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VIA EMAIL AND HAND DELIVERY

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Re: Comments of Cachuma Conservation Release Board on Draft Order Dated September 7, 2016 Amending Permits 11308 and 11310 Held by the United States Bureau of Reclamation for the Cachuma Project, Santa Ynez River, Santa Barbara County ("Draft Order"); Supplemental Comments on FEIR

Dear Ms. Townsend:

The Cachuma Conservation Release Board ("CCRB") appreciates the opportunity to comment on the Draft Order referenced above. CCRB is a joint powers agency consisting of the City of Santa Barbara, the Goleta Water District, and the Montecito Water District (collectively, "CCRB Members"). CCRB has participated actively in this water right proceeding since its commencement in the early 1990s. CCRB has consistently asserted, and continues to assert, that Alternative 3C provides appropriate, reasonable and adequate protection for the steelhead fishery in the Santa Ynez River system. CCRB urges the State Water Resources Control Board to adopt Alternative 3C in its final order. CCRB also objects to the request by the National Marine Fisheries Service ("NMFS") to delay issuance of the final order pending completion of the new Biological Opinion for the Cachuma Project.

1. Introduction and Summary of Comments

For the past several decades, CCRB has worked diligently to improve the condition of the steelhead fishery in the Santa Ynez River system. For example, CCRB participated in the development of a Fish Management Plan for the lower Santa Ynez River in 1993, which involved the implementation of certain terms and conditions in the 2000 Biological Opinion on behalf of the U.S. Bureau of Reclamation ("Reclamation"). CCRB has also played an important role in numerous projects to create new habitat for steelhead on tributaries of the Santa Ynez River, including passage improvement projects on Hilton Creek, Quiota Creek, and Salsipuedes Creek. CCRB also played a central role in developing the current flow regime for the Santa Ynez River—a flow regime designed to protect and promote the local steelhead population—in

collaboration with the California Department of Fish and Wildlife, the U.S. Bureau of Reclamation, NOAA Fisheries, and many other organizations. Finally, CCRB has participated in numerous studies of steelhead and their habitat in the Santa Ynez River watershed. The passage improvement and habitat restoration projects CCRB has implemented in the Santa Ynez River tributaries are likely more effective than mainstem Santa Ynez River projects in promoting and restoring the steelhead population. *See* Exh. No. MU-226 at 24-29.

In short, CCRB has a strong track record of taking action to protect and, where feasible, restore the steelhead fishery in the Santa Ynez River system. CCRB submits the following comments on the Draft Order in the spirit of CCRB's demonstrated commitment to assisting Reclamation in protecting the steelhead fishery. Although CCRB understands and appreciates that Alternative 5C attempts to restore the steelhead fishery while minimizing the water supply impacts of higher flows, there is substantial evidence in the record that Alternative 5C, if adopted, will actually harm the steelhead fishery.

In proposing to adopt Alternative 5C, the Draft Order avoids the balancing required under the public trust doctrine and other applicable law. There is no substantial evidence in the record demonstrating that increased fish flows, as proposed in Alternative 5C, will achieve the benefits the Draft Order postulates. There is, however, substantial evidence in the record demonstrating that higher flows will promote the growth of non-native species (principally bass) at the expense of steelhead while simultaneously undermining the carefully crafted, complex operational and water rights regime that currently governs the allocation of water within the Santa Ynez River system. If approved, the Draft Order's mandate that Reclamation release substantially larger amounts of water in order to create merely speculative benefits for steelhead will further strain the CCRB Members' already-stressed water supplies based on questionable reasoning and no substantial evidentiary support. Indeed, the fact that the Draft Order requires Reclamation to complete studies of the effects of Alternative 5C flows on steelhead after Alternative 5C is implemented shows how uncertain the benefits of such flows are. *See* Draft Order at 120-23.

As a consequence, the Draft Order violates the "reasonable use" requirement of Article X Section 2 of the California Constitution by requiring substantial additional releases of water from Bradbury Dam based on benefits to steelhead that are wholly speculative and unsupported in the record.

The Draft Order and the FEIR also suffer from infirmities under CEQA. First, the Draft Order and FEIR do not adequately disclose the water supply impacts of Alternative 5C to CCRB Members (and other water users) and the inadequate analysis of water supply impacts in turn skews the balancing that must occur under the public trust doctrine and other applicable law. CCRB submits sections 2-4 and sections 8-9 of this letter as supplemental comments on the Final Environmental Impact Report ("FEIR").[1] Second, the Draft Order's Statement of Overriding

[1] Under CEQA, CCRB has the right to submit comments and evidence until the FEIR is certified. *See Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1121 ("[A]ny party may

Considerations assumes but does not demonstrate how the benefits of Alternative 5C outweigh its environmental impacts, in violation of CEQA.

Finally, the Draft Order improperly delegates future "adaptive management" determinations to the SWRCB's Executive Director, in violation of CEQA and state and federal constitutional due process requirements. Any future change in the flow regime of the Santa Ynez River system must be undertaken in full compliance with CEQA and applicable due process requirements.

Although all parties are anxious to receive a final order fixing the rights and obligations of Reclamation with respect to the Cachuma Project, the SWRCB should not adopt Alternative 5C at this time. Requiring CCRB to bear the burden of significant water supply impacts in light of the acknowledged uncertainty about the benefits of higher instream flows for steelhead would result in a defective final order. CCRB is not unwilling to make reasonable sacrifices to support steelhead recovery, but it expects that such sacrifices will be based on the best available science and substantial evidence.

Given the state of the evidentiary record, the final order should adopt Alternative 3C. Alternative 3C is the environmentally superior alternative and has demonstrably improved the condition of steelhead in a relatively short time frame. Draft Order at 59. Studying the efficacy of Alternative 5C only after its implementation, as the Draft Order requires, puts the cart before the horse. SWRCB should (i) adopt the currently existing, supportable flow regime of Alternative 3C in its final order, (ii) require Reclamation to study the benefits of increased flows, and (iii) revisit the question of whether to require greater flows only after those studies are completed.

2. Both CEQA and Due Process Concerns Weigh Against The Draft Order's Delegation of Authority to the SWRCB's Executive Director to Modify the Flow Regime Without a Further Evidentiary Hearing.

The Draft Order's allowance for "adaptive implementation" of Alternative 5C's increased flow requirements improperly delegates authority to SWRCB's Executive Director. Specifically, the Draft Order's "adaptive" approach would allow the Executive Director to change the Table 2 flow schedule over the objection of a Member Unit if he determines that "the change [is] warranted and that it will not cause a greater water supply impact than the impact that would occur under the existing schedule." Draft Order at 80.

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bring an action [under CEQA] if it has raised an objection to the adequacy of an EIR prior to certification."); *see also* Pub. Res. Code § 21167.6(e)(7) (administrative record in CEQA action includes "all written evidence or correspondence submitted to . . . the respondent public agency with respect to compliance with this division or with respect to the project.").

There are two significant problems with this delegation of authority. First, the Board itself is required to evaluate the environmental impacts of a project because it is the decision-making body under CEQA. *See* Cal. Code Regs., tit. 14, § 15356. A unilateral change by the Executive Director to Alternative 5C's flow requirements would effectively implement a new project under CEQA. *See id.* at § 15378. The SWRCB cannot avoid its duty to evaluate the environmental impacts of a change in flow requirements by delegating the decision to its Executive Director.

Second, the Draft Order's delegation of authority would allow the Executive Director to deprive the CCRB Members of their contractual rights to receive Cachuma Project water without due process in violation of the California and federal constitutions. The CCRB Members possess a significant property interest in Cachuma Project water through their contracts with the Santa Barbara County Water Agency. Any decision by the Executive Director to modify the Table 2 flow schedule could potentially deprive the CCRB Members of at least a portion of that property interest. Such a deprivation would require notice and the opportunity for a hearing. *See Koshak v. Malek*, (2011) 200 Cal.App.4th 1540, 1547 ("We start with the basic proposition that in every case involving a deprivation of property within the purview of the due process clause, the constitution requires some form of notice and a hearing."). The Draft Order, however, does not require the SWRCB or its Executive Director to hold a hearing before deciding to modify the Table 2 flow schedule. Draft Order at 80. It is certainly conceivable that CCRB would disagree with a determination by the Executive Director that a proposed change in the flow regime "will not cause a greater water supply impact than the impact that would occur under the existing schedule." Yet with no hearing record adequate review of the Executive Director's determination would be difficult, to say the least. Accordingly, the Draft Order's delegation of authority to the Executive Director is constitutionally infirm.

3. Alternative 5C Will Benefit Invasive Bass and Beavers at the Expense of Endangered Steelhead and Such Impacts Have Not Been Fully Disclosed or Analyzed

The Draft Order's conclusion that implementing Alternative 5C will benefit the steelhead population is not supported by substantial evidence in the record. Rather, the record clearly shows that increased flows in the mainstem Santa Ynez River will benefit beavers and non-native predator populations (primarily bass) to the detriment of steelhead.

The Draft Order states that higher flows under Alternative 5C could provide better protection for steelhead by allowing non-native predatory fish to spread out along the river, thereby reducing their densities in pool habitat utilized by steelhead. Draft Order at 72. But higher flows are unlikely to have the beneficial effect of removing non-native predators. Reporters Transcript, October 22, 2003, p. 447:18-447:21. Rather, increased flows will likely create more pool habitat favorable to non-native warm-water species and thus increase the proliferation of species that prey on juvenile steelhead. FEIR at Volume II 4.7-52.

Higher flows in the mainstem Santa Ynez River will also increase the predator (bass) population by increasing the beaver population which, through the construction of dams, will increase pool habitat that favors non-native predators. Areas of the lower river within the Refugio and Alisal reaches with established flows during a spill year (of greater than 20,000 acre-feet) and the year after a spill have the highest beaver activity. This is attributable to fish water releases from project supplies to meet the target flow at Alisal Bridge in those years. FEIR at Volume II 4.7-22. Thus, the extension of habitat downstream that would result from higher flows will encourage increased beaver activity (including dam creation). These dams will also interfere with steelhead passage. *Id.*

Beaver were not observed in the lower Santa Ynez River prior to 2000. Since 2007, beaver dams have increased in the reaches where the 2000 Biological Opinion ("BiOp") implemented target flows. The presence of habitat flows in the Refugio and Alisal reaches in a spill year (of greater than 20,000 acre-feet) and the year after a spill contributes to the persistence and success of the beaver population. Implementation of Alternative 5C will further increase the beaver population, which will in turn lead to more dam creation and associated pool habitat. Non-native predators will likely exploit this new habitat, leading to increases in their populations and predation of juvenile steelhead.

Relatedly, monitoring data indicate that the increased year-round flow in the river downstream of Bradbury Dam in a spill year (of greater than 20,000 acre-feet) and the year after a spill has allowed proliferation of non-native predatory species. Without year-round fish releases to meet target flow conditions at Alisal Bridge, these predatory species were likely extirpated from the mainstem Santa Ynez River periodically when it dried during summer conditions. As long as non-native species exist in the reservoir, it will be difficult to control their populations in the river downstream from Bradbury Dam because the non-native species will be able to repopulate when the dam spills.

The SWRCB received comments to the effect that its analysis of the predator problem was inadequate, and responded by pointing to a discussion in the 2nd RDEIR on impacts to non-native fish in Lake Cachuma. FEIR at Volume I 2.0-157. However, analyzing the impacts of increased flow requirements on fish resident in Lake Cachuma is not an appropriate analysis of the interaction between steelhead and predators in the mainstem of the Santa Ynez River below Bradbury Dam. Accordingly, there is not only a lack of substantial evidence in the record to support the Draft Order's conclusion that implementing Alternative 5C will benefit steelhead—there is also significant evidence that Alternative 5C will actually harm that species.[2]

The Draft Order acknowledges that invasive species pose a threat to the condition of steelhead in the Santa Ynez River, which strongly supports analyzing the threat before implementing a new

[2] A more detailed treatment of how bass and beaver in the Santa Ynez River mainstem negatively impact steelhead, as well as a summary of CCRB's tributary enhancement efforts, is attached hereto as Exhibit A.

flow regime. Instead, the Draft Order directs Reclamation to study the threat after it implements Alternative 5C. Draft Order at 84. In doing so, the Draft Order appears to reverse the logical order of priorities.

4. **The Draft Order and FEIR Fail To Adequately Disclose the Water Supply Impacts to CCRB Members That Would Result from Implementation of Alternative 5C**

The operations of the Cachuma Project are constrained by various physical, legal and regulatory factors. These factors include physical constraints on the delivery of State Water Project ("SWP") water into Lake Cachuma, the requirements of the 2000 BiOp, and the terms of the Settlement Agreement. The Draft Order and FEIR do not adequately account for these constraints and, as a result, they do not adequately disclose the water supply impacts to CCRB Members (and other water users) that will result from implementation of Alternative 5C. Moreover, the inadequate analysis of water supply impacts skews the balancing that must occur under the requirements of applicable law (see discussion under Part 5 below).

The most significant water supply impact that will result from implementation of Alternative 5C is a reduction in the physical ability to deliver SWP water into Lake Cachuma. SWP water is delivered to Lake Cachuma through the outlet works. Several regulatory requirements affect the use of the outlet works for various functions. Under the 2000 Biological Opinion RPM No. 5, no SWP can be released to the river from December through June when the Santa Ynez River is connected to the ocean. Under the 5C Table 2 flow regime, SWP water delivery would not be possible from February 15 to June 1 (if the river is connected to the ocean) because simultaneously delivering SWP water and making flow releases through the outlet works for fish would violate the Biological Opinion by comingling SWP water and native water. For 5C releases during this period, when the river is disconnected from the ocean, SWP water deliveries would be limited to half of the release amount until the required release drops below 14 cfs, at which time the release could be accommodated by the Hilton Creek supplemental watering system.

Implementation of Alternative 5C would also affect water operations related to Reclamation's Hilton Creek flow obligations. The presence of the Hilton Creek Backup System in the Outlet Works means that when Table 2 flows are in effect, Reclamation will not be able to use the backup system to meet BiOp flow requirements in Hilton Creek in the event of a Hilton Creek Water System failure, as the system would not be operational while flow releases occupy the outlet works.

Finally, implementation of Alternative 5C would create a risk of future water rights litigation within the Santa Ynez River system. As the Draft Order acknowledges, "Cachuma Project operations caused nearly fifty years of dispute between the Member Units and the downstream parties (the City of Lompoc and SYRWCD)." Draft Order at 86. The Settlement Agreement

resolved these longstanding disputes by conjunctively operating downstream water rights releases with fish releases called for in the BiOp (i.e., Alternative 3C). Settlement Agreement at ¶ 1.2. To resolve the City of Lompoc's objection that water rights releases injured its senior downstream water rights by impairing the water quality in the Lompoc Plain Groundwater Basin, the Settlement Agreement calls for the parties to use their best efforts to ensure that SWP water is mixed with water rights releases at the Bradbury Dam outlet works. *Id.* at ¶ 1.5. The SWRCB risks the possible termination of the historic Settlement Agreement if it issues an order that does not provide for mixing SWP water with downstream water rights releases at the Bradbury Dam outlet works. *Id.* at ¶¶ 1.5, 5.2.

Implementation of Alternative 5C could jeopardize the Settlement Agreement in at least two ways. First, as the Draft Order specifically recognizes, the Settlement Agreement was predicated on continuing water rights releases under Alternative 3C. Draft Order at 95. As the Draft Order further acknowledges, however, "accounting methodologies for the ANA and BNA may need to be adjusted again in light of implementation" of Alternative 5C. *Id.* CCRB is concerned that such adjustments may be difficult to achieve, in which event one or more parties to the Settlement Agreement may seek to invoke the Agreement's termination clause. Settlement Agreement at ¶ 5.2. Second, Alternative 5C's operational effects, particularly with respect to the mixing issue discussed above, may make it difficult for the parties to meet water quality objectives in the lower Santa Ynez River. Such a result may lead the parties to the Settlement Agreement to invoke its termination clause, leading to the resumption of lawsuits that consumed the parties' energies in the 1990s. *See* R.T., Oct. 21, 2003, at 199.

5. The Draft Order's Statement of Overriding Considerations Is Legally Inadequate

When an environmental impact report ("EIR") determines that a proposed project will have one or more significant and unavoidable effects on the environment, the California Environmental Quality Act ("CEQA") requires the decision-making agency to adopt a statement of overriding considerations. Cal. Pub. Res. Code § 21081(b); Cal. Code Regs. tit. 14 ("Guidelines"), § 15093. A statement of overriding considerations must identify the specific reasons why the benefits of the proposed project outweigh the unavoidable environmental risks, and substantial evidence in the record must support those reasons. *Id.* "Substantial evidence . . . means enough relevant information and reasonable inferences from this information that a fair argument can be made to support" the agency's determination that the project's benefits outweigh its significant environmental risks. Guidelines § 15384(a). Mere speculation does not constitute substantial evidence. *Id.*

The proposed project here is the "[d]evelopment of revised release requirements and other conditions, if any, in the Reclamation water rights permits . . . for the Cachuma Project." FEIR at Volume II, ES-1. The Project's main objective is protecting public trust resources, including steelhead, in the Santa Ynez River downstream of Bradbury Dam to the extent feasible and in the

public interest, with due consideration for the water supply impacts of measures designed to protect public trust resources. *Id.* at ES-2. Adopting Alternative 5C as the project will reduce the CCRB Members' water supplies, which could result in significant and unavoidable impacts on the environment. Draft Order at 100-106; FEIR at Vol. II, 4.3-36.

The Draft Order's Statement of Overriding Considerations ("Statement") assumes but does not demonstrate how the benefits of Alternative 5C outweigh its environmental impacts consistent with the public interest. The text of the Statement itself demonstrates the speculative nature of the benefits created by the implementation of Alternative 5C. Specifically, the Statement declares that "Alternative 5C will provide the endangered steelhead below Bradbury Dam with additional habitat and should lead to an improvement in the condition of the species." Draft Order at 109 (emphasis added). There is no substantial evidence in the record demonstrating that an improvement in the condition of steelhead will occur as a result of the implementation of Alternative 5C. Indeed, the Draft Order relies on numerous caveats and qualifications regarding the benefits of implementing Alternative 5C. For example, the Draft Order acknowledges that water temperature issues may reduce the benefits created by requiring increased releases during wet and above-normal years. *Id.* at 65-67.

The Draft Order acknowledges that the scientific ability to evaluate and quantify the benefits of habitat creation from increased flows and restoration activities implemented under the Biological Opinion is uncertain, and that it may take up to a century to determine such benefits. Draft Order at 59. As discussed at length above, this uncertainty is exacerbated by SWRCB's decision not to consider how increased flows may benefit bass and beavers at the expense of endangered steelhead.

Furthermore, the Draft Order's conclusion that "[t]en years after implementation of the Biological Opinion, the Santa Ynez River steelhead population is not showing signs of recovery" does not adequately acknowledge Reclamation's actions under the BiOp. *Id.* at 61. Implementing mainstem rearing flows has demonstrably increased steelhead in the mainstem management reaches compared to years prior to 2001. Since the long-term flow regime was not implemented until 2005, its effects were evaluated on only 5 years of data. FEIR Volume IV Appendix G at Table 11. Because the steelhead lifecycle is approximately 4 to 6 years, 5 years is not enough time to expect population-level changes in abundance. Increased reproduction across multiple generations is usually required to see substantial changes in population size. Additionally, since 2012, the Santa Ynez River has experienced the worst drought on record which has prevented steelhead population increase. The Draft Order relies on the lack of a response in the steelhead population in 6 years to justify a significant increase in releases, the purported benefits of which are identified by SWRCB in comment response 11-20 (page 2.0-157 of the FEIR) as slightly more depth within the Alisal Reach. This disconnected reasoning cannot support the Statement's determination that the benefits to steelhead from the implementation of Alternative 5C outweigh the significant and unavoidable environmental risks that will occur from impacts to the Cachuma Project Member Units' water supply in times of drought.

Although the Draft Order acknowledges the uncertainty of Alternative 5C's benefits to the steelhead population, it nevertheless declines to fully consider the impacts of implementation on the CCRB Members' water supplies in critically dry years. For example, SWRCB has found that during three-year critical drought periods, the CCRB Members' water supply shortage could increase by 3,881 acre-feet ("af") compared to the no-project alternative. *Id.* at 100. The Draft Order acknowledges that those shortages could require the CCRB Members to obtain new sources of water from groundwater pumping, water transfers, and desalination, all of which represent a trade-off in environmental impacts. *Id.* at 100. In fact, Alternative 5C will reduce the ability to complete SWP transfers through CCWA to Lake Cachuma. Instead of addressing these impacts, SWRCB defers its analysis, rationalizing that they can only be mitigated by other agencies' future actions. *Id.* at 105.

Finally, the Statement does not explain why the benefits of implementing Alternative 5C outweigh the significant environmental impacts resulting from a significant reduction to the Member Agencies' water supplies. *See* Guidelines § 15093(b) (requiring a decision-making agency to state "specific reasons" to support its action); *Concerned Citizens of South Central L.A. v. Los Angeles Unified School Dist.* (1994) 24 Cal.App.4th 826, 847 (explaining that these specific reasons must demonstrate the balance struck by the agency in deciding to approve a project despite significant environmental impacts). Instead, the Statement briefly discusses the speculative benefits of Alternative 5C with only a brief mention of its environmental impacts. Draft Order at 109. In fact, the Statement's single paragraph contains no specific reasons about the relative costs and benefits of implementing Alternative 5C. The Statement thus shows that SWRCB has neglected CEQA's balancing mandate in deciding to implement Alternative 5C. *See Concerned Citizens, supra*, 24 Cal.App.4th at 847.

In sum, the Statement advances a conclusion that the required balancing tips toward higher flows for steelhead without the analytic or evidentiary base necessary to make such a determination.

6. The Draft Order Impermissibly Fails To Balance Public Trust Uses With Other Public Interests

The Draft Order misconstrues and misapplies the public trust doctrine as set forth by the California Supreme Court in *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419 ("*National Audubon*"). It unmistakably elevates steelhead above all other Santa Ynez River-related resources and water uses, with no balancing of those resources, as California law requires.

In *National Audubon*, the plaintiffs argued that the public trust doctrine superseded, and thus, unconditionally limited all appropriative water rights. 33 Cal.3d at 445. The California Supreme Court unequivocally held that it was "unable to accept" that position:

> [B]oth the public trust doctrine and the water rights system embody important precepts which make the law more responsive to the diverse needs and interests

> involved in the planning and allocation of water resources. To embrace one system of thought and reject the other would lead to an unbalanced structure, one which would decry as a breach of trust appropriations essential to the economic development of this state, or deny any duty to protect or even consider the values promoted by the public trust.

Id. The Court emphasized that when applying the public trust, the SWRCB must balance the "diverse needs and interests" that attach to a particular water system, and thereby accommodate all of those interests. *Id.* The Court's message was clear: public trust uses of water do not trump all other uses, nor can a particular public trust use be given automatic priority over other public trust uses without specific legislative authorization. *Id.*; *see County of Orange v. Heim,* (1973) 30 Cal.App.3d 694, 707 (holding that the Legislature is tasked with determining the priority of one trust use over another). To the contrary, the Court expressly recognized that the SWRCB may elevate economic and other interests over a particular public trust interest despite unavoidable harm to trust uses. *Id.* at 446. Thus the Court directed the SWRCB "to take the public trust into account in the planning and allocation of water resources, and to protect the public trust uses whenever feasible." *Id.*

Notably, the *National Audubon* Court did not hold – or even suggest – that the public trust uses of the Mono Basin at issue in that case trumped the needs of Los Angeles' water users. Instead, the Court directed the State Board to thereafter consider the public trust and determine whether the needs of water users "outweigh" the public trust interests within the Mono Basin. *Id.* at 447. In so doing, the Court recognized "the substantial concerns voiced by Los Angeles – the city's need for water . . . [and] the cost both in terms of money and environmental impact of obtaining water elsewhere." The Court emphasized that "[s]uch concerns must enter into any allocation decision." *Id.* at 447-48 (emphasis added).

The Draft Order does not measure up to what *National Audubon* requires – it elevates the interests of steelhead without a robust analysis of other needs and public trust interests that depend on the Santa Ynez River, inappropriately allowing the public trust to trump other substantial and vital concerns. For example, the Draft Order concludes that Member Units could make up for a shortfall in supply by implementing more stringent conservation measures contained in their urban water management plans. Draft Order at 103. It further provides that the SWRCB may implement emergency conservation regulations in the future that could reduce water supply shortages in critical years. *Id.* at 104-105. In so doing, the Draft Order assumes that such measures are both possible and feasible without any discussion of relevant factors such as time, cost, and redirected impacts. In other words, the Draft Order omits the discussion required by *National Audubon* of how requiring greater instream flows balances the interests of the people served by the Cachuma Project, and other public trust uses of Cachuma Project and Santa Ynez River water, with the needs of steelhead. *Id.* This omission elevates the interests of steelhead over other beneficial uses and falls short of the legal standard established in the *National Audubon* decision.

Although the SWRCB has a duty to protect steelhead to the extent feasible, it also has a duty to consider and protect all other beneficial uses, including municipal, industrial, and agricultural uses. *See National Audubon, supra,* 33 Cal.3d at 445. In exercising its discretion to protect steelhead under the public trust doctrine, SWRCB must balance all of these competing interests. The public interest, not the desires of any one special interest, must guide that discretion. *See State Water Res. Control Bd. Cases*, (2006) 136 Cal. App. 4th 674, 778.

7. The Flow Regime Required by The Draft Order Is Inconsistent With Article X, Section 2 Of The California Constitution

Article X, section 2 of the California Constitution provides that "the waste or unreasonable use or unreasonable method of use of water [must] be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare." Although Fish & Game Code section 5937 represents a legislative determination that the release of water from a dam for the purpose of keeping fish below the dam in "good condition" constitutes a reasonable use of water, the release of water in excess of the amount needed to keep fish in good condition is unreasonable if there would be adverse effects on other beneficial uses of water. *E.g., In the Matter of the Diversion and Use of Water from Big Bear Lake, etc.*, Order WR 95-4, 1995 WL 17908291, at *11 (Feb. 16, 1995).

The Draft Order mandates an unreasonable use of water in violation of Article X, section 2 because it fails to determine whether increased water releases mandated by the implementation of Alternative 5C will keep steelhead and other fish species below Bradbury Dam in good condition. More specifically, there is no indication in the Draft Order that SWRCB considered the amount of additional releases from the Cachuma Project that would be sufficient to keep steelhead in good condition. Although the Draft Order indicates (based on insufficient data) that current instream flow requirements are insufficient to create the habitat necessary to keep steelhead below Bradbury Dam in good condition, that finding is not enough for SWRCB to comply with Article X, section 2.[3] The final order must attempt to determine the minimum amount of water necessary to for the Bureau of Reclamation to comply with Fish & Game Code section 5937. *See id.* Unfortunately, the Draft Order provides little more than a guess as to what this minimum amount should be.

Any finding the SWRCB may make in this regard must consider other, cost-effective habitat improvements that could bring the steelhead population below Bradbury Dam into good

[3] That finding also lacks a basis in substantial evidence because the Draft Order acknowledges that it has not, and perhaps cannot, evaluate the efficacy of other habitat creation measures. Draft Order at 59-60. The Draft Order's finding that current instream flows cannot maintain steelhead in good condition therefore amounts to a bare conclusion that more water will be better for steelhead.

condition. Although additional flows may create some additional habitat, other actions may have the same results without requiring the significantly increased fish flows mandated by Alternative 5C. In fact, the SWRCB's description of the proposed project admits that "other conditions" in addition to revised release requirements may have a role to play in bringing steelhead in the Santa Ynez River to good condition. Draft Order at 42-43, 57-58, 67-68. Instead of analyzing such conditions in the alternatives analysis of the FEIR, however, the SWRCB appears to have focused entirely on increased releases.

8. SWRCB's Decision To Require Reclamation To Monitor Flow At the Highway 154 Bridge Is Infeasible

The Draft Order's requirement that Reclamation maintain a continuous record of the daily instream flows in the Santa Ynez River at the Highway 154 bridge is infeasible, and would require Reclamation to condemn private property to construct the necessary gaging station. *See* Draft Order at 29, 124. Several factors make measuring flows at the Highway 154 bridge infeasible, including the bridge easement's limitations, the landowner's denial of access, the sediment deposits and porosity of the riverbed, and the presence of multiple channels that fill during high-flow periods. The updated methodology for determining flow at the Highway 154 Bridge by means of determining riparian losses is a more cost-effective and accurate method of monitoring flows at this location, and SWRCB should revise the Draft Order to Provide to continue this method of measurement.[4]

A. Construction Of A Gaging Station At The Highway 154 Bridge Is Impractical And Infeasible.

The primary constraint to installation of a gaging station at the Highway 154 Bridge is that Reclamation has been denied access to the property by the landowner. FEIR at 4.3-40; R.T., October 22, 2003, at 301:17-18. The property is a Spanish land-grant parcel, which further complicates the Reclamation's ability to access the land. *See* Miller & Starr, 3 Cal. Real Est. § 8:68. Furthermore, the bridge location is not suitable for measuring streamflow within the 154 reach.

The Draft Order recognizes the lack of suitable measuring locations within the bridge easement for measuring flow. Draft Order at 29. This location is not suitable because the channel has three to four braids, making accurate monitoring more difficult. The location of the low flow channel has moved multiple times since the Highway 154 Bridge was included as a monitoring location in the 2000 BiOp. Large storm events rearrange the channels in the predominantly cobble and gravel substrate, and the current low flow channel runs along the southern edge of the

[4] In addition to the discussion below, a more detailed technical memorandum on the feasibility of installing a gaging station at the Highway 154 Bridge is attached hereto as Exhibit B.

floodplain. Monitoring flow in only one channel would likely miss substantial flow, resulting in over-release to meet target flows. Given these constraints, installing equipment at this location would likely require re-positioning following high flow events, which again presents serious difficulties in terms of acquiring the necessary easement from the landowner.

Streambed porosity in the 154 reach also affects the feasibility of a gaging station at the Highway 154 bridge. As the Draft Order acknowledges, a depositional area upstream of the Highway 154 Bridge affects surface flow. Draft Order at 29. This reach normally has substantial sub-surface flow which results from the disappearance of surface flows during dry season conditions. The subsurface flow quickly resurfaces a short way downstream. R.T., October 22, 2003 at 391:14-392:3. The channel in the vicinity of the bridge can have substantially lower flow when higher surface flows are present nearby upstream. Stetson Engineers, Inc., Evaluation of Outflows and Inflows between Bradbury Dam and Highway 154 Bridge (2004) (referenced in FEIR at 2.0-23). Thus a flow measurement here would not capture the total flow passing this point on the river. R.T., October 22, 2003 at 391:14-392:3. Uncontroverted evidence in the record therefore shows that measurements taken at the Highway 154 Bridge are likely to be inaccurate. *Id.* To require Reclamation to expend significant resources for the purpose of taking meaningless measurements cannot be the Draft Order's intent. SWRCB can cure this error in the Draft Order, however, by allowing Reclamation to continue monitoring target flows at the Highway 154 Bridge by way of an updated determination of riparian losses.

B. Target Flows At The Highway 154 Bridge Are Already Accurately Monitored By Determination of Seasonal Losses.

Reclamation monitors and manages releases from Bradbury Dam to meet target flows using a methodology and monitoring plan developed by Stetson Engineers. NMFS, Response to Transmittal of Bureau of Reclamation's New Methodology for Monitoring Required Flow Rates at the Highway 154 Bridge (November 16, 2004). The monitoring plan prescribes the necessary releases from the dam, while accounting for losses and inflows in the Highway 154 Reach, to meet reach target flow.

NMFS approved this method in 2004, and Reclamation has implemented it. *See id.* In 2010, Stetson Engineers updated the methodology for determining flow at the Highway 154 Bridge, accounting for increased losses associated with increased riparian vegetation. Reclamation has been operating under the updated methods since 2010. Nothing in the Draft Order explains why the current method is insufficient for monitoring purposes. SWRCB's decision to require Reclamation to take inaccurate physical measurements at a point on the river to which it has no access is especially unsuitable in light of Reclamation's current monitoring methodology. SWRCB should amend the Draft Order to correct this error by keeping the existing monitoring system in place.

9. SWRCB Cannot Require Reclamation To Include Conservation Provisions In Future Contracts

The Draft Order's demand that Reclamation require the CCRB Members to implement conservation measures, presumably through Reclamation's contract with the Santa Barbara County Water Agency, is invalid. *See* Draft Order at 105. SWRCB has only the authority to "cooperate" with Reclamation in discharging its duties to supervise the operation of the Cachuma Project. *See* Water Code § 6079. Nothing in the Water Code or Reclamation's water rights permits for the Cachuma Project grants SWRCB the authority to dictate the terms of federal water supply contracts. Furthermore, any attempt to exercise such authority would likely violate the supremacy clause of the U.S. Constitution. Accordingly, the final order should not attempt to require Reclamation to impose conservation measures on the Member Units, including the CCRB Members.

10. The Issuance Of A Final Order Should Not Be Delayed To Accommodate NMFS' Issuance Of A New BiOp

CCRB strongly objects to NMFS' request that the SWRCB refrain from finalizing and issuing its final order for the Cachuma Project until NMFS has issued the final BiOp. The proceedings that have led to the issuance of the Draft Order have lasted for more than sixteen years. The length of these proceedings has directly and adversely affected CCRB and the CCRB Members during the current drought due to the 2002 Settlement Agreement's language conditioning the implementation of paragraphs 1.2, 1.3, and 1.4 on a final order from SWRCB. Settlement Agreement at ¶ 5.1. The parties' inability to sensibly manage releases pursuant to the Settlement Agreement during critical drought operations is a direct result of the SWRCB's delay in issuing a final order, and the further delay requested by NMFS would only exacerbate the damage already done to CCRB's water supply.

Furthermore, the SWRCB's duties as a public trustee are wholly independent from NMFS' duties under the Endangered Species Act. The issues raised in the new BiOp could take several more years to resolve. The SWRCB may not abdicate its own independent responsibilities by waiting for that process to run its course before issuing a final order. Accordingly, the SWRCB should reject NMFS' request and issue a final order adopting Alternative 3C as soon as possible.

11. Conclusion

CCRB has developed and implemented projects that have improved steelhead habitat in the Santa Ynez River system in the past. It remains committed to partnering with the SWRCB, the fish agencies, and local and environmental advocates on projects that effectively promote steelhead recovery in the future. As the above comments demonstrate, however, there is no substantial evidence that the Draft Order constitutes an effective project.

CCRB anticipates that one or more parties will suggest a higher inflow trigger for the switch to Table 2 flows as one way of attempting to balance water supply impacts with additional releases under Alternative 5C. Such a modification to Alternative 5C, however, will not cure the legal problems with the Draft Order identified in this letter. Furthermore, the use of an inflow trigger is unsatisfactory because it does not address the cumulative impacts of drought conditions in which a trigger is met but the reservoir level remains below 100,000 af. Without consideration of reservoir levels and cumulative impacts of drought, Alternative 5C and any suggested modifications thereto are insufficient to address the serious water supply impacts caused by Alternative 5C.

The Draft Order presents a daunting array of complex legal, factual, and scientific issues. Understandably, reaching appropriate and supportable findings and conclusions in each of these areas must be an iterative process. CCRB and its member agencies appreciate the opportunity to further that process with these comments, and suggest that SWRCB take the next step in the process by adopting Alternative 3C and requiring Reclamation to complete the studies necessary to determine whether further flow increases will actually benefit endangered steelhead without increasing habitat for predators.

Very truly yours,

DOWNEY BRAND LLP

Kevin M. O'Brien

KMO

Cc: Cachuma Project Evidentiary Hearings Service List
(http://www.waterboards.ca.gov/waterrights/water_issues/programs/hearings/cachuma/docs/cachuma_servlist_090716.pdf)

Exhibit A

December 5, 2016

Habitat Suitability for Steelhead in the Lower Santa Ynez River

This memorandum summarizes current habitat conditions and suitability for steelhead (*Oncorhynchus mykiss*) in the mainstem Lower Santa Ynez River (LYSR), and as well as restoration efforts undertaken in LSYR tributaries for the enhancement of the steelhead population.

With the support of NMFS and CDFW, The Cachuma Project has focused habitat restoration efforts in the LSYR tributaries.

The Cachuma Project has focused conservation efforts in the LSYR tributaries, including completion of habitat enhancements and numerous habitat restoration projects to provide steelhead access to high quality spawning and rearing habitat. The 2000 BO concluded that the, *"Proposed Cachuma Project operations and maintenance, if carried forward many years into the future, will provide the small Santa Ynez River steelhead population with improved critical habitat conditions in the form of increased migration opportunity and better access to spawning and rearing areas in the watershed below Bradbury Dam, allowing the population to increase in size. Therefore the proposed project is likely to appreciably increase the likelihood of survival and recovery of the ESU by increasing its numbers and distribution."* (2000 BO, page 67).

The 2000 BO anticipated that the perennial flow provided in Hilton Creek by the supplemental watering system (Hilton Creek Watering System [HCWS]) would increase wetted habitat area for steelhead, improve riparian vegetation growth which, in turn, would increase habitat complexity and cover, and benefit aquatic invertebrate populations providing more food for fish (2000 BO pages 58-60). The HCWS and completion of the Cascade-Chute barrier removal project have provided 0.81 miles of additional high-quality habitat for steelhead in Hilton Creek (Table 1). Since the improvements were completed, Cachuma Operations and Maintenance Board (COMB) fisheries staff have documented substantial increases in the Hilton Creek *O. mykiss* population, including observations of spawning, successful juvenile rearing, juvenile (smolt) outmigration, and migration of adult steelhead returning from the ocean (COMB 2012; Reclamation 2010a; Reclamation 2011; Reclamation 2013a; Reclamation 2013b). The habitat quality of Hilton Creek has improved due to

the presence of perennial flow, with cool water temperatures maintained by water releases from the HCWS and substantial riparian growth.

The 2000 BO evaluated the effects of the proposed passage projects in the tributaries and concluded that, "Steelhead will benefit by the availability of additional spawning and rearing habitat in many cases. These actions are likely to substantially increase the amount of spawning and rearing habitat available below Bradbury Dam and/or improve steelhead access to habitat. Thus, these actions will improve the Santa Ynez River steelhead population's opportunity to survive and recover." (2000 BO, page 53). As of November 2016, 11 tributary projects have been completed, resulting in 14.99 stream miles of tributary habitats made available to steelhead. Six additional barrier removal projects are in design and/or under construction and will open an additional 4.91 miles of habitat. When completed, the Cachuma Project will have opened 19.9 stream miles of tributary habitat that were formerly inaccessible to steelhead (Table 1). This is more mileage than anticipated to be made accessible in the 2000 BO (15.26 miles). Passage improvement projects conducted by the Member Units were received approval and grant funding from the California Department of Fish and Wildlife. Additionally, the Cachuma Project completed bank stabilization and habitat restoration projects on El Jaro Creek that improved steelhead habitat and demonstrated the benefits of habitat restoration projects to local landowners.

Table 1. Tributary projects and statuses as of November 2016.

Project	Tributary	Year Completed	Newly Accessible Habitat (miles)	Responsible Party	Notes
Hilton Creek Watering System	Hilton Creek	1999	0.28	Reclamation	
Hilton Creek Cascade Chute	Hilton Creek	2005	0.53	Reclamation	
Salsipuedes Creek at Highway 1 Bridge Fish Passage Project	Salsipuedes Creek	2002	0.74	Member Units	
Salsipuedes Creek Fish Ladder at Jalama Bridge	Salsipuedes Creek	2004	2.79	Member Units	
El Jaro Creek Demonstration Projects	El Jaro Creek	2003	n/a	Member Units	
El Jaro Creek – Rancho San Julian Fish Ladder	El Jaro Creek	2008	3.42	Member Units	
Cross Creek Fish Passage Improvement Structure	El Jaro Creek	2009	6.29	Member Units	
Quiota Creek Crossing 0a	Quiota Creek		0.09	Member Units	Under construction. To be completed December 2016.
Quiota Creek Crossing 0b	Quiota Creek		1.65	Member Units	Awaiting landowner interest and approval to move forward.
Quiota Creek Crossing 1	Quiota Creek	2013	0.66	Member Units	
Quiota Creek Crossing 2	Quiota Creek	2011	0.05	Member Units	
Quiota Creek Crossing 3	Quiota Creek	2015	0.1	Member Units	
Quiota Creek Crossing 4	Quiota Creek		0.13	Member Units	Under construction. To be completed December 2016.
Quiota Creek Crossing 5	Quiota Creek		0.03	Member Units	Applied for grant funding. Might being construction in 2017
Quiota Creek Crossing 6	Quiota Creek	2008	0.05	Member Units	
Quiota Creek Crossing 7	Quiota Creek	2012	0.08	Member Units	
Quiota Creek Crossing 8	Quiota Creek		0.29	Member Units	Applied for grant funding (County). Cconstruction in 2017 or 2018.
Quiota Creek Crossing 9	Quiota Creek		2.72	Member Units	In design, construction date to be determined.
		Completed	***14.99***		
		Remaining	*4.91*		
		Total	***19.9***		

The Highway 154 Reach no longer provides high-quality steelhead habitat which has been reduced in quality by the proliferation of beaver dams and increased abundance of nonnative predators.

As described above, the Highway 154 Reach has also been a focus of conservation efforts due to its prioritization as a relatively high-quality habitat area within the LSYR mainstem. Water releases from the dam to support rearing have been made with the highest target flows for the Highway 154 Reach. It is now believed the Highway 154 Reach does not provide the high quality habitat that it formerly provided due to proliferation of beaver (*Castor canadensis*) dams and a large population of

non-native predators including largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), black crappie (*Pomoxis nigromaculatus*), bluegill (*Lepomis macrochirus*), redear sunfish (*Lepomis microlophus*), common carp (*Cyprinus carpio*), channel catfish (*Ictalurus punctatus*), bullhead catfish (*Ameiurus* sp.), and American bullfrog (*Rana catesbeiana*) (Flint 1967; County of Santa Barbara 2012).

Releasing water to meet rearing flow targets has provided summer stream flows in the Highway 154, Refugio, and Alisal reaches during most years, including dry years like 2007, 2009, and 2012. Historically, available summer rearing habitat in the mainstem, from San Marcos Ranch (approximately 57 miles upstream of the ocean) to the San Lucas Bridge (45 miles upstream of the ocean at the current Highway 154 Bridge), was limited to deep pools at a frequency of approximately one pool per river mile (Clanton 1940). Monitoring data indicate that the increased year-round flow in the upper LSYR mainstem has allowed proliferation of non-native predatory fish species which were likely extirpated from the mainstem periodically when it dried during summer conditions prior to commencement of target flows.

An unanticipated consequence of year-round target flows has been the proliferation of beaver in the LSYR and an increase in beaver pond habitat which appears to favor bass and other non-native predators due to extension of thermally heated pool habitats (Reclamation 2013a, Reclamation 2013b). Beaver require a permanent supply of water (Tappe 1942), and the perennial flow in the LSYR has provided year-round water for beaver habitat. Additionally, target flows have allowed growth of the riparian corridor (SYRAMC 2009; Reclamation 2011; COMB 2012; Reclamation 2013a), benefitting steelhead habitat, but also providing a food and building material source for beaver.

Beaver were not observed in the LSYR prior to 2000. Observations of beaver dams increased throughout the LSYR mainstem following implementation of rearing flow targets in 2000. Since 2007, when COMB began quantitatively monitoring beaver dams, there has been an increased abundance of dams. This increase corresponds with implementation of long-term rearing target flows (commenced in January 2005). With recent data through 2016, the peak number of dams observed was 132 in 2013 (Figure 1) (COMB 2013-2016, unpublished data). In 2015 and 2016, rearing flow releases were greatly reduced under critical drought conditions, and targets were no longer required at the bottom of the Highway 154 Reach. The corresponding reduction in beaver dam abundance in the mainstem supports the conclusion that the perennial water provided by long-term rearing flow

releases may be supporting the proliferation in beaver dams. Additionally, COMB fisheries staff observed beaver mortalities in dry sections of the LSYR mainstem following the reduction of flow releases due to the drought conditions (pers. comm. Tim Robinson 2016).

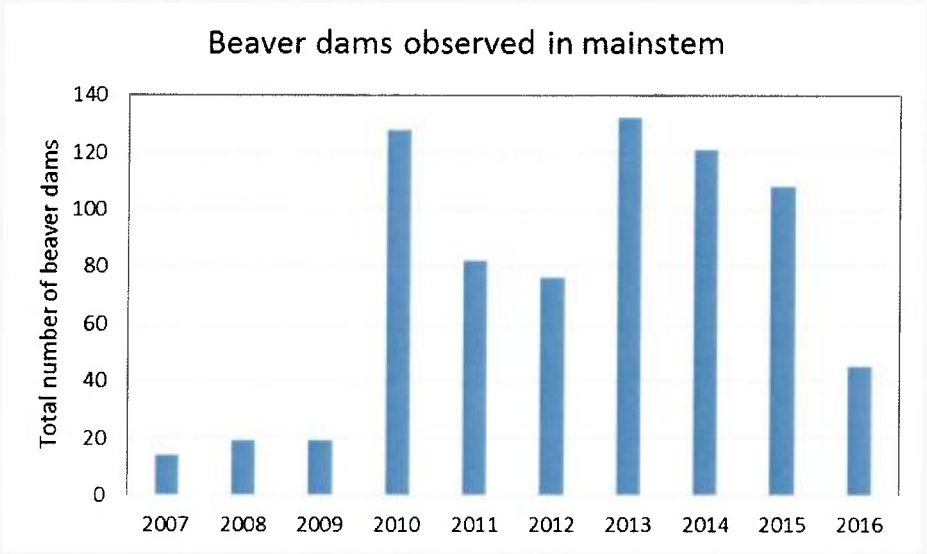

Figure 1 – Beaver dams counted in the LSYR mainstem (source: COMB annual fisheries monitoring data 2016)

Warm-water species, including largemouth bass (*Micropterus salmoides*), which prey on juvenile steelhead, have been observed or captured in beaver pools in the LSYR mainstem during fisheries monitoring activities (SYRAMC 2009; Reclamation 2011; COMB 2012; Reclamation 2013a), during a 2012 habitat reconnaissance survey (Pappas 2012), and during recent fish rescue activities in the accessible portion of the Highway 154 Reach (Long Pool and Stilling Basin) (pers. comm. Tim Robinson 2016). Other warm-water species observed in the LSYR mainstem include smallmouth bass (*Micropterus dolomieu*), black crappie (*Pomoxis nigromaculatus*), various species of sunfish (*Lepomis* spp.), channel catfish (*Ictalurus punctatus*), and bullfrogs (*Rana catesbeiana*) (SYRAMC 2009; Reclamation 2011; COMB 2012; Reclamation 2013a; Reclamation 2013b), all of which are known to prey on young steelhead (Moyle 2002). Stomach analysis of largemouth bass from the Long Pool, sampled after Hilton Creek rescue and relocation to the Long Pool in 2014, confirmed that largemouth bass are predating upon steelhead in the lower Santa Ynez River. Twenty-six percent of largemouth bass stomachs that were sampled had positive detection of *O. mykiss* DNA. Of the five bass sampled the week following the Hilton Creek rescues and relocation, three (60%) had *O. mykiss* DNA positively detected in their stomachs. The second sampling event occurred two weeks after the relocation of *O. mykiss* from Hilton Creek, and of the ten bass and two bluegill

stomachs sampled, only one bass had positive detection of *O. mykiss* DNA. The higher positive detection of *O. mykiss* DNA in initial sampling event, despite a lower total catch, compared to the higher catch in the later effort with only one positive detection, indicates that predation on *O. mykiss* was notably higher just after the initial release of relocated trout from Hilton Creek into the LSYR Long Pool. This evidence suggests that, by the time of the second sampling event, predation by bass had reduced the number of juvenile *O. mykiss* present in the Long Pool following their relocation from Hilton Creek (Cardno 2014). Biologists believe that as long as non-native species exist in the reservoir, it will be difficult to control their populations in the LSYR due to the continual recruitment of these species to the LSYR when the dam spills.

Where snorkel surveys are performed, warm-water non-native species are abundant in the LSYR mainstem Highway 154, Refugio, and Alisal reaches. Fisheries monitoring has recorded an increase in warm-water, non-native, predatory fish in the LSYR (Reclamation 2010a; Reclamation 2011; Reclamation 2013a; Reclamation 2013b). The spread and increased abundance of non-native fishes is more pronounced in the LSYR mainstem than the tributaries (SYRAMC 2009; Reclamation 2011; COMB 2012; Reclamation 2013a; Reclamation 2013b). The LSYR tributaries that support steelhead (Hilton, Quiota, Salsipuedes, and El Jaro creeks) have a more natural flow regime and are not accessible by most nonnative fish.

In addition to harboring predators and reducing steelhead rearing habitat quality, beaver dams may be affecting steelhead migration corridors and spawning habitat in the mainstem LSYR. Dams can act as barriers and impediments that block or impair both upstream and downstream passage of steelhead when flows are not sufficient to overtop or breach beaver dams. The abundance of beaver dams throughout the upper reaches of the LSYR has increased the prevalence of pool habitat (Reclamation 2013b). Large sections of the upper reaches of the LSYR now consist of nearly contiguous long beaver pools separated by short sections of riffle habitat (Pappas 2012). *O. mykiss* prefer riffle and riffle-pool transition habitats or spawning (USFWS 1997). Observations in the LSYR and tributaries also show increased turbidity, decreased flow, increased summer water temperatures in impounded pools, increased sedimentation, and decreases in riparian vegetation associated with beaver residence (Reclamation 2013a), all unfavorable conditions for *O. mykiss*.

Recent surveys in the accessible portion of the Highway 154 Reach suggest the non-native predator threat may be substantial, and that the LSYR mainstem O. mykiss population may have been substantially impacted by predation

Historically (beginning in the 1950s after the construction of Bradbury dam), a variety of non-native warm-water species were released into Cachuma Reservoir by unauthorized individuals. (Reclamation 2010b, Flint 1967). They may have also been introduced into the Santa Ynez River prior to the early 1940s (Shapovalov 1944). In the accessible potion of the Highway 154 Reach, snorkel surveys are typically conducted downstream of the Long Pool to the Reclamation property boundary. Warm-water species have not been observed in these 0.2 miles of predominantly swift-moving run habitat, which is not favorable for warm-water species. Many warm-water species have been observed in the Long Pool over the years, but have not been enumerated due to poor visibility from algae, turbidity, and other aquatic vegetation (pers. comm. Robinson 2013).

In late October 2016, Cachuma Operation and Maintenance Board (COMB) and CDFW staff conducted steelhead rescues in the Long Pool of the Highway 154 Reach due to threat of the pool drying due to the limited water releases made from the reservoir under the ongoing critical drought conditions. Many non-native species, including carp and largemouth bass, were captured. Contrary to previous observations and rescue efforts in the Long Pool during 2014-2016, no *O. mykiss* were caught or observed during both days of rescue operations (pers. comm. Tim Robinson, COMB 2016). The current low abundance or absence of *O. mykiss* in the Long Pool, despite suitable water quality, conditions suggests predation by non-native fishes may be heavily impacting steelhead at this location. Based on analysis of 2015 aerial imagery, the long pool appears to be the largest pool habitat in the Highway 154 Reach. Based on the number of non-native predators present in the Long Pool and Stilling Basin, and observations of high numbers of bass in pools the Alisal and Refugio reaches prior to pools drying out in the current drought, it is likely that any *O. mykiss* residing in other pools of the Highway 154 Reach are also under severe pressure from non-native predators.

Overall, the implementation of Cachuma Project's conservation actions will benefit the LSYR steelhead population

As discussed above, prior to construction of Bradbury Dam, most of the LSYR ran dry in most years, except for a few miles of river near Solvang where a natural seepage was present (Shapovalov 1944; Reclamation 2010b). Historically, the Highway 154, Refugio, and Alisal reaches of the mainstem did not support the principal spawning and rearing habitats in the watershed, which were found in the tributaries. Because beaver dams and bass populations have altered the quality of the

habitat and its suitability for steelhead the LSYR, does not provide favorable year-round habitat for occupancy by steelhead, despite the implementation of perennial flow targets.

Actions undertaken by Reclamation and the Cachuma Member Units under the 2000 BO focused on opening access to, and improving, habitat in the LSYR tributaries. The tributaries are characterized by steeper gradients than the mainstem with perennial flows in the upper reaches, have water temperatures suitable for spawning and migration later into the spring, and these locations maintain cooler summer season water temperatures suitable for over-summering steelhead. Non-native predatory fish are not abundant in the tributaries. Removal of passage barriers and implementation of the Hilton Creek Watering System under the 2000 BO have so far provided steelhead access to nearly 15 miles of tributary habitat for spawning, rearing, and adult and smolt migration. When completed, all of the tributary barrier removal projects will have restored access to approximately 20 miles of steelhead habitat. In combination with other conservation measures, such as the HCWS and passage supplementation program, access to these tributary spawning and rearing habitats can allow for successful growth in the LSYR steelhead population over time.

References

Cachuma Operations and Maintenance Board (COMB). 2012. 2009 Annual Monitoring Report and Trend Analysis: the Biological Opinion for the Operation and Maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California. Report prepared for U.S. Bureau of Reclamation; Fresno, California.

COMB. 2013-2016. Annual Fishery Monitoring Data (Unpublished).

Cardno. 2014. Results of Non-native Predator fish Stomach Sampling in the Lower Santa Ynez River 2014. Technical Memorandum.

Clanton, D. A. 1940. Letter to the Bureau of Fish Conservation on the water conditions in the Santa Ynez. Division of Fish and Game Field Correspondence.

Moyle, P. G. 2002. Inland Fishes of California. University of California Press; Berkeley, CA.

National Marine Fisheries Service (NMFS). 2000. Biological Opinion. Bureau of Reclamation

Operation and Maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California. National Marine Fisheries Service, Southwest Region.

Pappas, A. 2012. Technical Memorandum: Re: December 2012, Lower Santa Ynez River Habitat Reconnaissance Survey. Santa Ynez River Water Conservation District, Improvement District No. 1.

Reclamation. 2010a. 2008 Annual Monitoring Report for the Biological Opinion for the Operation and Maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California.

Reclamation. 2010b. Cachuma Lake Final Resource Management Plan/Environmental Impact Statement. U.S. Department of the Interior, Bureau of Reclamation, South-Central Area Office; Fresno, California.

Reclamation. 2011. 2008 Annual Monitoring Report and Trend Analysis for 2005-2008 for the Biological Opinion for the Operation and Maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California. Report prepared for National Marine Fisheries Service; Long Beach, California.

Reclamation. 2013a. 2010 Annual Monitoring Report and Trend Analysis for the Biological Opinion for the Operation and Maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California. Report prepared for National Marine Fisheries Service; Long Beach, California.

Reclamation. 2013b. 2011 Annual Monitoring Report and Trend Analysis for the Biological Opinion for the Operation and Maintenance of the Cachuma Project on the Santa Ynez River in Santa Barbara County, California. Report prepared for National Marine Fisheries Service; Long Beach, California.

Robinson, T. 2013. Personal communication. Senior Resources Scientist. Cachuma Operations and Maintenance Board; Santa Barbara, California.

Robinson, T. 2016. Personal communication. Senior Resources Scientist. Cachuma

Operations and Maintenance Board; Santa Barbara, California.

Shapovalov, L. 1944. Memorandum of Santa Ynez River Conditions. California Department of Fish and Game.

Santa Ynez River Adaptive Management Committee (SYRAMC). 2009. Summary and Analysis of Annual Fishery Monitoring in the Lower Santa Ynez River 1993-2004. Santa Barbara, California.

Tappe, D. T. 1942. The Status of Beavers in California. State of California, Department of Natural Resources, Division of Fish and Game, Game Bulletin No. 3.

Exhibit B

December 5, 2016

Highway 154 Gaging Station and Flow Monitoring Feasibility

Reclamation does not currently monitor flow at the Highway 154 Bridge because of the difficulty in obtaining accurate measurement and other issues noted in the Draft Order, as described more fully below. Instead, Reclamation monitors and manages releases from Bradbury Dam to meet target flows using methodology developed by Stetson Engineers (2004 and 2011) and approved by NMFS (NMFS 2004).

The Draft Order requires Reclamation to monitor flow conditions continuously in the Santa Ynez River (SYR) at the Highway 154 Bridge and at Alisal Road Bridge, as is also required by the 2000 Biological Opinion (BO):

> *In light of the requirement to accurately measure the Biological Opinion flows, this order will direct Reclamation to develop a proposal for installation and maintenance of a measuring station at Highway 154.* Section 3.5.4, Paragraph 5, Page 29.

The Board Order acknowledges some of the constraints for installing a measuring station at Highway 154:

> *There are a number of challenges with the measuring station for Highway 154: the station is on private land and access to the station has been denied by the landowner, there are no suitable measuring locations within the bridge easement, and there is a depositional area upstream of the Highway 154 bridge that affects surface flows. (R.T., October 22, 2003, p. 301:12–301:22.) According to Ms. Jean Baldrige, a fisheries biologist and witness for the Member Units, there is no way to measure or verify flows, however, the Bureau is over releasing water to ensure there is sufficient water in that reach. (Id., p. 395:11.).* Section 3.5.4, Paragraph 5, Page 29.

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The constraints acknowledged by the Board Order, and additional considerations, make installation of a monitoring station at the Highway 154 Bridge impracticable and unadvised, as described below.

Challenges of Highway 154 Bridge Monitoring Location

The primary constraint to installation of a gaging station at the Highway 154 Bridge is that Reclamation has been denied access to the property by the landowner. The property is a Spanish land-grant parcel, which further complicates the landownership issue. In order for Reclamation to pursue installation of a flow gaging station at the private property location, condemnation of the property would be required. Similarly, installing a gaging station within the bridge easement portion of the river is not practicable because, as noted by the Draft Order, that location is within the right-of-way held by the California Department of Transportation. The terms of that right-of-way do not include installation of surface water measuring or gaging stations, and thus a separate easement would need to be obtained, which is not within Reclamation's control. Furthermore, the bridge easement location is not suitable for a gaging stating because the river channel in that area has multiple (3 to 4) braids which precludes accurate monitoring. Indeed monitoring of flow in only one braid would miss substantial flow in the other braids, resulting in over-release to meet target flows. The location of the low flow channel has moved multiple times since the Highway 154 Bridge was included as a monitoring location in the 2000 BO. Large storm events rearrange the channels in the predominantly cobble and gravel substrate, and the current low flow channel runs along the southern edge of the floodplain. Installation of equipment at this location would likely require re-positioning following each large flow event.

The Draft Order also acknowledges there is a depositional area upstream of the Highway 154 Bridge that affects surface flow. This reach normally has substantial subsurface flow during dry season conditions. The subsurface flow resurfaces a short way downstream. Because of changes in sediment deposition, surface flows can vary greatly over a short distance near the Highway 154 Bridge. These dynamic subflow changes, in combination with the braiding, makes accurate flow measurements at the Highway 154 Bridge impractical.

December 5, 2016

Maintenance of Highway 154 Target Flows by Accounting for Reach Losses and Subflow

As noted above, Reclamation monitors and manages releases from Bradbury Dam to meet target flows using a methodology and monitoring plan developed by Stetson Engineers (2004 and 2011). The plan determines necessary releases from the dam by accounting for riparian losses and subflow in the Highway 154 Reach. The 2004 report was included in the State Board hearing record, but the 2011 update was not. (See Final EIR, Table 2-4A (Summary of Reasonable and Prudent Measures/Terms and Conditions Described in the Cachuma Project Biological Opinion and Status of Compliance), page 2.0-23 of Volume II).

Notably, Reclamation submitted the Stetson 2004 monitoring plan to NMFS as a compliance requirement for the Cachuma Project Biological Opinion. NFMFS approved this method (NMFS 2004) as suitable to determine compliance with the flow prescriptions in the 2000 Biological Opinion. Reclamation implemented it moving forward. As contemplated in the Biological Opinion, Stetson Engineers reviewed changes in riparian vegetation in the Highway 154 reach in 2010 (Stetson, 2011). The recommended releases under the plan were increased to account for increased losses associated with increased water uptake by riparian vegetation since the 2004 study. Reclamation has been operating under the updated methods since 2010. Reclamation will be updating the model once again at the close of the current dry period.

References

National Marine Fisheries Service (NMFS). 2004. Response to transmittal of Bureau of Reclamation's new methodology for monitoring required flow rates at the highway 154 Bridge. Letter from NMFS to Reclamation dated November 16, 2004.

Stetson Engineers, Inc. 2004. Evaluation of Outflows and Inflows between Bradbury Dam and Highway 154 Bridge. October 2004.

Stetson Engineers, Inc. 2011. Evaluation of Aerial photos for Monitoring Instream Target Flows in the Highway 154 Reach of the Lower Santa Ynez River, California. August 2011.

PROOF OF SERVICE

I am a resident of the State of California, over the age of eighteen years, and not a party to the within action. My business address is Downey Brand LLP, 621 Capitol Mall, 18th Floor, Sacramento, California, 95814-4731. On December 9, 2016, I served the within document(s):

Comment of Cachuma Conservation Release Board on Draft Order Dated September 7, 2016 Amending Permits 11308 and 11310 Held by the United States Bureau of Reclamation for the Cachuma Project; Santa Ynez River, Santa Barbara County ("Draft Order"); Supplemental Comments on FEIR

☐ **BY FAX:** by transmitting via facsimile the document(s) listed above to the fax number(s) set forth below on this date before 5:00 p.m.

☐ **BY E-MAIL:** by transmitting via e-mail or electronic transmission the document(s) listed above to the person(s) at the e-mail address(es) set forth below.

☒ **BY MAIL:** by placing the document(s) listed above in a sealed envelope with postage thereon fully prepaid, in the United States mail at Sacramento, California addressed as set forth below.

☐ **BY OVERNIGHT MAIL:** by causing document(s) to be picked up by an overnight delivery service company for delivery to the addressee(s) on the next business day.

☐ **BY PERSONAL DELIVERY:** by causing personal delivery by _____ of the document(s) listed above to the person(s) at the address(es) set forth below.

See attached service list

I am readily familiar with the firm's practice of collection and processing correspondence for mailing. Under that practice it would be deposited with the U.S. Postal Service on that same day with postage thereon fully prepaid in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one day after date of deposit for mailing in affidavit.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Executed on December 9, 2016, at Sacramento, California.

Catharine Irvine

Catharine F. Irvine

DOWNEY BRAND LLP

Cachuma Project Evidentiary Hearings
Service List (updated 09/07/2016)

(Based on 01/05/2004 list, updated 07/26/2007, updated 06/08/2010, updated 01/20/2011, updated 05/13/2011, updated 07/29/2011, updated 01/05/2012, updated 01/30/2012, updated 03/28/2012, updated12/12/2013, updated 01/06/2014(corrected), updated 01/23/14, updated 03/13/204, updated 08/17/2016, update 09/07/16.)

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

Cachuma Conservation Release Board Mr. Kevin O'Brien Downey Brand LLP 621 Capitol Mall, Floor 18 Sacramento, CA 95814 kobrien@downeybrand.com bcougar@downeybrand.com *updated 01/05/2012*	City of Solvang Mr. Christopher L. Campbell Baker, Manock & Jensen 5260 N. Palm Avenue, Suite 421 Fresno, CA 93704 ccampbell@bakermanock.com *updated 07/29/2011*
Santa Ynez River Water Conservation District, Improvement District No. 1 Mr. Paeter Garcia Best Best & Krieger LLP 3390 University Avenue, 5th Floor Riverside, CA 92501 Paeter.Garcia@BBKlaw.com *updated 08/15/2014*	City of Lompoc Mr. Nicholas A. Jacobs Somach, Simmons & Dunn 500 Capitol Mall Suite 1000 Sacramento CA 95814 njacobs@somachlaw.com *updated 01/06/2014*
Santa Ynez River Water Conservation District Mr. Ernest A. Conant Law Offices of Young Wooldridge 1800 – 30th Street, Fourth Floor Barkersfield, CA 93301 econant@youngwooldridge.com	California Trout, Inc. Ms. Linda Krop Ms. Maggie Hall Environmental Defense Center 906 Garden Street Santa Barbara, CA 93101 lkrop@environmentaldefensecenter.org mhall@environmentaldefensecenter.org *updated 08/17/2016*
County of Santa Barbara Mr. Michael C. Ghizzoni, County Counsel 105 E. Anapamu Street Santa Barbara, CA 93101 mghizzoni@co.santa-barbara.ca.us *updated 08/12/2016*	U.S Bureau of Reclamation Ms. Amy Aufdemberg 2800 Cottage Way, Room E-1712 Sacramento, CA 95825 Fax (916) 978-5694 *AMY.AUFDEMBERGE@sol.doi.gov* *updated 08/12/16*

Cachuma Project Evidentiary Hearings
Service List (updated 09/07/2016)

(Based on 01/05/2004 list, updated 07/26/2007, updated 06/08/2010, updated 01/20/2011, updated 05/13/2011, updated 07/29/2011, updated 01/05/2012, updated 01/30/2012, updated 03/28/2012, updated12/12/2013, updated 01/06/2014(corrected), updated 01/23/14, updated 03/13/204, updated 08/17/2016, update 09/07/16.)

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

California Department of Fish and Wildlife Ms. Nancee Murray 1416 Ninth Street, 12th Floor Sacramento, CA 95814 *Nancee.Murray@wildlife.ca.gov* *updated 08/15/2016*	Bureau of Reclamation, Mid-Pacific Region Mr. Michael Jackson Area Manager South-Central California Area Office 1243 N Street Fresno, CA 93721-1813 mjackson@usbr.gov
Montecito Water District Robert E. Donlan Ellison, Schneider & Harris L.L.P. 2600 Capitol Avenue, Suite 400 Sacramento, CA 95816 red@eslawfirm.com	Santa Barbara County CEO's Office Ms. Terri Maus-Nisich, Assistant CEO 105 E. Anapuma Street, 4th Floor Santa Barbara, CA 93101 *tmaus@co.santa-barbara.ca.us* *updated 09/07/2016*

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

NOAA Office of General Counsel Southwest Region Mr. Dan Hytrek 501 West Ocean Blvd., Suite 4470 Long Beach, CA 90802-4213 *Dan.Hytrek@noaa.gov* *updated 05/13/2011*	