

My name is Jim Edmondson This is my testimony regarding the State Water Resources Control Board (SWRCB) for Phase 2 of the hearing regarding the U.S. Bureau of Reclamation Water Rights Permits 11308 and 11310 (Applications 11331 and 11332) for the Cachuma Project on the Santa Ynez River in Santa Barbara County.

Qualifications

I serve as an executive for California Trout (CalTrout) presently employed as their Southern California Manager. For the past 20 years I have a growing list of responsibilities and conservation accomplishments on behalf of the public fisheries of the state. A list these responsibilities, experiences, and accomplishments are listed in Exhibit CT 91. In carrying out these actions, I have received local, state, and national honors and awards.

Among these actions are numerous involvements with wild trout and native steelhead resources throughout California including: stream restoration; fishery management; environmental protection; regulatory agency interactions; legislation; litigation; implementation of court orders; state fishery and water codes sections; environmental impact review and comment; and multiple party planning, negotiations and resolution.

I am familiar with numerous California Administrative Codes including California Department of Fish and Game (DFG) Code Sections 5937 and 5946, as well as related Title 23 Water Codes.

I have been called upon by the SWRCB as a member of their contractor selection review team for the preparation of an environmental impact report to review the City of Los Angeles Mono Basin Water Rights.

I represented CalTrout before the El Dorado County Superior Court in the implementation of its "Order Setting Interim Flows" regarding streams tributary to Mono Lake and the operations of the City of Los Angeles Department of Water and Power facilities to divert water from the Mono Basin to the Owens River. This participation was continuous from the Court's June 14, 1990 order, and the conclusion of this matter in 1998. During these proceedings I have been called on as an expert witness before the court.

I have represented CalTrout in its concern regarding Bear Creek (San Bernardino Co.) from 1986 to the present. This effort has included hundreds of hours of research, document review, written correspondence, and evaluation of DFG fishery information, District environmental impact reports, SWRCB records, court rulings, District consultant reports and the preparation of several CalTrout State Water Resources Control Board Protest and/or Complaints leading up to a hearing before the SWRCB. I was an expert witness before the State Water Resources Control Board in those proceedings, including testimony on hydraulic modeling for reservoir operations and downstream releases for the reservoir, fishery implications from these releases, and economic

benefits from the hydraulic simulations presented. My direct and rebuttal testimony was accepted into the record of these proceedings and utilized by the SWRCB in developing its subsequent order.

I serve as the Southern California representative on both the Citizens Advisory Committee to the California Legislature on Salmon and Steelhead, as well as the California Coastal Salmon Recovery Program Advisory Committee. In addition I am the co-founder and chairman of the Southern California Steelhead Coalition, California's largest coalition dedicated to steelhead recovery representing over 225,000 Californian's who are members of this group's 36 organization.

CalTrout Background and Standing before SWRCB

California Trout, Inc. is a California non-profit corporation organized under the laws of the State of California. CalTrout, founded in 1971, is a statewide conservation organization supported by sports fisherman and fisherwomen with approximately 5,600 individual members and fifty affiliated local angling clubs representing another 5,000 persons. The purposes of CalTrout are: "to protect and restore wild trout, native steelhead and the waters that nurture them."

In carrying out its purposes, CalTrout has been a party to or has come before the State Water Resources Control Board many times in the past, including; Complaint by California Trout, Inc v. Walker River Irrigation District License 9407 (SWRCB Order W 90-18); California Trout, Inc. v. State Water Resources Control Board, 207 Cal. App. 3d, 255 Cal. Rptr. 184 (1989) (CalTrout I), and California Trout, Inc. v. Superior Court, 218 Cal. App. 3d, 266 Cal. Rptr. 788 (1990) (CalTrout II).

CalTrout has been called upon by the SWRCB on several occasions to share its expertise on the needs of aquatic ecosystems impacted by water right applications, permits and licenses (see SWRCB Permit For Diversion and Use of Water, Temporary Permit #20250, article 11(a)(C))

Members of CalTrout and its affiliate clubs use the waters of Santa Ynez River, its tributaries and Lake Cachuma for sportfishing. CalTrout members and affiliate clubs include customers of the Carpinteria County Water District, Summerland Water district, Montecito Water District, City of Santa Barbara, Goleta Water District, as well as members residing in the communities of the Santa Ynez Valley including the towns of Santa Ynez, Solvang, Lompoc and Buellton, who utilize the water of the Santa Ynez River for municipal water supplies. CalTrout members and affiliate clubs include residents of Santa Barbara County.

As an organization dedicated to important social values, public resources and public policy matters, CalTrout's participation in these SWRCB proceedings will be in the public interest.

Historic Santa Ynez Steelhead Abundance

The range of steelhead abundance historically occurring within the Santa Ynez watershed has been described in documents utilized by the U.S. Bureau of Reclamation (Bureau) in their efforts

before Congress seeking authorization for the Cachuma Project. These historic accounts describe the abundance beginning in the 1940s after the construction of Gibraltar Dam, which eliminated steelhead access to a segment of the upper Santa Ynez watershed. Even with Gibraltar Dam impairing steelhead access, the Santa Ynez River was the largest run of steelhead in Southern California ranging from greater than 9,000 up to 30,000 adult fish annual. The accounts identify the average annual adult steelhead abundance at 20,000 fish.

“Santa Ynez River is of major importance as a spawning ground and nursery stream for the largest steelhead trout run in southern California. The average size of the spawning run of steelhead in Santa Ynez River is estimated by competent personnel of the California State Division of Fish and Game at 20,000. The size of individual runs range between 13,000 and 25,000 fish.”¹

“The Santa Ynez River is the best steelhead river in southern California. The run of adult steelhead, providing splendid fishing in the lower 34 miles of river, is estimated to average 20,000 annually.”²

Both the U.S. Fish and Wildlife Service and NOAA Fisheries have relied on these historic estimates in their reports of historic steelhead abundance.

“Historically, the Santa Ynez River was of major importance as a spawning ground and nursery stream for trout, supporting the largest run of steelhead trout in southern California. Personnel from the California Division of Fish and Game (1945) estimated the average adult steelhead run entering the drainage at 20,000 fish, ranging each year between 13,000 and 25,000 spawners.”³

“Historically, steelhead occurred naturally south into Baja California. Estimates of historical (pre-1960s) abundance for several rivers in this ESU are available: Santa Ynez River, before 1950, 20,000 to 30,000 (Shapovalov and Taft, 1954; CDFG, 1982; Reaves, 1991; Titus *et al.*, in press); Ventura River. Pre-1960, 4,000 to 6,000 (Clanton & Jarvis, 1946; CDFG, 1982; AFS, 1991; Hunt *et al.*, 1992; Henke, 1994; Titus *et al.*, in press); Santa Clara River, pre-1960, 7,000 to 9,000 (Moore, 1980;

¹ James W. Moffett and Reed S. Nelson. U.S. Fish and Wildlife Service, Central Valley Investigators, Stanford University, Calif. 1948. Santa Barbara County Project – United States Bureau of Reclamation Recommendations for Fishery Maintenance, Santa Ynez River, Calif. Page 40 in Cachuma Unit of the Santa Barbara County Project, California. Letter from the Secretary of the Interior transmitting A Report and Findings on the Cachuma Unit of The Santa Barbara County Project, California. [Ex. DOI-1b]

² Drs. H. W. Rich and P. R. Needham of the U.S. Fish and Wildlife Service and A.C. Taft and Dr. R. Van Cleve of the California Division of Fish and Game. 1948. Report of the Fish and Wildlife Service. Effect on Fish and Wildlife Resources of the Proposed Projects in Santa Barbara County, California. Page 118 in Cachuma Unit of the Santa Barbara County Project, California. Letter from the Secretary of the Interior transmitting A Report and Findings on the Cachuma unit of The Santa Barbara County Project, California. [Ex. DOI-1b]

³ Brooks Harper and Nancy M. Kaufman. 1988. An Adult Steelhead Investigation of the Lower Santa Ynez River Drainage. A Report to the U.S. Bureau of Reclamation and California Department of Water Resources. U.S. Fish and Wildlife Service. Laguna Niguel, Calif. Pg.4. [Ex. CT 96]

Comstock, 1992; Henke, 1994); Malibu Creek, pre-1960, 1,000 (Nehlsen et al., 1991; Reaves 1991)."^{4 5}

As part of the listing process under the federal Endangered Species Act, on August 9, 1996, NOAA Fisheries (formerly the National Marine Fisheries Service) published a federal register notice describing 15 evolutionary significant units (ESUs) for west coast steelhead. The Santa Ynez River was contained in one of these ESUs.

Steelhead Historic Use Of The River

Upon their winter spawning runs to the Santa Ynez River, adult steelhead utilized the main river and its tributaries. The major portions of the run spawned above Cachuma Dam and formerly ascended to the upper most portion of the watershed prior to the impassable barrier created by Gibraltar Dam.⁶ The amount of the watershed spawning and rearing habitat, which would become unavailable to steelhead with the construction of the Cachuma Project, was estimated at approximately 2/3rds.⁷

Historic Recreational Fishing Qualities

Historic accounts describe the quality of fishing in the Santa Ynez River, during the steelhead fishing season as "splendid" with "fine angling."⁸ The U.S. Bureau of Reclamation determined sportfishing for steelhead was of "considerable importance."⁹

The quality of the historic steelhead fishing from an angler's perspective has been described as the "most productive" of all steelhead river in Southern California, with "several" winter runs of steelhead taken in "great numbers" with bag limit catches between late December until the season closed at the end of February, and "splendid" steelhead up to ten pounds being caught. Steelhead angling in the Santa Ynez took place from surf fishing, "boats in the mile-long lagoon" and within the lower river where winter steelhead fishing was allowed.¹⁰

⁴ National Marine Fisheries Service. 1996. proposed rule; request for comments. - Endangered and Threatened Species: Proposed Endangered Status of Five ESUs of Steelhead and Proposed Threatened Status of Five ESUs of Steelhead in Washington, Oregon, Idaho, and California. Federal Register, Vo. 61. No. 155. 41553. [Ex. CT 93]

⁵ National Marine Fisheries Service. 1997. Final Rule - Endangered and Threatened Species: Listing of Several Evolutionary Significant Units (ESUs) of West Coast Steelhead. Federal Register, Vo. 62. No. 159. 43949. [Ex. CT 94]

⁶ Cachuma Unit of the Santa Barbara County Project, California. Letter from the Secretary of the Interior transmitting A Report and Findings on the Cachuma unit of The Santa Barbara County Project, California. Pg.119. [Ex. DOI-1b]

⁷ Ibid #1. pg 41.

⁸ Ibid #2.

⁹ Ibid #1. pg. 38.

¹⁰ Krieder, C.M. 1948. Steelhead. G. Putham's Sons. Pg. 152. [Ex. CT 92]

Statistics compiled by the California Division of Fish and Game for Santa Barbara County 1941 to 1943 determined thousands of anglers frequented the area, with the majority using the Santa Ynez.¹¹ Those anglers who pursued Santa Ynez River steelhead are included in these statistics, but could not be segregated by the California Division of Fish and Game.

Pre Cachuma Project Steelhead Protection Measures

In the Cachuma Dam planning process, as early as 1948, the Bureau stated that "the section of Santa Ynez River below the dam is insufficient to support the present steelhead populations."¹² The Bureau consulted with the U.S. Fish and Wildlife Service (Service) to determine both the Project's steelhead fishery impacts and their recommendations to maintain the fishery. The Service determined in its June 1945 report that "particular emphasis on the needs for fish protection" throughout the entire watershed was necessary to maintain the fishery. The Service stated that the proposed dam height would not allow for a functional fishway, and thus, to maintain the historic steelhead run fishery, maintenance efforts must be attempted in that portion of the river below the proposed dam. In its 1945 report to the Bureau, the Service made a recommendation for a minimum continuous release of 15 cubic feet per second from the Cachuma Reservoir and a fish hatchery. The Service's initial 1945 instream flow recommendation was subsequently amended, the hatchery recommendation withdrawn, and a final list of recommendations was provided in 1948. These steelhead maintenance recommendations included:¹³

- Water be released from Cachuma Dam as measured below the mouth of Santa Agueda Creek ranging from 5 to 15 cubic feet per second (cfs) but never less than an absolute minimum of 2 cfs.
- Downstream water rights release should be done to benefit fish whenever possible.
- Surplus water over present and future contractual needs should be reserved by enabling legislation to the State for use in fishery maintenance until contracted for by water users.
- A trapping and holding facility be provided below the dam for the salvage of adult steelhead and subsequent transfer of these fish above the dam.
- Outlet tunnel be screened.

The Service concluded that, even with implementation of these steelhead fishery maintenance actions, the proposed project would result in losses of "approximately 50%" of the steelhead population as a result of the Cachuma Project.¹⁴ The Bureau did not dispute this loss estimate.

¹¹ Ibid. #1, pg 41.

¹² Ibid. #1, pg. 42.

¹³ Ibid # 1, pg.41-42.

¹⁴ Ibid #1, pg. 41.

Bureau's Cachuma Project 1948 Balancing Decision

To gain Congressional approval for the Cachuma Project, the Secretary of the Interior, on behalf of the Bureau, filed its report. While the Bureau recognized the importance of maintaining the pre-Cachuma Project steelhead resources, and that the fishery would be reduced by approximately 50% due to its eliminating steelhead access to habitat above the dam, on April 1, 1948 they recommended discarding the entire list of the Service's fish maintenance recommendations, as the water needs for irrigation and municipal uses took exclusive priority. Nevertheless the Bureau stated, "Every effort will be made to provide water and to operate Cachuma Reservoir as to maintain the existing spawning grounds below the proposed Cachuma Dam."¹⁵

Bureau's Cachuma Project 1995 Balancing Decision

On December 12, 1995 the Bureau produced a *Final Environmental Impact Statement/Report Cachuma Project Contract Renewal* ("Contract Renewal EIS/EIR"). The goal of this document was to conduct a comprehensive environmental analysis of the Cachuma Project as a basis for renewing long-term water contracts with Cachuma Project members, i.e., local water interests. The project purpose included, "To continue the operation of the Cachuma Project for beneficial uses, with a reasonable balance among competing demand ... including existing Project contractors, downstream water rights holders, fish and wildlife, and recreation." Contract Renewal EIS/EIR at 2-2 [Staff Ex. 5].

Eighteen alternatives were identified and compared in this document. One of these alternatives, Alternative 3A2, was identified as having the greatest benefit to steelhead below the dam: "In general, of all the alternatives not screened out, Alternative 3A2 . . . has the greatest likelihood of resulting in a self-sustaining steelhead population at significantly greater numbers than are now present in the Santa Ynez River." Contract Renewal EIS/EIR at 6.4-21 [Staff Ex. 5]. Although Alternative 3A2 was identified as the "biologically preferable/superior alternative," it was dismissed due to a purportedly "significant reduction in water supply, which is the primary purpose of the project. *Id.* at ES-26. [Staff Ex. 5].

Thus, although the stated purpose of the project was to strike a "reasonable balance" among competing needs, the Bureau ultimately prioritized water supply and selected its contract/preferred alternative. This essentially was that "operations of the Project would continue unchanged. . ." *Id.* at ES-25. [Staff Ex. 5].

Therefore it is my opinion the Bureau's 1995 "balancing" through the contract renewal process, was simply a replication of its prior 1948 project authorization balancing decision that water supply was more important than those for public trust uses.

¹⁵ *Ibid.* #1, pg 8.

Public Trust Balancing – What Can Be Done

The construction of the Cachuma Project four decades ago has today created an imbalance. The Bureau has operated the project to maximize the water supply available for consumption to such an extent that the public's trust in the Santa Ynez River has been harmed. Santa Ynez River steelhead have dwindled to approximately 100 adults -- 1 or 2% of the steelhead population abundance the Bureau predicted would survive once the Cachuma Project was constructed without fishery maintenance measures.

I congratulate the Bureau for their recent stewardship working with the local water interest to develop the *Lower Santa Ynez River Management Plan*. And I appreciate the Bureau's commitment to the Biological Opinion provided by NOAA Fisheries. Yet, these documents are not designed to restore the river's biological integrity, nor to restore a "fishable" river. These documents do not even identify a discernable management structure with measurable success criteria for the Board to judge if and when public trust resources are progressing towards success.

I believe measures can be implemented that will restore steelhead in the Santa Ynez River, and that this can be done in a manner that truly balances public trust and other beneficial uses. The comprehensive "re-balancing" struck by the SWRCB in their D-1631 and D-98-07 Orders provides the basis for my opinion.

CalTrout's expert witnesses will identify measures that are capable of restoring steelhead, and will describe how the potential impacts of these measures on other beneficial uses can be minimized. Based on these experts' analysis, CalTrout respectfully requests the following:

1. The Cachuma Project permits should be modified to protect steelhead as a public trust resource. Specifically, measures should be implemented now that are capable of restoring the public trust in steelhead in the Santa Ynez and are capable of restoring and maintaining fish in good condition.

2. Flow requirements of the following magnitude and duration should be required:

- 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.

These are the flow requirements identified in Alternative 3A2 in the Bureau's Cachuma Contract Renewal EIS/EIR. [Staff Ex. 5]. Based on my calculations (explained in Appendix 1 of this testimony), implementation of Alternative 3A2 over the long term would require approximately 7,056 acre-feet per year (AFY). According to the SWRCB DEIR, implementation of Alternative 3A would require on average 2,600 AFY and would not result in [significant, unmitigable impacts]. SWRCB DEIR at 3-9 [Staff Ex. 10]. CalTrout's water conservation expert has determined that it is reasonable and feasible to save from 5,000 to 7,000 AFY with the use of

existing and proven water conservation methods and technologies. Written Testimony of Dana Haasz and Peter Gleick [Ex. CT 50]. Therefore, implementation of the above flow requirements is not expected to significantly impact available water supply.

3. The timely implementation of additional studies should be incorporated into the permits. These studies should include at a minimum an evaluation of passage around Bradbury Dam, a focused study of each lifestage for which flows are being provided to verify and refine instream flow requirements, and an examination of alternative release schedules for downstream water rights. These studies should be prepared by a fully independent, qualified consultant under the direction of the Board. The regulatory and trustee agencies (e.g. Bureau of Reclamation, California Department of Fish and Game, U.S. Forest Service, NOAA Fisheries) and other interested parties could provide input through a technical review process.

4. An Adaptive Management Plan, with measurable success criteria, and a schedule to achieve these criteria, should be incorporated into the permits. This plan should be consistent with the Plan identified in the Battle Creek Salmon and Steelhead Restoration Project Draft Environmental Impact Statement/Environmental Impact Report. [Ex. CT 42]

5. A review of permit conditions by the Board at such milestones as the release of the studies identified above, NOAA Fisheries pending recovery plan, or other milestones identified in the final adaptive management program. These milestones should be explicitly incorporated into the permits.

Appendix 1

The final Cachuma Contract Renewal EIR/EIS provides tables, graphs, and charts that allow for succinct comparisons. [Staff Ex. 5]. For example, Table 6.4-2 illustrates the "Average Steelhead Habitat Scores For Each Life History Stage" for each alternative, and Alternative 3A2 scored highest. Table 6.4-3 provides "Number of Low Score Years Over 75 Year Period of Record" for each alternative, and Alternative 3A2 scored highest. Table 6.4-4 illustrates "Resident Fish Analysis At San Lucas Bridge For 75 Year Period of Record", and Alternative 3A2 scored highest. These tables provide an objective means to compare relative benefits amongst environmental impact studies/reports.

According to the hydrologic modeling done, dry conditions were anticipated to occur 20% of the time. SWRCB DEIR, Appendix C, Table 4-1 [Staff Ex. 10]. Under these dry conditions there may be insufficient high flows to allow lagoon breaching and thus the need for adult steelhead migration and spawning flows, but a need to maintain flows for resident fish at 5 cfs. In addition, downstream water rights releases of 50 cfs or more are expected to continue. *Id.* at 2-7. Under WR 89-18, these downstream releases have occurred in 92% of the years examined. *Id.* at Table 2-3). These releases may occur between May to October with the majority of these releases occurring July to September. *Id.*, Appendix D, p. 11). Finally, spills from the dam occur in 37% of the years 1953 to 2001, traditionally during the February through mid-April steelhead migration and spawning periods. *Id.* at Table 2-2). Accordingly it is my opinion the implementation of Alternative 3A2 over the long term would require approximately 7,056 acre-feet (AF). The underlying assumptions and calculations that support my opinion are on Table 1 and Table 2 below.

Table 1. Alternative 3A2 Annual Requirements

Period	3A2 Normal AF		3A2 Dry AF	Assumptions
	Column A		Column B	
January 1-31	295		295	Continuous resident fish release of 5 cfs as per 3A2
February 1-14	133		133	Continuous resident fish release of 5 cfs as per 3A2
February 15-28	804		133	Column A equals continuous release of 48 cfs as per 3A2 implemented 63% of time when spills are not occurring cover balance for period and flow requirements. Column B equals continuous release of 5 cfs as per 3A2.
March 1-31	1,781		295	Column A equals continuous release of 48 cfs as per 3A2 implemented 63% of time when spills are not occurring cover balance for period and flow requirements. Column B equals continuous release of 5 cfs as per 3A2.
April 1 - 14	804		133	Column A equals continuous release of 48 cfs as per 3A2 implemented 63% of time when spills are not occurring cover balance for period and flow requirements. Column B equals continuous release of 5 cfs as per 3A2.

April 15 - 30	532	133	Column A equals continuous release of 20 cfs as per 3A2. Column B equals continuous resident fish release of 5 cfs as per 3A2.
May 1 - 31	1,178	295	Column A equals continuous release of 20 cfs as per 3A2. Column B equals continuous resident fish release of 5 cfs as per 3A2.
June 1 - 7	333	333	Continuous seven day emigration release of 25 cfs as per 3A2
June 8	33	33	One day of 17.5 cfs ramping from 25 to 10 cfs as per 3A2.
June 9 - 30	418	418	Continuous release of 10 cfs as per 3A2.
July 1 - 31	47	47	Continuous release of 10 cfs as per 3A2 implemented 8% of time as 89-18 releases cover balance for period and flow requirements
August 1 - 31	47	47	Continuous release of 10 cfs as per 3A2 implemented 8% of time as 89-18 releases cover balance for period and flow requirements
September 1 - 30	589	589	Continuous resident fish release of 10 cfs as per 3A2
October 1 - 31	295	295	Continuous resident fish release of 5 cfs as per 3A2
November 1 - 30	295	295	Continuous resident fish release of 5 cfs as per 3A2
December 1 - 31	295	295	Continuous resident fish release of 5 cfs as per 3A2
Total	7,878	3,766	

Table 2. 3A2 Alternative 10 Year Average (80% Normal and Above and 20% Dry)

Table 1 Column A X 8	63,024
Table 1 Column B X 2	7,532
10 Year Avg. AF	7,056