning of the oak woodland habitat that would be lost due to surcharge would not be restored under these circumstances by virtue of human disturbance and ground clearing. Oak trees (*Quercus* spp.), in and of themselves, planted in bare ground, do not restore an ecosystem; it is the integrative processes that promote functioning, including, among other things, energy and nutrient cycling and decay of organic materials—processes that are facilitated by living organisms, which would be absent in the park setting.
- Additional inadequacy of the proposed oak mitigation is the replacement ratio. The county standard replacement ratio is 10:1 for evergreen oaks and 15:1 for deciduous oaks; the proposed ratio is 3:1, especially inadequate considering the great probability of mortality due to human disturbance in the campground setting.
- There are additional areas within the recreation area where true woodland mitigation could be effected and appropriate ratios of oaks could be applied. These include savannah mesas above the north shore of the lake, including areas west of Santa Cruz Bay, where cattle grazing has been in effect for many decades, effectively destroying opportunities for Valley Oak recruitment especially, as the young saplings are consumed by cattle, and older, acorn-bearing trees are not replaced. Protestations that these areas would be “hard to access” are unfounded, as they are accessible by road; convenience to the responsible agency should not take precedence over the necessity and obligation of mitigation.
- The DEIR proposes no mitigation for 35 acres of lost chaparral habitat.

11-5

11-6

11-7

11-8

### **Impacts to Bald Eagles and Osprey (*Haliaeetus leucocephalus* and *Pandion haliaetus*):**

11-9

The principal impact on Bald Eagles and Ospreys is due to loss of oak woodland habitat.

- Surcharge would result in loss of lakeside oaks serving as daytime roosts and foraging perches for Bald Eagle and Osprey. Such perches have been identified as important in successful capture of prey by Bald Eagles, and lack of them may reduce forage success and increase competition between eagles at existing perches according to a study conducted at Cachuma Lake (Detrich 1989).

11-9

**Impacts to Western and Clark’s Grebes (*Aechmophorus occidentalis*, *A. clarkii*):**

- Cachuma Lake is the only body of water in Santa Barbara County that supports Western and Clark’s Grebe reproduction. Both species were placed on the list of Species of Special Concern in 1986. They were also on the National Audubon Society’s Blue List from 1973 – 1982; The Blue List (now the WatchList) was initiated to provide early warning of those North American species undergoing population or range reductions.
- Surcharge carries with it potential loss, for an undetermined period of time, of the seed bank of aquatic plant species gathered by Grebes as nesting material. It is not known what affect several consecutive years may have on Grebe habitation at Cachuma Lake.
- Increased fluctuation of lake level due to surcharge directly affects reproductive opportunities for Grebes. Nesting is initiated by establishment of appropriate aquatic plant nesting material, for example, *Echinodorus berteroi* (Burhead). Once the nest is built, the duration of egg gestation is 23 days. Releases of water downstream at the key reproductive period for Grebes results in established nests remaining within anchor plants at higher water elevation, thus making the nests inaccessible to tending adult birds, and thus, loss of egg viability. In 2002, Cachuma Lake Park Naturalists documented virtually no Grebe reproductive success, despite nesting attempts, during a period of release of greater than 9,000 acre-feet over a period of 4 months (Mason, 2002)

11-10

11-11

11-12

**Impacts to Southwestern Pond Turtle (*Clemmys marmorata pallida*), a State Protected and Special Concern Species:**

- The Southwestern Pond Turtle is present in Cachuma Lake, and hibernates in mud banks at the perimeter of the lake. It also breeds at the lake and lays eggs several hundred meters from the water’s edge. The Southwestern Pond Turtle hibernates in mud banks at the perimeter of the lake. The surcharge has the potential to create conditions for the pond turtle that make the mud banks uninhabitable, e.g., displaces the banks to unsuitable depth.

11-13

**Impacts to Rare Plant Species:**

Section 4.8.1.3 of the DEIR identifies six sensitive plant species in the watershed, and states that these would likely not occur at Cachuma. The report overlooks the current and historical presence of six additional plant species occurring at Cachuma Lake.

- There are 6 rare plants (CNPS-listed) within the Cachuma Lake Recreation Area that would be affected by surcharge. Four of these would be affected directly, and 2

11-14

more that grow within 15 feet of the proposed surcharge high water level of 753 feet above sea level. These species can be found listed at <http://www.cnpsci.org/html/PlantInfo/SBCORarePlants.doc>

- Three plants have been seen in isolated years on the mud flats at the east end of Cachuma Lake. They are locally-rare, including:
  - 1) *Cyperus odoratus*, located in the county only at Cachuma Lake (HM Pollard, Oct 1957; Smith, 1971; D Lampl, 1981).
  - 2) *Eleocharis parvula*, Colorado spike-rush, located in the county only at Burton Mesa and Cachuma (W. Ferren, no date, UCSB).
  - 3) *Potamogeton pusillus*, Small pondweed, located in the county only at Cachuma Lake (D Lampl, May 1981, UCSB).
  
- The fourth plant occurs on the mud flats and around the perimeter of the lake shore in appropriate water depth:
  - 4) *Echinodorus berteroi*, Burhead, located in the county currently only at Cachuma Lake. (Per Smith, also in 1929, on the Santa Ynez River above Ranger Station, and in Santa Barbara along Las Positas Road north of Veronica Springs, Oct 1962 and Aug 1963).
  
- Two additional rare plants occur within 15 feet of the proposed surcharge high water mark, and they could be jeopardized by lake access foot traffic:
  - 1) *Piperia elongata*, dense flower rein orchid, CNPS 4, occurs in county, found at Cachuma Lake by Don Wimpress, 1985, and by Larry Ballard, 2000.
  - 2) *Calochortus weedii* var. *vestus*, Weed's Mariposa, CNPS 1B, occurs in county, found at Cachuma Lake by Liz Mason, 2001.

11-14

Thank you for the opportunity to comment.

Sincerely,

Elizabeth R. Mason  
Santa Barbara, California

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References:

Detrich, Phillip J, 1989. *Management recommendations for Bald Eagles at Lake Cachuma County Park*. Ecos, Inc, Sacramento.

Lampl, Diane and Baley, Dave, 1982. *A Vascular Plant Checklist for the Mud Flats of Eastern Lake Cachuma*. Study on file, Park Naturalist's office, Cachuma Lake.

Mason, E, 2002. Unpublished Park Naturalists' field log. Park Naturalists' Office, Cachuma Lake Recreation Area.

Smith, 1998. *A Flora of the Santa Barbara Region, California*. Second Edition, Santa Barbara Botanic Garden and Capra Press, Santa Barbara.

# # #

**11. Elizabeth Mason, dated October 7, 2003.**

**Response 11-1:**

The comment states that the 2003 DEIR identifies Alternative 3A as environmentally preferred to all other alternatives, and the commenter supports that conclusion.

See response to 2003 DEIR **Comment 3-34**.

Comment noted

**Response 11-2:**

The comment states that all other alternatives achieve the goal of protecting native steelhead, yet because they each propose surcharge of Cachuma Lake, they have detrimental impacts on other resources that could also be considered "public trust resources."

The alternatives in the 2003 DEIR were all evaluated equally and included analysis of impacts to all identified public trust resources.

**Response 11-3:**

The comment states that potential reduction in water supplies (due to target flow requirements for steelhead in the Biological Opinion and no surcharge) during critical drought periods could be mitigated effectively through water conservation, and this potential should be studied.

Water conservation is addressed by the local water providers in their Urban Water Management Plans. Currently, the water providers are updating their UWMPs to meet state requirements including mandated water conservation targets set in 2009 by the legislature. While conservation efforts would reduce water use, they would not alone supplant water needs by the downstream users and other water sources are not adequate to meet all current and forecast demands.

**Response 11-4:**

The commenter makes a number of specific comments regarding specific impacts to oak woodland and chaparral plant communities.

Each individual point is responded to separately below.

**Response 11-5:**

The comment states that the 2003 DEIR **Section 4.8.3** proposes mitigating the loss of 452 oaks by implementing oak restoration within the County Park campgrounds but this does not fulfill the intent of mitigation.

Please see response to the 2007 RDEIR **Comment 3-9** for discussion of oak mitigation.

**Response 11-6:**

The comment states that the proposed oak mitigation is inadequate in regard to the replacement ratio of 3:1 being too small.

The intent of the oak tree mitigation is the replacement habitat for the lost oak woodland plant community. Oak woodland habitats vary in tree density so no single standard is applicable in all cases. See discussion in 2003 DEIR **Section 4.8 Riparian and Lakeshore Vegetation** and the response to 2007 RDEIR **Comment 3-9** regarding the success of the Oak Restoration Management Plan.

**Response 11-7:**

The comment suggests additional areas within the recreation area where true woodland mitigation could be effected and appropriate ratios of oaks could be planted.

The comment is noted. The Oak Restoration Management Plan has been implemented with success and is ongoing. See discussion in 2003 DEIR **Section 4.8 Riparian and Lakeshore Vegetation** and the response to 2007 RDEIR **Comment 3-9**.

**Response 11-8:**

The comment states that the 2003 DEIR proposes no mitigation for 35 acres of lost chaparral habitat.

This statement is correct. As the chaparral habitat is not considered a sensitive plant community, impacts to this biological resource is not considered to be significant and therefore no mitigation is proposed or needed.

**Response 11-9:**

The comment states that surcharge would result in loss of lakeside oaks, which serve as important daytime roosts and foraging perches for bald eagle and osprey, and the loss of these perches may reduce foraging success and increase competition between eagles at existing perches according to a study conducted at Cachuma Lake (Detrich 1989).

The comment is noted. Impacts to bald eagle resulting from the loss of oak trees are discussed in **Section 4.9.2.1 Lake Impacts**.

**Response 11-10:**

The commenter makes specific comments regarding specific impacts to western and Clark's grebes (*Aechmophorus occidentalis* and *A. clarkii*). Each individual comment is separately addressed below.

The comment is noted.

**Response 11-11:**

The comment states that the surcharge has the potential impact the seed bank of aquatic plant species gathered by grebes as nesting material, which may impact grebe habitation at Cachuma Lake.

The comment is noted. There are no grebe species currently listed by CDFG on the Special Animal List, so these are not species of special concern recognized at the state level.

**Response 11-12:**

The comment states that increased fluctuation of lake level due to surcharge would directly affect reproductive opportunities for grebes.

The comment is noted. There are no grebe species currently listed by CDFG on the Special Animal List, so these are not species of special concern recognized at the state level.

**Response 11-13:**

The comment states that southwestern pond turtle is present in Cachuma Lake, hibernates in mud banks at the perimeter of the lake and breeds at the lake, laying eggs several hundred meters from the water's edge. The comment continues that the surcharge has the potential to impact the southwestern pond turtle.

The comment is noted. Impacts to southwestern pond turtle is addressed in **Section 4.9.1.1 Amphibians and Reptiles** of the 2011 2<sup>nd</sup> RDEIR EIR.

**Response 11-14:**

The comment states that **Section 4.8.1.3** of the 2003 DEIR identifies six sensitive plant species in the watershed, and states that these would likely not occur at Lake Cachuma, but overlooks the current and historical presence of six additional plant species occurring at Cachuma Lake.

The comment is noted. The six additional plant species identified by the commenter as occurring at Lake Cachuma are *Cyperus odoratus* (fragrant flatsedge), *Eleocharis parvula* (dwarf spikerush), *Potamogeton pusillus* (small pondweed), *Echinodorus berteroi* (burhead), *Piperia elongata* (dense flowered rein orchid), and *Calochortus weedii* var. *vestus* (late flowered mariposa lily). The majority of these species are not considered rare or threatened, and none are endangered. Dwarf spike rush is listed as California Native Plant Society (CNPS) 4.3, a watch list species of limited distribution. Only late flowered mariposa lily is considered to be sensitive, listed as CNPS 1B.2, but the species does not occur within the inundation area and is not likely to be impacted.



2003 OCT -8 AM 8:37

DIVISION OF WATER RIGHTS  
SACRAMENTO

**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, California 90802-4213

OCT -7 2003

DIVISION OF WATER RIGHTS  
SACRAMENTO

F/SWR:MC

Mr. Andrew Fecko  
Division of Water Rights  
State Water Resources Control Board  
1001 "I" Street, Second Floor  
Sacramento, California 95812

Dear Mr. Fecko:

The National Marine Fisheries (NOAA Fisheries) would like to provide the following comments on the Draft Environmental Impact Report (EIR) for Consideration of Modifications to the U.S. Bureau of Reclamation's (BOR) Water Right Permits 11308 and 11310 To Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam.

**Introduction**

On August 11, 1997, NOAA Fisheries listed the Southern California steelhead Evolutionarily Significant Unit (ESU), which includes steelhead found in the Santa Ynez River system, as an endangered species under the Federal Endangered Species Act (ESA). The Southern California steelhead ESU was listed as an endangered species because of the destruction and loss of habitat throughout its range that has caused the annual run size in the ESU to decline from historic estimates of 55,000 fish to less than 500 fish, a decline of more than 90%.

Steelhead that are part of the endangered Southern California steelhead ESU presently occur in the Santa Ynez River mainstem and tributaries downstream of Bradbury Dam. Prior to construction of the Cachuma Project in 1958, which included Bradbury Dam, the Santa Ynez River system supported one of the largest runs of steelhead in southern California, estimated by the California Department of Fish and Game to be approximately 20,000 adult fish per year. A majority of these fish are believed to have spawned and reared in the up-stream tributaries to the Santa Ynez River, above the current site of the Bradbury Dam, within the Los Padres National Forest. The current run of adult steelhead in the Santa Ynez River system is believed to be less than 100 adult fish per year, and is limited to the mainstem and tributaries of the Santa Ynez River below Bradbury Dam.

In September 2000, NOAA Fisheries issued a Biological Opinion to the BOR which addressed the affects of the operation and maintenance of the Cachuma Project (including Bradbury Dam) on the remnant steelhead in the lower Santa Ynez River. Additionally, NOAA Fisheries is in the



process of initiating recovery planning for the Southern California steelhead ESU. The State Water Resources Control Board's (SWRCB) hearing and related EIR for the operation and maintenance of the Cachuma Project has the potential to affect both of these NOAA Fisheries efforts to protect and restore the steelhead resources on the Santa Ynez River.

#### **EIR Scope and Alternatives Analysis**

The original Notice of the Water Rights Hearing for the Cachuma Project (September 25, 2000) indicates that the basic purpose of the hearing is to review BOR's Water Rights Permits 11308 and 11310 to determine whether any modifications in permit terms and conditions are necessary to protect the Public Trust values and downstream water rights on the Santa Ynez River below Bradbury Dam. In a subsequent ruling on the scope of the Water Rights Hearing for the Cachuma Project (May 29, 2003) the Hearing Officer Peter S. Silva clarified the scope of the Public Trust Resources which would be addressed in this hearing. Specifically, the SWRCB advised NOAA Fisheries and other parties to the hearing that: "By its terms, the key hearing issue 4b is not limited to public trust resources below Bradbury Dam, or to requirements that apply below Bradbury Dam. Consistent with the hearing notice, I intend to allow parties to present evidence concerning whether Reclamation's permits should be modified to address any impact of Cachuma Project operations to public trust resources above Bradbury Dam, including evidence concerning requirements that would apply above the dam." (See letters from Peter S. Silva, State Water Resources Control Board to NOAA Fisheries and parties, May 29, 2003 and August 13, 2002.)

The Draft EIR indicates that the project consists of potential modifications of the BOR's existing water right permits to protect downstream water rights and Public Trust resources on the Santa Ynez River. As noted above, the SWRCB has established that the scope of the Public Trust interests in the steelhead resources of the Santa Ynez River include resources above as well as below Bradbury Dam. However, none of the potential modifications (or project alternatives) in the Draft EIR include provisions which specifically address Public Trust interests in the steelhead resources of the Santa Ynez River above Bradbury Dam. As such, the alternatives analyzed in the EIR are not adequate to address fully the issues raised by the project.

12-1

Because the range of alternatives addressed and evaluated as part of the Draft EIR relate to both the Biological Opinion NOAA Fisheries issued for the Cachuma Project and recovery of steelhead, as well as the Public Trust values in the Santa Ynez River, the scope of alternatives is an important element of the Cachuma Project Water Rights Hearing. In a letter dated December 11, 2000 to the BOR, the SWRCB indicated that the Board staff had determined that the range of alternatives for the EIR should be revised to reflect the Biological Opinion issued by NOAA Fisheries for the Cachuma Project. Because the alternatives in the Draft EIR are based on the actions proposed by the BOR and evaluated in NOAA Fisheries' Biological Opinion addressing Cachuma Project operations, they do not address the larger issue of how the Santa Ynez River steelhead contributes to recovery of the Southern California steelhead ESU (See additional comments below regarding the nature and scope of the Biological Opinion.)

To address the recovery of steelhead resources of the Santa Ynez River and in the Southern California steelhead ESU as a whole, the project alternatives should specifically include fish passage provisions for both adult and juvenile steelhead around Bradbury Dam, and protection of steelhead spawning and rearing habitat above Bradbury Dam. To analyze these alternatives NOAA Fisheries recommends the following six steelhead investigation be undertaken and incorporated into the Final EIR and the SWRCB deliberations before making any final decision on the Public Trust interests in the steelhead resources of the Santa Ynez River:

12-2

1. Steelhead Spawning and Rearing Habitat Assessment

Conduct a steelhead spawning and rearing habitat assessment of the following segments of the Santa Ynez River system to systematically document and evaluate the extent and quality of the steelhead habitat above Bradbury Dam which would become accessible to adult steelhead if fish passage and migration were re-established in the upper reaches of the Santa Ynez River watershed: (a) mainstem of Santa Ynez River between Bradbury Dam and Gibraltar Dam; (b) the following tributaries to the Santa Ynez River between Bradbury and Gibraltar Dam: Cachuma Creek, Santa Cruz Creek, Bear Creek, Tequepis Creek, Horse Canyon, Hot Springs Creek, Beach Creek, Los Laureles, Canyon, Red Rock Canyon, Lewis Canyon, Arroyo Burro Creek, and Devils Creek.

12-3

This assessment should use standard, acceptable fish habitat assessment protocols such as Habitat Suitability Index (HSI) and be prepared by an independent consultant, under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, U.S. Forest Service, and NOAA Fisheries.)

2. Fish Passage Investigation for Bradbury Dam and Cachuma Reservoir

To provide a thorough and defensible analysis and evaluation of a full range of alternative fish passage opportunities at Bradbury Dam and Cachuma Reservoir, conduct an investigation of alternative means of providing adult steelhead fish passage to spawning and rearing habitat above Bradbury Dam, and effective emigration of rearing juvenile steelhead (smolts) located above Bradbury Dam downstream to the ocean. This investigation should aim at identifying effective means of reconnecting the upper portion of the Santa Ynez River watershed with the lower Santa Ynez River and the Pacific Ocean. Emphasis should be placed on restoring, to the maximum extent practical, the natural pattern of migration and emigration of fish between the ocean and upstream spawning and rearing areas, but the investigations should encompass a full range of passage options. Additionally, screening of diversions through the Tecolote Tunnel and other water intakes should be investigated in conjunction with the fish passage investigation.

12-4

This investigation should be based upon stream flow and fish passage (including fish screening) criteria established by NOAA Fisheries and the California Department of Fish and Game, and be prepared by an independent consultant, under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, U.S. Forest Service, and NOAA Fisheries.)

Because of the complexity of this issue, a special technical advisory group should be established to determine the scope of the fish passage (and screening) alternatives to be investigated for the dam and reservoir, and to direct the investigations; this technical advisory group should be comprised of representatives of the NOAA Fisheries, BOR, U.S. Forest Service, and California Department of Fish and Game.

12-4

### 3. Fish Flows to Support Migration, Spawning and Rearing above Bradbury Dam

Identify instream flow requirements (timing, duration, and magnitude) in the mainstem of the Santa Ynez River which would be necessary to provide effective fish migration for both adult and juvenile steelhead between the Pacific Ocean and the reach of the Santa Ynez River between Bradbury Dam and Gibraltar Dam. Additionally, identify the flows necessary to support spawning and rearing in the mainstem reach of the Santa Ynez River between Bradbury and Gibraltar Dams.

12-5

These investigations should use standard, acceptable instream flow protocols such as Incremental Flow Instream Methodology (IFIM), and be based upon fish passage criteria established by the California Department of Fish and Game and the NOAA Fisheries. These instream flow investigations should be prepared by an independent consultant under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, U.S. Forest Service, and NOAA Fisheries.)

### 4. Channel Forming Flows in the Lower Mainstem Santa Ynez River

To determine if there are ways of improving migratory conditions for both adult and juvenile steelhead in the lower Santa Ynez River by improving and maintaining natural channel structure generated by fluvial processes, evaluate the effects on channel formation in the lower Santa Ynez River (with particular reference to effects on steelhead migration and fish habitat characteristics), resulting from the alteration of the natural frequency, duration, and magnitude of pre-project flood flows, created by the current operation of the Cachuma Project. This flow study should be prepared by an independent consultant under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (i.e., SWRCB, California Department of Fish and Game, BOR, and NOAA Fisheries.)

12-6

### 5. Alternative Flow Regime for Lower Mainstem Santa Ynez River

Analyze and evaluate the 3A2 alternative flow regime (and variations) identified in the Cachuma Contract Final Environmental Impact Report (December 1995) to determine its suitability to meet the Public Trust interests in the steelhead resources of the Santa Ynez River below Bradbury Dam, and the related goal of steelhead recovery (in addition to avoidance of jeopardy) in the Santa Ynez River. This evaluation should utilize standard, accepted instream flow methodology such as the Incremental Flow Instream Methodology (IFIM) and be prepared by an independent consultant under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, and NOAA Fisheries.)

12-7

## 6. Watershed Analysis

Identify and evaluate anthropogenic activities within the watershed (e.g., roads, vegetation clearing or modification, fire management, grazing, recreational activities, etc.) affecting the quantity and quality of steelhead spawning and rearing habitat above Bradbury Dam in both the mainstem of the Santa Ynez River, and the major historic steelhead spawning and rearing tributaries (e.g., Gridley Creek, Camuesa Creek, Indian Creek, Mono Creek, Blue Canyon, Agua Caliente Creek, North Fork Juncal Creek, Alder Creek, Juncal Creek). This investigation and analysis should be prepared by an independent consultant under the auspices of the SWRCB, subject to review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, U.S. Forest Service, and NOAA Fisheries.)

12-8

This investigation is intended principally to address water quality issues (e.g., elevated turbidity, nutrient levels, etc.) which are an integral part of the Public Trust responsibilities of the SWRCB, and have a direct bearing on the productivity of steelhead and spawning and rearing habitats and are necessary to assure that the benefits of restoring steelhead passage and related flows are more fully realized.

### **Biological Opinion for the Cachuma Project**

The Draft EIR includes an extended discussion of the Biological Opinion NOAA Fisheries issued to the BOR on September 8, 2000, for its proposed operation and maintenance of the Cachuma Project. The Biological Opinion concluded that the proposed operation and maintenance of the Cachuma Project was not likely to jeopardize the continued existence of the endangered Southern California steelhead ESU, but that it was expected to result in some incidental take of listed steelhead. Because incidental take was anticipated, an incidental take statement was issued with the Biological Opinion that includes a number of mandatory reasonable and prudent measures, as well as terms and conditions, that BOR must comply with to minimize and monitor any incidental take of steelhead (e.g., modifications to downstream water releases, provision of the Hilton Creek Water Supply Line, modification to current low flow crossing maintenance activities, and passage and habitat improvements to spawning tributaries downstream of Bradbury Dam such as Salsipuedes, El Jaro and Hilton Creeks, etc.).

As part of the Biological Opinion, NOAA Fisheries provided BOR with set of specific Conservation Recommendations designed to further minimize or avoid impacts on steelhead and also assist with recovery planning and implementation. Although BOR is not required to implement these Conservation Recommendations, section 7(a)(1) of the ESA directs Federal agencies such as BOR to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. NOAA Fisheries provided these Conservation Recommendations to BOR in light of this broader Federal agency obligation under the ESA.

Although these Conservation Recommendations are advisory and carry no binding legal force, NOAA Fisheries believes the implementation of these additional measures is important because they will either help to minimize the adverse effects of the Cachuma Project (i.e., incidental take of steelhead), or provide information necessary for the development of a recovery plan for the Southern California steelhead ESU. These advisory Conservation Recommendations include: (1) examination of alternative means of delivering water to downstream users of the Cachuma Project, (2) examination and evaluation of the means of providing passage for steelhead to and from the historic steelhead spawning and rearing habitat above Bradbury Dam, and (3) examination and evaluation of the ecological effects of reducing natural flood flows in the lower Santa Ynez River as a result of the operation of the Cachuma Project. The six steelhead investigations outlined above are based upon these advisory Conservation Recommendations, but provide more specificity for the purposes of meeting the SWRCB's Public Trust responsibilities and the requirements of the California Environmental Quality Act.

12-9

Finally, we would like to emphasize that NOAA Fisheries' Biological Opinion for the Cachuma Project did not address the specific requirements for recovery of steelhead in the Southern California ESU as a whole or the Santa Ynez River system in particular. Rather, the Biological Opinion focused on determining whether or not the operation and maintenance of the Cachuma Project, as proposed by the BOR, would jeopardize the continued existence of the Southern California steelhead ESU. Although NOAA Fisheries's recovery planning efforts for this ESU are only now beginning, timely implementation of these Conservation Recommendations (as further described in the six steelhead investigations outlined above) will facilitate the development of potential operation and maintenance alternatives for the Cachuma Project that further protect Public Trust values and contribute towards the recovery of the endangered Southern California steelhead ESU.

12-10

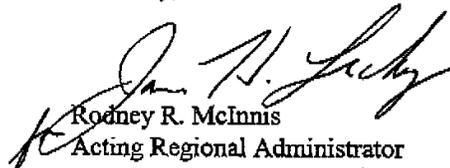
### Summary

The Board's Water Rights Hearing on the Cachuma Project raises issues central not only to the general Public Trust interest in the water resources of the Santa Ynez River system, but also to the protection and recovery of the endangered Southern California steelhead ESU. Any decision on the disposition of the water rights and Public Trust values in the Santa Ynez River should, therefore, be made in a manner which does not prejudice the NOAA Fisheries recovery planning process for the larger Southern California steelhead ESU.

Because the Board's consideration and possible decision on this matter is likely to precede the completion of NOAA Fisheries's recovery plan for the Southern California steelhead ESU, NOAA Fisheries recommends that any water rights decision made prior to the completion and adoption of this recovery plan be interim in nature. Further, any interim decision should also include specific conditions providing for continuing evaluation of the effects of the Cachuma Project on the recovery of the Southern California ESU, including implementation of the investigative Conservation Recommendations set forth in the Biological Opinion for the Cachuma Project, and as outlined in the six steelhead investigations described above.

Thank you for the opportunity to provide these preliminary comments on the Draft EIR addressing the effects of the Cachuma Project water rights hearing. Should you or your staff have any questions regarding these comments or wish to discuss these issues further, please feel free to contact either Jim Lecky at (562) 980-4015 or Craig Wingert at (562) 980-4021

Sincerely,



Rodney R. McInnis  
Acting Regional Administrator

cc:

Kirk Rogers, Acting Regional Director, U.S. Bureau of Reclamation  
Jeanine Derby, Forest Supervisor, Los Padres National Forest  
Arthur G. Baggett, Chairperson, State Water Resources Control Board  
Robert Hight, Director, California Department of Fish and Game  
Mike Higgins, Regional Water Control Board, Central Coast Region  
Charles Raysbrook, Regional Director, Region 5, California Department of Fish & Game  
Arthur Kidman, Cachuma Conservation and Release Board  
Robert Wignot, Cachuma Operation and Maintenance Board  
Michael Jackson, Chairperson, Santa Ynez River Technical Advisory Committee  
Robert Almy, Water Agency Manager, Santa Barbara County Water Management Agency

**12. National Marine Fisheries Service, dated October 7, 2003.**

**Response 12-1:**

The comment states that the scope of the public trust interests in the steelhead resources of the Santa Ynez River include resources above as well as below Bradbury Dam but that none of the potential modifications (or project alternatives) in the 2003 DEIR include provisions that specifically address public trust interests in the steelhead resources of the Santa Ynez River above Bradbury Dam. The comment concludes that the alternatives analyzed in the 2003 DEIR are not adequate to address fully the issues raised by the project.

The 2011 2nd RDEIR project is the potential modifications to Reclamation's water rights Permits 11308 and 11310, to provide appropriate protection of water rights and public trust resources on the Santa Ynez River downstream of Bradbury Dam. The Cachuma Project is responsible for the public trust resources below the Bradbury Dam. The Cachuma Project scope focuses on Lake Cachuma, Bradbury Dam, and the Santa Ynez River downstream of the dam. Upstream portions of the river above the dam, where public trust resources also occur, were outside the scope of the project.

The purpose of the EIR is not to evaluate the impacts of the Cachuma Project on the fishery (including the impact of the dam and reservoir on fish passage) and develop measures to mitigate those impacts (such as fish ladders, trap and haul, etc.). That was the purpose of the public trust hearing. The purpose of the EIR is to evaluate any incidental environmental impacts of the public trust measures proposed during the hearing. The hearing record doesn't support the imposition of passage requirements at the present time. Instead, NMFS and DFG recommended that the feasibility of passage should be studied. Conducting a study of the feasibility of providing for passage, by itself, will not have an environmental impact, and therefore it was not necessary to evaluate the potential impacts of such a study in the EIR. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam.

Please see responses to 2003 DEIR **Comments 6-3, 7-3 and 12-2.**

**Response 12-2:**

The comment states that the project alternatives should specifically include fish passage provisions for both adult and juvenile steelhead around Bradbury Dam in order to address the recovery of steelhead resources of the Santa Ynez River and in the Southern California steelhead ESU as a whole. In addition, the comment suggests that protection of steelhead spawning and rearing habitats above Bradbury Dam also be a consideration in project alternatives. The comment recommends six steelhead investigations (listed below as 12-2a through 12-2f) be undertaken and incorporated into the 2011 2<sup>nd</sup> RDEIR.

Efforts to provide fish passage around Bradbury Dam are not a component of the proposed project. Therefore, an analysis of fish passage above Bradbury Dam was not included in the selection of project alternatives. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam. This is discussed further in **Section 2.4.5 Conservation Recommendations**.

**Response 12-3:**

The comment recommends that an investigation be conducted to assess steelhead spawning and rearing habitat of several segments of the Santa Ynez River system to evaluate the extent and quality of the steelhead habitat above Bradbury Dam, which would become accessible to adult steelhead if fish passage and migration were re-established in the upper reaches of the Santa Ynez River watershed.

Efforts to provide fish passage around Bradbury Dam are not a component of the proposed project, as no project has been proposed to develop this fish passage. Because the possibility of fish passage is speculative, an analysis of fish passage above Bradbury Dam was not included in the selection of project alternatives. See also the response to 2003 DEIR **Comment 12-1**, above.

**Section 4.7.2 Potential Impacts of the Alternatives** of the 2011 2<sup>nd</sup> RDEIR includes discussion of spawning and rearing habitat along the mainstem. The long-term rearing target flows required by the Biological Opinion have been met to the Highway 154 bridge between 2000 and 2010. Flashboards were installed at the dam in 2005 to achieve a 3.0 surcharge, and surcharge occurred in 2005 and 2006. Spills also occurred in 2005, 2006 and 2008, providing additional flows downstream to the Alisal reach in 2006, 2007, 2008, and 2009. These additional flows have resulted in increased abundance of *O. mykiss* in the lower Santa Ynez River and its tributaries, increased riparian vegetation quantity and quality, as well as spawning and rearing habitat along the mainstem.

**Response 12-4:**

The comment recommends that an investigation be conducted of alternative means of providing adult steelhead fish passage to spawning and rearing habitat above Bradbury Dam, with effective emigration of rearing juvenile steelhead (smolts) located above Bradbury Dam downstream to the ocean. The aim of this investigation should be to identify effective means of reconnecting the upper portion of the Santa Ynez River watershed with the lower Santa Ynez River and the Pacific Ocean.

The comment is noted. Efforts to provide fish passage around Bradbury Dam are not a component of the proposed project. Therefore, an investigation of fish passage above Bradbury Dam is not needed for the implementation of the Cachuma Project. However, investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion.

**Response 12-5:**

The comment recommends an investigation to identify instream flow requirements (timing, duration, and magnitude) in the mainstem of the Santa Ynez River that would be necessary to provide effective fish migration for both adult and juvenile steelhead and to support spawning and rearing between the Pacific Ocean and the reach of the Santa Ynez River between Bradbury Dam and Gibraltar Dam.

The comment is noted. Efforts to provide fish passage around Bradbury Dam are not a component of the proposed project. Therefore, an investigation of fish passage above Bradbury Dam is not needed for the implementation of the Cachuma Project. However, investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion.

**Response 12-6:**

The comment recommends an investigation for technical review by the regulatory and trustee agencies (i.e., SWRCB, California Department of Fish and Game, Reclamation, and NOAA Fisheries) to determine ways of improving migratory conditions for both adult and juvenile steelhead in the lower Santa Ynez River by improving and maintaining natural channel structure generated by fluvial processes resulting from the alteration of the natural frequency, duration, and magnitude of pre-project flood flows, created by the current operation of the Cachuma Project.

The comment is noted. Studies of this nature are more appropriately investigated by Santa Ynez River Technical Advisory Committee (SYRTAC), Adaptive Management Committee (AMC), rather than the SWRCB.

In 2001, parties executed a *Memorandum of Understanding to Support Implementation of the National Marine Fisheries Service Biological Opinion and the Santa Ynez River Technical Advisory Committee Lower Santa Ynez River Fish Management Plan* (MOU). The MOU sets forth an institutional framework to provide governance, guidance, technical support, and funding arrangements for the long-term Fisheries Program that should be mutually satisfactory for all respective concerns.

Under the MOU, a Consensus Committee (CC) provides oversight for the work and activities of the AMC and addresses policy issues and activities as specified in the MOU.

The AMC provides technical support in the implementation of the BO/FMP.<sup>41</sup> Roles and responsibilities of the AMC are: (1) to provide technical input and review of the fisheries monitoring program and studies related to steelhead/rainbow trout, fish habitat, and hydrology of the river and tributaries below Bradbury Dam that are administered by CCRB/I.D. No. 1 or Reclamation; (2) present scientific

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<sup>41</sup> Advisory Groups and Procedures Associated with the Lower Santa Ynez River Fisheries Program, *Roles and Responsibilities*, February 27, 2007.

information for implementation of fish conservation and protection measures and adaptive refinement of management actions arising from the BO/FMP to the Consensus Committee (CC) and NMFS as appropriate; and (3) oversee the use of the 500 acre foot Adaptive Management Account (AMA). Decisions made by the AMC that materially deviate from operations approved in the BO, and which could reasonably be expected to adversely affect steelhead, must be approved by NMFS before being implemented.

Members of SYRTAC include a representative of each of the public agencies represented on the AMC, as well as interested public members and representatives from other state and public agencies. The number of SYRTAC members varies depending upon participation by the public and other agencies. The objective of SYRTAC is to foster outreach and public participation in the implementation efforts of the BO/FMP and all of its meetings are public. Members of SYRTAC may provide technical recommendations to the CC or AMC regarding biological and hydrological resources in the Lower Santa Ynez River.

**Response 12-7:**

The comment recommends an analysis and evaluation, using standard, accepted instream flow methodology such as the Incremental Flow Instream Methodology (IFIM), and technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, and NOAA Fisheries), of the 3A2 alternative flow regime (and variations) identified in the Cachuma Contract Final Environmental Impact Report (December 1995) to determine its suitability to meet the Public Trust interests in the steelhead resources of the Santa Ynez River below Bradbury Dam, and the related goal of steelhead recovery (in addition to avoidance of jeopardy) in the Santa Ynez River.

The comment is noted. Alternative 3A2 is no longer considered viable because it may have significant impacts on water supply, as NMFS acknowledged in their December 7, 2007 comment letter on the 2007 RDEIR.

**Response 12-8:**

The comment recommends an investigation for technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, and NOAA Fisheries) to identify and evaluate anthropogenic activities within the watershed (e.g., roads, vegetation clearing or modification, fire management, grazing, recreational activities, etc.) affecting the quantity and quality of steelhead spawning and rearing habitat above Bradbury Dam in both the mainstem of the Santa Ynez River, and the major historic steelhead spawning and rearing tributaries (e.g., Gridley Creek, Camuesa Creek, Indian Creek, Mono Creek, Blue Canyon, Agua Caliente Creek, North Fork Juncal Creek, Alder Creek, Juncal Creek).

The comment is noted. Undertaking such an investigation is beyond the scope of the SWRCB in regard to the Cachuma Project. In a memorandum to the Adaptive Management Committee dated December 2006, a Draft Upper Basin Study – Habitat Synthesis was prepared, which included a summary of migration barriers to fish passage, both natural and anthropogenic. In addition, several upper Santa Ynez River basin studies have been conducted to evaluate the historical extent of *O. mykiss* populations and their abundance, habitat quality and to identify passage barriers. (AMC 2004b, Cachuma Conservation Release Board 2008, and Stoecker 2004.)

Efforts to provide fish passage around Bradbury Dam are not a component of the proposed project, as no project has been proposed to develop this fish passage. Because the possibility of fish passage is speculative, an analysis of activities affecting quality and quantity of habitat upstream of Bradbury Dam is not a necessary component of an evaluation of the Project's affects.

**Response 12-9:**

The comment states that the BO contains Conservation Recommendations that are advisory and carry no legal force but which are designed to minimize or avoid impacts on steelhead. These Conservation Recommendations include: (1) examination of alternative means of delivering water to downstream users of the Cachuma Project, (2) examination and evaluation of the means of providing passage for steelhead to and from the historic steelhead spawning and rearing habitat above Bradbury Dam, and (3) examination and evaluation of the ecological effects of reducing natural flood flows in the lower Santa Ynez River as a result of the operation of the Cachuma Project. The comment recommends implementation of these additional measures.

These comments are noted. There are currently no alternative methods for providing downstream water right releases that have been analyzed or proposed. Although several upper Santa Ynez River basin studies have been conducted to evaluate the historical extent of *O. mykiss* populations and their abundance, habitat quality, and to identify passage barriers (AMC 2004b, Cachuma Conservation Release Board 2008, Stoecker 2004), to our knowledge, no studies have been made available to identify and evaluate methods for making Bradbury Dam passable for *O. mykiss*, and efforts to provide fish passage around Bradbury Dam are not a component of the proposed project, as no project has been proposed to develop this fish passage. There is currently no study investigating the role of periodic floods on channel geomorphology that has been completed.

**Response 12-10:**

The comment states that the NMFS planning efforts for the recovery of the endangered Southern California steelhead ESU are only now beginning and timely implementation of the Conservation Recommendations would facilitate the development of potential operation and maintenance alternatives for the Cachuma Project that further protect Public Trust values and contribute towards the recovery of the ESU.

The comments are noted. NMFS produced the Public Review Draft Version of Southern California Steelhead Recovery Plan in July 2009. The Conservation Recommendations are discussed in the 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

See also response to 2003 DEIR **Comment 12-9**.



Santa Barbara County Public Works Department  
Flood Control & Water Agency

September 3, 2003

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

Attn: Andrew Fecko

**RE: Comments on the Draft EIR for Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332)**

Thank you for the opportunity to review the Draft EIR for "Consideration of modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) To Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir)"

The comments below are focused on flooding issues brought up in the EIR and the corresponding mitigation measures.

While the EIR discusses the potential impacts on extending low flow releases, the discussions relating to involvement with the County Flood Control District are not adequate.

Of particular concern is the discussion in section 4.2.2.4 (page 4-25), which states;

***The potential increase in flood hazard is considered a potentially adverse, but not significant impact, because the County FCD could take reasonable action to prevent damage to public infrastructure through its authority to conduct channel maintenance. The extent and magnitude of this potentially adverse impact is unknown, and may be offset by the reduction in uncontrolled spills, which can cause flooding.***

Furthermore, on the next page, the EIR goes on to state;

13-1

#### 4.2.3 MITIGATION MEASURES

*The County FCD could mitigate for increased flood hazards due to increased riparian vegetation and the reduction in spill frequency under Alternatives 3A-C and 4A-B. No other mitigation is considered because no significant adverse hydrologic impacts would occur due to the project alternatives.*

13-1

Several problems exist with the line of reasoning the EIR pursues. These statements lack any discussion related to issue of expanding a channel maintenance program in this area.

In fact the Flood Control District would not be able to expand channel maintenance in this region should vegetation growth result. The EIR fails to review the gamete of issues surrounding the proposed action of expanding channel maintenance below Bradbury Dam. The EIR apparently dismissed significant issues impacting the feasibility such as permitting, mitigation, land rights, and perhaps the most significant issue being cost.

Current funding in the Santa Ynez Flood Zone IS NOT adequate to address additional channel maintenance needs. The FCD has not conducted channel maintenance in this portion of the river. Given existing funding constraints, it is therefore not feasible to assume that the FCD can simply just add this work element to our program.

Several other feasibility issues were also missing from the discussion. For example, permitting such a project in itself would be cost prohibitive. Given the presence of endangered species, such as steelhead, makes it most difficult to deliver an effective program even if cost issues were not present. Also, as a side note, the voters turned down an assessment increase in the Santa Ynez Flood Zone in March of 1996. The proposed assessment increase DID NOT even include the costs for a channel maintenance program in the river.

13-2

Other issues that were missed include mitigation sites. Channel maintenance in the river would require significant land for mitigation. Such land is not readily available. In the Lompoc area, it was only through the cooperation of the City of Lompoc that land was made available for mitigation in this reach of the river. There is not a similar inventory of public land below Cachuma.

The Flood Control District is also familiar with the position many land owners retain relating to government access. As such, it is probable that any access would also require a significant right-of-way acquisition process. In summary, the conclusions reached in the Draft EIR pertaining to the Flood Control District's ability to conduct channel maintenance are totally incorrect.

Re: Comments on the Draft EIR for Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332)  
Date: September 3, 2003  
Page 3 of 3

The proposed mitigation measure is not feasible and does not consider the long list of hurdles that would prevent such an action. The Flood Control District is not mandated to conduct such work and the District lacks the capacity to consider such a project. Other agencies could do the work however. The State, USBR, or other local agencies could take this responsibility.

13-3

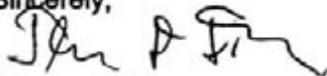
Thank you again for the opportunity to comment, I would welcome the opportunity to discuss these issues in depth with your staff and or EIR consultant. I would urge such a meeting so that you can clearly understand the issues at hand.

In either event, the EIR should be corrected to remove any suggestion that the County Flood Control District would be a mitigation measure for a particular impact. That said, the District is not suggesting that there will be a problem, however, should there be a problem, the assumption that the District will mitigate it is not accurate.

Please contact me at 805-568-3436 or by email at [tfayram@co.santa-barbara.ca.us](mailto:tfayram@co.santa-barbara.ca.us) to discuss further.

Thank you.

Sincerely,



Thomas D. Fayram  
Deputy Public Works Director  
Water Resources Division

**13. Santa Barbara County Public Works Department - Flood Control Water Agency, dated September 3, 2003,**

**Response 13-1:**

The commenter suggests that while the 2003 DEIR discusses the potential impacts on extending low flow releases, the discussions relating to involvement with the Santa Barbara County Flood Control District (SBFCD) are not adequate.

**Section 4.2.2.4** of the 2003 DEIR indicates “The potential increase in flood hazard is considered a potentially adverse, but not significant impact, because the [County Flood Control District] could take reasonable action to prevent damage to public infrastructure through its authority to conduct channel maintenance. The extent and magnitude of this potentially adverse impact is unknown, and may be offset by the reduction in uncontrolled spills, which can cause flooding.” (2003 DEIR, p. 4-25, emphasis omitted.)

In the 2007 RDEIR (**Section 4.2.2.4** page 4-18), the impact discussion has been revised to read: “The potential increase in flood hazard is considered a less than significant impact (Class III) due to the fact that, although reduced spills associated with the project alternatives may result in a reduction in scouring that can restore channel capacity, this impact would be offset by a reduction in uncontrolled spills, which can cause flooding.” (2007 DEIR, p. 4-18, emphasis omitted.) This no longer requires the SBFCD to take actions related to maintenance, therefore clarifying their involvement.

**Response 13-2:**

The comment states that the SBFCD would not be able to expand channel maintenance below Bradbury Dam should vegetation growth result from the Project, based on permitting, mitigation, land rights, and cost issues.

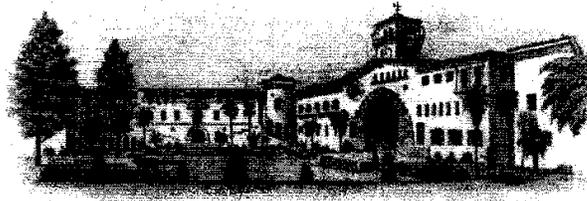
Please see response to 2003 DEIR **Comment 13-1**.

**Response 13-3:**

The commenter suggests that the proposed Santa Barbara County FCD channel maintenance below Bradbury Dam is not feasible, but that the state, Reclamation, or other local agencies could take this responsibility.

Please see response to 2003 DEIR **Comment 13-1**.

COUNTY OF SANTA BARBARA



STATE WATER RESOURCES CONTROL BOARD  
2003 OCT -7 PM 2:35  
WATER RIGHTS DIVISION

October 6, 2003

Mr. Andrew Fecko  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812-2000

Re: Comments on Draft EIR for Modifications to Bureau of Reclamation Water Right Permits 11308 and 11310 (Cachuma Reservoir)

Dear Mr. Fecko:

This letter transmits comment from staff of the County of Santa Barbara (the "County") on the Draft Environmental Impact Report ("DEIR") prepared for the Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam (Cachuma Reservoir) (the "Cachuma Project Water Rights").

As participants in the Memorandum of Understanding for fish studies and implementation of the Plan, we appreciate the efforts of the Cachuma Member Units to protect and enhance fish resources in the lower Santa Ynez River. The County also understands and supports the three major public policies underlying the DEIR: 1) ensuring a reliable water supply; 2) protecting endangered species; and 3) protecting public recreation and related public trust resources at the lake and river. We understand the challenges faced by the involved public agencies in balancing the sometimes competing interests in these public policy areas. We also believe that local solutions, developed within broad state and federal policy direction, are most effective in achieving such balance and thus best serve the public interest. In light of this perspective, we have reviewed the DEIR and submit the following comments regarding that document and the State Water Board's pending review of the Water Right Permits.

In order to most effectively, fairly, and efficiently balance the interests affected by implementation of the Plan, the County recommends the State Water Board approve a phased surcharge of Lake Cachuma from 0.75 feet to 1.8 feet, ultimately reaching the full 3.0-foot surcharge as County Park facilities are modified. This phased alternative would avoid impacts to public recreation, minimize risk to water supply, and provide sufficient water to implement the Plan. This alternative would best achieve a balancing of the three major public interests affected

14-1

by implementation of the Plan. The County urges the State Water Board to clearly identify this phased surcharge as the preferred alternative in the Final EIR.

14-1

### **Interagency Coordination**

Implementation of the Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion for Southern Steelhead Trout (the "Plan") involves many agencies and affects a variety of competing public interests. The State Water Board must first approve modifications to the U.S. Bureau of Reclamation's (the "Bureau") Water Right Permits to allow the Bureau to modify water releases from Lake Cachuma in order to implement the Plan. The State Water Board's role in the determination of water rights is necessary to protect affected water rights and public trust resources. After such permits are secured, the Cachuma Operations and Maintenance Board ("COMB"), a joint powers authority that maintains and operates the Cachuma Project, will have responsibility for actual surcharge operations and implementation of the Plan. COMB and the Bureau cannot unilaterally implement the Plan unless and until they receive the State Water Board's explicit approval of the Bureau's Water Right Permits.

As the State Water Board is no doubt aware, the COMB and the Bureau have already prepared a separate environmental document analyzing the environmental impacts associated with implementation of the Plan. Despite the interrelation of the Plan and the Water Right Permits, COMB/Bureau and the State Water Board released two separate major environmental review documents, each analyzing activities that substantially overlap under the auspices of Plan implementation.<sup>1</sup> We believe public and affected agencies may therefore be frustrated in their attempts to participate fully in the environmental review of implementation of the Plan. This is a concern for two reasons: 1) public support is essential for implementation of major elements of the Plan, and 2) significant impacts to public recreation and biological resources will occur from the proposed modifications to the Permits.

14-2

In response to the Notice of Preparation released in October 2001, both the County and the State Water Board urged COMB to take action that would have led to a less confusing environmental review process. Specifically, the County urged preparation of the COMB/Bureau EIR/S to be done through a coordination committee, and the State Water Board urged COMB and the Bureau to abandon preparation of their separate DEIR/S and instead tier off the State Water Board's EIR, or at the very least delay release of the Plan DEIR/S until completion of the State's EIR was completed. (See Letter from Jennifer Briggs, Phillip M. Demery, and John Patton, County of Santa Barbara, to Kate Rees, COMB, dated November 8, 2001, attached hereto as Attachment A; and Letter from Edward C. Anton, State Water Board, to Kate Rees, COMB, dated November 9, 2001, attached hereto as Attachment B.) Although the State Water Board's EIR now states that "Reclamation and COMB are preparing a joint EIR/EIS for implementation of the Biological Opinion and Fish Management Plan non-flow related habitat enhancements for

<sup>1</sup> The State Water Board DEIR was released on August 8, 2003, and the DEIR/S prepared for the Plan was released by COMB and the Bureau on July 22, 2003.

those projects where there is sufficient information” (DEIR, at p. 4-4), the County concurs with the State Water Board’s position as set forth in Attachment B.

Nevertheless, COMB and the Bureau proceeded to work independently of the County and the State Water Board, each of which qualify as lead and responsible agencies under CEQA and cooperating agencies under NEPA. (40 C.F.R. §§ 1501.6, 1508.5; *NEPA’s Forty Most Asked Questions*, published by the CEQ, Nos. 14(a), (b), and (c); *Designation of Non-Federal Agencies to Be Cooperating Agencies in Implementing the Procedural Requirements of NEPA*, dated July 28, 1999; *Cooperating Agencies in Implementing the Procedural Requirements of NEPA*, dated January 30, 2002; Bureau of Reclamation NEPA Handbook, Public Review Draft (2000), at 3-11; Department of Interior NEPA Manual at 1.2(E), 1.5(A)(1); Pub. Res. Code § 21069; CEQA Guidelines § 15381.) The State Water Board’s statements regarding the scope of the COMB/Bureau DEIR/S notwithstanding, the COMB/Bureau document discusses the impacts of releases for fish habitat enhancement and potential sources for this water, including reservoir surcharge. As a result, the scope of COMB and the Bureau’s environmental analysis of the Plan overlaps with the State Water Board’s DEIR, and the analysis in the COMB/Bureau DEIR/S is not consistent with the analysis and conclusions reached in the DEIR released by the State Water Board. County staff has had to spend considerable effort to compare the proposed activities and environmental impacts described in each document. While we recognize that State Water Board has acknowledged this problem and alerted COMB and the Bureau to their position, we wish to reiterate our concerns that this process undermines the public’s ability to sort out the proposed actions, the agencies responsible, or the full panoply of the potential impacts of the Plan and the Permits so as to participate in the process in a meaningful and constructive manner. The County views interagency coordination as an essential element of optimizing public services, in general, and in particular, meeting the public policy challenges presented by the proposed project.

14-2

COMB and the Bureau assert that the County bears sole responsibility for relocating over \$12 million worth of recreational and water treatment facilities as a direct result of the implementation of the Plan, a feat which cannot be accomplished within the identified timeline for implementation of the Plan. As the State Water Board’s DEIR recognizes, these impacts to the park facilities and public trust resources are direct and foreseeable significant impacts of Plan implementation and modification of the Water Rights Permits. If County must relocate its facilities as a direct and foreseeable result of approval of the Water Right Permits and implementation of the Plan, the environmental document prepared for those actions must be sufficient for the County to rely on when accomplishing its relocation activities. COMB and the Bureau do not recognize these impacts as significant, and do not analyze or discuss the feasible mitigation and alternatives available to avoid or reduce these significant impacts. (See Letter from Terri Maus-Nisich, Phillip M. Demery, and Valentin Alexeeff, County of Santa Barbara, to Kate Rees, COMB, and David Young, Bureau of Reclamation, dated September 29, 2003, attached hereto as Attachment C.) The County urges the State Water Board to appropriately consider these significant impacts, and the feasible mitigation or alternatives available to avoid such impacts, in making their determination on the Water Rights Permits.

## **Project Description and Impacts Analysis**

### Proposed Project

Although the DEIR describes the proposed project and each alternative, it is difficult to visualize the expanded lake surface that would result under any of the scenarios. Such a graphic representation in the DEIR would help the public, affected agencies, and the State Water Board evaluate potential impacts to resources at the lake. A map (such as a line superimposed on an aerial photograph) showing the present and future areas covered by the lake under each alternative would be useful to determine the extent of impacts and the potential for mitigation.

14-3

Any proposed surcharge alternative needs to include explicit limitations based on the County Water Agency's evaluation and Bureau concurrence of winter storm probability. (DEIR, at p. 4-10.) Both the Modified Winter Storm Operations and the current surcharge capability are based, in part, on evaluation by the Bureau's Technical Services Center in Denver, Colorado. The Bureau has concurred that surcharge may be done safely beginning April 15, effectively establishing a seasonal rule curve for Cachuma Reservoir. We suggest the State Water Board not modify this limitation without the concurrence of the Bureau, since Bradbury Dam is a federal facility and not subject to state Safety of Dams regulations.

14-4

### Overview of Impact Assessment

The DEIR indicates that neither the proposed project nor any of the alternatives will have any impacts on visual resources, and excludes this issue area from analysis in the DEIR. Please confirm that these impacts were analyzed in the Initial Study prepared for the Water Right Permits and found not to be significant. If not, the DEIR should include a discussion of the potential impacts to the aesthetics of the shoreline of the lake resulting from changes in the level of the lake under the proposed project and many of the alternatives. The resulting removal or death of trees and other vegetation, or the presence of a wider span of barren foreshore or exposed lake-bed when water levels are low, may be seen from Highway 154 (a state-designated scenic highway), the vista point on Highway 154, the surface of the lake, or the two County parks. Simulated before and after photos taken from these public vantage points and related visual impacts discussion should be included in the EIR in order for the public, affected agencies, and the State Water Board to evaluate the potential visual impacts and impose appropriate mitigation.

14-5

The DEIR also indicates that neither the proposed project nor any of the alternatives will have any impacts on land use, and also excludes this issue area from analysis in the DEIR. CEQA requires that a project identify and discuss inconsistencies with any relevant local or regional plans (CEQA Guidelines § 15125(d).) Again, please confirm that the Water Right Permits consistency with any relevant local or regional plans was analyzed in the Initial Study prepared for the proposed project and that the project conforms to County plans and policies. If not, the DEIR should include a discussion of the consistency of the project and the alternatives with the County's Comprehensive Plan, including that Plan's land use, conservation, safety,

14-6

agricultural, and scenic highway policies. A selection of some of these policies is provided in Attachment D. Please note that the Board of Supervisors adopted an Oak Tree Protection Program in April 2003. The requirements of that program are discussed in conjunction with impacts to oak trees, below.

14-6

#### Surcharge Water Levels

Providing a clear, consistent description of the proposed lake surcharge and shoreline impacts resulting from granting the Water Rights Permits and allowing for implementation of the Plan is the most critical aspect of the EIR analysis. Unfortunately, the identified surcharge level varies throughout the document. In Section 4.2 (Surface Water Hydrology), the DEIR acknowledges that the current maximum lake level of 750.75 feet would be exceeded 11% of the time (once every 3 years), and that the median number of consecutive months at or above a lake elevation of 750 feet is four (4) months, while the level under other alternatives varies from 9% to 16% and 3 to 5 months. (DEIR, at pp. 4-17, 4-18.) However, in Section 4.10 (Recreation), the DEIR states that the maximum lake level would be exceeded 11% of the time for a median of 4 months for all alternatives. (DEIR, at p. 4-141.) Further, in the Cultural Resources impacts analysis section, the DEIR recognizes that the area for potential effect could be 753 feet **plus an additional seven (7) feet** “that may occur during peaks in runoff during exceptionally high flow events.” (DEIR, at p. 4-163.) Although the DEIR indicates flows above 753 would be anticipated to be short-term, even temporary flows of this height would have disastrous consequences for relocated County facilities. Indeed, in Section 4.10 of the DEIR, the analysis indicates that critical County facilities are expected to be relocated to 758 feet to accommodate a worst-case scenario of a 5-foot surcharge. (DEIR, at p. 4-142.) If instead surcharges up to 7 feet are anticipated, even only under short-term or exceptional conditions, such impacts to County facilities must be acknowledged and evaluated. The County must know at what elevation its relocated facilities should be designed, and the State Water Board must understand the exact implications of each alternative in order to make an informed decision about the environmental impacts of granting the Permits and allowing for implementation of the Plan.

14-7

#### Riparian and Lakeshore Vegetation

The DEIR recognizes that raising the level of the lake would essentially shift wetland habitats at the lake upslope. (DEIR, at p. 4-113.) However, the ability of wetlands to “migrate” landward as the surface of the lake expands is dependent on the gradient of the land. If the upslope land is similar to existing wetland areas, wetlands may migrate and occupy similar areas; but if the gradient increases (becomes steeper), there could be a net loss in wetland area. A map designating the existing lake coverage and extent of existing wetlands as well as the anticipated lake coverage under the proposed project and each alternative would help the public, affected agencies, and the State Water Board in assessing the extent of impacts to wetland habitat and appropriate mitigation.

14-8

The County agrees with and supports the DEIR conclusion that the impact to oak trees is a significant, unmitigable impact (Class I). (DEIR, at p. 4-115). However, the County believes

14-9

that additional feasible mitigation is available to further reduce the impacts to oak trees resulting from implementation of the proposed Plan or other plan alternatives. The County manages the Cachuma Lake Recreation Area pursuant to a contract with the Bureau, and the shore area surrounding the lake is under the management of the County. Therefore, the more protective criteria used by the County should be used to analyze and mitigate the project's significant impacts to oak trees to the maximum extent feasible.

On April 22, 2003 the Board of Supervisors adopted the Native Oak Tree Protection Program, comprised of policy amendments to the Comprehensive Plan and amendments to the Zoning and Grading ordinances, Standard Conditions and Mitigation Measures and Environmental Thresholds Manual. (See Attachment D.) The County's program distinguishes between coast live oak and deciduous oak trees due to the sensitivity of their populations to removals, treating the removal of a valley oak or blue oak as considerably more significant than removal of a coast live oak. Depending on the number of trees in relation to size of parcel, removal of deciduous oak trees by any means for a non-agricultural project may require a discretionary oak tree removal permit subject to review under CEQA. In addition, an oak tree management plan may be required. For coast live oaks, removal of 5 percent or more of an existing canopy may trigger a requirement for a management plan for a non-agricultural project.

The County considers a deciduous oak tree of 4 inches diameter at breast height ("DBH") or greater as a protected tree and would count its death as a tree removal. If this standard were applied to the proposed project reviewed in the DEIR, it is likely that a higher number of valley and blue oak trees would be removed by the project than currently indicated using a 6-inch DBH. The DEIR should reassess the oak tree impact analysis based upon the County's deciduous oak criteria and thresholds.

14-9

Further, the County does not concur that the impact to oak trees will be mitigated to a level of insignificance within a 10-year time frame. First, while the replanting and nurturing of replacement oak trees is a necessary mitigation measure, its ultimate success as a mitigation program is unknown and very long-term. Replanting trees should not be the first or only mitigation measure selected. The County's *Environmental Thresholds and Guidelines Manual* states: "The mitigation approach of replacing habitat loss is generally not a preferred approach because it always results in some habitat loss (either short-term or long-term), and because prospects for successful habitat replacement are problematic." (County's *Environmental Thresholds and Guidelines Manual*, at p. 6-11.) The project's proposed 10-year monitoring and replanting may not be adequate to ensure long-term replacement because of the slow maturation rates of oak trees. While avoidance (Alternative 3B) is considered the most environmentally superior approach, impacting only half as many oak trees as Alternatives 4A and B, the County recognizes this option is not the preferred surcharge alternative.

Nevertheless, the mitigation measures set forth in the DEIR proposing to replant at a 2:1 ratio for each tree impacted, and to monitor for 10 years, may not be adequate. Valley oak trees occupy a limited area within the County, have been substantially reduced in numbers and extent, and do not appear to be regenerating as successfully when compared to coast live oaks. In order

to ensure successful replacement of deciduous oaks, the trees must at a minimum reach an age of reproductive maturity. Deciduous oaks grow more slowly and bare acorns at a greater age than coast live oaks. Thus mitigation measures for the different oaks impacts need to be tailored to the species.

A higher replanting ratio is considered necessary for the deciduous oak species than for coast live oak trees in Santa Barbara County. Thus, the total number of replacement trees needed for this project should be higher to include a greater number of replacement plantings for the deciduous trees that will die over time from the surcharging. County replacement ratios (10:1 for coast live oaks; 15:1 for deciduous oaks) aim to achieve a 1:1 replacement of a tree at the age of reproductive maturity. Acorn production generally begins about age 30 for coast live oaks and even later for deciduous oaks. The proposed 2:1 replacement ratio is an attempt to mitigate the lower oak tree biomass present during the interval before the replacement oaks reach maturity. However, in the long term this ratio may not achieve successful replacement, as it does not adequately account for the many causes of mortality of saplings, particularly deciduous oak saplings between 10 years and reproductive age. Also, at the end of 10 years, even at 2:1, the young oak trees would not begin to compensate for the lost biomass to the ecosystem, or the lost habitat, shading and aesthetic contribution of the removed trees. To more adequately mitigate the loss of oak trees, replanting ratios need to be increased commensurate with the species to be removed.

14-9

Nurturing of existing deciduous oak tree seedlings is a feasible mitigation measure that should be considered along with replanting. Naturally, sprouting seedlings may have a better chance of surviving to reproductive maturity, and could improve the health and resiliency of existing deciduous oak savannas or woodlands. The overall valley oak population in Santa Barbara County is estimated at about a tenth of its pre-European size. Because their range is more limited here, off-site planting should also be considered in preparing a mitigation strategy. The DEIR vegetation map indicates that within the Cachuma Recreation Area, there appears to be numerous areas of oak woodland (and presumably, oak savanna) present. (DEIR, Appendix A, Figure 4-7.) Inclusion of additional sites and nurturing existing seedlings for deciduous oak replacement could help to alleviate the limited area available for replacement oak plantings. Alternative 3B is the only alternative that currently contains sufficient area to accommodate the necessary replantings, even at the proposed ratio of 3:1.

Finally, the DEIR should identify and utilize a long-term goal for replacing oak trees rather than presume that a 10-year planting and monitoring program will suffice to fully mitigate the trees lost. The DEIR states that prior tree loss from inundation has been observed over a 10 to 15 year period and loss as a result of wave splash could occur over 20 years. If monitoring is only conducted for 10 years, some tree loss will go undetected and no mitigation replanting would be provided. It would be better to do all the replanting immediately, in anticipation of loss, which would also shrink the temporal loss of biomass. Further, if the replanted trees are only tracked and replaced within a 10-year period, there is a high likelihood that many of them will not make it to reproductive maturity. As a result the original impact to oak trees will not have been sufficiently mitigated and the residual loss could be high.

We recommend a formal oak tree resource management plan be prepared and adopted, which incorporates County's oak tree replacement standards and requirements. Otherwise, the ecosystem functions will not be fully mitigated and may result in the slow degeneration of the oak community and the habitat it provides.

14-9

Sensitive Aquatic and Terrestrial Wildlife

Attachment E to this letter contains a list of sensitive species that may inhabit the uplands or riparian corridor around Lake Cachuma and/or along the lower Santa Ynez River. Impacts to these species should be discussed in the DEIR. In particular, increasing the level of Lake Cachuma through surcharging could impact six sensitive grassland species. Grasslands, like wetlands, may not "migrate" out from the lake over time if suitable conditions are not available. Therefore, these habitats could be reduced by implementation of the Plan under one or more of the alternatives set forth the DEIR. The DEIR should also provide information about the use of oak trees by bald eagles or peregrine falcons for nesting, roosting, resting, or hunting, and the potential impacts to these species resulting from the loss of oak trees.

14-10

Recreation

The County appreciates and supports the DEIR's detailed analysis of the potential impacts of the proposed project and each alternative on the County's recreational facilities, and concurs with the conclusion of the DEIR that such impacts are significant and unmitigable unless the County is provided with sufficient time and obtains sufficient funding to relocate its facilities prior to surcharge of the lake.

14-11

**Project Alternatives**

The alternatives analysis identifies several "preferred" alternatives on a comparative basis. (DEIR, at p. 6-7.) The County believes the Final EIR should identify one additional scenario comprised of components from each of the existing alternatives. Such an alternative would consist of a phased implementation of surcharge from 0.75 feet (as analyzed under Alternative 3A) to 1.8 foot (as analyzed under Alternative 3B), and finally reaching the full 3.0 foot surcharge (as analyzed under Alternative 3C) as park facilities are modified. This phased alternative would avoid impacts to public recreation, minimize risk to water supply, and provide water to implement the biological opinion. This alternative would best achieve a balancing of the three major public policy issues affected by implementation of the Plan, and the Final EIR should identify such a phased surcharge as the preferred alternative.

14-12

A phased surcharge of Lake Cachuma would reduce or avoid the significant recreational impacts resulting from implementation of the Plan by allowing all agencies additional time to obtain sufficient financing and accomplish the physical relocation of over \$12 million worth of facilities, while still achieving the project's long-term objectives. This alternative would satisfy the short-term and long term needs of the steelhead trout and other aquatic species, avoid

significant recreation impacts, and pose minimum threat to water supply. The County urges the State Water Board to consider this feasible alternative, or condition the Water Right Permits so as to allow for implementation of the Plan with a phased surcharge that will avoid or significantly reduce the significant impacts of the Plan.

14-12

**Other Comments**

Cachuma Recreation Area, Page 2-2

The contract between the Bureau and the County regarding management of the Cachuma Recreation Area has been extended to January 2005. The north side of the lake is open to the public for limited equestrian trail riding. Also, the County Park does not include an outdoor roller rink (this revision should also be made in Section 4.10, Recreation, on page 4-137). County facilities also include the reservable yurt cabins, located in the County Park.

14-13

Public Trust Resources, Page 3-4

County concurs with the discussion in the DEIR that acknowledges recreational activities in and around Cachuma Lake as public trust resources the State Water Board is responsible for protecting.

14-14

Indirect Environmental Impacts of Water Supply Shortages, Page 4-40

Since the Member Units have discussed their drought contingency plans in state-required "Urban Water Management Plans," speculation as to what those measures might be is not appropriate in this discussion.

14-15

Impacts Attributable to Increased Groundwater Pumping, Page 4-40

We are unaware that geological conditions in the Santa Ynez watershed are conducive to the formation of "halogenated (organo-chlorated) compounds." Please provide a justification for this statement, or delete the reference from the Final EIR.

14-16

Riparian and Lakeshore Vegetation, Page 4-119

The DEIR incorrectly states that the County has a 50-year lease with the Bureau to manage the Cachuma Lake Recreation Area. In fact, the County's lease is currently subject to a two-year lease extension that expires in January 2005. As mentioned previously, this information should also be corrected in Section 2.1.4, Cachuma Recreation Area, on page 2-2.

14-17

Recreational Facilities and Uses, Pages 4-137 and 4-139

As previously indicated, the County Park does not include an outdoor roller rink. The description of County facilities should also include the reservable yurt cabins located at the Park.

14-18

The DEIR should also discuss equestrian access to the north shore from the Live Oak Campground. The proposed project or alternatives may make equestrian use of the north shore of the Recreation Area and recreational use along the river above the reservoir inaccessible, or exacerbate flooding of Paradise Road, the access road to recreational areas in the national forest.

Recreation Management, Page 4-139

The DEIR contains a discussion of the reserve funds being used for capital. This discussion should be revised to indicate that the County builds such reserve funds only when available, i.e., when the park is operating at a profit.

14-19

Downstream Areas, Page 4-141

The DEIR should be revised to clarify that the public used to traverse under the railroad tracks at Ocean Beach Park and along the river (on public tidelands) to access the ocean. Vandenburg Air Force Base owns the remaining land between the park and the ocean, and has now closed this access to the beach in order to protect snowy plover habitat at the river mouth.

14-20

The DEIR incorrectly identifies Santa Rosa Park as being located "along" the river. This discussion should be revised to clarify that the park is actually located further above and away from the riverbank.

Effect on County Park, Page 4-142

This discussion must be revised to reflect the latest Bureau evaluation, which concurs with the County Water Agency's recommendation that surcharge of Cachuma Reservoir not begin until April 15 due to the probability of winter storms.

This section contains an analysis identifying phased implementation of the surcharge as an alternative capable of avoiding one or more significant impacts. (DEIR, at p. 4-143.) As previously discussed, this phased implementation, when compared to other alternatives, is the most environmentally superior alternative. The Final EIR should explicitly identify such a phased surcharge based on modification of County Park facilities as the environmentally preferred alternative.

14-21

In addition, the DEIR contains no discussion of the potential impacts of any of the alternatives to Live Oak Park and other upstream recreational resources. It is possible that surcharging alone or coupled with spring runoff could make the equestrian trail inaccessible, or exacerbate flooding of Paradise Road, the access road to recreational areas in the national forest.

Mr. Andrew Fecko, State Water Resources Control Board  
October 7, 2003  
Page 11

At a minimum, higher lake levels in the vicinity of Live Oak Park could change the ecology of the park's setting if not directly impact park facilities, thus impacting the public's recreational experience of plants and wildlife that inhabit the park or its surroundings. The DEIR should be revised to include a discussion of these potential impacts.

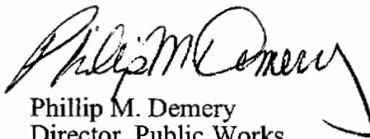
14-21

We appreciate this opportunity to offer our comments on the DEIR, and anticipate that the State Water Board will recognize and support the County's concerns as set forth herein regarding the impacts of the Water Right Permits on the public trust resources of Lake Cachuma.

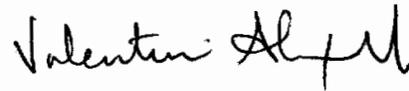
Signed,



Terri Maus-Nisich  
Director, Parks



Phillip M. Demery  
Director, Public Works



Valentin Alexeeff  
Director, Planning and Development

cc: Ms. Kate Rees, Cachuma Operations and Maintenance Board  
Mr. David Young, Environmental Specialist, U.S. Bureau of Reclamation

#### Attachments

- A - November 8, 2001 Letter from County to COMB/Bureau regarding Notice of Preparation
- B - November 9, 2001 Letter from State Water Board to COMB/Bureau regarding Notice of Preparation
- C - Letter from County to COMB and Bureau commenting on DEIR/EIS
- D - Selected Policies, Santa Barbara County Comprehensive Plan
- E - Sensitive Species List

**14. County of Santa Barbara, dated October 6, 2003,**

**Response 14-1:**

The comment states that the County urges the State Water Board to clearly identify this phased surcharge as the preferred alternative in the 2011 2<sup>nd</sup> RDEIR.

See response to 2003 DEIR **Comment 3-34**.

**Response 14-2:**

The comment states that implementation of the Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion for Southern Steelhead Trout (the Plan) involves many agencies and affects a variety of competing public interests. The comment suggests the SWRCB must first approve modifications to Reclamation's Water Right Permits to allow Reclamation to modify water releases from Lake Cachuma in order to implement the Plan, and that the SWRCB's role in the determination of water rights is necessary to protect affected water rights and public trust resources. The comment states that after such permits are secured, the Cachuma Operations and Maintenance Board (COMB), a joint-powers authority that maintains and operates the Cachuma Project, will have responsibility for actual surcharge operations and implementation of the Plan, but that COMB and Reclamation cannot unilaterally implement the Plan unless and until they receive the SWRCB's explicit approval of the Reclamation's Water Right Permits.

The order of processing various actions is not within the purview of the SWRCB. Reclamation permit actions are independent of the other actions identified, and as such, can proceed independently.

The comment additionally notes that the County may be required to relocate recreational and water treatment facilities and that work cannot be completed in a time frame as outlined in the proposed Fish Management Plan and Biological Opinion.

As a result of the delays in completing the environmental review for the modifications of Reclamation water right permits, the County has completed the relocation of potentially impacted facilities. The comment is noted.

**Response 14-3:**

The comment states that although the 2003 DEIR describes the proposed project and each alternative, it is difficult to visualize the expanded lake surface that would result under any of the scenarios. The comment suggests that such a graphic representation in the 2003 DEIR would help the public, affected agencies, and the State Water Board evaluate potential impacts to resources at the lake and that a map (such as a line superimposed on an aerial photograph) showing the present and future areas covered by the lake under each alternative would be useful to determine the extent of impacts and the potential for mitigation.

The SWRCB has reviewed the comment and has determined that the suggest graphic is not required. The surcharging of Lake Cachuma, while significant in term of water storage and the ability to make releases from Bradbury Dam, are actually incremental in terms of the overall lake operations. Visual differences in the surcharge amounts would most likely not be perceptible and would not result in visual impacts. Through the course of the regular operations, the lake levels fluctuate substantially throughout the year, and the surcharging would not be noticeable. All other potential impacts of surcharging have been considered.

**Response 14-4:**

The comment suggests that any proposed surcharge alternative (**Section 4.2.1**, page 4-10) needs to include explicit limitations based on the Santa Barbara County Water Agency's (SBCWA) evaluation and the Reclamation's concurrence of winter storm probability.

As indicated in the 2003 DEIR (**Section 2.4.2.1**, pages 2-13 and 2-14) each surcharge option is described and each is modeled using the SYRHM, which uses historic records of rainfall, runoff, evaporation, and tunnel infiltration for the period 1918 through 1993. This provides a statistically valid database from which various winter storm probabilities are determined. Also considered are Reclamation reservoir releases, diversions, streamflow percolation, groundwater pumping, and depletions, all considered based on monthly time steps. In both the 2003 DEIR (page 4-5) and the 2007 RDEIR (page 4-5) emergency winter storm operations and ramping of outlet releases have not been included in the SYRHM due to its limitation – i.e., use of monthly time steps—because winter storm operations and ramping of outlet releases would occur within days.

Both the 2003 Draft EIR (see pages 2-11 to 2-13) and 2007 Revised Draft EIR (see pages 2-12 to 2-13) explain the proposed surcharge and basis for its modification. Comment is noted.

**Response 14-5:**

The comment suggests that the DEIR indicates that neither the proposed project or any of the alternatives will have any impact on visual resources. The comment suggests that visual impacts may occur as a result of the removal of vegetation, including oak trees, around the exposed lake when water levels are low.

The operation of Cachuma Lake includes substantial variation in lake levels throughout the year. As demonstrated in Reclamation's monthly operation data, lake levels for the 19 month period (January 2009 through July 2010) varied from a low of 730.6 feet to a high of 747.03 feet, a difference in over 16 feet. Lake levels have dropped to as low as 724.3 feet in December 2007 and reached an elevation of 752.58 in March 2008, resulting in more than a 28 foot difference over a 4 month period. The visual impacts associated with these fluctuations in lake levels would be more obvious than with any of the surcharges (0.75 to 3.0 feet) associated with the proposed project. As such, the visual impacts associated with the proposed project and the alternatives considered would be less than significant.

**Response 14-6:**

The comment states that the 2003 DEIR indicates that neither the proposed project nor any of the alternatives will have any impacts on land use, and also excludes this issue area from analysis in the 2003 DEIR. CEQA requires that a project identify and discuss inconsistencies with any relevant local or regional plans. (*CEQA Guidelines* Section 15125, subd. (d).) Please confirm that the Water Right Permits' consistency with any relevant local or regional plans was analyzed in the Initial Study prepared for the proposed project and that the project conforms to County plans and policies.

See response to 2003 DEIR **Comment 3-5**.

**Response 14-7:**

The comment states that providing a clear, consistent description of the proposed lake surcharge and shoreline impacts resulting from granting the Water Rights Permits and allowing for implementation of the Plan is the most critical aspect of the 2003 DEIR analysis, but that the identified surcharge level varies throughout the document.

See response to 2007 RDEIR **Comment 21-1**.

**Response 14-8:**

The comment requests that the 2003 DEIR provide a map designating the existing lake coverage and extent of existing wetlands as well as the anticipated lake coverage under the proposed project for each alternative to assist in assessing the extent of impacts to wetland habitat and appropriate mitigation.

The comment is noted. A map of the existing lake coverage is not relevant because of the fluctuation in the surface area of the lake resulting from various lake levels. Monitoring of the inundation impacts on oak resources was conducted in 2005 and 2007 and is described in the 2011 2<sup>nd</sup> RDEIR **Section 4.8.2.2 Impacts to Lakeshore Oak Trees**.

**Response 14-9:**

The comment states that the County agrees with and supports the 2003 DEIR conclusion that the impact to oak trees is a significant, unmitigable impact (Class I). (2003 DEIR, at p. 4-115.) In addition, the County believes that additional feasible mitigation is available to further reduce the impacts to oak trees resulting from implementation of the proposed Plan or other plan alternatives.

The 2007 RDEIR estimated that a total of 452 oak trees would be impacted with the implementation of a surcharge of 3.0 feet. When the surcharge was initially implemented in 2005, a subsequent survey found that 612 oaks had actually died as a result of the 2005 and 2006 surcharges, with an additional 263 oaks deemed at risk for failure. Mature oak trees are identified as significant resources by local, state, and federal authorities, recognizing that in many cases, an oak tree, which takes approximately 50 years to mature, represents an ecosystem in and of itself. There is a large temporal loss of habitat functions between the time when a mature oak is lost and a replacement tree reaches comparable size and function. Thus the loss of oaks remains a Class I significant, unmitigable impact.

In recognition of this impact, an Oak Restoration Management Plan was initiated in 2005, with the intention of planting sufficient replacement trees to meet the goal of a 2:1 ratio of self-sustaining reproducing oaks after 20 years. The mitigation plan was based on the agreement between COMB and Santa Barbara County as outlined in the 2004 EIR/EIS. As of 2010, a total of 1,881 oaks and associated understory plants have been installed at several locations within Reclamation's property. (See discussion in the 2011 2<sup>nd</sup> RDEIR **Section 4.8 Riparian and Lakeshore Vegetation**.) Survival of these trees has been between 83 to 100 percent. As these trees continue to grow, the impact will be reduced to a Class II, significant but mitigable, although it will require more than 10 years to reach this reduction in significance.

**Response 14-10:**

The comment states that sensitive species that may inhabit the uplands or riparian corridor around Lake Cachuma and/or along the lower Santa Ynez River have the potential to be impacted by the project and should be discussed in the 2003 DEIR. The comment states that increasing the water level of Lake Cachuma through surcharging could impact six sensitive grassland species through the loss of suitable habitat. The comment also states that the 2003 DEIR should provide information about the use of oak

trees by bald eagles or peregrine falcons for nesting, roosting, resting, or hunting, and the potential impacts to these species resulting from the loss of oak trees.

Although the six grassland species were not specifically mentioned in this comment, it is assumed that these are western spadefoot, California horned lizard, California horned lark, purple martin, white-tailed kite and tri-colored blackbird, all of which are species of special concern except California horned lark. The 2011 2<sup>nd</sup> RDEIR acknowledges that some grassland communities will be lost from surcharging, but the habitat lost from around Lake Cachuma is not considered to be significant compared to the areas surrounding the lake. Impacts to bald eagle resulting from the loss of oak trees are discussed in **Section 4.9.2.1 Lake Impacts**.

**Response 14-11:**

This comment supports the analysis of recreational facilities contained within the 2003 DEIR.

The comment is noted.

**Response 14-12:**

The comment states that the alternatives analysis identifies several “preferred” alternatives on a comparative basis. The County believes the 2003 DEIR should identify one additional scenario comprised of components from each of the existing alternatives. Such an alternative would consist of a phased implementation of surcharge from 0.75 foot (as analyzed under Alternative 3A) to 1.8 feet (as analyzed under Alternative 3B), and finally reaching the full 3.0-foot surcharge (as analyzed under Alternative 3C) as park facilities are modified. This phased alternative would avoid impacts to public recreation, minimize risk to water supply, and provide water to implement the Biological Opinion. This alternative would best achieve a balancing of the three major public policy issues affected by implementation of the Plan, and the 2003 DEIR should identify such a phased surcharge as the preferred alternative.

See response to 2007 RDEIR **Comment 1-7**.

**Response 14-13:**

This comment states that the *Agreement to Administer Recreation Area* contract between the County and Reclamation has been extended to 2005. Since this comment letter was written the contract has been further extended to 2011. The County anticipates further extending this contract prior to the 2011 expiration date.

The 2011 2<sup>nd</sup> RDEIR has been revised to reflect the equestrian trail riding available on the north side of the lake. In addition, references to the roller rink have been removed and the rentable yurts have been added to the list of facilities available at the park. These changes are incorporated in the 2011 2<sup>nd</sup> RDEIR.

**Response 14-14:**

The comment states that the County concurs with the discussion in the 2003 DEIR that acknowledges recreational activities in and around Cachuma Lake as public trust resources the State Water Board is responsible for protecting.

The comment is noted.

**Response 14-15:**

The comment states that since the Member Units have discussed their drought contingency plans in state-required Urban Water Management Plans, speculation as to what those measures might be is not appropriate in this discussion.

The 2011 2<sup>nd</sup> RDEIR does not speculate on data from the UWMPs. The Member Units have provided current data and are in the process of updating their UWMPs to meet the 2010 state mandated requirements.

**Response 14-16:**

The comment suggests that any statement in the 2003 DEIR suggesting that geological conditions in the Santa Ynez watershed are conducive to the formation of “halogenated (organo-chlorated) compounds,” must be justified or deleted.

The 2003 DEIR **Section 4.3.2** (page 4-40, Impacts Attributable to Increased Groundwater Pumping) indicates that additional groundwater pumping along the coast could result in an increase in the total concentration of soluble salts in groundwater, which could contribute to the increased production of halogenated (organo-chlorinated) compounds such as trihalomethanes in the water supply during the treatment process. Trihalomethanes are a byproduct of the disinfection process and are formed when chlorine breaks down organic material in the water.

This reference, found again on page 4-30 of the 2007 RDEIR, is to the coastal area of Santa Barbara County and not to the Santa Ynez River watershed. Also, formation of trihalomethanes or related by-products is not directly related to the geological conditions, but to water treatment processes. Accordingly, the 2003 DEIR was corrected by the 2007 RDEIR.

**Response 14-17:**

The comment states that the 2003 DEIR incorrectly states that the County has a 50-year lease with Reclamation to manage the Cachuma Lake Recreation Area. In fact, the County's lease is currently subject to a two-year lease extension that expires in January 2005.

The 2011 2<sup>nd</sup> RDEIR notes that the County's lease expired in 2003 and is currently extended temporarily through 2011. Once Reclamation finalizes and adopts its Resources Management Plan, they will execute a management contract with an appropriate party.

**Response 14-18:**

The comment expresses concern that the surcharging of the lake would cause equestrian trails north of Live Oak campground and Paradise Road to become inaccessible due to flooding.

Both the trail access and Paradise Road crosses the Santa Ynez River north of Cachuma Lake. Both of these river crossings experience flooding as a result of seasonal rainfall. Surcharging of the lake would raise the water level of Cachuma Lake to a maximum of 753 feet. The river crossing points for both the equestrian trails and Paradise Road are located at elevations above 753 feet, and therefore, surcharging of the lake would not substantially exacerbate flooding. It should also be noted that existing flooding of these river crossings occurs during the winter months when the park experiences its lowest level of patronage.

**Response 14-19:**

The comment states that the Draft EIR contains a discussion of the reserve funds being used for capital, and suggests this discussion should be revised to indicate that the County builds such reserve funds only when available, i.e., when the park is operating at a profit.

The comment is noted and this change has been incorporated in the 2011 2<sup>nd</sup> RDEIR.

**Response 14-20:**

The comment states the Draft EIR should be revised to clarify that the public used to traverse under the railroad tracks at Ocean Beach Park and along the river (on public tidelands) to access the ocean, and that Vandenberg Air Force Based owns the remaining land between the park and the ocean and has closed this access to the beach in order to protect snowy plover habitat at the river mouth. The comment also states the Draft EIR incorrectly identifies Santa Rosa Park as being located "along" the river, when the park is actually further above and away from the riverbank.

The comment is noted and this change has been incorporated in the 2011 2<sup>nd</sup> RDEIR.

**Response 14-21:**

The comment states that discussions in the Draft EIR of effects on the County Park must be revised to reflect the latest Reclamation evaluation, which concurs with the County Water Agency's recommendation that surcharge not begin until April 15 due to the probability of winter storms. The comment further states that the 2003 DEIR should explicitly identify phased surcharge based on

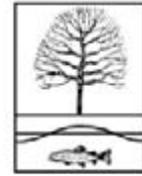
modification of County Park facilities as the environmentally preferred alternative. The comment also states the Draft EIR contains no discussion of the potential impacts of any of the alternatives to Live Oak Park and other upstream recreational resources and should be revised to include a discussion of several enumerated potential impacts.

Surcharging of the lake would not begin until April 15 as stated by the comment. A phased implementation of the surcharge would not avoid impacts to County recreational facilities as all facilities that would have been impacted have been upgraded to accommodate the lake surcharge levels.

See response to 2003 DEIR **Comment 14-18** for a discussion of upstream impacts.

# SANTA BARBARA URBAN CREEKS COUNCIL

P.O. Box 1083, Carpinteria, CA 93014 (805) 968-3000



October 7, 2003

Andy Fecko  
State Water Resources Control Board  
Division of Water Rights  
1001 "I" Street  
Sacramento, CA 95812 TRANSMITTED BY EMAIL to afecko@waterrights.swrcb.ca.gov

**Re: Comments on Draft EIR; Proposed Modifications to the Bureau of Reclamation's Cachuma Project Water Rights Permits to Protect Public Trust Resources in the Santa Ynez River**

Dear Andy Fecko,

The Santa Barbara Urban Creeks Council is a non-profit 501(c)3 with a membership base of more than 3000 people. We represent public view in matters pertaining to natural streams and rivers in the Santa Barbara County. We have a long history of advocacy and involvement in restoring and protecting streams, natural water systems, and populations of native fish. We support maximum steelhead restoration. It is our view that the Santa Ynez River steelhead population represents the key to protecting the Southern California Steelhead as a species.

We are concerned that the DEIR fails to define what it will take to protect steelhead as a public trust resource. Protecting public trust resources includes restoration. The State Water Board should establish population based success criteria to define and measure protection of steelhead in the Santa Ynez River.

15-1

Additionally, we have concerns that the proposal to benefit steelhead only maintains steelhead as endangered and does not fulfill an important project objective, protection of steelhead as a public trust resource. The project consists of the measures in the Biological Opinion for the Cachuma Project, but these measures only prevent further jeopardy of steelhead and do not

15-2

recover or restore steelhead. Larger and more continuous water releases are required to turn the wide, flat lower river into good steelhead habitat. Flows are not guaranteed. The Adaptive Management Committee comprised of four water resource agencies and three fish resource agencies can reduce the proposed flows with no guiding criteria and no accountability for their decisions.

15-2

The DEIR fails to consider Fish and Game Code Section 5937 and what measures are necessary to keep steelhead below the dam in “good condition.” The Biological Opinion measures are not sufficient to maintain “good condition” because they fail to protect individual steelhead and keep the population in the river below Bradbury Dam in a healthy state.

15-3

The DEIR does not consider alternatives other than the Biological Opinion to protect steelhead. Most importantly, it does not consider implementation of a means of providing passage to suitable habitat above Bradbury Dam. It does not consider greater minimum mandatory flows below the dam. It does not consider maximizing beneficial use of downstream water rights releases for steelhead, such as providing continuous minimum flow.

The project objectives limit protection of steelhead to below Bradbury Dam, but restoration of a sustainable steelhead population requires access to the river’s perennial headwaters, since Bradbury Dam blocks steelhead migration to spawning areas. The proposed project should protect steelhead throughout the watershed including those trapped above and below the dam.

15-4

Water supply impacts during droughts can be avoided or minimized by water conservation, alternative sources or maximum beneficial use of downstream releases.

15-5

Thank you for your attention to our concerns. We are sure that steelhead trout in the Santa Ynez River can again flourish if proper measures are taken to improve conditions. We are committed to restoring this vitally important Southern California Steelhead run.

Sincerely,

Eddie Harris  
Vice President  
Santa Barbara Urban Creeks Council

cc: Environmental Defense Center  
CalTrout  
SB ChannelKeeper

15. Santa Barbara Urban Creeks Council, dated October 7, 2003.

**Response 15-1:**

The comment states that the 2003 DEIR fails to define what is required to protect steelhead as a public trust resource, which includes restoration. The comment recommends that the SWRCB establish population-based success criteria to define and measure protection of steelhead in the Santa Ynez River.

**Section 2.7 Settlement Agreement** in the 2011 2<sup>nd</sup> RDEIR describes protection of the public trust resources as, “The Parties agree to mutually support the Terms and Conditions of the National Marine Fisheries Service (NMFS) Biological Opinion and the Fish Management Plan as the preferred operational program for the Cachuma Project in order to address public trust resource issues.”

SWRCB works with the resources agencies including CDFG and NMFS in order to protect *O. mykiss*. In addition, SWRCB cooperates with the Cachuma Conservation Release Board in order to comply with the provisions of the BO, the Settlement Agreement, and the Fish Management Plan, among other controlling documents, that provide for the protection of public trust resources.

**Response 15-2:**

The comment states that the Cachuma Project will only benefit steelhead as an endangered species but does not fulfill the project objective of protecting steelhead as a public trust resource.

The comment is noted. The Cachuma Project is a joint effort between a number of agencies and organizations, at the federal, state, and local levels of government. To that end, SWRCB will cooperate with NMFS to protect the public trust resource *O. mykiss* and to recover the species, consistent with the provisions of the federal Endangered Species Act.

**Response 15-3:**

The comment states that the 2003 DEIR fails to consider Fish and Game Code Section 5937 and the measures necessary to keep steelhead below the Bradbury Dam in “good condition.” The comment also states that the Biological Opinion measures are not sufficient to maintain steelhead in “good condition” because they fail to protect individual steelhead and confine the population to the mainstem below Bradbury Dam.

Fish and Game Code Section 5937 provides protection to fisheries by requiring the owner of any dam to allow sufficient water to pass downstream to keep in “good condition” any fisheries that may be planted or exist below the dam. This is required by state regulations and does not need to be elaborated upon in the EIR because implementation of the BO provides for releases over Bradford Dam that are required to provide long-term sustainability for steelhead within the Santa Ynez River system and keep the species in good condition. An evaluation of whether the BO provides sufficient protect of *O. mykiss* to remain in

“good condition” is beyond the scope of this document and passage to habitat above the dam is not required by Fish and Game Code Section 5937.

Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam.

**Response 15-4:**

The comment states that steelhead should be protected throughout the Santa Ynez watershed, including the population trapped above or below the Bradbury Dam.

The comment is noted. One of the project objectives stated in **Section 3.1.1 Description of the Proposed Project** is to protect the public trust resources, including but not limited to steelhead, red-legged frog, tidewater goby, and wetlands, in the Santa Ynez River downstream of Bradbury Dam, to the extent feasible and in the public interest.

Efforts to provide fish passage around Bradbury Dam is not a component of the proposed project. Therefore, an analysis of fish passage above Bradbury Dam was not included in the selection of project alternatives. Investigation of alternative fish passage strategies for Bradbury Dam was included as Conservation Recommendation #2 of the 2000 Biological Opinion. As of 2011, no studies have been made available that identify and evaluate the feasibility of providing such passage around Bradbury Dam. This is discussed further in the 2011 2<sup>nd</sup> RDEIR **Section 2.4.5 Conservation Recommendations**.

**Response 15-5:**

The comment states that water supply impacts during droughts can be avoided or minimized by water conservation, alternative sources, or maximum beneficial use of downstream releases.

The downstream water providers are in the process of updating their UWMPs to meet 2010 state requirements. The UWMPs will address conservation requirements, including the recent legislative mandate to reduce demand 20 percent by 2020.

**DIRECTORS:**

- DIVISION 1  
WALLACE S. MARSH  
Lompoc
- DIVISION 2  
STEPHEN E. JORDAN  
Lompoc
- DIVISION 3  
JON C. PICCIUOLO, President  
Vandenberg Village - Mission Hills
- DIVISION 4  
DAVID E. PIERCE  
Buellton - Lompoc
- DIVISION 5  
JOSEPH A. FOSS  
Solvang - Santa Ynez

*Santa Ynez River*  
**WATER CONSERVATION DISTRICT**

P.O. Box 719 - 3669 Sagunto Street, Suite 108  
Santa Ynez, California 93460  
Telephone: (805) 693-1156  
FAX: (805) 688-8065

**GENERAL MANAGER:**

BRUCE A. WALES

**SECRETARY:**

BRUCE A. WALES

**CONSULTANTS:**

ERNEST A. CONANT  
General Counsel

THOMAS M. STETSON  
Engineer

October 7, 2003

State Water Resources Control Board  
Division of Water Rights  
1001 I Street, 14<sup>th</sup> Floor [95814]  
P. O. Box 2000  
Sacramento, CA 95812-2000

[FAX: 916-341-5400]

**Attention: Mr. Andrew Fecko**

**Re: Comments on SWRCB DEIR on Cachuma Project (August, 2003)**

Dear Ladies & Gentlemen:

Thank you for the opportunity to comment on the above-referenced DEIR.

As you know, the Santa Ynez River Water Conservation District (SYRWCD) encompasses most of the Santa Ynez River Watershed downstream of Cachuma Reservoir has as one of its primary functions protecting the water rights of its landowners and residents. Since one of the principal topics of the upcoming hearing and the associated EIR is protection of downstream water rights, this matter is of utmost importance to us. As you are aware, we are responsible for ordering water rights releases in accordance with your Order WR 89-18 and do so in cooperation with the Bureau of Reclamation.

In our judgment, over all the DEIR does a good job of addressing downstream water rights issues. There are a few areas where the DEIR makes incorrect assumptions or doesn't consider certain impacts, which we address following.

We present our comments in two parts -- first Significant Comments, followed by Technical Comments. The second category of comments is important but is more technical in nature and is suggested to assist you in completing a final EIR that is technically correct.

## SIGNIFICANT COMMENTS

1. **Deficiencies of Alternatives 4A and 4B** - (Page 3-7 and 3-10 through 3-12 Alternative 4A and 4B) - As indicated on pages 3-10 (Para 4) and 3-11 (Para 3), implementation of either Alternative 4A or 4B would require cooperation by all involved agencies, amendment to Reclamation's permits for the Cachuma Project, completion of project-specific environmental reviews and permitting, operational agreements and funding. As summarized on page 6-3 (Section 6.1.2 Impacts of Proposed Alternatives), Alternatives 4A and 4B would have the most impacts of all the Alternatives and therefore are not environmentally preferred Alternatives. SYRWCD has identified certain impacts that are particularly troubling to downstream interests. These include:
  - 1) Less water rights water would be released from the dam (based on model results, an average annual amount of about 3,900 af under Alternatives 4A and 4B compared to about 5,700 af for Alternatives 3A, B and C and 6,000 af currently, Table 4-7); because exchanged BNA water would be released on the Lompoc Plain. Only ANA releases would be available above the Narrows. Thus, the reach between Bradbury Dam and Lompoc Narrows would experience shorter periods of releases and smaller flows. However, for the purpose of conjunctive operation of downstream water rights releases with fish water releases under the Biological Opinion, both ANA and BNA releases at Bradbury Dam are required. Otherwise, there would be a greater impact on the Cachuma yield and the ANA, which would result in jeopardizing the Settlement Agreement.
  - 2) In the absence of BNA releases at Bradbury Dam under Alternatives 4A and 4B, flows in the lower Santa Ynez River would have, on average, a higher salinity in summer months compared to the current operation. The TDS at the Narrows is estimated to increase from about 875 to 1,200 mg/l (Chart 4-19 and Page 4-61). This is because the exchanged BNA water would be released on the Lompoc Plain and low summer flows at the Narrows have higher concentrations of TDS for recharge. Under Alternative 4A, the forebay itself would also experience poorer water quality, because the exchanged BNA water would be directly delivered to the City of Lompoc. To mitigate these negative effects, the Draft EIR recommends that additional releases be made from the Cachuma Project. This would have a greater impact on Cachuma yield and would also reduce the amount of water available for the ANA depending upon the timing of such releases.
  - 3) The actual amount of below Narrows credits varies from one year to another depending upon hydrologic conditions. Below Narrows credits have to be created first and then the credits are accrued in the BNA. The account is also subject to reductions due to spills at Bradbury Dam and recovery of the Lompoc ground water basin. The SYRHM does not include the Lompoc ground water basin. The model provides an estimate of BNA releases for comparative purposes between alternatives. Under actual operations, below Narrows credits and BNA releases are different than those estimated by the model. For the purpose of exchanging

16-1

- 4) the BNA water with the SWP water, it requires an actual accounting of the below Narrows credits on a year-by-year basis. Such a methodology for the accounting has not been contemplated nor have exchange negotiations been initiated among the parties.
- 5) BNA water is dedicated for all water users in the Lompoc basin, not just the City of Lompoc. The City of Lompoc is one of the many water users in the basin. To the extent the below Narrows credit water is exchanged and delivered to the City under Alternative 4A, it deprives the other water users downstream of Lompoc from the benefit of direct recharge of BNA water in the basin and the better quality water delivered from the reservoir mixed with SWP water.
- 6) Under actual operation, BNA water is released when hydrologic conditions are suitable for recharge in the Lompoc Plain. That means in wet years and during periods when there is surface flow and the water table is high, releases of BNA water are not made. To the extent the BNA water is exchanged under Alternative 4B, the delivery of SWP water for recharge may have to be deferred for a period of time (2-3 years). With shortages in SWP, it is not clear whether there would be enough water available for the accumulated delivery when conditions in the Lompoc Plain are suitable for the recharge operation. Similarly, under actual operations, there may not be any credits created for the below Narrows area for a period of 2-3 years, especially during drought periods. It is doubtful if the Cachuma Member Units would deliver SWP water for recharge in the Lompoc Plain while an equal amount of below Narrows credit is not provided to them at the Cachuma Reservoir.
- 7) Technically, the BNA exchange under Alternatives 4A and 4B would make the Settlement Agreement (excepting modified winter operations) inoperable. The BNA exchange would also make it difficult, at best, to calculate the above and below Narrows credits as set forth in WR 89-18.

16-1

On the basis of the foregoing, the Board of Directors of the SYRWCD does not support the development or implementation of Alternative 4A or 4B. Moreover, the Parties to the Cachuma Project Settlement Agreement (Member Units, City of Lompoc and SYRWCD) have agreed, in combination with other provisions, to support Deliveries During Releases to resolve issues relating to the effect, if any, of the Cachuma Project on the water quality on the Lompoc Plain, including groundwater used by the City of Lompoc. Although not a party to the Agreement, Reclamation supports the Agreement, inclusive of the Deliveries During Releases provision.

16-2

Deliveries During Releases essentially entails the mixing of SWP water in water rights releases, inclusive of the BO restrictions (as described in the SWRCB Draft EIR). This operation can be conducted through existing, permitted facilities and has shown to be workable by actual operation. It is implemented without significant additional costs

16-3

because it is based on scheduling considerations. The scheduling essentially provides, with certain limitations, for SWP water to be delivered and commingled in the outlet works whenever water rights releases are made. This maximizes water quality (TDS) benefits. See, for example, Draft EIR, page 4-59 last paragraph last two lines. It also eliminates negative impacts associated with Alternative 4A or 4B.

16-3

2. **Resolution of Downstream Water Quality Issues** - (Section 4.2.2.1 (Overview of Hydrologic Modeling for the EIR) especially page 4-15; Section 4.5.2.1 (Development and Calibration of the Salinity Model) especially page 4-57 Para 2 and 3; Section 4.6.2.1 (Overview of Modeling Approach) especially pages 4-66 and 4-67, page 4-71 Para 2 and page 4-72 last Para last 3 lines) – As described on the Sections/pages cited above, the WQTAC agreed that Stetson's Technical Memoranda are appropriate and reasonable for use in the DEIR to compare alternatives. The WQTAC greatly improved the general understanding of the models and hydrologic system. However, they did not necessarily agree that the existing models resolved Lompoc's water quality claim or that Cachuma had an effect on the water quality of the Lompoc Plain. Specifically, water quality questions about the impacts of Cachuma, if any, remain among the affected parties who have collectively decided to "move forward" under the terms of the Settlement Agreement.

16-4

3. **Overstatement of ID #1 Drought Supplies** - (Page 4-38 (Table 4-24 line 2) and Page 4-40 Para 3 lines 1 and 2) – During drought periods, lowered water levels (increased dewatered storage) significantly reduce well yields in the above Narrows ground-water basin. The impact on well yields from lowered water levels in Improvement District No. 1's 4 and 6 cfs well fields were determined. The critical drought supply from the river wells was determined based on declines in water levels (increased dewatered storage) using the SYRHM simulation for Alternative 3A. The yield from the 4 and 6 cfs well fields for critical drought (1951) is estimated to be 1,450 acre-feet, not 3,600 acre-feet shown in Table 4-24. (Please refer to Exhibit B attached to comments submitted by CCRB.) The Table and referenced information should be modified consistent with the foregoing comment.

16-5

4. **Understatement of Water Required For Fish Releases** - (Page 2-12 last Para lines 3-6 and Table 2-5 (Page 2-13), Section 2.4.2.3 (Mainstream Rearing Releases) Para 2 (last Para on page; Page 3-8 Para 3 lines 9-13; Page 3-9 Para 1 lines 6-10, Para 3 lines 3-6 and Para 6 lines 2-4) - Please see our comments on the cited pages in the "Technical Comments" section of this letter. Releases for interim and long-term rearing target flows required by the Biological Opinion are not derived only from surcharge and yield as described. They are derived from water rights releases under conjunctive operations with fish water releases and leakage as well as project releases.

16-6

## TECHNICAL COMMENTS

### CHAPTER 1.0 INTRODUCTION

(Page 1-2 Para 5 lines 4 and 5) - Change "the downstream alluvial basins between the dam and the Narrows (east of Lompoc) were deliberately maintained in a partially dewatered state," to "the downstream alluvial basins between the dam and the Narrows (east of Lompoc) were allowed to remain in a partially dewatered state.". Maintaining dewatered storage is not a goal of WR 73-32/WR 89-18.

(Page 1-3 first line) – Delete "slightly". As shown on Table 2-3 and discussed on page 2-7, releases under WR 89-18 were substantially higher than under WR 73-37, especially for the below Narrows area.

### CHAPTER 2.0 OVERVIEW OF THE CACHUMA PROJECT

(Page 2-1 Para 1 last line) – Insert "current" before "maximum capacity" referring to the outlet works. The outlet works was designed for and has operated at release rates higher than 150 cfs. It is currently limited to 150 cfs by a variable intake which is expected to be removed by USBR in FY 2005. The outlet works is used at rates over 100 cfs depending upon the extent (time and distance) of downstream water rights releases. Therefore, the last sentence ("it is rarely used above 100 cfs") may be inappropriate.

(Page 2-5 (Table 2-2)) – Please reconcile the following discrepancies: 1) inflows minus outflows do not equal changes in storage for practically every water year in the table; and 2) before 1974, spills occurring through the outlet works when reservoir elevations were above 750.0 feet should be accounted as spills rather than as water rights releases.

(Page 2-6 Para 4 lines 7 & 8) – Change "collected to determine which curve reflects the actual differences in percolation with and without the Cachuma Project" to "collected to have the parties agree on a well elevation "trigger" or "triggers" to be used to determine when Curve A (the upper curve) or Curve B (the lower curve) will be used to calculate the impairment of percolation into the Lompoc ground-water basin caused by the Cachuma Project. Consistent with the requirement of Paragraph 2.2.1 of Condition 5 of WR 89-18, the parties have agreed upon the "trigger" as provided in Paragraph 1.4 of the Settlement Agreement.

(Page 2-7 Para 1 lines 3 through 6)

line 3 – Change "These releases" to "Typically, these releases".

line 5 and 6 – Change sentence starting with "At that time, the releases..." as follows. "At that time, the releases are reduced for several weeks to months, typically to rates such as 50 to 70 cfs, depending upon percolation rates."

16-7

Though the rates cited are typical, variations are made to accommodate circumstances at the time.

(Page 2-8, Table 2-3) – Water rights releases are started and completed within the same calendar year. Table 2-3 splits those releases into two water years. It is more appropriate to present Table 2-3 in calendar year rather than water year. The following table provides historical releases through calendar year 2002.

**HISTORICAL DOWNSTREAM WATER RIGHTS RELEASES**

Calendar Year	Releases under WR 73-37		
	Releases (acre-feet per year)		
	ANA	BNA	Total
1974	1,353	0	1,353
1975	1,134	0	1,134
1976	4,237	0	4,237
1977	2,299	0	2,299
1978	62	0	62
1979	1,200	0	1,200
1980	0	0	0
1981	4,175	0	4,175
1982	6,655	755	7,410
1983	0	0	0
1984	3,162	0	3,162
1985	5,686	0	5,686
1986	5,317	1,780	7,097
1987	3,887	0	3,887
1988	5,050	1,283	6,333
Average	2,948	255	3,202
Calendar Year	Releases under WR 89-18		
	ANA	BNA	Total
1989	5,192	0	5,192
1990	4,792	0	4,792
1991	7,745	3,638	11,383
1992	4,930	3,287	8,217
1993	0	0	0
1994	6,727	4,012	10,739
1995	0	0	0
1996	7,319	3,459	10,778
1997	9,572	3,438	13,010
1998	0	0	0
1999	0	0	0
2000	4,360	1,858	6,218
2001	0	0	0
2002	9,054	4,412	13,466
Average	4,264	1,722	5,985

16-7

(Page 2-10, Section 2.2.5, first bullet (Precautionary Releases) line 5) – Change “Reclamation may avoid spills, which are uncontrolled and may cause flooding” to “Reclamation may attenuate (along with pre-releases and/or gateholding) the peaks of large flows that may cause flooding”. Modified Storm Operations is exercised only with high flows when large spills and flooding are expected. The purpose of the operation is to reduce peak flows and not to avoid spills as suggested.

Page 2-12 last Para lines 3-6 and Table 2-5 (page 2-13) –Table 2-5 shows allocations of surcharge water when the reservoir spills but it is not clear as to the amounts and sources of water providing for the interim and long-term rearing target flows. Fish water releases for rearing are not limited by the amount of water developed by surcharging. These releases are established by the flow requirements provided in Tables 2-7 and 2-8. These facts should be incorporated into Table 2-5 and the text cited above.

Page 2-13, Section 2.4.2.2 Ramping Water Rights Releases – To accurately reflect what occurred, delete the existing paragraph and replace as follows:

“In the Biological Opinion, NMFS authorized a ramping schedule for the rampdown of releases made to satisfy downstream water rights to prevent stranding of steelhead in the mainstem. These ramping rates, which are a refinement of rates recommended by the SYRTAC and used since 1994, are detailed in Table 2-6. These have been used since 2000.”

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Page 2-13, Section 2.4.2.3 (Mainstem Rearing Releases), Para 1 last sentence – Change “In very wet years and the year following a very wet year,” to “In years with spills exceeding 20,000 af and the year following such spill year,” to better reflect the criteria as described in Tables 2-7 and 2-8.

Page 2-13, Section 2.4.2.3 (Mainstem Rearing Releases), Para 2 (last Para on page) – This paragraph, which extends to the top of page 2-14, should be modified as follows to better describe what has occurred:

“Reclamation, in cooperation with the SYRWD, has operated water rights releases conjunctively with fish water releases since 1994, and proposes to continue this operation in the future. That is, when releases are being made for water rights, the water from this source will be used to continue to meet the mainstem target flows as well as the habitat flow requirement in Hilton Creek. Currently, water rights releases are made from the outlet works and the Hilton Creek watering system (described below). That system . . . .” Also, remove word “only” from last sentence in paragraph.

(Page 2-15, Section 2.4.2.4 Para 2 Line 1) - Based on the information in the foregoing comment, we recommend deletion of the phrase “As with interim and long-term target flows, ”That phrase is not applicable.

See also related comments for pages 3-8 and 3-9 below.

### CHAPTER 3.0 PROPOSED PROJECT (ALTERNATIVES)

Page 3-1, Section 3.1.2 Downstream Water Rights – We note that some of the descriptions are not complete or out of date. We also note that the list is not a complete list of all downstream water right holders - presumably it is a listing of those who have filed documentation with the State Board, which generally would not include riparian right holders.

Page 3-8 Para 3 lines 9-13 - Releases for interim rearing target flows pursuant to the BO are not derived only from surcharge and yield as described. They are derived from water rights releases under conjunctive operations with fish water releases and leakage as well as project releases. Conjunctive operation of water rights and fish releases is incorporated in the Cachuma Project Settlement Agreement (Paragraph 1.2). Also, the requirement to meet the BO interim target rearing flows is considerably more than 1,300 af.

Based on the work of Stetson Engineers, we recommend the following revision:

“Under this alternative, releases for interim rearing target flows pursuant to the Biological Opinion are derived from project releases, water rights releases, and leakage from the Dam. The average annual amount to meet the Biological Opinion interim releases to meet flow targets in the Highway 154 reach is estimated to be 2,500 af. This average annual figure for the model period 1918 through 1993 (76 years) includes the contributions from WR 89-18 water rights releases and leakage from the Dam. The breakdown of releases for meeting the interim target at the 154 Bridge is as follows:

16-7

	Acre-Feet/Year
Project Releases	1,400
Water Rights Releases	700
Leakage from the Dam	400
<b>Total</b>	<b>2,500</b>

To the extent the leakage from the spillway gates is minimized through repairs, then an additional amount is released for the purpose of meeting the interim targets in the Highway 154 reach.”

Page 3-9 Para 1 lines 6-10, Para 3, lines 3-6, and Para 6 lines 2-4 - The cited lines contain erroneous information analogous to the situation described for interim rearing releases on Page 3-8. Based upon the Santa Ynez River Hydrology Model (SYRHM), the total annual water (not including spills and natural flows) needed from Cachuma Reservoir to meet Alternative 3A long-

term rearing target flows in the BO is 3,900 acre-feet on average for the model period 1918 through 1993 (76 years). This amount does not include any releases from the 3,200 acre-feet Passage Account or 500 acre-feet Adaptive Management account. This annual average figure does include the contributions from WR 89-18 water rights releases and leakage from the dam in the amounts of 1,220 and 500 acre-feet per year, respectively, to meet rearing habitat target flows. The conjunctive use of WR 89-18 water rights releases to meet target habitat flows has been incorporated into the Settlement Agreement. The breakdown of average releases that meet the rearing target flows is as follows:

	<b>Acre-Feet/Year</b>
Project Releases	2,185
Water Right Releases	1,220
Leakage from the Dam	500
<b>Total</b>	<b>3,905</b>

The leakage quantities as used in the model represent the historical rate of leakage from the spillway gates. To the extent the spillway gates are repaired to minimize the leakage, then an additional amount would be released for the purpose of fish habitat maintenance. But the total amount of water needed from Cachuma Reservoir for the final BO habitat target flows would still be about 3,900 acre-feet per year on average, according to the SYRHM.

We recommend that revisions analogous to those on Page 3-8 be incorporated on Page 3-9.

Page 3-10 Para 3 lines 1 and 2 - Please revise the average annual BNA delivery and range of delivery amounts on those lines to "1,722" and "0 to 4412" based on revised Table 2-3.

#### **CHAPTER 4.0 ENVIRONMENTAL ANALYSIS OF ALTERNATIVES (FLOW RELATED ACTIONS)**

(Pages 4-7 Para 1 last sentence) - Change "The Narrows flow includes effects of Cachuma Lake winter spills averaging about 34,800 afa and summer river releases of about 7,000 afa" to "The Narrows flow includes effects of Cachuma Lake winter spills averaging about 37,500 afa and summer river releases of about 4,500 afa." See comment pertaining to Table 2-2. Over-statement of summer river releases relates to over-stating water rights releases prior to 1974 by the inclusion of spill water released through the outlet works when reservoir elevations were above 750.0 feet.

(Page 4-10 and 4-11, Modified Storm Operations (bottom and top Paras, respectively)) - Based on information in Section 2.2.5 (as amended by comments above), the following modifications are suggested:

line 1 – Change “in 1993” to “in 1998”.

line 2 – Delete “frequency and”.

line 3 (page 4-11) – after “flood” add, “as well as gateholding which holds back the increase in inflows.”

(Page 4-11, Section 4.2.2.1 Para 1 lines 6 and 7) – Change “experts from Reclamation and the Member Units” to experts from Reclamation, the Member Units, the County Water Agency, SYRWCD and the City of Lompoc.”

(Page 4-45, 6<sup>th</sup> Para), To be complete, suggest first sentence be revised: “Groundwater levels in the Above Narrows Alluvial Groundwater Basin fluctuate in response to groundwater pumping, runoff from tributaries below Cachuma Reservoir, spills, and releases from Bradbury Dam.”

(Page 4-46 last Para) - Relating to “Groundwater Management Plans and Programs” should be updated, as suggested below.

“In cooperation with water purveyors in the District, SYRWCD prepared a report outlining various water resources management alternatives (Stetson, 1992). Working with the City of Buellton, SYRWCD completed an AB 3030 Plan for the Buellton Uplands Basin in 1995. A similar effort for the Santa Ynez Uplands Basin was terminated because out-of-District landowners, who represented most of the Basin area, opposed the Plan.”

“Groundwater management efforts were initiated by SYRWCD and local purveyors in the Lompoc Basin in 1985. Through cooperative funding efforts with the USGS, the Basin water resources were evaluated, a comprehensive monitoring program was developed and implemented, and a groundwater model was prepared (Bright et al; 1992, 1997). In cooperation with the City of Lompoc, SYRWCD initiated an AB3030 Plan for the Lompoc Plain in 1999.”

(u) - Change “These charts also show that there is no significant difference in the year-to-year variation in dewatered storage in the aquifer” to “in general,...., except during droughts.” See, for example, the periods in the early 1950’s and 1990’s.

(Page 4-53 (Table 4-30) line 7) - The sources column for Narrows data should also include the USGS.

(Page 4-59 Para 4 line 4) – SWP water is not commingled with fish water releases, either for passage or rearing flows. The BO does not permit such mixing with passage flows and one pump cannot be run slow enough to make the 50/50 mix constraint during fish water releases

for rearing flows. SWP water is mixed with water rights releases when used conjunctively with fish water releases, however. Therefore, statements to the effect that SWP water and fish releases, per se, are mixed in the outlet works are not correct. This issue occurs in several places in the document, as described below:

line 4, from above – Change “water rights or fish releases are made, and only when SWP water” to “water rights are made and SWP water”.

Page 4-60 Para 1 line 6 – Delete material starting with “In contrast”.

Page 4-60 Para 4 line 1 – Delete “and fish rearing” and “for both purposes” on lines 1 and 2.

Page 4-60 Para 4 line 4 through 6 – Delete material starting with “For example”.

Page 61 Para 1 line 2 – Delete “or for fishery purposes”.

Page 69 Para 4 line 5 – Delete “and fish”.

Page 4-72, last Para, lines 3 and 8 through 10 –

line 3 – Delete “and additional releases for fish.”

line 8 through 10 – Delete “as well as higher and longer flows in the summer with this high quality water due to releases for rearing flows.” Note: Rearing flows do not contain SWP water and would not reach Narrows to the extent suggested.

Page 4-63 last Para line 3 – Change “VAFB” to “VAFB and/or the Federal Penitentiary”. VAFB’s wells have been transferred to and are now used by the prison farm.

Page 4-64 Para 1 – No water level gradients or groundwater flow is shown on Figure 4-3, just zones.

Page 4-65 Para 2 last sentence – This is potentially misleading. The seawater is in water bearing materials originally deposited in a marine environment and the sentence could be interpreted to mean seawater intrusion. Sentence is not necessary and should be deleted.

Page 4-70 Para 2 line 3 – Chart 2-29 should be Chart 4-19. It is referred to as Chart 4-29 in Para 4 and 5 but the material discussed is on Chart 4-19.

Page 4-70 Para 3 last line – Change “Lompoc Basin” to “City of Lompoc”.

16-7

**CHAPTER 10.0 REFERENCES**

Page 10-1 Reference #5, Bright et al – The date is 1997.

16-7

Thank you for considering our comments and suggestions. Should you have any questions or require clarification regarding any of our comments or suggestions, please contact us.

Sincerely,

SANTA YNEZ RIVER WATER  
CONSERVATION DISTRICT



Bruce A. Wales  
General Manager

BW/EAC:meh

cc: USBR  
CCRB  
SYRWCD, ID #1  
City of Solvang  
City of Buellton  
City of Lompoc  
SYRWCD, Board of Directors  
Stetson Engineers  
Ernest A. Conant, District Counsel

**16. Santa Ynez River Water Conservation District, dated October 7, 2003,**

**Response 16-1:**

The commenter suggests that implementation of either Alternative 4A or 4B would require cooperation by all involved agencies, amendment to Reclamation's permits for the Cachuma Project, completion of project-specific environmental reviews and permitting, operational agreements and funding. The commenter states these alternatives would also have the most impacts of all the alternatives and are, therefore, not environmentally preferred alternatives.

The 2003 DEIR provides discussions of the circumstances that would be required for implementation of the various alternatives. These Alternatives are discussed in **Sections 3.2.2** (pages 3-5 through 3-7 and 3-10 through 3-12) and 6.1.2 (page 6-3 through 6-7) of the 2003 DEIR. As indicated in Table 6-1 of the 2003 DEIR, Alternatives 4A and 4B had the highest total impacts using a simple addition method. Aside from the raw numbers, one impact making up the total may be much more critical than another; this makes a comparison using only simple addition an incomplete comparison.

In the 2007 RDEIR Alternative 4A has been removed (**Section 6.1.2**, pages 6-1 through 6-4) and Alternative 4B has the highest total number of impacts; however, in the text discussion Alternative 4B appears to be among the two preferred alternatives along with 3C.

The 2003 DEIR and 2007 RDEIR did not identify either as "environmentally preferred." The 2011 2<sup>nd</sup> RDEIR provides a re-assessment of the various alternatives considered (see **Section 6.0**), and relates the potential impacts for each.

**Response 16-2:**

The comment indicates that the Santa Ynez River Water Conservation District (SYRWCD) Board of Directors does not support the development or implementation of Alternatives 4A or 4B.

The comment is noted.

**Response 16-3:**

The commenter states that SWP deliveries during water rights releases entails mixing of SWP water, which maximizes water quality (total dissolved solids [TDS]) benefits (page 4-59) and eliminates negative impacts associated with Alternative 4A or 4B.

This is consistent with the 2003 DEIR and the 2007 RDEIR. The comment is noted.

**Response 16-4:**

The comment suggests that the Santa Ynez River Water Quality Technical Advisory Committee (SYRWQTAC) agreed that Stetson's Technical Memoranda are appropriate and reasonable for use in the 2003 DEIR to compare alternatives, however, the SYRWQTAC did not necessarily agree that the existing models resolved Lompoc's water quality claim or that Cachuma had an effect on the water quality of the Lompoc Plain.

Discussions of the SYRWQTAC review of the Stetson Technical Memorandum are included primarily in **Sections 4.5.2.1 and 4.6.2.2** of the 2003 DEIR; the 2007 RDEIR refers back to this discussion. The intended use of the various existing hydrologic models (SYRHM, HCI, and USGS) was to compare the TDS (salinity) at specific locations in order to compare project alternatives. There was no intent in the 2003 DEIR or the 2007 RDEIR to resolve Lompoc's water quality claim, but rather to assess the relative differences in the salinity impacts of the various alternatives. As indicated on page 4-57 of the 2003 DEIR: "The simulated salinity data generated from the SYRHM are not meant to be predictive." The reader is cautioned on page 4-71 that: "As noted earlier, actual TDS concentrations may vary from the models' predictions by 100 to 300 mg/l, depending upon many factors. Hence, the values in Table 4-32 should be used cautiously, and are best used when rounded to the nearest 100 mg/l. Differences less than 100 mg/l should only be relied upon when other clear trends support these differences."

The Settlement Agreement was considered in the 2007 RDEIR with regard to Cachuma's effect on the water quality of the Lompoc Plain for Alternatives 5B and 5C. The 2007 RDEIR Draft Technical Memorandum No. 7 (page 5) states: "This rescheduling of 'SWP' imports is done in accordance with the Settlement Agreement of 2002, which states that the parties will "make best efforts to maximize the delivery by the Central Coast Water Authority ('CCWA') of State Water Project (SWP) water with lower concentrations of total dissolved solids ('TDS') into the outlet works at Bradbury Dam during WR 89-18 water rights releases, consistent with the NMFS BO."

**Response 16-5:**

The commenter suggests that the yield from the 4 and 6 cubic feet per second (cfs) well fields for a critical drought (like 1951) is estimated to be 1,450 acre-feet, not 3,600 acre-feet shown in Table 4-24, and that Table 4-24 and referenced information should be modified consistent with these critical drought supply values.

Table 4-24 of the 2003 DEIR (page 4-38) indicates 3,600 acre-feet per annum (afa) water supply from the two permitted wells in the 4 cfs field and the 6 cfs field. Based on this comment, the value was changed in Table 18E in the 2007 RDEIR (page 30 of the Stetson Draft Technical Memorandum No. 5) to 1,450 afa and the 2007 modeling used this figure so that results were updated accordingly.

**Response 16-6:**

The comment states that releases for interim and long-term rearing target flows required by the Biological Opinion are not derived only from surcharge and yield, but from water rights releases under conjunctive operations with fish water releases and leakage as well as project releases.

In the 2003 DEIR **Sections 2.4** (beginning page 2-11, Biological Opinion and in Stetson Technical Memorandum No. 1) and **3.2.2** (Description of Alternatives) numerous sources of water are considered that would provide target flows, including project releases, water rights releases (page 2-13), passage releases (pages 3-9 and 3-10), and spills (e.g., pages 2-12 and 2-14, includes leakage). These same sources are noted in similar sections of the 2007 RDEIR and all water supply and demand information was updated based on comments on the 2003 DEIR. Considering this, we believe that the modeling properly states the amount of water required for fish releases considering interim and long-term rearing target flows required by the Biological Opinion.

**Response 16-7:**

The comment suggests that the following Technical Comments (No. 16) be considered.

The 2007 RDEIR incorporated the suggested technical changes except as noted below.

The technical comments also state that the following discrepancies were found in the 2003 DEIR:

- 1) inflows minus outflows do not equal changes in storage for practically every water year in the Table 2-2; and
- 2) before 1974, spills occurring through the outlet works when reservoir elevations were above 750.0 feet should be accounted as spills rather than as water rights releases.

In the 2003 DEIR and the 2007 RDEIR, Table 2-2 (following page 2-4 in the 2003 Draft EIR and pages 2-5 and 2-6 in the 2007 Revised Draft EIR) contains the data in question. In the 2007 RDEIR, the Table 2-2 (pages 2-5 and 2-6) footnotes (page 2-6), specifically footnotes 12 and 13, indicate that for water years before 1974 the water rights releases do not include outlet spill releases, whereas in the corresponding Table 2-2 in the 2003 DEIR, footnotes 11 and 12 water rights releases did include "leakage," which equates to spills/leakage. Therefore, model input and results were modified, in part, as a result of this comment.

The technical comments further provide a number of technical edits and suggested text changes. In addition, the comment suggests that the Draft EIR present Table 2-3 in calendar year rather than water year, because water rights releases are started and completed within the same calendar year.

Water year, as defined by the USGS, deals with surface-water supply and is the 12-month period from October 1 through September 30 of the succeeding year. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 total months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

A water year, as used in the 2003 DEIR and the 2007 RDEIR, covers the same period (note Table 5, Stetson Engineers Technical Memorandum No. 3), which is the State of California standard. Multiple data sets throughout the 2003 DEIR and the 2007 RDEIR are captured, analyzed, and presented in water years. For example, the 2007 RDEIR notes (page 3-2) that the SYRHM “hydrologic period of analysis for the model simulations included the water years (emphasis added) 1918 through 1992.”

All suggested text edits and changes were considered in preparation of the 2011 2<sup>nd</sup> RDEIR.

**TRUSTEES:**

DIVISION 1 — LOS OLIVOS  
**Harlan J. Burchardi**  
DIVISION 2 — SOLVANG  
**David Jamieson**  
DIVISION 3 — SOLVANG  
**Lee F. Bettencourt**  
DIVISION 4 — SANTA YNEZ  
**Harry F. Poor**  
TRUSTEE-AT-LARGE  
**Matthew Loudon**

**SANTA YNEZ RIVER  
WATER CONSERVATION DISTRICT**

IMPROVEMENT DISTRICT NO. 1  
P.O. BOX 157 • 3622 SAGUNTO STREET  
SANTA YNEZ, CALIFORNIA 93460  
TEL: (805) 688-6015 • FAX: (805) 688-3078

**CHRIS DAHLSTROM**  
Manager/Secretary

STATE WATER RESOURCES CONTROL BOARD  
**HATCH & PARENT**  
A Law Corporation  
General Counsel

2003 OCT -3 PM 3:00

DR. JAMES...  
SANTA YNEZ

October 7, 2003

Mr. Andrew Fecko  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, California 95812-2000

Re: Comments on Draft Environmental Impact Report in Connection with Consideration of  
Modifications to the U.S. Bureau of Reclamation's Water Right Permits Nos. 11308 and 11310

Dear Mr. Fecko:

Santa Ynez River Water Conservation District, Improvement District No. 1, (ID No.1) is located downstream of Lake Cachuma in the Santa Ynez Valley. The primary responsibility of ID No.1 is to serve water to its customers consisting of residential, commercial, institutional, and agricultural water users within its service area. ID No.1 appreciates the opportunity to provide comments on the above-referenced draft Environmental Impact Report (EIR) by the State Water Resources Control Board (SWRCB). Comment letters have been submitted on the draft EIR by the Santa Ynez River Water Conservation District (SYRWCD) and Cachuma Conservation Release Board (CCRB) to the SWRCB. ID No.1 joins SYRWCD and CCRB in comments submitted in those letters.

ID No.1 is a Cachuma Project Member Unit which has a contract with the U.S. Bureau of Reclamation (USBR) through the Santa Barbara Water Agency for annual supply of Cachuma Project water. In addition, ID No.1 produces water from the Santa Ynez River subflow and Santa Ynez Upland ground-water basin. It also has an entitlement of 500 acre-feet per year from the State Water Project (SWP). The Cachuma Project provides about 40% of the District's annual water supply. In reviewing the draft EIR, we are concerned that impacts on Cachuma water supply (shortages) which directly affect ID No.1 are understated. Furthermore, the environmental document overstates the District's supply of water from other sources, namely the Santa Ynez River wells and the Upland ground-water basin.

**Impacts on Water Supply.** The draft EIR understates the impacts of alternatives on Cachuma water supply during the critical drought period (1949-51). The project shortages shown in Table 4-16 are based on a perfect forecasting of the duration and severity of the drought. In a real-time operation, water supply managers have to plan for water supply assuming the year following the worst historical drought period would be also dry. With reserves set aside for an additional dry year, the shortages would be substantially greater than those shown in Table 4-16 of the draft EIR. Table 1 (attached) shows shortages to Cachuma

17-1

Project deliveries under the proposed alternatives with reserves for an additional dry year. As indicated in Table 1, ID No.1 could experience shortages as much as 64 percent in a critical drought year (1951) and 40 percent annually during the three-year drought period (1949-1951) under Alternative 3A.

17-1

**Groundwater Supply During Drought Periods.** During drought periods, lowered water levels (increased dewatered storage) significantly reduce yields from the 4 and 6 cfs well fields. The critical drought supply from ID No.1's Santa Ynez River wells were determined based on declines in water levels (dewatered storage) in 1951 using the Santa Ynez River Hydrology Model (SRYHM) for Alternative 3A. The yield from the 4 and 6 cfs well fields for critical drought (1951) is estimated to be 1,450 acre-feet, not 3,600 acre-feet shown in Table 4-24. (Refer to Exhibit B attached to comments submitted by CCRB.) The EIR should be corrected accordingly.

17-2

Similarly, the yield from the ID No.1 wells from the Santa Ynez Upland basin is over-stated in the draft EIR. The production capacity of ID No.1 from the Upland ground-water basin has been reduced in recent years due to well destruction, water quality problems, and lowering of water table. The production capacity from the Upland wells is expected to be about 2,320 acre-feet in critical drought year, not 4,700 acre-feet shown in Table 4-24. (Refer to Exhibit B attached to comments submitted by CCRB.) The EIR should be corrected accordingly.

17-3

**Water Supply Comparisons with Draft EIR.** The draft EIR sets forth in Table 4-14 the normal year water supply (average production) for ID No. 1. It also tabulates in Table 4-24 the supply in critical year (1951) under Alternative 3A for ID No. 1. The District has made an independent determination of its water supply and demand. The District's determination of its water supply under the above conditions is shown in Table 2 (attached). The comparisons between the District's determination and those shown in Tables 4-14 and 4-24 of the draft EIR for normal and critical year water supplies are shown in Tables 3 and 4 (attached), respectively.

17-4

Based on the determination by ID No.1, as shown in Table 4 (attached), ID No.1 would have a deficit of supply (about 580 acre-feet) in critical drought (1951) to meet its year 2002 level of demand compared to a surplus (5,440 acre-feet) shown in Table 4-24 of the draft EIR. Similarly, ID No.1 would have deficit of 1,400 acre-feet to meet the demand of year 2020 compared to a surplus of 1,700 acre-feet shown in Table 4-24.

The draft EIR (page 4-36) indicates that other member units (City of Santa Barbara, Goleta, and Montecito) with shortages in drought years can buy water from ID No.1. First, ID No.1 does not have surplus water to sell. Second, overlying groundwater pumpers inside and outside of ID No.1, within the Santa Ynez Valley, will oppose such transfer of water. Third, there are no physical facilities to transfer pumped ground water from the Santa Ynez Valley to the South Coast.

17-5

In addition to the above comments, ID No.1 provides the following specific comments to assist you in completing a final EIR.

1. Section 2.1.2 Page 2-1, Last Paragraph Second Sentence  
Insert: A portion of...

17-6

Mr. Andrew Fecko  
 State Water Resources Control Board  
 October 7, 2003  
 Page 3

2. Section 2.2.2, Page 2-4, Table 2-1

Row SWRWCD, ID#1	1996-97	1997-98	1998-99	1999-00	2000-01
Delete	<del>22%</del>	<del>1,869</del>	<del>60</del>	<del>70</del>	<del>79</del>
Insert	<u>46%</u>	<u>1,913</u>	<u>2,761</u>	<u>2,658</u>	<u>2,648</u>

Explain ID#1 receiving its Cachuma Project entitlement through an exchange with South Coast Project members.

3. Section 2.2.2, Page 2-5, Table 2-2 Rows

Row WY1997	Column Direct Diversions	- Delete 84	Insert <u>73</u>
	Column SYRWCD ID#1	- Delete <del>1,785</del>	Insert <u>1,840</u>
Row WY1998	Column Direct Diversions	- Delete <del>62</del>	Insert <u>60</u>
	Column SYRWCD ID#1	- Blank	Insert <u>2,701</u>
Row WY1999	Column SYRWCD ID#1	- Blank	Insert <u>2,588</u>
Row WY2000	Column Direct Diversions	- Delete <del>80</del>	Insert <u>79</u>
	Column SYRWCD ID#1	- Blank	Insert <u>2,569</u>
Row WY2001	Column Direct Diversions	- Delete <del>77</del>	Insert <u>86</u>
	Column SYRWCD ID#1	- Blank	Insert <u>2,448</u>

17-6

Insert: Water production from Cachuma Project is based on the October 1 through September 30 water year. Section 2.2.2, Page 2-6, Table 2-2 - Revise Averages under Direct Diversions and SYRWCD, ID#1

4. Section 2.3, Page 2-11, First Paragraph, ID#1 left out of signatories

Section 2.4.2.5, Page 2-16, First Paragraph, ID#1 left out of Adaptive Management Committee

5. Section 2.2.4 Page 2-9 Bullet SYRWCD, ID#1 2,000 afa Insert - 500 afa to SYRWCD, ID#1 and under Water Supply Agreement 1,500 afa to the City of Solvang.

6. Section 2.2.4 Table 2-4 Page 2-9

Row "SYRWCD, ID#1"	1997-98	1998-99	1999-00
Delete	<del>506</del>	<del>1,085</del>	<del>726</del>
Insert	<u>300<sup>1</sup></u>	<u>1,291<sup>2</sup></u>	<u>700<sup>3</sup></u>

Insert Note 1 - SWP deliveries include 50 afa of Drought Buffer water

Note 2 - SWP deliveries include 200 afa plus 841 afa of DWR Turnback Pool B water

Note 3 - SWP deliveries include 200 afa of Drought Buffer water.

Row "Total" should be recalculated to reflect corrections.

7. Section 3.1.2, Page 3-2, Second Bullet SYRWCD, ID#1 Production from 1995 - ~~2000~~ insert 2002...

Section 3.1.2 Page 3-2, Third Bullet SYRWCD, ID#1 Last Sentence: Production from 1995 - ~~2000~~ insert 2002... ranged from 38 to 438 insert 3,364 afa.

Section 3.1.2 Page 3-2, Fourth Bullet SYRWCD, ID#1 Last Sentence: No water was produced during the period 1992 - ~~2000~~ insert 2002 due to the surface water treatment rule. In-lieu filings under section 1005.4 of the California Water Code are submitted to the SWRCB.

8. Section 3.1.3 Page 3-4, Fifth Bullet – Recreational and public activities in the Santa Ynez River, downstream of Bradbury Dam and within the Santa Ynez River Water Conservation District, Improvement District No.1 boundaries, are prohibited by private property ownership. This statement should only address the Lake Cachuma County Park lands.

9. Section 4.3.1, Page 4-30, Santa Ynez River Water Conservation District, Improvement District # 1, First Paragraph, Last Sentence: Delete sentence and insert SYRWCD, ID#1 supplies Municipal and Industrial water to the City of Solvang on an as-needed basis to supplement its water sources of supply and in the event of emergency.

10. Section 4.3.1, Page 4-30, Santa Ynez River Water Conservation District, Improvement District # 1, Second Paragraph, Third sentence: SYRWCD, ID#1 has an entitlement for SWP water of 2,000 afa plus 200 afa of CCWA drought buffer. The District's entitlement is 500 afa plus 200 afa of drought buffer. The remaining 1,500 afa is allocated to the City of Solvang under a water supply contract, which includes an entitlement of 1,500 afa for the City of Solvang.

11. Section 4.3.1, Page 4-30, Table 4-14, refer to Table 2 and 3 in this letter

12. Table 4-15, page 4-31, Column SYRWCD, ID#1

Row:	1989-90	Delete	<del>7,902</del>	Insert	<u>6,864</u>
	1990-91	Delete	<del>6,363</del>	Insert	<u>6,343</u>
	1991-92	Delete	<del>6,050</del>	Insert	<u>5,320</u>
	1992-93	Delete	<del>6,343</del>	Insert	<u>6,048</u>
	1993-94	Delete	<del>6,236</del>	Insert	<u>5,592</u>
	1994-95	Delete	<del>6,138</del>	Insert	<u>5,377</u>
	1995-96	Delete	<del>6,812</del>	Insert	<u>6,111</u>
	1996-97	Delete	<del>6,506</del>	Insert	<u>6,277</u>
	1997-98	Delete	<del>5,110</del>	Insert	<u>4,290</u>
	1998-99	Delete	<del>6,163</del>	Insert	<u>5,310</u>
	1999-00	Delete	<del>6,681</del>	Insert	<u>5,303</u>
	Ave=	Delete	<del>5,858.75</del>	Insert	<u>5,712</u>

13. Section 4.3.1, Page 4-31, Bullet Five – SYRWCD, ID#1 Delete 22%  
 Insert 46%

17-6

14. Section 4.3.2, Page 4-35, Table 4-18, Row SYRWCD, ID#1 (Table 4-14)

This table should be modified to reflect accurate water supplies from previous tables.

Row 13	Delete	4,700	Insert	<u>2,320</u>
Row 14	Delete	<del>3,600</del>	Insert	<u>1,450</u>
Row 15	Delete	8,300	Insert	<u>3,770</u>

15. Section 4.3.2, Page 4-35, Table 4-19,

This table should be modified to reflect accurate water supplies from previous tables.

Row: SYRWCD, ID#1	Delete	<del>5,300</del>	Insert	<u>5,792 (2002)</u>
	Delete	<del>9,050</del>	Insert	<u>6,619</u>

16. Section 4.3.2, Page 4-36, Second Paragraph, Second Sentence. The surplus for SYRWCD, ID#1 has been greatly overstated at 5,443 af. Based on accurate numbers provided in Table 4 in this letter, there is actually a shortage of 577 af using 2002 level of demand. In addition, there is no interconnection of infrastructure to allow for the purchase of water between SYRWCD, ID#1 and the south coast water agencies.

17. Section 4.3.2, Page 4-38, Table 4-24, refer to Table 4 in this letter. This table should be modified to reflect accurate water supplies in critical drought year (1951) under Alternative 3A.

17-6

18. Section 4.3.2, Page 4-38, Table 4-25

This table should be corrected to reflect accurate water supplies for SYRWCD, ID#1 in a three-year period (1949-1951) under Alternative 3A.

Row 11.	Local Groundwater supply & Santa Ynez River diversion	Delete	<del>24,900</del>	11,823
Row 12.	Average State Water Project Deliveries	Delete	<del>30,456</del>	25,425
Row 13.	Cachuma Project supply	Delete	<del>960</del>	45,918

19. Section 4.3.2, Page 4-40, Third Paragraph, Increased ground water pumping during droughts could have a detrimental effect on ground water quality by increasing the flux of water from poorer water quality areas in the absence of fresh water recharge. Also, depending on how long overdraft conditions persist, wells will go dry or operate with reduced yields and increased pumping lifts.

20. Section 4.3.2, Page 4-40, Fourth Paragraph, Last Sentence. The statement that temporary transfers and SWP water "delivery directly to SYRWCD, ID#1 pursuant to an exchange agreement with the other Member Units" is a generalization without detail or consideration given to turnout capacity or timing. This statement should be withdrawn.

21. Section 4.3.2, Page 4-41, Second Paragraph, First Sentence. SYRWCD, ID#1 cannot receive the benefit of the City's Desalination facility because there is not interconnection of infrastructure and therefore, should be restated to accurately reflect the conditions.

Mr. Andrew Fecko  
State Water Resources Control Board  
October 7, 2003  
Page 6

The District believes that overall the State Board staff has done a good job in preparing the referenced draft environmental document. The District would be happy to provide additional information if needed for the final EIR.

Sincerely,



Chris Dahlstrom, General Manager  
Santa Ynez River Water Conservation District,  
Improvement District No. 1

CD

Attachments

Cc: Mr. David Young, United States Bureau of Reclamation  
Mr. Bruce Wales, Santa Ynez River Water Conservation District  
Ms Kate Rees, Cachuma Conservation Release Board  
Mr. Robert Wignot, Cachuma Operation & Maintenance Board  
Ms Marlene Demery, City of Solvang  
Mr. Gary Keefe, City of Lompoc  
Mr. Steven A. Amerikaner, Hatch & Parent  
Mr. Gregory Wilkinson, Best, Best & Krieger  
Stetson Engineers, Inc.

**17. Santa Ynez River Water Conservation District, Improvement District No. 1, dated October 7, 2003,**

**Response 17-1:**

The comment suggests that in Table 4-16 the 2003 DEIR understates the impacts of alternatives on Cachuma water supply during the critical drought period (1949-51) based on the need for water supply managers to set aside reserves for an additional dry year. The comment states that with reserves set aside for an additional dry year, the shortages would be substantially greater than those shown in Table 4-16 of the 2003 DEIR.

The 2003 DEIR provides an additional Table 13b (page 17 in the Stetson Technical Memorandum No. 1) that discloses the effects of consecutive dry years and shows that “With reserves set aside for an additional dry year following the worst year of the critical period, the shortages are greater as described in Table 13b.” This table is included in the 2011 2<sup>nd</sup> RDEIR. Table 4-16 of the 2011 2<sup>nd</sup> RDEIR has been updated using current member unit supply and demand data. The analysis indicated that in comparison to the baseline scenario, impacts under all alternatives are not significant.

**Response 17-2:**

The commenter suggests that the yield from the 4 and 6 cfs well fields for a critical drought (like 1951) is estimated to be 1,450 acre-feet, not 3,600 acre-feet shown in Table 4-24, and that Table 4-24 and referenced information should be modified consistent with these critical drought supply values.

See response to 2003 DEIR **Comment 16-5**.

**Response 17-3:**

The comment states that the yield from the ID No.1 wells from the Santa Ynez Upland basin is overstated in the 2003 DEIR.

Current well data has been provided by the Member Units and has been considered in the 2011 2<sup>nd</sup> RDEIR.

**Response 17-4:**

The commenter suggests that the 2003 DEIR water supply comparisons for I.D. No.1 (Table 4-24) are incorrect based on the commenter’s own analysis as shown in their Table 4.

See response to 2003 DEIR **Comment 16-5**.

**Response 17-5:**

The comment states that the statements in the 2003 DEIR that South Coast Member Units (City of Santa Barbara, Goleta, and Montecito) with shortages in drought years can buy and receive water from I.D. No.1 (page 4-36), are not correct.

See response 2003 DEIR **Comment 1-8**.

**Response 17-6:**

The commenter provided specific suggested changes to the 2003 DEIR text and tables to assist in revising the 2003 DEIR.

All suggested text edits and changes were considered in preparation of the 2011 2<sup>nd</sup> RDEIR.

Mr. Andrew Fecko  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812-2000

September 29, 2003

STATE WATER RESOURCES CONTROL BOARD  
2003 OCT -7 AM 9:57  
DIVISION OF WATER RIGHTS  
SACRAMENTO

Dear Mr. Fecko:

Herewith are my comments for the record on the Draft EIR on Cachuma Water Rights and releases to restore endangered species, which I understand are the subject of a hearing soon scheduled for the SWRCB. I believe the information in my comments is vital to the substance of the hearing and the Draft EIR.

Sincerely,  
*Arve R. Sjøvold*  
Arve R. Sjøvold  
186 Sierra Vista Rd.  
Santa Barbara, CA 93108

**COMMENTS ON THE DRAFT EIR  
FOR THE CACHUMA WATER RIGHTS HEARING  
BEFORE THE SWRCB**

**By: Arve R. Sjovold**

**September 26, 2003**

STATE WATER RESOURCES  
DIVISION

2003 OCT -7 AM 9:57

STATE WATER RIGHTS  
DIVISION

**Introduction:**

The Draft EIR is a lengthy document with many detailed appendices which would require more time to review comprehensively than is feasible to do at this time. Accordingly, I have restricted my comments to a few areas where I feel reasonably expert about providing comments. Since a fundamental issue for the EIR analysis is to determine impacts that might arise from different scenarios for water releases to help restore endangered steelhead populations, most of my comments deal with the data presented on supplies and demands of the entities that rely on Cachuma deliveries. These are primarily the water districts and cities on the South Coast of Santa Barbara County and the area served by Santa Ynez River Water Conservation District, Improvement District #1.

My credentials to speak on the issues of supplies and demands stem both from my professional skills and my history of public service in Santa Barbara County. By profession, I am a research scientist skilled in systems analyses and operations research and as public service I count my participation as a commissioner on the Santa Barbara City water commission (1967-1970) and participation on a citizens committee appointed by the county supervisors to advise them on the allocation and pricing policies for the importation of State Water Project (SWP) water (approx. 1975-1980). For the last 36 years I have devoted much personal effort in applying my professional skills to detailed studies of water issues in Santa Barbara County. Most recently, I have been involved as an invited participant in the preparation by DWR of a new EIR for the Monterey Amendments to the SWP contracts as mandated by the Court of Appeals, Third Appellate District, in PCL et al vs. Department of Water Resources (DWR), September 2000. This particular effort is very relevant to the EIR at issue here since the entities relying on Cachuma water also have substantial stakes in SWP water.

**Supply and Demand Data**

The EIR presents data in several places on the supplies and demands of the entities most likely to be impacted by any additional water releases from Cachuma for the purpose of restoring the endangered steelhead fishery in the Santa Ynez River. To properly consider this data there are some corrections that should be made to the EIR.

First, we note that the use of the term "entitlement" for SWP water deliveries to the various entities on page 2-9 is no longer the proper term when referring to SWP contractual water. The terms of the settlement agreed to by the parties in the above mentioned litigation have now eliminated the term entitlement in the contracts pursuant

18-1

to the Appeals Court finding that the word “entitlement” was very misleading. The Court stated in a footnote on page 30 of the decision that, “Paper water always was an illusion. ‘Entitlements’ is a misnomer, for the contractors surely cannot be entitled to water nature refuses to provide or the body politic refuses to harvest, store and deliver. Paper water represents the unfulfilled dreams of those who, steeped in the water culture of the 1960’s, created the expectation that 4.23 maf of water be delivered by a SWP built to capacity.” The contracts clearly provide that the SWP contractors can only rely on the water that the project is able to deliver in any given year. The Court further noted that the project does not have the capability to reliably deliver the so-called “entitlement” amounts. In order to avoid adding to the confusion noted by the Court, the EIR should also refrain from using the word entitlement with regard to SWP contractual deliveries. The import of all this is that the SWP cannot be relied on to deliver the simple “entitlement” amounts listed in the draft. During droughts a more reasonable value for reliable delivery is approximately 40% of the listed “entitlement” amounts.

18-1

On the same page, the Draft also comments that the project is estimated to be capable of delivering 77% of the so-called entitlements, on average, to Santa Barbara County contractors. This too is misleading. The study performed by the DWR<sup>1</sup> to arrive at this value assumes that contractors have long term storage means available in order to store excess wet year deliveries to be used during drought periods. Two unmistakable conclusions follow from this simple assumption. First, without such storage the reliable delivery is much lower and depends on the ability of the receiving contractor to deal with year-to-year deliveries during extended droughts. This level is probably on the order of 40% of the “entitlement” values but could be lower in certain circumstances. It is clear though that without significant storage means it cannot really be higher than the 40%. Second, this simple assumption of using a long term average requires that the receiving entities **must** also take the maximum available from the SWP in any given year without respect to need and store it if the notion of average is to mean anything operationally. We do not know of any significant storage means available among the local receiving entities and there is no record of taking more water in a given year than needed as required if we are to assume an average delivery as a reliable delivery. The tables and text in the Draft must be updated to reflect these realities.

18-2

The Draft presents in section 4.3 statements of the water supplies for the various entities dependent on Cachuma. To further demonstrate the erroneous assumptions regarding the reliability of SWP deliveries, the tables for each of the entities adopt without analyses quite different values for SWP delivery reliability. Carpinteria Water District assumes 50% of “entitlement,” Montecito 76%, Santa Barbara 76%, Goleta 51-60% with a different value for the drought buffer increment, and Santa Ynez 50%. As we have pointed out above none of these can be justified based on studies of the availability of long term storage or a plan to store wet year deliveries. Until each of these entities can produce such studies and plans, a value no greater than 40% should be assumed based on the DWR SWP reliability report.

18-3

18-4

On the matter of supplies presented in the Draft, the data should be interpreted in

18-5

<sup>1</sup> “The State Water Project Delivery Reliability Report, 2002, Final”, Department of Water Resources, Bay-Delta Offices

light of the drought period (1987-1992; this period is the one designated by the SWP for purposes of analyzing the project's capabilities.) Because of the severity of the drought in the South Coast of Santa Barbara County, there was a substantial cutback on deliveries while at the same time substantial obligations to fund new sources (SWP and desalting) were taken on. The consequence of that combination was to produce a new paradigm in water supply analysis. The effect of substantial price increases in retail water deliveries combined with the lessons on conservation emanating from the drought have now produced much lower levels of what used to be called "normal demand" that existed before the drought. Whereas, the City of Santa Barbara's Long Term Water Supply Plan approved in 1994 is predicated on a targeted normal demand of 18,000 acre-feet per year, which was the primary justification for the importation of SWP water, it is now around 15,000 acre-feet per year, even with the increased development that has occurred in the intervening 9 years. Much the same is true for the other entities, Montecito Water District, Goleta Water District, and the Carpinteria Water District. Retail prices of water in all these districts are on the order of three times, in real terms, the prices before the drought. It can be readily shown that the price effect alone is responsible for most of the reduction in demand. (Studies performed by the author on the annual series of district demands and prices for the period 1988 through 1994 show that demand is very price elastic at the current schedule of prices prevailing in the South Coast water districts. Elasticity of approximately -.30 is easily demonstrated. Most demand studies in the districts do not account for this effect.)

18-5

By contrast, the Santa Ynez River Water Conservation District (SYRWCD), #1, has not altered its prices much at all. It can be fairly said that the price structures within that service district, excluding Solvang (a special case), do not serve to conserve water. The ability of SYRWCD, #1, to attain much higher levels of conservation has not been really tested. Therefore, its projections of demands are not to be relied on if reasonable conservation is to be the policy, as I believe it should be throughout this State.

Since the impacts of the proposed project are derived by analyzing the effects of increased deliveries from Cachuma against the abilities of the Cachuma Contractors to provide for their demands, it is imperative that updated and correct evaluations of demands and supplies be used in the Draft EIR. The present values in the Draft have misinterpreted the results for the SWP presented in DWR's reliability study and are not useful for impact analysis.

We would also like to note that the Draft seems to place more importance on the ability to deliver during periods of extreme drought. Although these are the periods that are uppermost in water planning, it should not necessarily be the focus of impact analyses for this project. It is probably a given that steelhead have always had to deal with drought periods; in deed, the Southern Steelhead is uniquely adapted to the large variations in river runoffs typical throughout the history of this region. Accordingly, the analyses should focus on the ability to nurture large runs and their spawning and rearing success when weather patterns permit. The studies should concentrate on the ordinary years and the better years of extended droughts; the worst year in a drought is probably not as important to the survival of the steelhead if we do the right things when we can.

18-6



18. Arve Sjovold, dated September 29, 2003.

**Response 18-1:**

The comment states that the use of the term “entitlement” for SWP water deliveries to the various entities is no longer the proper term when referring to SWP contractual water.

The term entitlement has been changed to more accurate terminology in the 2007 RDEIR.

**Response 18-2:**

The comment states that the 2003 DEIR also comments that the project is estimated to be capable of delivering 77 percent of the so-called entitlements, on average, to Santa Barbara County contractors and that this is misleading.

The 2011 2<sup>nd</sup> RDEIR provides information from the 2007 Final SWP Reliability Report and forecasts from the 2009 Draft SWP Reliability Report. Please see **Section 4.13** of the 2011 2<sup>nd</sup> RDEIR.

**Response 18-3:**

The comment states that the commenter is not aware of any significant means of storage means available among the local receiving entities, and there is no record of any entity taking more water in a given year than needed, assuming average delivery as a reliable delivery. The tables and text in the 2003 DEIR must be updated to reflect these realities.

Water supply data has been updated in the 2011 2<sup>nd</sup> RDEIR based on information provided by the Member Units.

**Response 18-4:**

Until each of the local receiving entities can produce such studies and plans, a value no greater than 40 percent should be assumed based on the DWR SWP reliability report.

The forecasts from the 2007 Final SWP Reliability Report and the 2009 Draft SWP Reliability Report provide adequate forecasts for SWP deliveries. Further, data on actual deliveries for the past decade, including both initial allocations and final allocation pursuant to the Table Amounts is available and has been considered.

**Response 18-5:**

The comment states that with regard to supplies presented in the 2003 DEIR, the data should be interpreted in light of the drought period (1987–1992; this period is the one designated by the SWP for purposes of analyzing the project's capabilities). The comment states that, because of the severity of the drought in the South Coast of Santa Barbara County, there was a substantial cutback on deliveries while at the same time substantial obligations to fund new sources (SWP and desalination) were taken on.

The 2011 2<sup>nd</sup> RDEIR incorporates current information on available water supplies, and considers historic drought years (from the period of 1918 to 1995) in completing the analyses.

**Response 18-6:**

The comment states that the 2003 DEIR places importance on the ability to deliver during periods of extreme drought, but that although these are the periods that are uppermost in water planning, it should not necessarily be the focus of impact analyses for this project.

The water supply analysis evaluates both normal and critical drought years.

Bureau of Reclamation  
South Central California Area Office  
1243 N St  
Fresno CA 93721

STATE WATER RESOURCES  
CONTROL BOARD  
OCT 7 2003  
2003 OCT -7 PM 3: 52

DIVISION OF WATER RIGHTS  
SACRAMENTO

SCC-411  
ENV 7.0

Any Fecko  
Division of Water Rights  
State Water Resources Control Board  
1001 I St  
Sacramento CA 95814

Subject : Draft Environmental Impact Report, Consideration of Modifications to the U.S. Bureau of Reclamation's Water Right Permits 11308 and 11310 (Applications 11331 and 11332) to Protect Public trust values and Downstream Water Rights on the Santa Ynez River below Bradbury Dam ( Cachuma Reservoir) dated August 2003.

Dear Mr. Fecko:

The Bureau of Reclamation has reviewed the above-referenced document and is providing comments. The draft Environmental Impact Report (EIR) has been prepared by the State Water Resources Control Board (Board) pursuant to the California Environmental Quality Act (CEQA).

The project analyzed in the draft EIR consists of potential modifications to the U. S. Bureau of Reclamation's water right permits for the Cachuma Project in order to appropriate protection of downstream water rights and public trust resources on the Santa Ynez River. The EIR analyzed the impacts of seven (7) alternatives and determined that alternatives 3B, 3C, 4A, and 4B would result in at least one (1) significant, unmitigable impact (Class I). This impact pertains to the loss of oak trees along the margins of Cachuma Lake due to surcharging.

The document fails to establish the basis of uniqueness of blue oak and valley oak trees along the shoreline of the lake. These species are not characterized as sensitive plant species per Section 4.8.1.3 and as a subject of the EIR, they lack any narrative discussion regarding their unique nature or feature. The impact analysis is limited and lacks established criteria of significance. Thus the conclusion is inevident and arbitrary.

19-1

Reclamation supports alternative 3C because it fully complies with Reclamation's requirement to implement the terms and conditions of the Biological Opinion issued by the National Marine Fisheries Service (NMFS).

19-2

Alternative 3A (Environmentally Preferred Alternative) in the Board's EIR mischaracterizes the 3.0 surcharge. The alternative (3A) states that the long-term rearing and passage releases

19-3

required in the Biological Opinion would be met by the 0.75 surcharge and from project yield rather than from the 3.0 surcharge. The Board doesn't understand that the issue is not just the supply of water from project yield and it's utility. Rather and more importantly it's the biological and hydrological basis that are the foundation for triggers to supplementation of storm events. The use of project yield, as stated misses the role of the climatic conditions to watershed that occur during the year(s) when a 3.0 surcharge is achieved. The readiness of the tributaries in the lower river, groundwater saturation and the breaching of the sand bar across the mouth of the Santa Ynez River are not accomplished unless the climatic conditions of 3.0 surcharge plus the spills associated during that season of storms (as stated in the Biological Opinion) occur and year following the spill. These events are a fundamental and essential requirement to "prepare" the lower river's habitat for migration of adults and smolts. This would not occur in the scenario describe for Alternative 3A. Thus habitat for migrating steelhead would not be available and potentially this would cause and adverse affect to steelhead. This adverse affect conclusion in turn requires consultation by the Board with the NMFS under the Endangered Species Act.

19-3

Reclamation has the following suggestions for text change.

Page 2-1. Last sentence 1<sup>st</sup> paragraph. The outlet works of Bradbury Dam is frequently used above 100 ft<sup>3</sup>/sec during water rights release and has significant utility for ramping down these releases as required by the Biological Opinion.

Page 2-2. The contract between reclamation and Santa Barbara County for the Cachuma Recreation Area has been extended until 2005.

Page 2-2 and 2-3. Confirm population size. In the EIR it varies between 207,000 and 270,000.

Page 2-3. 2<sup>nd</sup> paragraph. What is the source of the definition of Safe Yield?

Page 2-3. Last sentence 1<sup>st</sup> paragraph. The sentence is true however, the water would have to be treated first and there are none treatment facilities at Bradbury Dam.

Page 2-7. Last paragraph. The Biological Opinion stipulates a ramp down requirement as water rights releases are reduced.

Page 2-10. First paragraph. SWP water cannot be physically delivered to the lake when water is delivered through the outlet works. However, an accounting credit is given equal to the amount of SWP water that is delivered through the hollow jet valves that in turn convey the water to the Santa Ynez River.

Page 2-14. The correct name for the lake is Cachuma Lake. The EIR uses Cachuma Lake and Lake Cachuma interchangeably.

Page 3-4. Recreational fishing in the Santa Ynez River is prohibited by the California Department of Fish and Game, due to the presence of steelhead/rainbow trout, an endangered species. Also, the EIR should clearly identify largemouth bass as a public trust resource because

19-4

as stated in the EIR, page 2-2, Cachuma Lake is known as a favorite southern California bass fishing lake.

19-4

This concludes Reclamation's comments to the subject EIR. Thank you for the opportunity for review the EIR. It is important that Reclamation implements the Biological Opinion by surcharging Cachuma Lake by 3.0 feet. It is Reclamation's opinion that the climatic and associated hydrologic conditions occurring in the watershed of Santa Ynez River during a surcharge year would ensure a suitable environment for steelhead/rainbow trout passage.

If you have questions please contact me at 559 487-5127.

Sincerely,

  
David K. Young  
Environmental Specialist

TOTAL P. 04

**19. U.S. Bureau of Reclamation, dated October 7, 2003.**

**Response 19-1:**

The comment states that the 2003 DEIR fails to establish the basis of uniqueness of the non-sensitive plants species of blue oak and valley oak trees along the shoreline of the lake.

While blue oak (*Quercus douglasii*) and valley oak (*Q. lobata*) are similar in appearance, they often grow in different environmental settings, with valley oak typically occurring in deeper alluvial soils. The loss of either species, in addition to the coast live oak trees (*Q. agrifolia*), is a potentially significant impact that cannot be mitigated to less than significant. Replacement oaks have been selected to replace in kind those lost through surcharge inundation. The 2007 RDEIR estimated that a total of 452 oak trees would be impacted with the implementation of a surcharge of 3.0 feet. A subsequent survey of the surcharge as initially implemented in 2005 found that 612 oaks had actually died as a result of the 2005 and 2006 surcharges, with an additional 263 oaks deemed at risk for failure. As identified and explained in the 2007 Revised Draft EIR, mature oak trees are identified as significant resources by local, state, and federal authorities, recognizing that in many cases, an oak tree, which takes approximately 50 years to mature, represents an ecosystem in and of itself. There is a large temporal loss of habitat functions between the time when a mature oak is lost and a replacement tree reaches comparable size and function. Thus the loss of oaks remains a Class I significant, unmitigable impact. Blue oak is not involved the Oak Restoration Management Plan.

**Response 19-2:**

The comment notes that Reclamation supports Alternative 3C because it fully complies with Reclamation's requirement to implement the terms and conditions of the Biological Opinion issued by the National Marine Fisheries Service (NMFS).

The comment is noted.

**Response 19-3:**

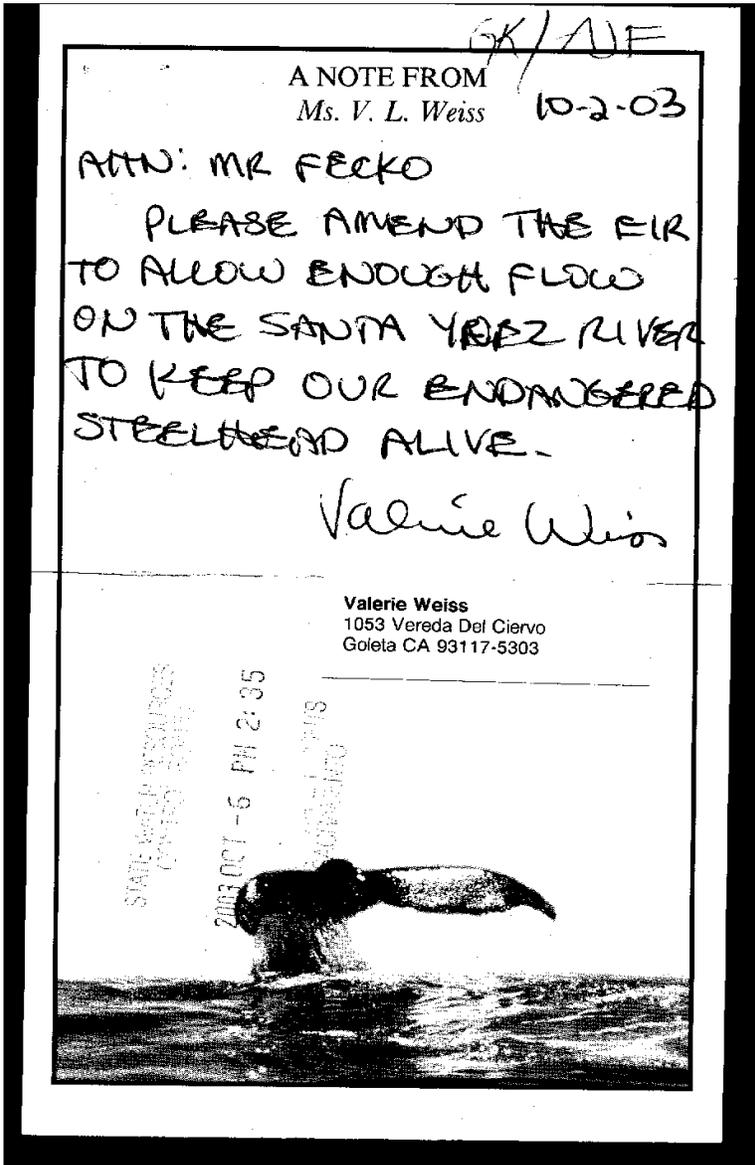
The comments states that Alternative 3A mischaracterizes the 3.0-foot surcharge and that Alternative 3A states that the long-term rearing and passage releases required in the Biological Opinion would be met by the 0.75-foot surcharge and from project yield rather than from the 3.0-foot surcharge. The SWRCB does not understand that the issue is not just the supply of water from project yield and its utility. Rather, and more importantly, it is the biological and hydrological basis that are the foundation for triggers to supplementation of storm events.

The comment is noted.

**Response 19-4:**

The comment provides a number of specific proposed text changes.

The comment is noted. The suggest changes have been reviewed and incorporated into the 2011 2<sup>nd</sup> RDEIR as appropriate. Many of the comments are no longer pertinent or valid due to the amount of time that has transpired and the availability of more recent data.



20-1

20. **Valerie Weiss, dated October 2, 2003.**

**Response 20-1:**

The comment request that the 2003 DEIR be amended to allow enough flow in the Santa Ynez River to keep endangered steelhead alive.

Comment is noted. That is one of the purposes of this project.

3 Oct 03

STATE WATER RESOURCES  
CONTROL BOARD

2003 OCT -6 PM 2:33

500 J STREET  
SACRAMENTO

ANDY FELCO  
STATE WATER RESOURCES CONTROL BOARD  
DIVISION OF WATER RIGHTS  
1001 I STREET  
SACRAMENTO, CA 95812

Dear Mr. Felco:

As a citizen of Santa Barbara County I wish to add my voice to those urging you to find a way for the steelhead to thrive both below & above Bradley Dam on the Santa Ynez River. Please maintain flow below the dam and create a way for the steelhead to bypass the dam on their spawning runs to the headwaters.

Thanks & sincerely,

Paul Willis

PAUL WILLIS

849 WESTMONT RD.

SANTA BARBARA, CA 93108

21-1

21. Paul Willis, dated October 3, 2003.

**Response 21-1:**

The comment requests that flows below the dam be maintained and that a way for the steelhead to bypass the dam on their spawning runs to the headwaters be created.

The commenter supports steelhead habitat above and below Bradbury Dam. The proposed project provides flows below Bradbury Dam that are targeted to maintain the steelhead population the lower Santa Ynez River. Creating a method that would allow steelhead passage above Bradbury Dam to spawn in habitats used historically is not a component of the proposed project.