| | |
|---|---|
| **From:** | Michael Cohen |
| **To:** | SaltonSeaComments; |
| **CC:** | Miriam Torres; Peter Ferenbach; Steve Glazer; John Weisheit; Garrit Voggesser; connere@west.net; Francisco Zamora; Bart Miller; mcohen@pacinst.org; LWashburn; |
| **Subject:** | comments on Salton Sea PEIR |
| **Date:** | Tuesday, January 16, 2007 4:02:34 PM |
| **Attachments:** | NGO Comments on Salton Sea Draft PEIR.pdf |

---

Dale,

Attached please find comments on the Salton Sea PEIR, respectfully submitted on behalf of the Environmental Justice Coalition for Water, Friends of the River, High Country Citizens Alliance, Living Rivers, National Wildlife Federation, Pacific Institute, Sonoran Institute, Southern California Watershed Alliance, and Western Resource Advocates.

Thank you for your consideration of these comments.

Mike

January 16, 2007

Attn: Dale Hoffman-Floerke
Salton Sea PEIR comments
Department of Water Resources
Colorado River & Salton Sea Office
1416 9th Street, Room 1148-6
Sacramento, CA 95814

via email: SaltonSeaComments@water.ca.gov

**Re: Comments on Draft PEIR for Salton Sea**

Dear Ms. Hoffman-Floerke:

We submit these comments on the Salton Sea Ecosystem Restoration Program Draft Programmatic Environmental Impact Report (PEIR) on behalf of the Environmental Justice Coalition for Water, Friends of the River, High Country Citizens Alliance, Living Rivers, National Wildlife Federation, Pacific Institute, Sonoran Institute, Southern California Watershed Alliance, and Western Resource Advocates. Together, our organizations have and represent more than four million members nationwide, many of whom hunt, fish, bird-watch, camp or otherwise enjoy the Salton Sea and species that depend on the Salton Sea. We submit these comments to assist the Secretary of the Resources Agency in his efforts to determine a preferred alternative.

**Background**

The Salton Sea is an internationally significant resource. Extending between the Coachella and Imperial valleys in southeastern California, the Sea is the state's largest lake, covering some 350 square miles and providing an invaluable source of food and habitat for millions of birds migrating through the harsh desert. This restoration program offers the best – and perhaps the last – hope for this imperiled ecosystem. Faced with ever-worsening water quality and the certainty that inflows will diminish by more than 30% in the next 20 years, the Sea will shrink dramatically in coming years, threatening public health with larger and more destructive dust storms and quickly degrading the value of this critical stopover on the Pacific Flyway.

Restoration of the Salton Sea is essential to wildlife, the protection of public health and the quality of life in the surrounding communities. The Sea is considered a globally important bird area because of its astounding diversity of bird species – more than 400, the second-highest count in the nation – and the very large populations of some species that rely on it for habitat. Its restoration is also essential to protect public health and agriculture from dangerous levels of dust pollution that would otherwise result from exposed seabed. It offers important opportunities for recreation, hunting, fishing and economic development. Finally, restoration is an essential

element of the Quantification Settlement Agreement and the associated water transfer from the Imperial Irrigation District (IID) to urban Southern California.

There is no question that we must act to protect and rehabilitate the Salton Sea ecosystem. The question is simply, how best to act.

The PEIR (posted at www.saltonsea.water.ca.gov/PEIR) describes eight ways we might act, but it does not identify a preferred alternative. Citing Fish and Game Code §2930, the PEIR notes that, "The preferred alternative, when determined, is to provide the maximum feasible attainment of the following objectives:

- Restoration of long term stable aquatic and shoreline habitat for the historic levels and diversity of fish and wildlife that depend on the Salton Sea;
- Elimination of air quality impacts from the restoration project; and
- Protection of water quality."

**Legal Requirements**

The legal requirements listed above identify habitat, air quality, and water quality as the key criteria for the selection of a preferred alternative. The alternatives vary in their ability to achieve these requirements; none of the eight action alternatives analyzed in the PEIR satisfies all of the requirements. We believe that the preferred alternative should combine the best elements of the alternatives into a refined plan, as described in the following.

*Habitat*

Shallow and shoreline habitats are critical to maintain the diversity and level of wildlife that depend on the Sea. The PEIR projects that the habitats in Alternatives 2, 4, & 5 would support, in decreasing order, the greatest abundance of birds (see Ch. 8 p.74), primarily due to the abundance of shallow and shoreline habitats.

If we were to ignore water quality problems such as anoxia, then the deeper marine lakes of Alts. 5-8 would provide the greatest diversity and abundance of fish habitat. However, as is stated in Table 6-5 and on p. 8-60, water quality would be worse in the marine lakes than under existing conditions (when millions of fish die periodically due to wind-generated mixing events that degrade water quality) and than under no action conditions. The deep marine lakes will not provide reliable fish habitat. Shallower water bodies, such as those found in Alts. 1-4, will provide some fish habitat, though probably less than mandated diversity and abundance.

To provide resources for birds during the long permitting and construction process required for any preferred alternative, we strongly urge the immediate implementation of 'early start habitat.'

As for desert pupfish, while their requirements are arguable addressed in each of the alternatives due to the pre-existing requirements for connectivity under the IID transfer, the preferred alternative should maximize connectivity between pupfish populations. This is consistent with the 1993 Desert Pupfish Recovery Plan. Alts. 3 & 4 provide the greatest amount of pupfish connectivity due to the establishment of a concentric body of water that links key drains and creeks.

*Air Quality*
Given the extremely poor air quality, that already characterizes the Coachella and Imperial valleys, the protection of air quality – and public health – must be a top priority. In the versions analyzed by the PEIR, Alts. 4 & 7 would not eliminate air quality impacts. These alternatives' failure to protect public health precludes them from selection as the preferred alternative. Each of the other alternatives includes methods to attain the air quality requirement.

*Water Quality*
The complex biological and chemical processes that determine the Salton Sea's water quality do not lend themselves to simple analysis. However, they directly and indirectly affect the value of habitat for birds and fish. Unfortunately, the PEIR simply assesses water quality impacts other than salinity, rather than developing a strategy to manage them. Yet, as shown by the PEIR, the Sea's water quality problems will not be solved just by managing salinity. Fed by the fertilizers running off agricultural fields and the organic detritus accumulated over a century's prolific biological activity, the Sea is too productive. This excessive productivity leads to high turbidity, noxious odors, very low concentrations of dissolved oxygen, periodic population explosions of algae that further depress oxygen concentrations at night and when the algae die, and the production of toxic gases, such as hydrogen sulfide and ammonia, by anaerobic organisms. All of these factors stress fish and invertebrates, decreasing their survival and reproductive rates and increasing the prevalence of disease, in turn reducing the value of the Sea for birds and people.

These water quality problems will get worse under each of the alternatives. (*See* pp. 6-32, 8-60, D-69, H1-53.) Alt. 7 is the only alternative that attempts to address these water quality problems; though the scale and cost of its two proposed water treatment plants (in excess of a billion dollars) make it wholly unrealistic. Instead, the PEIR must develop and analyze small-scale, low-tech methods to improve and protect water quality. Such methods may prove effective, at least in the smaller water bodies. The scale of the large marine lakes suggests that no realistic method exists to improve their water quality to the extent that they could provide reliable fish habitat.

**Other Considerations**
Several other factors must be considered in the selection of the preferred alternative. These include:

- flexibility and adaptability;
- reliability;
- time until initial benefits are realized;
- direct & indirect impacts of construction;
- environmental justice;
- recreation and economic development; and
- cost.

*Flexibility and Adaptability*
Under any alternative, the Salton Sea ecosystem will undergo enormous changes over the 75-year project period. Adaptable, flexible alternatives are much more likely to achieve the project objectives than those alternatives that, once built, cannot feasibly or reasonably be altered.

The alternatives with a mid-Sea barrier (5-8) will require quarrying, transporting, and placing scores of millions of cubic yards of large-diameter rock. These massive structures will not be adaptable to changing circumstances. Construction of Alts. 1-4, on the other hand, can be built in phases, allowing for changes in design and management in response to changing conditions. Alts. 1 & 2 best lend themselves to adaptive management, since the individual cells could be managed somewhat independently, and, if needed, could be temporarily shut down (in response to a disease outbreak, for example) without jeopardizing the performance of the project as a whole.

*Reliability*

Construction at the Salton Sea will face a host of challenges, including frequent earthquakes, unstable sediments, high groundwater levels, very high temperatures (often exceeding 115°), biological and chemical fouling, corrosion, and persistent strong winds. These hostile conditions imply that low-tech, low-maintenance designs that incorporate redundancy and resilience, and that can be readily repaired, will enjoy the greatest chance of success over the long term. Alts. 1 & 4 rely on gravity-fed systems, with the least amount of infrastructure and lowest pumping requirements, and enjoy the greatest degree of reliability of the action alternatives.

The proposed air quality management common to most of the alternatives should rely on low-tech methods of irrigation, rather than drip and subsurface systems, which will need pre-treatment, filtration, pumping, and regular maintenance.

*Time Until Initial Benefits Are Realized*

The Sea is in decline; the longer it takes to select, permit, and construct a restoration project, the greater the potential that some species may become imperiled due to the lack of suitable habitat. Realistically, due to extensive design, site assessment, permitting, and land and easement acquisition requirements, the construction of any preferred alternative will not begin for at least a decade. Construction of some of the alternatives could take another decade or more. It would then take months or years (especially for Alts. 5-8) after construction for conditions to stabilize. For the larger, more complex alternatives, it could take a quarter of a century or more before the project functions as designed. Scalable components that do not require construction of the project as a whole, such as those in Alts. 1 & 4, would provide initial habitat and air quality benefits much more quickly. The construction of early start habitat would also provide interim benefits during this long transition period.

*Direct & Indirect Impacts of Construction*

The massive scale of each of the alternatives affects their feasibility and the impacts – especially on air quality and the demand for materials and energy – associated with their construction. The mid-Sea barriers would require as much as 100 million cubic yards of material. The Draft PEIR contains the assumption that a source for the rock and/or gravel would be located within 10 miles of the Salton Sea. This assumption – indeed, the entire Draft PEIR -- fails to recognize that the two potential locations for rock source, identified in Appendix H5, have significant biological resource issues. Both sites have endangered species issues, particularly Coolidge Mountain, which is entirely within critical habitat for the endangered Peninsular bighorn sheep. Not only will extracting this much rock significantly degrade designated critical habitats of listed species, but transporting and placing this material will generate massive diesel and dust emissions.

The PEIR assumes that construction will occur on an aggressive 24-hour per day, 365 day per year schedule (p. H6-70), and that construction-related impacts can be mitigated. However, DWR staff have noted, "the feasibility of implementing air quality mitigation to reduce construction-phase emission impacts is speculative at present." The magnitude of construction-related emissions (as much 4,220 tons of $PM_{10}$ per year) suggests that such construction might not be permitted if mitigation is not feasible. The PEIR's assumptions here directly affects cost, construction schedules and the time required to achieve benefits, underscoring the relative benefits of simpler, less resource-intensive alternatives such as 1 & 4.

*Environmental Justice*
Environmental Justice mandates the right to ethical, balanced and responsible use of the land and renewable resources to produce a sustainable ecosystem. The Resources Agency Environmental Justice Policy requires that minorities and low-income populations be provided opportunities to participate in the development of the program. Yet the Restoration Program's Spanish-language outreach efforts to date have been extremely limited, despite the significant impacts the project will have on public health and employment in the region. The public, including Spanish-speaking communities, must be meaningfully engaged in any decisions regarding the Salton Sea and the surrounding areas.

*Recreation and Economic Development*
Local communities have highlighted the importance of recreation and economic development associated with a larger marine lake (in Alts. 5-8). Congress, in P.L. 105-372, names restoration of recreational uses, maintenance of a viable sport fishery, and identification of opportunities for economic development around the Sea as several of the goals of Salton Sea Reclamation. If water quality problems could be solved, marine lakes – especially in conjunction with the abundant bird-watching opportunities offered by the saline habitat complexes – would provide the greatest recreational and economic development opportunities. A lake smaller and shallower than those identified by Alts. 5-8, fed exclusively by better-quality Whitewater River, could flush out accumulated nutrients and selenium, improving water quality to the extent that a viable sport fishery could be maintained. This in turn would attract economic development.

*Cost*
The initial capital costs of all of the alternatives are extremely high. Operations and maintenance costs would add another $20 million (Alt. 4) to more than $130 million (Alts. 3, 5, 6, and 8) to this cost, each year. The alternatives that can be built in phases (Alts. 1-4) will require much lower initial investments than the alternatives requiring a mid-Sea structure (5-8), increasing the likelihood that they will enjoy legislative support. Federal support could be attracted by a plan that preserves the value of the Sea for the Pacific Flyway. Including recreational amenities could attract local support, potentially sufficient to fund construction of a smaller, functional recreational lake. Spreading out the costs by phasing construction and by attracting a broader funding base will increase the prospects for a successful project.

**Summary**
None of the eight alternatives analyzed in the PEIR meets all three legal requirements. A combination of elements from several of these alternatives, however, would offer the best means

of meeting the legal requirements, as well as the other considerations described above. Alts. 2, 4, & 5 would support the greatest abundance of birds. Alts. 1-4 would offer the most reliable fish habitat. A smaller lake fed exclusively by the higher-quality Whitewater River would diminish the water quality problems associated with the larger marine lakes, providing more reliable fish habitat, as well as recreational and development opportunities.

Alts. 1-4, and especially 1 & 2, offer the greatest flexibility and adaptability, invaluable in a 75-year project facing great uncertainty in future conditions. Alts. 1 & 4 offer the most reliable designs and are also the least resource- and maintenance-intensive. Alts. 1 & 4 also offer clear benefits in terms of phasing and the amount of time required to provide initial benefits. Alt. 4 has the lowest annual costs.

**Recommendations**

We urge DWR and the Secretary of the Resources to combine the following features from Alternatives 1, 4 and 5 into a final, preferred alternative that would meet the legal requirements for restoration and provide opportunities for recreation and development in Imperial and Coachella Valleys:

- 25,000-50,000 acres of Shallow Saline Habitat Complex (depending on the amount of other shallow saline habitat provided), as described in Alts. 1 & 2, to provide habitat for shoreline species;
- Concentric rings using Geotubes or other dirt-filled barriers, as described in Alt. 4, to provide additional shallow habitat, pupfish connectivity, deeper marine habitat, shoreline and view protection, air-quality protections, and recreation;
- A large lake (roughly 8-10,000 acres – which would be the largest recreational lake in Southern California) fed solely by the Whitewater River, to provide recreation and development opportunities and water quality improvements;
- Monitoring and management of all exposed playa, to eliminate air quality impacts; and
- Immediate implementation of the 'early start habitat', to provide resources for birds during the long permitting and construction process.

Additionally, DWR should develop and analyze the potential for multiple small-scale, low-tech methods to improve water quality.

An alternative that contains all of these components, each of which is present and analyzed in one or more of the draft alternatives, would best meet the legal requirements to maximize habitat and protect air and water quality, while also providing recreation and development opportunities. We urge the Secretary to identify a Preferred Alternative with the components and features outlined above. This alternative would best meet the needs of local communities, fish and wildlife, the people of California, and the people of the United States.

Thank you for your consideration of these comments.

Sincerely,

Miriam Torres
Program Assistant
Environmental Justice Coalition for Water
654 13th Street
Oakland CA, 94612
miriam.ejcw@gmail.com

Peter Ferenbach
Executive Director
Friends of the River
915 20th Street
Sacramento, CA 95814
pferenbach@friendsoftheriver.org

Steve Glazer
Water Program Director
High Country Citizens' Alliance
Box 459
Crested Butte, CO 81224
steve@hccaonline.org

John Weisheit
Conservation Director
Living Rivers/Colorado Riverkeeper
PO Box 466
Moab UT 84532
john@livingrivers.org

Stephen C. Torbit
Director
National Wildlife Federation
Rocky Mountain Natural Resource Center
2260 Baseline Road, Suite 100
Boulder, CO 80302
rmnrc@nwf.org

Michael Cohen
Senior Associate
Pacific Institute
2260 Baseline Road Suite 205
Boulder CO 80302
mcohen@pacinst.org

Conner Everts
Executive Director
Southern California Watershed Alliance
c/o Environment Now
2515 Wilshire Blvd.
Santa Monica, CA 90403
connere@west.net

Francisco Zamora
Project Manager
Colorado River Delta Project
Sonoran Institute
7650 E Broadway, #203
Tucson, AZ 85710
francisco@sonoran.org

Bart Miller
Water Program Director
Western Resource Advocates
2260 Baseline Road, Suite 200
Boulder, CO 80302
bmiller@westernresources.org