

**L-2 Rebecca Bjork, City of Santa Barbara Public Works Department**



**City of Santa Barbara**  
**Public Works Department**

[www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov)

Main Offices  
630 Garden Street  
P.O. Box 1990  
Santa Barbara, CA  
93102-1990

Administration  
Tel: 805.564.5377  
Fax: 805.897.2613

Engineering  
Tel: 805.564.5363  
Fax: 805.564.5467

Facilities  
Tel: 805.564.5415  
Fax: 805.897.2577

Street Maintenance  
Tel: 805.564.5413  
Fax: 805.897.1991

Transportation Operations  
Transportation Planning  
Tel: 805.564.5385  
Fax: 805.564.5467

Water Resources  
Tel: 805.564.5387  
Fax: 805.897.2613

Granada Offices  
1221 Anacapa Street  
Santa Barbara, CA 93101

Environmental Services  
(Recycling Programs)  
Tel: 805.564.5587  
Fax: 805.564.5688

Downtown Parking  
1221 Anacapa Street  
Santa Barbara, CA 93101  
Tel: 805.564.5656  
Fax: 805.564.5655

October 30, 2008

Jack Collins, Resource Specialist  
United States Bureau of Reclamation  
1243 'N' Street  
Fresno, CA 93721

Subject: Comments on Draft Environmental Impact Statement for the  
Cachuma Lake Resources Management Plan

Dear Mr. Collins:

Thank you for the opportunity to provide the United States Bureau of Reclamation (Reclamation) with comments on its Draft Environmental Impact Statement (the EIS) for the Cachuma Lake Resources Management Plan (RMP).

**INTRODUCTION**

The City of Santa Barbara is located on the South Coast of Santa Barbara County. It is a City with a population of approximately 100,000. The City is one of five Cachuma Project Member Units ("Member Units"), a member of the Cachuma Operations and Maintenance Board, and the Cachuma Conservation Release Board. The Cachuma Project is the City's primary water supply, providing approximately 60 % of the City's water in an average year.

The City's reliance on Cachuma Lake as a primary water supply makes it very important that water quality and water supply be protected. Recreation at Cachuma Lake has the potential to detrimentally affect both supply and quality. The City's primary concerns regarding the Resource Management Plan EIS (RMP/EIS) is that it adequately identifies potential risks to both the quality and quantity of water at Cachuma Lake, and that adequate mitigation is identified to minimize these risks.

The RMP/EIS acknowledges the importance of Cachuma Lake to the area's water supply, and states that the original purpose for constructing Bradbury Dam was "to provide irrigation, domestic, and municipal and industrial water supplies to nearby water supply agencies" (EIS at p. 1-1.) Despite these acknowledgements, the analysis in the EIS does not treat recreational uses as subordinate to those of providing a clean and reliable water supply to nearby communities. This results in an EIS that is tipped in favor of

OFFICIAL FILE COPY

FILE	ACTION	SURNAME & DATE
452		

✓ 450  
11/05/08 CLP

Classification LWD-8.00  
Project CACH-04  
Contract 08047028  
Project ID 1058509

**L-2-1**

**L-2-1,  
Cont.**

expanded recreation. The City acknowledges the value of Cachuma Lake as a recreational facility, but is concerned that the primary purpose of the Lake as a water supply reservoir not be understated or threatened by recreational uses.

**L-2-2**

The EIS contemplates three alternatives for a revised management plan at Cachuma Lake: Alternative 1, status quo; Alternative 2, slightly expanded recreation; and Alternative 3, significantly expanded recreation. As we have seen over the past several decades, the specific risks that recreation presents to a water supply are unpredictable. At the time of preparation of the last management plan, Quagga Mussels were unknown in the United States, and the risk to water quality from gasoline pollutants emitted from boat engines was not contemplated. For reasons such as these, all activities that have the potential to adversely affect water supply and/or water quality should be required to have a comprehensive recreation management plan that is revised and updated annually by the managing partner, and is subject to the approval of the Cachuma Member units. The primary purpose of the management plan should be to implement management practices that minimize risks to water quality and or supply. At a minimum, the plan should include practices to limit the opportunity for adverse impacts from boating; use of lands within the watershed to minimize pollutants and erosion; protection of endangered species; protection of biological resources; and minimization of the risk from non-native and invasive species.

The City also requests that the EIS make it very clear that Reclamation and its local managing partner are the agencies responsible for mitigating the environmental effects of Reclamation's RMP, and for providing all funding for the mitigation actions.

#### SUMMARY OF COMMENTS

##### **RMP/EIS Assumptions**

**L-2-3**

The analyses in the RMP/EIS are inconsistent with the mutual understanding that recreation is subordinate to protection of water quality and water supply. As Reclamation acknowledges in the first few pages of its EIS, the primary purpose of Cachuma Lake is to store and deliver water for municipal, industrial, and agricultural uses (EIS at p. 2-4) and notes that "[t]he original Project purpose recognized that public recreation was an incidental benefit of the Project" ( EIS at p. 1-2). Indeed, the EIS states that the first objective of the RMP is to "[p]rotect the water supply and water quality functions of Cachuma Lake". However, the RMP/EIS alternatives analyses imply that enhancing recreational opportunities has in practice been elevated to a purpose equal to or greater than the provision of safe, high quality drinking water. This is demonstrated by the fact that the foremost objective of the RMP is described as doing both; that is: "protect water quality . . . while enhancing natural resources and recreational opportunities" (EIS at p. 1-3). The fact that these goals are somewhat contradictory is not addressed. The Agencies agree with Reclamation that protection of the water quality and water supply of the reservoir must take primacy, but the EIS must recognize that primacy throughout its analysis, not just in its introduction.

Bureau of Reclamation

- 2 -

October 30, 2008

**Environmental Effects of Recreational Activities that May Impact Water Quality or Water Supply**

Effects Related to Quagga and Zebra Mussels

In recent years, the Quagga Mussel and its closely related cousin the Zebra Mussel have become a major concern for water supply agencies around the nation. These species were inadvertently transplanted to the Great Lakes area of the United States in the ballast water of ships traveling from certain Eastern European sea drainages and river systems. Quagga Mussels have now spread throughout the Great Lakes region, the Mississippi River system, Lake Mead and its lower basin, the Colorado River Aqueduct system, which serves Southern California; and Zebra Mussels have now reached Central California, completely infesting San Justo Reservoir in San Benito County.

**L-2-4**

These mollusks wreak havoc on water delivery facilities, covering every inch of available surface in layers up to a foot thick. They consume vast quantities of nutrients from the water bodies they infest, leaving little in the way of food for native fish and other aquatic species and causing devastating impacts to natural ecosystems. Additionally, these mollusks can completely fill water pipelines, block filtration facilities, and cause increased corrosion of water conveyance facilities. Their removal often requires shutting down the facilities and manual removal of the mussels through pressurized hot water, the application of high saline solution, smothering through the wide-spread application of plastics for many weeks, or mechanical removal through sand blasting or manual scraping. The eastern portions of the United States have already suffered direct economic costs of over \$100,000,000 annually. In the west, impacts are likely to be as severe, if not more so, due to warmer water temperatures, abundant food supply, greater dependency on transporting water over long distances, and highly stressed aquatic ecosystems. The significance and potential impact of Quagga and Zebra Mussels cannot be overstated.

Reclamation's RMP/EIS acknowledges that Alternatives 2 and 3 would both increase boat use at Cachuma Lake (EIS pp. 4-27, 4-31). The EIS also states that this increased boat usage comes with an increased risk that Quagga and/or Zebra Mussels could be introduced into Cachuma Lake (EIS at p. 4-37), and that these "mussels can multiply quickly and clog waterways and pipelines, affect lake ecosystems, and create costly maintenance issues". However, the EIS concludes that, through the implementation of boat inspection procedures, there would be "no impact" caused by Quagga or Zebra Mussels (EIS at p. 4-71 (Table 4.12-1)). The analysis is both contradictory and incomplete.

First, the RMP/EIS states that quarantine and inspection protocols will be re-evaluated from time to time to determine their effectiveness and, should exotic mussels be found

Bureau of Reclamation

- 3 -

October 30, 2008

L-2-4,  
Cont.

in the Lake, further protective measures would be suggested. However, Reclamation also admits that once a water body is infested, there is no means to completely eradicate the mussel species. Although efforts are being made to develop methods of controlling the growth and spread of these mussels, no effective eradication method in a natural system currently exists. Moreover, inspection and quarantine procedures are far from foolproof. Quagga and Zebra Mussels can be difficult to see when hidden on the mechanical assemblages of boats. Moreover, the mussels can survive for several days even when out of water, and their microscopic offspring can be transported in a minimal amount of water. Therefore, the Agencies request that Reclamation consider potential mitigation for any environmental effects, such as limiting all boating on Cachuma Lake to resident boats.

Second, the RMP/EIS concedes that Quagga and Zebra Mussels can clog pipelines and create costly, ongoing maintenance issues, but the EIS does not evaluate the potential impacts to Cachuma Lake or the Cachuma Project conveyance facilities, should an infestation occur. Currently, the Santa Ynez River system has remained unaffected by Zebra and Quagga Mussels. However, if they do infest Cachuma Lake, they will attach to and clog the Cachuma Project infrastructure that delivers water to the South Coast of Santa Barbara County. Specifically, this includes the Intake Tower, Tecolote Tunnel, South Portal, and South Coast Conduit facilities. Not only would this greatly reduce the quantity of water that could be delivered, but it would also reduce the quality of that water, as secondary contaminants excreted by mussels cloud the water. In addition, given the aggressive growth patterns of the mussels, total occlusion of the water delivery system is a distinct possibility. The Bradbury Dam outlet works would also be affected, which could impact downstream water rights releases and releases to maintain the downstream fishery. Lastly, a mussel infestation would greatly impact operations at Cater and Corona Del Mar Water Treatment Plants, which treat water for the South Coast communities, including Goleta, Santa Barbara, Montecito, and Carpinteria. As there is no redundant system for water delivery, the effects of shutting down that infrastructure to remove mollusk populations is, practically speaking, infeasible and impossible, and would be devastating to the entire region. Potential impacts to all of these facilities should be addressed in the EIS.

Third, Quagga and Zebra Mussel infestations are spread through human activities and water currents. Accordingly, the impacts of a mussel infestation in Cachuma Lake would not be limited to the Lake, but could spread to critical areas throughout the Santa Ynez River system. As Reclamation is aware, in 1997 the Southern California Steelhead was listed as a federally endangered species pursuant to the federal Endangered Species Act ("ESA"). Additionally, "critical habitat" for this species has been designated along the Santa Ynez River up to Bradbury Dam, an impassable barrier, inclusive of the downstream tributaries. As such, no federal action may adversely affect that habitat without first complying with the terms of the ESA. A mussel infestation could virtually shut down water deliveries to Hilton Creek through the Hilton Creek Watering System, which would adversely affect thousands of steelhead/rainbow

Bureau of Reclamation

- 4 -

October 30, 2008

**L-2-4,  
Cont.**

trout now inhabiting lower Hilton Creek. The EIS states that "recreational uses and improvements must also not interfere with protection of ... Southern California steelhead" (EIS at p. 1-1), yet the increased boating opportunities identified in Reclamation's proposed Alternatives may increase the risk of mussel infestation of Cachuma Lake and downstream areas as water releases from Cachuma Lake are made to support the listed fish population. The potential effects of such an infestation on steelhead should be analyzed in the EIS.

**L-2-5**

A boating management plan should be required to be developed by the managing partner. Further, the management plan should be required to be updated annually and should be subject to the approval of the member units.

Effects Related to 2-Cycle Engines

**L-2-6**

Among the mix of watercraft used for recreational boating are those boats powered by carbureted 2-cycle engines. These engines were generally manufactured prior to 1999, and emit high quantities of air and water pollutants during operation. Specifically, 2-cycle engines dump as much as 30% of their fuel and oil directly into the water (EIS at p. 3-6). In addition, fuel can be introduced to lakes by overfilling boat fuel tanks, leaking hoses, nozzles, or storage tanks, and pumpage from bilges. This fuel contains such compounds as benzene, toluene, ethylbenzene, xylene, oxygenated additives, and other compounds known to have adverse effects on human health and aquatic life.

Because of the need to protect drinking water and wildlife, many lakes throughout California are now restricting or prohibiting carbureted 2-cycle motor boats. Specifically, 2-cycle motor boats are forbidden or severely restricted at Anderson Reservoir, Calero Reservoir, San Pablo Reservoir, Los Vaqueros Reservoir, Lake Tahoe, Cascade Lake, Fallen Leaf Lake, Echo Lake, Diamond Valley Lake, and Lake Skinner.

The EIS states that Cachuma Lake's primary purpose is to supply drinking water. The EIS should explain the possible impacts of 2-cycle motor boats on the quality of that supply. The increasing prohibition of 2-cycle engines at other lakes throughout California may result in a concentration of these boats at Cachuma Lake, which could result in a larger concentration of pollutants than is anticipated by the EIS. This impact would also require the installation of costly water quality treatment facilities to specifically target the petroleum-based pollutants, and could have a major effect on providing a clean and reliable water supply to Santa Barbara County.

Reclamation's RMP/EIS confirms that the use of these 2-cycle engines has resulted in "measurable water quality degradation in some of the nation's lakes and reservoirs" (EIS at p. 3-6). The RMP/EIS also acknowledges that the boats for rent at Cachuma Lake are all 4-cycle engines, and that the only 2-cycle boats on the Lake are those brought in by recreational boaters. Additionally, the EIS proposes that these 2-cycle boats will continue to be allowed at Cachuma Lake until a five-year phase-out program



Bureau of Reclamation

- 5 -

October 30, 2008

**L-2-6,  
Cont.**

is complete. The EIS also points to an 11-year-old study (from 1997) in support of Reclamation's conclusion that petroleum byproducts are not an issue at Cachuma Lake.

The City asks that Reclamation consider an immediate ban, or at the very least, a one year phase-out program for carbureted 2-cycle engines rather than the proposed five-year phase-out program.

Effects Related to Body Contact

Body contact activities in drinking water reservoirs are generally forbidden due to serious public health concerns, as well as increased water treatment costs. Because of these concerns, California law explicitly forbids body contact uses in drinking water reservoirs, with only a few limited exceptions. Health & Safety Code, § 115825(b) ("recreational uses shall not, with respect to a reservoir in which water is stored for domestic use, include recreation in which there is bodily contact with the water by any participant."). A specific exemption from this law is required for reservoirs with mixed drinking water storage and body contact uses, of which only a handful have been granted.

Human body contact with a water body increases the pathogenic concentrations in that water body and, in turn, the risk of waterborne infection and disease for those using the reservoir for drinking water.

**L-2-7**

Studies show that, due to shedding of residual fecal material and accidental fecal releases, body contact recreation can significantly elevate the levels of *Cryptosporidium*, rotavirus, poliovirus, *Escherichia coli*, *Shigella*, and *Giardia* concentrations in a water body. Both *Cryptosporidium* and *Giardia* are of particular concern in drinking water reservoirs because they can cause disease outbreaks at very low concentrations, and their effects include vomiting, diarrhea, fever, and even death.

The EIS explains that one of the primary differences between Alternatives 2 and 3 is that Alternative 3 would designate a portion of Cachuma Lake for swimmers and allow body contact with the water for the first time (EIS at p. 4-61). The EIS recognizes the problematic nature of mixing body contact and drinking water, noting that "introducing body contact to the Lake has an obvious impact on water quality" (EIS at p. 4-61). This is due to the fact that "currently water delivered to Goleta West by the Goleta Water District is chlorinated at the Goleta Sanitary District, but not filtered....Uninformed customers could consume unfiltered water that has received body contact" (EIS at p. 4-6). For this reason, the impact from a swimming beach "would be major" and have "an obvious [negative] impact on water quality." Nonetheless, Reclamation concludes that swimming should be allowed because "physical and chemical controls have been implemented at other drinking water reservoirs where body contact is allowed, which have proven to be acceptable (see Section 3.9.1.2)." There are multiple problems with this conclusion.

Bureau of Reclamation

- 6 -

October 30, 2008

**L-2-7,  
Cont.**

First, no support is given for the conclusion; no studies, factual data, or citations are given, other than the internal citation to the EIS itself. The internal citation to Section 3.9.1.2 actually contradicts the EIS's conclusion. Of the eight lakes discussed, three of them are drinking water reservoirs: Cachuma Lake, Lake Margarita, and Lake Casitas (EIS at pp. 3-58 to 3-62). The exact same three lakes do not allow body contact recreational activities (EIS at p. 3-58). Section 3.9.1.2 contains such statements as "Casitas Municipal Water District manages Lake Casitas as a drinking water reservoir, and therefore no body contact is allowed," and "as a drinking water reservoir for the City of San Luis Obispo, body contact is forbidden [at Santa Margarita Lake]" (EIS at pp. 3-59 and 3-61). Thus, the referenced section actually shows that body contact is specifically *not* allowed where a reservoir is used for drinking water.

**L-2-8**

Second, the mitigation measures that would be necessary to diminish the impacts to water quality from the introduction of full body contact may be infeasible due to the high cost of upgrading or building of new water treatment plants.

Because of the importance and primacy of Cachuma Lake as a drinking water supply, the danger of contamination from human body contact with the water, the possible infeasibility of the proposed mitigation measures, the existence of other swimming opportunities in the area (Cachuma Lake has a public swimming pool, and a number of other area lakes do allow swimming. (EIS at p. 3-58)), and the fact that allowing body contact could violate California law, the City strongly requests that Reclamation not allow swimming in Cachuma Lake.

#### Effects Related to Livestock

**L-2-9**

Allowing increased equestrian uses or expanded cattle grazing near Cachuma Lake could also raise the risks of contamination. The EIS fails to adequately analyze this risk. The EIS refers the reader to Section 4.1.3 for an analysis of the impacts of cattle and horse waste contamination of the Lake, but this section contains only two sentences discussing this impact (EIS at p. 4-8). Additionally, there is no evidence in the EIS supporting its conclusion that signs and educational materials and maintenance of the existing fences, the only proposed mitigation measures, would fully mitigate for increased lake contamination from animal waste. Expansion of recreational uses that includes equestrian use of trails in the watershed should include management practices, such as locating trails well away from water, that effectively mitigate the opportunity for contamination of the reservoir with fecal material.

**L-2-10**

#### **Potential Impacts to Steelhead**

As part of its analysis of alternatives, Reclamation anticipates increasing, or at a minimum maintaining, the population of stocked sport-fish in Cachuma Lake (EIS at p.

Bureau of Reclamation

- 7 -

October 30, 2008

**L-2-10,  
Cont.**

4-27). These fish would include bass, trout, and other species. The EIS, however, fails to analyze the potential effects that such a stocking program would have on endangered steelhead downstream. For example, bass prey upon smaller fish as a food source and can have a major effect on population size of the prey species (EIS at p. 4-27). The interaction of introduced fish with native fish populations is an issue that is of great importance with regard to Cachuma Lake. Because spills from Cachuma Lake carry non-native stocked fish into the lower river, the impacts of stocked fish on the listed fish population downstream should be examined.

Predation can play a major role in the decline of fish species, and at least one study<sup>1</sup> has concluded that the predation impact of striped bass on federally endangered winter-run Chinook salmon would cause "a serious extinction risk. This study explains that striped bass were introduced to the Sacramento River to support commercial and recreation sport fishing, but that the bass prey upon juvenile winter-run Chinook salmon as a food source.

Another issue is that non-native fish interbreed with native populations and thus dilute the wild population's genetic makeup. This is of particular concern because where this occurs, in most cases, the non-native fish have been found to exhibit reduced genetic diversity, which may lead to reduced fitness in the native fish through interbreeding.

**L-2-11**

The EIS explains that the Southern California Steelhead has been listed as an endangered species under the federal Endangered Species Act since 1997 (EIS at p. 1-2). Additionally, the EIS discloses that water releases from Bradbury Dam are mandated for the protection of the steelhead. Finally, it states that any recreational uses of the Lake approved as part of the RMP must not adversely affect the listed fish (EIS at p. 1-1). Despite these statements, the analysis provided in the EIS does not adequately evaluate impacts to steelhead. Instead, the RMP/EIS makes clear that its analysis focuses only on the "Plan area," which includes only Cachuma Lake and the immediately surrounding areas. The analysis in the EIS should be expanded to examine the potential downstream impacts to steelhead.

These issues should be discussed in the EIS, as well as proposed measures to mitigate potential impacts. For example, stocking only sterile fish might eliminate interbreeding impacts to the endangered fish below Bradbury Dam.

---

<sup>1</sup> Lindley, Steve T., and Michael S. Mohr. "Modeling the effect of striped bass (*Morone Saxatilis*) on the population viability of Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*)," Fishery Bulletin 101.2 at p. 1 (April 2003). Many other studies concur that predation of bass species upon juvenile trout and other fish is a serious concern and that predation is a major source of mortality for a variety of fish species. See, e.g., Naughton, George P. and David H. Bennett, "Predation on Juvenile Salmonids by Smallmouth Bass in the Lower Granite Reservoir System, Snake River," N. Amer. J. of Fisheries Mngmt., 24:534-544 (2004); Bolding, Bruce D. et al., "Effects of Introduced Fishes on Wild Juvenile Coho Salmon in Three Shallow Pacific Northwest Lakes," Transactions of the Amer. Fisheries Soc'y, 134:641 (2005); Tabor, Robert A. et al., "Smallmouth Bass and Largemouth Bass Predation on Juvenile Chinook Salmon and Other Salmonids in the Lake Washington Basin," N. Amer. J. of Fisheries Mngmt., 27:1174 (2007).



**ADDING AN ADDITIONAL WATER QUALITY/WATER SUPPLY PROTECTION  
ALTERNATIVE WILL IMPROVE THE EIS**

**L-2-12**

Despite the uncontested importance of the Lake as a drinking water reservoir, the EIS does not examine any alternatives that enhance the protection of water quality. Instead, the only two alternatives that are analyzed relate to increasing recreation at Cachuma Lake. Both of these alternatives generate more impacts than the No Project alternative, even with the mitigation measures discussed in the EIS, many of which are acknowledged as inadequate to fully mitigate potential impacts to the Lake's water quality. Because of the importance of protecting the public's primary drinking water supply, the Agencies suggest the addition of a Water Quality/Water Supply Protection alternative to address this deficiency. Additionally any projects or programs that have the potential to adversely impact water quality or supply should require the development by the managing partner of an annual management plan, to be approved by the member units.

**L-2-13**

An additional water quality/water supply protection alternative could be developed by selecting a focused suite of components from the existing alternatives already evaluated in the RMP/EIS. The new "hybrid" alternative should include those activities that could be accomplished without impacting the reservoir's water quality or water supply facilities, but still enhance recreation. It could include all beneficial aspects of Alternatives 2 and 3, without the negative environmental impacts. For example, it could incorporate the Trails, Vegetation, and Fisheries Management Plans, a ban or rapid phase-out of 2-cycle motors, and institution of a strict Quagga Mussel containment program.

Another set of alternative components might also be considered, which would implement the previously mentioned plans as well as a program of restoring and upgrading existing recreational infrastructure, expanding the hiking trail system, and building new dry camps, as long as those activities were all well away from the Lake. This would enhance Cachuma Lake's recreational opportunities without increasing them, while fully preserving the Lake's water quality and water supply facilities.

**CONCLUSION**

The City thanks Reclamation for providing the opportunity to comment on the proposed Cachuma Lake Resources Management Plan and Environmental Impact Statement. Particularly, I would like to thank you for extending the comment deadline to give us time to better review and consider the draft EIS. My comments are intended to provide Reclamation with a clear understanding of the primary concerns faced by the City as we meet increasingly strict water quality standards and continue to supply a reliable and

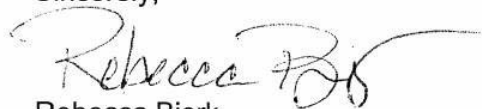
Bureau of Reclamation

- 9 -

October 30, 2008

high-quality source of drinking water to residences, businesses, and agricultural lands during a time of increasing demand for water and great uncertainty regarding water supply.

Sincerely,



Rebecca Bjork  
Water Resources Manager

RB/spm

cc: Christine Andersen, Public Works Director  
David McDermott, Assistant City Attorney  
Kate Rees, General Manager Cachuma Operations Maintenance Board

### *Responses to Comment L-2*

#### **L-2-1**

Reclamation considers the Preferred Alternative to be protective of water quality and compatible with the objective to operate Cachuma Lake for water quality and water supply. The Final EIS has been revised to include new Section 2.9, which discusses the reasons that an alternative that would reduce recreational opportunities in the Plan Area was eliminated from detailed study. See the response to Comment R-1-1.

#### **L-2-2**

The RMP has a 20-year planning horizon and can be reviewed and amended as necessary based on changing conditions. In addition to the measures included in the RMP to avoid water quality effects from boating, minimize pollutants and erosion from land use practices, and protect endangered species and other biological resources, the RMP requires separate plans to be prepared for boating management, fisheries management, vegetation management, and trail system management. A Rangeland Assessment and Grazing Management Plan (Sage Associates 2003) will be updated as part of the Preferred Alternative.

See the response to Comment F-1-15 in regard to mitigation funding.

#### **L-2-3**

See the responses to Comments R-1-9 and R-1-10.

**L-2-4**

See the response to Comment R-1-17.

**L-2-5**

A boating management plan is included in the Preferred Alternative.

**L-2-6**

See the response to Comment R-1-19. Under the Preferred Alternative, all nonconformant marine engines will be phased out within 2 years.

**L-2-7–L-2-9**

See the response to Comment R-1-20.

**L-2-10, 11**

See the response to Comment R-1-18. Mitigation BI-8 in Section 4.4.7 has been revised to state that the Fisheries Management Plan will comply with the Recovery Plan for Southern California DPS steelhead and CDFG's stocking program, and may require stocking only sterile triploid trout in Cachuma Lake.

**L-2-12, 13**

See the responses to Comments R-1-11 and R-1-13.

**L-3**     *Darlene Chirman, Santa Barbara Audubon Society, Inc.*

**Santa Barbara Audubon Society, Inc.**

*A Chapter of the National Audubon Society*

5679 Hollister Avenue, Suite 5B, Goleta, CA 93117

(805) 964-1468



October 28, 2008

Bureau of Reclamation  
Mr. Jack Collins, Resource Specialist  
1243 N Street  
Fresno, CA 93721  
[jjcollins@mp.usbr.gov](mailto:jjcollins@mp.usbr.gov)  
FAX 559-487-5397

**RE: Cachuma Lake Recreation Area Resource Management Plan  
Draft EIS**

Dear Mr. Collins:

Santa Barbara Audubon Society (Audubon) is a non-profit organization interested in conservation of natural resources in the Santa Barbara area. We are commenting on the draft Resource management Plan and draft EIS for Cachuma Lake. This commenter is president of the local Audubon chapter, and a conservation biologist. I am also a Park Commissioner for the County of Santa Barbara, but these comments represent my own views and those of Santa Barbara Audubon, not the views of the commission. The Parks Commission has not reviewed this document.

**L-3-1**

In general, Audubon supports a Management Plan that is a blend of Alternatives 1 and 2. Alternative 3 would provide for resort-style development in portions of the Plan area which we oppose due to impacts to natural resources, and because we value the natural, rustic ambiance of the Lake Cachuma County Park and its environs, and wish that to be maintained. We support modest enhancement of recreational opportunities, including permitting kayaks, but not swimming at this drinking water reservoir. The designations of RN (Rural Natural) should be retained for the north shore bays.

**L-3-2**

The EIS is inadequate in evaluating the impact of having equestrian, hiking and/or biking trails that encircle the lake. The document does mention the breeding site for Bald Eagle present on the north shore, and states that 6 possible trail sites have been evaluated. But there is no map showing these trail configurations or the location of the nest site, which lies outside of the Plan boundary. While there are valid reasons not to map the location of the bald eagle nest to avoid disturbance, it does make evaluation of the trail options difficult. From information provided outside of this document, there appears to be no opportunity for a trail that would not disrupt the connection for breeding bald eagles between the nest site and foraging on the lake. Therefore, we consider the impact to be significant and oppose the trail encircling the lake.

Here are specific comments:

**L-3-3**

1) **Opposition to intensive development of lake recreation.** Audubon supports maintenance of the natural setting with limited enhancement of recreational opportunities. We oppose allowing "resort-like" accommodations at Live Oak or other Plan areas. This would detract from the natural setting.

**L-3-4**

2) **Body contact activities.** Audubon opposes permitting of swimming and windsurfing (Alt 3); due to the drinking water protection concerns of this reservoir. We do support permitting kayaks and

Cachuma Lake Mgt Plan/EIS  
Comments Santa Barbara Audubon  
Page 2

**L-3-4,  
Cont.**

canoes (Alt 2), which provides quiet human-powered lake recreation without commensurate hydrocarbon pollution. It is unclear how someone would “demonstrate proficiency with kayaks” before entering the water. It is also unclear what “suitable protective gear to reduce body contact with water to acceptable levels” would be. Wetsuits (as suggested for windsurfers under Alternative 3) would be too hot and restrictive for active paddling without being in the water, and what other options are there?

**L-3-5**

- 3) **Prohibition of 2-stroke engines.** Only 4-stroke engines are currently sold in California for boats, since 1998, and all boats rented at Lake Cachuma are 4-stroke, with less hydrocarbon pollution. We support the Alt 2 & 3 phase-out of 2-stroke engines 5 years from *now* under any Management regime. That would prohibit boat engines older than 15 years, which is not an unreasonably short time frame to protect our drinking water. The clock should start now, however much longer it takes to have an approved Management Plan.

**L-3-6**

- 4) **Trail encircling the lake--concerns & other trail expansion.** The EIS fails to show proposed trail expansion locations. The existing equestrian trail is accessed from Live Oak camp; the camp needs to be identified on Figure 3.9-7. In fact, Live Oak Camp is designated on only one of the Plan-area-scale maps.

There are six possible locations for a trail around the lake, but the EIS fails to provide a map or text descriptions of these trail configurations. The bald eagle nest site, described as fledging young yearly since 1989, is not mapped. The relationship between the trail siting and the eagle nest is crucial. As states in the Special Status Species section 4.4.6.4, disturbance within ½ mile could disrupt breeding of bald eagles, which remains a fully protected species in California, since delisting. Unless it can be demonstrated that a trail would not significantly impact eagle nesting and foraging, which seems unlikely, this trail plan should be abandoned.

**L-3-7**

- 5) **Remote picnic and camp sites.** Alternative 2 and 3 include remote picnic and/or camp sites on the north shore of the lake. The proximity to high wildlife areas, such as grebe nesting, Great blue heron rookery, and eagle foraging has not been adequately evaluated; Audubon anticipates significant impacts to sensitive wildlife. The EIS does not address the proximity and direct or indirect impacts, so analysis is not possible. Adequate buffers would be needed to limit the impact of disturbance to acceptable levels. Audubon opposes public access to the north shore of the lake, and suggests an alternative site for a picnic/primitive camp on the east end of the lake. The peninsula denoted on Figure 3.4-5 with the text Spotted Owl Family Group should be evaluated as a suitable campsite, and potential impacts of this site should be evaluated. This site could be reached by power boat or kayak, or by horseback.

**L-3-8**

- 6) **Increased Boat Use.** Alternative 3 proposes unacceptable levels of boat use--“suburban” designation in some areas. Aside from the potential significant impact to fisheries and birds, this level of use would negate the visitor experience in the “natural” setting of the lake.

Additional boat use can be anticipated under Alternative 1, just due to the expanding population of the county, and under Alternative 2. Kayaks and perhaps canoes would provide quiet, human-powered lake visitation, and kayaks could use now-closed eastern areas of the lake. Many of these users would not be fishing, thus having less impact on the fish resources of the lake.

The maximum length of boats in Alt 1 is 30 feet, Alt 2 25 feet, and again Alt 3 30 feet. We can understand no rationale for this; is it an error?

**L-3-9**

- 7) **Kayak access areas.** *Mitigation BI-4* would limit the number of boats (kayaks) per day in currently restricted areas. It seems likely that restrictions during waterfowl breeding season would also be needed for adequate protection. Audubon suggests that kayaks not be allowed in the currently restricted areas on the north side of the lake. The bay adjacent to Live Oak Camp could be evaluated as a possible kayak launch site and kayak access area. Seasonal restrictions may be needed to protect sensitive bird resources. See also comment number 10.



Cachuma Lake Mgt Plan/EIS  
Comments Santa Barbara Audubon  
Page 3

- |                          |  |
|--------------------------|--|
| <b>L-3-10,<br/>Cont.</b> | <p>8) <b>Natural Resources Management.</b> Alternative 2 provides habitat enhancement and management at the east end of the lake past the log boom; Alternatives 2 and 3 include a Vegetation Management Plan comprehensively addressing invasive weeds, grazing and fire management. Audubon supports these efforts; this area has high bird use. The Habitat Enhancement and Vegetation Management Plans should be implemented under any new Management Plan. Population increases in the county and state make increased recreational use of the Plan area likely under any management scenario for the next 20 years. As stated in Table 3.9-6, Santa Barbara County population is projected to increase 15.8% from 2000-20; and Los Angeles County (many visitors to the Park) is projected to increase 13.9% in the same time period. Audubon would also like to see additional habitat enhancement in appropriate portions of the county park. Examples are the area known as Teepee Island and several slope areas above the marina, adjacent to day use sites. Santa Cruz Bay should also be evaluated for habitat enhancement.</p> |
| <b>L-3-11</b>            | <p>9) <b>Native Grasslands.</b> Native grasslands are poorly described in the Plan; neither Figure 3.4-2 nor Figure 3.4-3 distinguishes native grasslands from non-native. Table 3.4-1 states 5 acres of native grassland exists in the Plan area. This appears to be underestimating the presence. I have observed many patches of Purple Needlegrass; the author describes areas with at least 25% cover of Purple Needlegrass. In the County of Santa Barbara, 10% cover of native bunchgrasses qualifies an area as a protected native grassland. This is a reasonable guideline.</p>  |
| <b>L-3-12</b>            | <p>10) <b>Live Oak Camp expansion.</b> The Management Plan/EIS fails to map Live Oak Camp on the Plan-area maps (except Figure 3.4-2); the detailed map shows only existing conditions. Access to the San Ynez River or Cachuma Lake is proposed, but no location is shown on Figure 3.9-3. Given the high bird biodiversity of the eastern portion of the Lake, showing the location of access points is crucial for evaluating potential impacts of access to the water. A kayak launch site would be a great amenity, but only if impacts to the natural resources of the area are not significant.</p> <p>Some expansion of day use (picnic sites) and or overnight camping for single sites may be appropriate, but Audubon opposes "resort-style" accommodations that would impair the natural setting of the Plan area. Playing fields are inappropriate in this oak woodland habitat, because they have significant and unacceptable impacts.</p>  |
| <b>L-3-13</b>            | <p>11) <b>Water Park facility.</b> Audubon opposes this Alt 2 proposal; the document fails to provide any detailed proposal or location, or any potential impacts. Such facilities rarely are economically self-supporting, so even from an economic standpoint a water park is undesirable. Audubon's objection is primarily to the commercialization of the Lake area; the visitor appeal is its natural setting, native vegetation and wildlife.</p>  |
| <b>L-3-14</b>            | <p>12) <b>Transportation within the park.</b> According to the document, bicycle rentals are available at the Family Fun Center, at least during the summer. Bicycle use within the park should be promoted--expand bike rentals and encourage campers to bring bicycles for use within the park.</p>  |
| <b>L-3-15</b>            | <p>13) <b>Grazing Management.</b> A grazing management plan should be implemented under any new Resource Management Plan. Goals should be explicitly stated, and should include expansion of native grassland. A portion of the lease rent should be designated for monitoring, to be utilized in adaptive management. Recovery after grazing episodes is highly desirable in order to maintain soil coverage, thus rotational grazing should be required.</p> <p>The Draft Resource Management Plan proposes a grazing management plan only under Alternative 2 or 3. However, current "best management practices" in vegetation management should be employed to better protect the natural resources of oak woodlands, native grasslands and water resources within the Plan area. Proposed water tanks, spring development and holding fields need to be monitored to see if they meet explicitly-stated goals. While Figure 3.8-1 shows these proposed changes, the goals and potential impacts are not evaluated in the document. The rare and uncommon</p>  |

Cachuma Lake Mgt Plan/EIS  
Comments Santa Barbara Audubon  
Page 4

**L-3-15,  
Cont.**

plants at Cachuma Lake, mapped on Figure 3.4-6, lie predominantly within the grazing areas. The status of these plants needs to be monitored and adaptive management utilized if the populations are impacted.

**L-3-16**

**14) Fisheries Management Plan.** Appropriately, under all alternatives, the boat cleaning and inspection protocols instituted by the County of Santa Barbara will continue, to protect this drinking water reservoir from infestation by quagga and zebra mussels. Adaptive management--evaluating the procedures and adapting as necessary--shall be incorporated in the Resource Management Plan.

Under all alternatives, some increase in boat use and hence in fishing, is expected to occur. Under Alternative 1, this is expected due to population increases within the visitor catchments--Santa Barbara County and Los Angeles County in particular. It would seem that promotion of boating that does not involve fishing--increased boat tours and kayaking for non-consumptive recreation, would better protect the food resource for aquatic birds living at the lake. The proposed Fisheries Management Plan should be developed under any management scenario.

**L-3-17**

**15) Invasive Weeds.** Numerous invasive non-native plant species have been identified in the Plan Area under Existing Conditions. Species listed by the California Invasive Plant Council, found at Lake Cachuma include Yellow star thistle, Spanish broom, Giant reed, Pampas grass, Veldt grass (page 3-20-21). In other parts of the document Italian and Russian thistle are noted. The Plan proposes to collaborate with organizations to address the impacts of these invasive weeds only under Alternatives 2 and 3. Invasive weeds must be addressed under all Management scenarios. As mentioned, the County of Santa Barbara Agricultural Commissioner's Office is a potential partner, as the coordinator of the local Weed Management Area. Non-profit organizations such as the Audubon Society and Channel Islands Restoration can be collaborators in addressing this issue. Grant funding can be sought, and the non-profit partners and Park staff can recruit volunteers such as scout troops and park visitors, to assist with invasive weed control.

**L-3-18**

**16) North Shore access.** As stated above, Santa Barbara Audubon does not support increased public access to the north shore and water bodies such as Santa Cruz Bay. Impacts to the wildlife resources would likely be significant and unmitigatable.

**L-3-19**

**Summary.** Santa Barbara Audubon supports modest improvements and increased recreational access to Lake Cachuma, but not at the expense of the natural resources of the Plan Area. The document does a fair job of presenting existing conditions and natural resource values, but fails to adequately assess the impacts to natural resources of many aspects of the enhanced or expanded recreation proposals.

Sincerely,



Darlene Chirman  
President  
Santa Barbara Audubon

### *Responses to Comment L-3*

#### **L-3-1**

The comment is noted. Alternative 2 has been selected as the Preferred Alternative.

**L-3-2**

The bald eagle nesting site is mentioned in multiple locations throughout the RMP/EIS, primarily in Section 3.4.5.2. Additional information has been added to Sections 3.4.5.2, 4.4.4.4, 4.4.5.4, 4.4.6.4, and 4.4.7 of the Final RMP/EIS.

As described in Section 4.4.7, the known bald eagle nest is 1.35 miles outside of the Plan Area. A 0.25- to 0.5-mile buffer is recommended to prevent impacts to nesting eagles (Watson and Rodrick 2000). Since the nest is located more than twice the recommended distance from the closest part of the Plan Area, human activity in the Plan Area is not expected to disturb nesting eagles. In addition, dirt roads currently exist between the bald eagle nest and suitable foraging grounds at Cachuma Lake; however, eagles have been successfully hunting and breeding for years. Limited access to primitive trails is not expected to affect the bald eagles that nest outside of the Plan Area.

**L-3-3, 4**

Alternative 2 (Enhanced Recreation) has been selected as the Preferred Alternative; therefore, the resort development and body contact proposed in Alternative 3 (Expanded Recreation) will not take place. The Boating Management Plan would specify details about protective gear, and the local managing partner or concessionaire would provide a health and safety education program to remind users that body contact with the water is not permitted and provide basic kayak safety instruction to ensure proficiency (see Section 2.7.2).

**L-3-5**

The Preferred Alternative includes a 2-year phaseout of nonconformant engines. If annual testing of raw water at the William B. Cater Treatment Plant detects BTEX compounds, the phaseout would take place within 6 months of detection. As of 2009, no BTEX compounds have been detected.

**L-3-6**

As with other facilities and activities that would be allowed under the Preferred Alternative, the location of the trails would only be developed if demand warrants their construction, funding is available, and environmental analysis is completed as necessary. The proposal to develop six new trails on the North Shore is not included in the Preferred Alternative.

The bald eagle nest is not mapped because it is located over a mile outside of the Plan Area on private property, and indicating its location could contribute to human disturbance.

Equestrian trails as well as dirt roads already exist between the nest and Cachuma Lake, and the nesting pair of eagles has fledged chicks successfully in previous years. The proposed trail enhancements under the Preferred Alternative would not affect eagle foraging.

**L-3-7**

Any remote picnic or camping sites on the North Shore would be placed within an adequate buffer from sensitive wildlife and would be subject to site-specific environmental analysis.

**L-3-8**

The Preferred Alternative (Alternative 2) assumes a small increase in boat use over the planning horizon—approximately 20 percent—to account for local and regional population growth. However, the maximum number of boats on the lake at any one time would not be allowed to increase beyond the No Action Alternative level (120 BAOT at maximum pool). Kayak and canoe use would be allowed, including at the east end of the lake.

The maximum boat length of 25 feet for the Preferred Alternative was included to limit boat size and maintain the WROS setting planned for that alternative.

**L-3-9**

When entering areas that were previously closed to boating, kayakers may be subject to restrictions to prevent the disturbance of sensitive wildlife. These restrictions would be specified in the boating management plan and could include accompaniment by a naturalist or establishment of buffer zones around sensitive wildlife areas. Behavior of sensitive wildlife such as foraging bald eagles could be observed during trial periods by naturalists at the lake and re-evaluated after an analysis of disturbance is conducted. Access to the east end of the lake beyond the log boom would be restricted to kayakers during the bird breeding season. Restrictions on kayak use under the Preferred Alternative are described in Sections 2.7.2, 4.4.5.2, 4.4.7, 4.5.5, and 4.9.5; and Table 2-3.

**L-3-10**

A vegetation management plan would be developed under the Preferred Alternative. Habitat enhancement would be subject to the availability of funding and the evaluation of optimum areas for enhancement.

**L-3-11**

The comment is noted. The description of native grassland in Section 3.4.3 of the Final RMP/EIS has been revised. More comprehensive mapping of native grassland in the Plan Area could be undertaken as part of the vegetation management plan.

**L-3-12**

A label for Live Oak Camp has been added to Figure 1-3.

Specific locations of trails, kayak launch sites, or access to the Santa Ynez River would be identified when public demand and availability of funding allow implementation of specific management actions. All access points, trails, and other recreational features would be subject to additional environmental analysis as needed and would have to avoid impacts to natural resources.

The resort-style accommodations proposed for Alternative 3 are not included in the Preferred Alternative.

**L-3-13**

The water park was proposed as a conceptual facility under the Preferred Alternative. It would only be constructed if public demand warrants and funding is available, and it would require site-specific environmental evaluation.

**L-3-14**

The support for bicycle transportation in the Plan Area is noted.

**L-3-15**

A Rangeland Assessment and Grazing Management Plan (Sage Associates 2003) has been prepared for the Plan Area and will be reviewed and updated as necessary as part of the Preferred Alternative. As stated in Section 4.3.7 (Mitigation SG-3), the Rangeland Assessment and Grazing Management Plan as well as the Vegetation Management Plan would contain adaptive management protocols.

The proposed spring development, water tanks, holding fields, water troughs, and water lines shown in Figure 3.8-1 have been deleted because they are not part of the RMP. If future grazing leases or amendments to grazing leases propose these features, they would be subject to a tiered level of environmental review that would reference this programmatic document.

**L-3-16**

A fisheries management plan with an adaptive management approach will be prepared under the Preferred Alternative. Boat use may increase slightly, but the maximum number of boats allowed on the lake at any one time would be the same as under the No Action Alternative.

**L-3-17**

The recommendations are noted. Funding sources and other aid for invasive weed control will be addressed in the vegetative management plan that will be prepared under the Preferred Alternative (Alternative 2).

**L-3-18**

The Preferred Alternative would allow limited biking, hiking, and equestrian use on primitive trails and boat-in, primitive, self-contained camping in appropriate areas on the North Shore. Permits issued by the local managing partner would regulate these uses. Recreation use of the North Shore would be subject to seasonal restrictions during winter to reduce trail damage, during times of high fire danger, and during cattle shipping operations. The RMP/EIS includes measures to avoid, minimize, or mitigate any impacts that might result from North Shore access.

**L-3-19**

This summary comment is noted. The previous responses address the specific concerns raised in this letter.