

WATER BOND PRIORITIES: California's responsibility and last great hope to revitalize a dying ecosystem

SALTON SEA AUTHORITY
A Joint Powers Authority
overseeing restoration of the
Salton Sea

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Salton Sea Authority

The following priorities for the state water bond are proposed to accomplish greater statewide water resource stability while also transforming the vital Salton Sea ecosystem from despair and decay to health and prosperity.



SALTON SEA AUTHORITY

WATER BOND PRIORITIES:

California's responsibility and greatest opportunity to revitalize a dying ecosystem

The Salton Sea Authority respectfully proposes priorities for a water bond that will stabilize water resources statewide while providing the keys to unlock the chains that bind a region suffering from the worst economic and environmental conditions in California.

A water bond of this kind will transform the Salton Sea from despair and decay to health and prosperity accomplishing one of the greatest enduring legacies of leadership for the California legislature.

The Salton Sea is the largest inland body of water in California. With nearly 365 square miles, the Salton Sea is a jewel in the middle of the desert. The sea serves as a critical link on the Pacific Flyway, providing habitat for hundreds of species of migratory and resident wildlife. Its renewable energy possibilities are nearly endless and the future is green with opportunities for a healthy and prosperous future.

Sadly, absent state investment at the Sea in partnership with the Salton Sea Authority, the Sea is on a trajectory of decline, with serious impacts to human health, ecosystems and the economy. These problems are anticipated to accelerate in 2017 when the largest water transfer of Agriculture to Urban uses bypasses a third of the water otherwise destined for this area.

This transfer of Colorado River water was brokered by the state of California with assurances on the part of the state that resulting impacts would be mitigated and the Sea restored, as agreed to in the historic Quantification Settlement Agreements a decade ago.

Since then, the water levels have declined, salinity levels have increased, endangered species are threatened. Local residents at the Sea are regularly hospitalized for asthma conditions at twice the national average. The unemployment rate is nearly triple the national average. The impending water transfers will only make these conditions worse if action is not taken now.

On the positive side, local stakeholders at the Salton Sea Authority are determined to work cooperatively with state and federal counterparts to reverse the decline of the Salton Sea. With enormous opportunities to finance restoration at hand, it is not too late for the State of California to realize the great promise of an environmentally and economically transformed Salton Sea instead of the mounting costs and liabilities from a looming environmental disaster.

To that end, the Salton Sea Authority offers this white paper to provide

background understanding of the dire situation, as well as summarizing state legal and contractual responsibilities for Sea mitigation. This document also identifies specific opportunities in the proposed water bond (AB 1331) where the state can maximize its return on investment at the Sea by partnering with the Authority.

Summary of State responsibility at the Salton Sea:

Under the QSA, the state government agreed to accept responsibility for mitigating impacts on environment, health and economy resulting from a water transfer that will reduce flows to the Sea.

The 2008 LAO report entitled “Restoring the Salton Sea” (attached) provides an excellent discussion of the value of the Sea as a wildlife resource, the history of legislation relative to the Sea, particularly the legislation with respect to the QSA, and the state’s role and responsibility with respect to restoration. Also attached are copies of the three Senate Bills that provide the chief QSA-related restoration provisions.

In short, the QSA water transfers are the lynch pin of the California Water plan to live within California’s Colorado River allocation.

In proceedings to authorize the QSA transfers, it became clear that the transfers would have large impact on the Salton Sea. In order to facilitate a resolution of the disputes, and solidify support for the locally- unpopular transfers, the state agreed to mitigate QSA related impact to the extent that they exceeded the \$133 million contributed by QSA participants.

With respect to the broader Salton Sea restoration, the legislation provides, in part:

SB 654, Machado (2003).

Restoration of the Salton Sea is in the state and national interest.

The Legislature further finds that it is important that actions taken to reduce California's Colorado River water use are consistent with its commitment to restore the Salton Sea, which is an important resource for the state.

SB 1214, Kuehl (2004).

2931. (a) It is the intent of the Legislature that the State of California undertake the restoration of the Salton Sea ecosystem and the permanent protection of the wildlife dependent on that ecosystem.

(b) This restoration shall be based on the preferred alternative developed as a result of the restoration study and alternative

selection process described in Section 2081.7 and using the funds made available in accordance with that section to be deposited in the Salton Sea Restoration Fund and other funds made available by the Legislature and the federal government.

3) Existing law declares the intent of the Legislature that the State of California undertake the restoration of the Salton Sea ecosystem and the permanent protection of the wildlife dependent on that ecosystem based on the preferred alternative developed as a result of, among other things, the restoration study, and that the preferred alternative from that restoration study provide the maximum feasible attainment of various specified objectives.

The selection of a preferred alternative consistent with Section 2931, including a proposed funding plan to implement the preferred alternative. The proposed funding plan shall include a determination of the moneys that are, or may be, available to construct and operate the preferred project, including, but not limited to, all of the following moneys:

(i) Moneys in the Salton Sea Restoration Fund established by Section 2932.

(ii) State water and environmental bond moneys.

(iii) Federal authorizations and appropriations.

(iv) Moneys available through a Salton Sea Infrastructure Financing District established pursuant to Section 53395.9 of the

Government Code and local assessments by the Salton Sea Authority or its member agencies.

(v) Moneys derived from user or other fees.

(3) The study identifying the preferred alternative shall be submitted to the Legislature on or before December 31, 2006.

In summary, as an integral part of the QSA negotiations, the state committed itself to undertake the restoration of the Salton Sea. Explicitly in reliance on that commitment (see “Quantification Settlement Agreement Joint Powers Authority Creation and Funding Agreement” Recital G), the local water agencies agreed to contribute \$30 million to the Restoration fund. The clear legislative intent was for the Secretary of Resources to produce a workable restoration alternative, backed by a credible and feasible funding plan, to guide the restoration process.

In addition to the QSA obligations, the state has numerous legal and moral reasons to cooperate in producing a workable restoration alternative backed by a credible and feasible funding plan:

- Reduced flows will eventually result in a shrinking shoreline with exposed lakebed leading to potential air quality deterioration. Human health may be impacted as well as the regional economy for some of the poorest of the poor citizens of California. In some wind conditions, airborne pollutants from the Sea may travel hundreds of miles, affecting millions of people and the economy of Southern California.
- The reduced inflows will also accelerate salinity on the Sea, leading to potential harm for many species of waterfowl and the fish population.
- The state government also has public trust obligations to protect wildlife at America’s largest migratory waterfowl habitat outside the Everglades.
- State government also has trust obligations toward the Torres Martinez reservation impacted by the Sea.
- The state committed to mitigating impacts of QSA water transfers. Eight restoration alternatives were produced in a state plan.
- CA Sec of Resources recommended a \$9 billion restoration alternative but failed to develop the required funding plan.

The restoration alternative proposed by the Secretary in 2007 was estimated to cost nearly 9 billion dollars. It was accompanied by a “funding plan” that contained no specifics. The practical effect was, and has been, that the State plans were not taken seriously. Simply put, with the exception of the DFW and DWR efforts on Species Conservation Habitat, there has been little progress and a credible plan does not yet

exist for Salton Sea restoration going forward.

If no additional state funds are allocated to the restoration effort and the remaining funds in the Salton Sea Restoration Fund are narrowly used only to construct and operate the planned Species Conservation Habitat plan (or some portion thereof) for a number of years, and the additional incremental habitat and air quality projects funded by the \$3 million FAP, then the combined \$80 million in the Restoration Fund will have resulted in:

- No workable Salton Sea restoration plan as called for by law
- No credible and feasible funding plan as called for by law
- Less than 800 acres of habitat maintained for some indefinite number of years
- An additional increment of wetlands or other habitat projects partially funded by the Financial Assistance Program.

The Salton Sea Ecosystem Restoration Program effort will have fallen short of the restoration goals set by the legislature and promised to California stakeholders including the local population.

The 2008 LOA report recommends that top priorities for the restoration effort be “adopting a comprehensive plan for the restoration” and “deciding how to pay for restoration”. After five years of silence, the state legislature took action this year to authorize the Salton Sea Authority to acquire the information necessary to complete that task. The legislature also appropriated \$2 million to the Authority to expedite that action plan. Within the past two months, the Resources Agency has begun to act expeditiously to make that funding available to further the restoration effort.

While the state contributions toward the Salton Sea Restoration Fund have been miniscule in recent years, local contributions remain strong. For instance, IID’s annual contributions into the Restoration Fund exceed the annual maintenance costs for Species Conservation Habitat (SCH) projects each year between 2020 and 2047. Maintenance of the SCH will not be a burden on the state’s general fund. Lack of a comprehensive restoration plan likely would be.

It should be noted here that even in the “No Project” scenario where a shrinking Sea receives zero investments to control salinity or water elevation, costs estimates in the PEIR prepared by the Resources Agency approach \$1 Billion. Therefore, in the absence of any workable restoration plan short of the unrealistic \$9 Billion alternative, nor any funding strategy set forth by the state to cover costs created by a void in mitigation under a “No Project” scenario, the effort by the Authority to devise and implement a financially feasible restoration plan warrants full support and cooperation from the state.

Conversely, enormous sources of local revenue can be generated by a restoration plan

that leverages state water bond funding for infrastructure that stabilizes the environment while encouraging economic development of renewable energy resources unique to the Salton Sea.

Estimates from an Infrastructure Finance District providing local revenue conservatively approach \$1 Billion, while power generation, biofuel production and mineral extraction could add several billion more in royalty and revenue sharing over the next 40 to 50 years. Non-market benefits provided to the residents of California by a restored and preserved Salton Sea would be in the range of \$1 to \$5 billion annually, according to the final report from K2 economics on Salton Sea non-market benefits. Compounding the benefit, of course, is the reduction in state costs to mitigate destruction to the environment, human health and the economy in the absence of a workable restoration plan.

None of these funding sources can be developed in absence of a comprehensive restoration plan. There is limited amount of water and land; some of the potential uses compete for the same resources, and, if not properly designed, could interfere with habitat and dust mitigation projects. On the other hand, appropriately designed projects to facilitate funding may also assist in habitat development and dust control, lessening the state's ultimate burden to fund mitigation.

The Authority, together with the local Salton Sea stakeholders, is proceeding with this evaluation. They have the local knowledge and a fierce commitment to transforming the Salton Sea and surrounding areas. Aside from providing the promised monies to the Salton Sea Restoration Fund, they have stepped forward with serious investment of in-kind services for a multitude of tasks related to the development of the Species Conservation Habitat project and economic development opportunities around the Sea. This effort has resulted in considerable reduction in the state's cost of planning and design and will further reduce the cost of the implementation of the project.

It must be fundamentally understood that water bond investment in the Sea now will greatly reduce the cost of the state's obligation to complete QSA water transfer mitigation after the funding from the three water agencies is exhausted.

The following Priorities and Guiding Principles for state water bond are supported by the Salton Sea Authority Board of Directors:

I VISION: The Salton Sea Authority supports policy principles for public funding of water infrastructure that optimize return on investment of scarce state bond funds. Highest funding priority should be accorded to projects that fulfill existing state statutory obligations and establish state water stability through regional self-reliance by addressing complex problems in those regions facing the most challenging conditions and offering the greatest returns through integrated, holistic solutions.

II GUIDING PRINCIPLES:

A. ENSURE BOND EXPENDITURES ADDRESS STATE STATUTORY OBLIGATIONS FOR MITIGATION AND ENVIRONMENTAL RESTORATION

- a. Expenditure of bonds funds should remain consistent with existing state law and agreements pertaining to longstanding state obligations and legal settlements intended to deliver water system reliability
- b. Expenditure of bond funds to fulfill state obligations should be structured to sustain long term viability of restoration efforts
- c. Bond funds should be expedited to reduce long term state liabilities associated with restoration and/or mitigation obligations as defined in existing law and agreements. To optimize multiple benefits of these expenditures over long term, the funds should reinforce beneficial outcomes of a realistic and comprehensive funding plan as a part of the restoration plan.
 1. Such a comprehensive financing plan should include both a schedule of future costs and a specific allocation among funding sources to meet those future costs.
 2. In developing the plan, the following criteria should be applied
 - a. The plan must make a realistic assessment of available funding;
 - b. “beneficiary pays” principle will be applied to the extent possible;
 - c. the plan should respect any current statutory or contractual conditions that limit the contributions from specified local water districts, tribes and land use agencies.

B. INTEGRATE FUNDING RESOURCES TO DELIVER MULTIPLE BENEFITS

- a. In an era of limited public funding and enormous competing needs, it is the responsibility of leaders at the state and local levels to cooperate on projects that yield multiple benefits and ultimately achieve a greater common good;
- b. Public funding from bonds should be spent in areas where the need is greatest and where the comparative investment will deliver the greatest good;
- c. Public funding from general obligation bonds should be invested in areas where threats to human health and the well-being of the economy and environment is most acute;
- d. Acknowledging the long term repayment of debt from public bond financing, those projects that continue to deliver public benefits through the period of bond repayment should be given higher priority than those that do not;
- e. Highest priority should be given to fund projects that simultaneously deliver significant benefit to improve all of the following conditions documented to exist within a hydrologic region affected by the water project:
 - i. restoration of long-term stable aquatic habitat for ecosystems in eminent danger of extinction or permanent inability to support a diversity of fish and wildlife in regions known to support up to 2/3 of species of migratory birds in the North American Continent
 - ii. sequestration of carbon dioxide and other greenhouse gasses

- iii. mitigation of particulate pollution sources for areas where residents face historically high hospitalization rates at least twice the state and national average for bronchial problems due to chronic and acute particulate pollution;
- iv. protection of water quality in riparian zones impacted by agricultural drain runoff and urban storm runoff;
- v. protection of tribal heritage and cultural values;
- vi. enhancement of economic development opportunities for regions that exceed twice the state average unemployment rate during the previous fiscal year from the time of enactment of the bond act by California voters
- vii. provision of sustainable financial revenue streams that will support long term improvements in all of the categories above
- viii. development of Energy Independence through clean energy sources including biofuel, solar and geothermal power and mineral extraction;
- f. Support cooperative ventures between public and private sectors to expedite cost-effective development of public infrastructure and programs
- g. Strengthen regional self-reliance by ensuring projects that help generate revenues within the local region remain in that region, whenever those revenues are derived from local resources on public lands overseen by publicly agencies.

C. PRESERVE LOCAL CONTROL; ASSERT LEADERSHIP ROLE

- a. Preserve and protect the charter powers, duties and prerogatives of local and regional governments and agencies to harness the joint powers of member in a manner that asserts local leadership of efforts to revitalize the economy, restore the environment and stabilize safe, reliable and affordable water supplies and that are the most likely to generate local revenue streams to assist in attaining project objectives.
- b. Oppose provisions that preempt local and regional authority or that shift responsibilities and liabilities to the locals and regional entities from state or federal governments.
- c. Local agencies should preserve and enhance authority and accountability for revenues raised and restoration projects that are facilitated.

D. SUPPORT PROJECTS THAT PROMOTE FISCAL STABILITY

- a. Support provisions that establish financially credible action plans for restoration, promote fiscal stability, predictability, financial independence, and preserve the regional revenue base and protect local control over local government budgeting for bond projects.
- b. Oppose measures that shift proceeds from P-3 revenue streams from regional entities to the State or Federal Government.
- c. Oppose measures that increase regional dependence upon State or Federal Governments for financial stability, or that increase burdens of liability or mandated costs with no guarantee of local reimbursement or offsetting benefits.

III PRIORITIES:

- A. Develop holistic action plan for America’s most complex watershed:**
- (1) Establish multiple benefit strategy incorporating solutions to all of the complex problems above, with special emphasis on self-reliance and financial sustainability through public-private partnerships in Renewable Energy
 - (2) re-evaluate feasibility of previously studied restoration alternatives in light of current circumstances and needs of private sector development.
- B. Maintain momentum in establishing shallow water habitat** and other incremental habitat and air quality mitigation efforts.
- C. Design and Implement Pilot projects delivering multiple benefits** as noted above

Comments on the preferred water bond proposal AB 1331 (Rendon)

The Salton Sea Authority strongly supports provisions in AB 1331 that maintain the ability of the state of California to meet its existing commitments in legal settlements involving public trust water assets.

Under a Federal mandate to reduce its reliance on Colorado River water, the State undertook an intensive mediation effort in 2003 to settle disputes among water agencies in southern California.

The state role was pivotal to a water transfer agreement between the Imperial Irrigation District (IID) and the San Diego Water Authority (San Diego), whereby IID would agree to conserve and transfer water to San Diego that would have otherwise gone to the Salton Sea.

The Legislature codified the water transfer, known as the Quantification Settlement Agreement (Stats 2003, Chapters 611, 612, 613), declaring the intent of the State of California to undertake the restoration of the Salton Sea ecosystem and the permanent protection of the wildlife dependent on the ecosystem.

In an MOU between the State and the litigating parties, the State agreed to make itself “unconditionally liable” for mitigating the environmental impacts related to the transfer above the first \$133 million in costs (Quantification Settlement Agreement MOU Section 4).

While it is not fully known what it will cost to mitigate the environmental impacts of the transfer, a similar water transfer in Los Angeles, whereby water from Lake Owens was diverted to the City of Los Angeles, has resulted in over \$1.2 billion in environmental mitigation costs to date.

The QSA averted a collapse of water compacts that would have otherwise threatened billions of dollars in commerce and the ability to provide adequate drinking water to millions of residents and businesses in the metropolitan areas of Southern California.

A decade has passed since the state committed to action that will sustain a healthy Sea consistent with the terms of the Quantitative Settlement Agreement. During that time,

the state has done very little to reverse the decline of the Salton Sea.

With enormous opportunities to finance restoration still at hand, it is not too late for the State of California to realize the great promise of an environmentally and economically transformed Salton Sea.

By fulfilling its legal obligations, the state can begin to mitigate mounting costs and liabilities from a looming environmental disaster, one that hits hardest at those least able to withstand the devastation -- the poorest of the state's poor people living around the Sea.

Compounding the benefit, of course, is the reduction in state costs to mitigate destruction to the environment, human health and the economy in the absence of a workable plan and feasible funding plan.

The water bond revisions are being proposed at the perfect time to reinforce local Salton Sea restoration actions that will complement the state fiduciary duty and public trust requirements in the water transfer program. This synergistic approach to the two programs will reduce the financial obligation on the state for water transfer mitigation.

Benefits to the Salton Sea identified in the current water bond legislation (AB 1331) include:

DIRECT

- \$500 million specifically directed to meet state obligations in water supply reliability Settlements. This is part of \$1.5 billion in Chapter 6 "Protecting Rivers, Lakes, Streams, and Watersheds" Klamath and Trinity River systems are also included.
- Salton Sea is included as an eligible watershed to compete for \$750 Million in Chapter 6 designated for "expenditures and grants for ecosystem and watershed protection and restoration projects."
- **INDIRECT**
- Sea may be able to compete for funding in other areas of the water bond
- \$1 Billion in Water Quality and Drinking Water
 - Drinking water with priority for Disadvantaged Communities
 - Water reuse (as an element of restoration)
 - Wastewater treatment
 - Stormwater quality
- \$1.5 Billion in Climate Change prep for regional Water Security
 - Water reuse and recycling; watershed protection, restoration and management; ; desal projects that incorporate renewable energy
 - Salton Sea comprises the lower elevation of the Colorado Basin watershed, the whole of which would be funded at \$47 Million in the section pertaining to IRWM.
- Pilot projects for new salt and contaminant removal technology;
- \$1.5 Billion in Water Storage for Climate Change

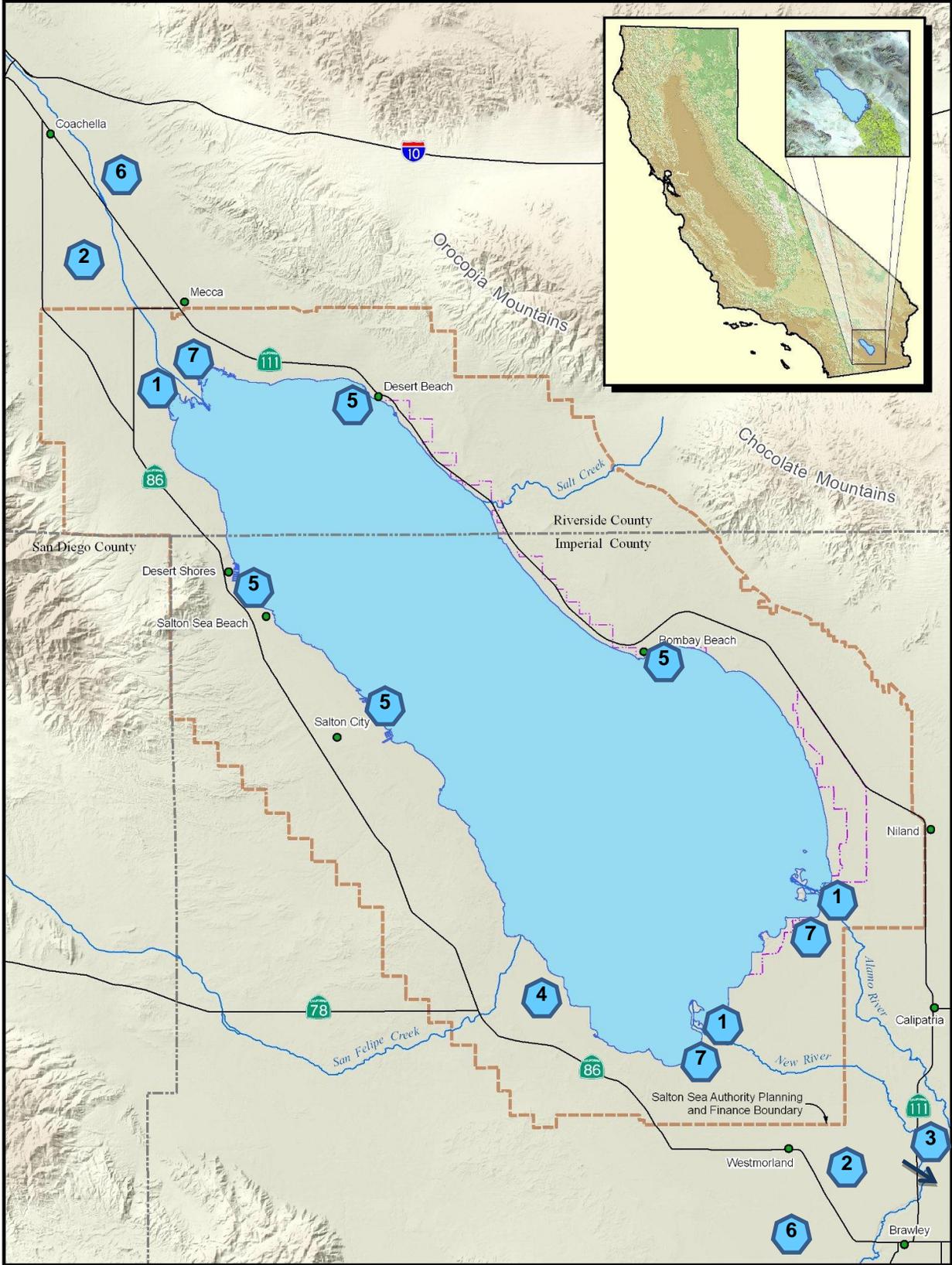
- □ Water storage projects which include ecosystem improvements, recreation (currently limited to delta – this would need to be amended to include Colorado River supplies)

Salton Sea Restoration: Potential Salton Sea Authority Projects

The table below provides a preliminary list of projects that could be funded by Water Bond expenditures. This is a preliminary list with rough budget estimates that include both low and high values. The text for each project includes an indication of the factors involved in the budget range. A map following the table indicates the approximate location(s) of each project by Project Number.

Chapter.	Project	Lo Est.	Hi Est.
1.	Habitat Construction Projects. The State recently completed environmental documentation and permitting for approximately 2,500 acres of habitat areas at the south end of the Sea as part of the Species Conservation Habitat (SCH) Project. There is currently funding for construction of 500-1,000 acres. This project would expand upon the habitat within the permitted area near the mouth of the New River or provide additional area near the mouths of either the Alamo River, also in the south, or the Whitewater River, either on or adjacent to tribal lands at the north end of the Sea. The cost estimate can vary by the amount of habitat area that is to be developed. The higher end of the range will allow for development at multiple locations.	\$50M	\$100M
2.	Habitat Replenishment Pipeline Conceptual Design Project. Groundwater treatment facilities planned in the Santa Ana River Basin and in Central Arizona will produce reliable water streams with mineral concentrations far below the existing Salton Sea that could be used to help replenish and sustain habitat the Salton Sea. This conceptual design project will be used to evaluate the feasibility of building pipelines to the Salton Sea to convey a long-term stable source of habitat replenishment water to partially supplement existing inflows which are declining. The project will include a cost benefit analysis and conceptual designs including alternative pipeline routes. The higher cost estimate includes funds for environmental documentation.	\$3M	\$6M
3.	Holtville Wetlands. Two pilot wetlands have been constructed on the New River and a third was recently completed on the Alamo River. A fourth wetland has been designed and fully permitted on the Alamo River near Holtville, CA. These wetlands serve as treatment for removing contaminants from the river water before it enters the Sea and also have research and habitat value. The cost range depends on construction techniques and timing of the funding.	\$3M	\$5M
4.	Land Exchange Evaluation. Land values around and under the Sea vary by a number of factors including land usage, environmental condition, and accessibility to geothermal energy sources. The Sea is underlain with a checkerboard pattern of ownership with the major property owners being the Federal Government and the Imperial Irrigation District. This project	\$1M	\$4

Chapter.	Project	Lo Est.	Hi Est.
	will investigate the feasibility and cost benefit of exchanging land ownership to benefit the restoration process. For example, land exchanges could provide areas that could be set aside for construction of restoration facilities. The low cost estimate is for an initial feasibility study and the upper estimate includes environmental documentation and permitting.		
5.	Perched Recreation and Habitat Area Construction Project. This is a multiple purpose project that would have habitat and recreational value and would also create biofuels to help fund the project. The project would also have research value in developing design standards for in-Sea embankments. The project would involve: (1) construction of algae ponds which would remove nutrients from Sea water, (2) habitat pond areas which would receive outflows from the algae ponds, and (3) with some filtration would be used to supply water to a perched beach enclosure which could be used for recreational purposes. A low level energy reverse osmosis or microfiltration system would be used to reduce salinity in the recreational area to ocean levels (approx. 35 PPT). A separate stream of higher salinity water would be returned to the Sea. Biofuels could be produced from the harvested algae. It is anticipated that the project could be built along the shoreline near an existing community such as Salton City, Desert Shores or Bombay Beach or near the Yacht Club. This would provide an area with a stable shoreline even as the Sea itself recedes. The source water for the project would be the Salton Sea. The project cost would vary depending on the scope and size of the project.	\$25M	\$100M
6.	Groundwater Cleanup Projects. Brackish Groundwater basins underlie areas in both the Coachella Valley and the Imperial Valley. The purpose of this project is to investigate and, if appropriate, construct a ground water treatment system to treat the low level salinity in the groundwater and create two streams, one which could be used for agricultural or other purposes, and a second stream which could be used as a water sources for the Salton Sea. As an alternative, the water could be used for dust mitigation in playa areas as the Sea recedes. The low cost range is for a feasibility investigation and the upper range is for design and construction of a treatment system.	\$2M	\$60M
7.	Algae Biofuel Recovery Projects. Algae biofuel recovery projects could be constructed near the mouths of the major rivers. These projects could be used to remove nutrients from inflowing waters through consumption by algae. In turn, the algae could be harvested to create biofuels to help pay for operation of the system. The low end of the cost range is for a small pilot project. The high is for a prototype demonstration project.	\$3M	\$40M
All Projects		\$87M	\$315M



Approximate Locations of Potential Salton Sea Restoration Projects (by Project Number)#30