

March 9, 2015

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814
commentletters@waterboards.ca.gov

Subject: Comment Letter: Salton Sea

Dear Madam Chair and Members of the Board:

On behalf of the Heber Public Utility District Board of Directors I am writing to express our support for the Imperial Irrigation District's petition regarding restoration of the Salton Sea. As the Board recognized in its Notice of Public Workshop, this issue is an urgent one of statewide importance. It is also a particularly important issue for the residents, businesses, and local government of the Imperial and Coachella valleys, which will bear the most direct and substantial costs of the failure by the State of California to restore the Salton Sea.

Heber is an unincorporated community within Imperial County and partially serviced by the County of Imperial and other public agencies including the Heber Public Utility District. The Heber Public Utility District was formed in 1931 under the Public Utility Act of 1921 for the specific purpose of providing wastewater and water services to the Heber community. The Townsite of Heber is a small community of about 7,000 people uniquely located between the two most populated cities within Imperial County, El Centro and Calexico.

Local governments, and Special Districts, in the Salton Sea region have a responsibility to protect the health and welfare of its residents. Without restoration, declining water levels and increasing salinity at the Sea will have many serious consequences for communities like ours. The decline of water levels resulting from water transfers under the Quantification Settlement Agreement (QSA) will expose thousands of acres of lakebed to the air. Emissions from this exposed playa will significantly worsen our region's already-poor air quality and cause many residents of the Imperial and Coachella valleys to suffer from heart disease, asthma, lung cancer, and other health problems. Increasing salinity levels, which will accelerate sharply once the interim mitigation measures ordered by the Board end in 2017, threaten to destroy the Salton Sea ecosystem. And the economic impact of a dying Sea will be a major burden on businesses, schools, public services, and the overall quality of life for residents in the Imperial and Coachella valleys, and specifically within the Heber Public Utility District Service area. That is the harsh reality facing our region.

The QSA was supposed to prevent this from happening. As IID explained in its petition, it has long been recognized that water transfers out of the Imperial Valley would be a major threat to the Salton Sea and the Imperial and Coachella valleys. These concerns almost derailed the entire QSA, but the agreements were signed after the State of California promised to restore the Sea. This promise was a matter of basic fairness and the QSA would not have been signed without it. The water transfers benefit the entire State, so the Legislature agreed that the entire State would bear the cost of addressing the effects of the transfers on the Salton Sea. It is fundamentally wrong for the residents of the Imperial and Coachella valleys—areas which already suffer some of the State’s highest unemployment and poverty rates—to be forced to bear the consequences of California’s effort to reduce its usage of Colorado River water.

Now, more than a decade later, almost no progress has been made on restoration of the Salton Sea. It is time for action. Several studies in recent years have confirmed that restoration is both feasible and necessary to protect the health and well-being of residents and communities around the Sea. The Board should use its power to bring all necessary parties together to design, implement, and fund a restoration plan that will create a smaller, sustainable Sea and preserve a bright future for the Imperial and Coachella valleys.

On behalf of Heber Public Utility District, its residents, and businesses, we call upon the Board to approve IID’s petition. The Board, the State, IID, and all other interested parties should cooperate to ensure that the Sea is restored before it is too late. We ask the Board to convene a collaborative process among these parties that will identify a specific restoration plan that can be implemented and funded in time to avert the looming crisis threatening our region and the entire State.

Sincerely,

Eduardo Valdez-Belmonte,
President of the Board
Heber Public Utility District

cc: Stephen W. Benson, Board President, Imperial Irrigation District
Ryan E. Kelley, Chairman of the Board, County of Imperial

State Water Resources Control Board

NOTICE OF PUBLIC WORKSHOP

SOLICITATION OF COMMENTS REGARDING THE STATUS OF THE SALTON SEA AND REVISED ORDER WRO 2002-0013

Wednesday, March 18, 2015 – 9:00 a.m.

Joe Serna, Jr. – Cal/EPA Headquarters Building
Coastal Hearing Room
1001 I Street, Second Floor
Sacramento, CA

NOTICE IS HEREBY GIVEN that the State Water Resources Control Board (State Water Board) will hold a public workshop to receive information and solicit public input regarding the provisions of the State Water Resources Control Board's (State Water Board or Board) decision relating to the Salton Sea and whether the State Water Board should take further actions to address the Salton Sea's future.

On November 18, 2014, the Imperial Irrigation District (IID) filed a Petition for Change seeking modification of [Revised Order WRO 2002-0013](#), which approved a long-term transfer from Imperial Irrigation District to San Diego County Water Authority (SDCWA), Coachella Valley Water District (CVWD) and Metropolitan Water District of Southern California (MWD), to the State Water Board. As discussed below under "Issues for Discussion at Workshop," the scheduling of this workshop does not reflect a conclusion that changes to Revised Order WRO 2002-0013 would be an appropriate way to address issues concerning restoration of the Salton Sea. However, the receipt of the petition reignited discussions regarding the impending December 31, 2017 date at which time the requirement established by Order WRO 2002-0013 for IID to deliver a specific quantity of water to mitigate the effects of the transfer on the Salton Sea will end. It is expected that the loss of that mitigation water will accelerate the contraction of the Salton Sea, resulting in the exposure of an extensive playa with fine particles that may cause significant public health impacts to surrounding communities, and accelerating the rate at which the Salton Sea becomes a highly saline environment, unable to support a viable fishery and fish-eating birds.

BACKGROUND

The Salton Sea is California's largest lake and was once famous for its sport fishery and recreational uses. It is approximately 35 miles long and up to 15 miles wide with approximately 360 square miles of water surface and 105 miles of shoreline. The surface of the Salton Sea lies approximately 232 feet below sea level. Approximately 90 percent of the freshwater inflow to the Salton Sea is agricultural drain water from the Imperial Valley. As the Salton Sea has no outlets, salts concentrate in it and nutrients enhance the formation of eutrophic conditions. Currently, the Salton Sea has a salinity level that is approximately 50 percent higher than the ocean. The Salton Sea is a critical stop on the Pacific Flyway for migrating birds, including several threatened and endangered species. The Salton Sea National Wildlife Refuge was

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

established in 1930 to preserve wintering habitat for waterfowl and other migratory birds. However, catastrophic die-offs of birds and fish between 1992 and 1997 indicate the Salton Sea is in serious trouble. Without a salinity control project, salinity at the Salton Sea will continue to increase until the Salton Sea can no longer support a productive fishery or fish-eating birds.

Among other things, the California Water Action Plan (January 2014) calls for protection and restoration of key ecosystems, including the Salton Sea. The California Water Action Plan provides that the Natural Resources Agency, in partnership with the Salton Sea Authority, will coordinate state, local and federal restoration efforts and work with local stakeholders to develop a shared vision for the future of the Salton Sea. The Department of Fish and Wildlife and the Department of Water Resources are immediately to begin implementing the first phase of this effort with the construction of 600 acres of near shore aquatic habitat to provide feeding, nesting and breeding habitat for birds. This project could increase to 3,600 acres or more with additional resources. Concurrently, the Natural Resources Agency and the Salton Sea Authority are developing plans for the Salton Sea that will evaluate additional restoration projects and identify economic development opportunities through renewable energy development.

On October 28, 2002, the State Water Board issued Order WRO 2002-0013. On December 20, 2002, the State Water Board revised Order WRO 2002-0013 with the issuance of [Order WRO 2002-0016](#). Revised Order WRO 2002-0013 approved the long-term transfer of up to 300,000 acre-feet of water per year authorized for diversion and use from the Colorado River under IID's water right permit 7643 as follows: (1) 200,000 acre-feet of water per year from IID to SDCWA; and (2) 100,000 acre-feet of water per year from IID to CVWD and MWD. The approved transfer was for a term of 45 years with an optional 30-year renewal period, for a total of 75 years.

The conservation and transfer of water from agricultural to urban uses is a critical part of California's Colorado River Water Use Plan, which provides a framework to reduce California's use of Colorado River water to its 4,400,000 acre-foot apportionment in normal years. To facilitate implementation of the Plan, in 2003, IID, the State of California, other California water agencies, the federal government and Indian tribes entered into a collection of agreements commonly referred to as the Quantification Settlement Agreement (QSA). The QSA was intended to settle longstanding disputes regarding the priority, use and transfer of Colorado River water. The QSA established water budgets for the parties and authorized the contracting parties to pursue the long-term transfer of conserved water from IID to SDCWA, CVWD, and MWD.

Approval of the transfer had the potential to further reduce the amount of inflow to the Salton Sea from IID, thereby exposing shoreline, which could cause air quality impacts, and increasing the rate at which the Salton Sea becomes too salty to support a viable fishery. At the time when the State Water Board approved the transfer, however, it was uncertain whether restoration of the Salton Sea would be feasible, or whether it would continue to decline with or without the transfer. In addition, providing replacement water to the Salton Sea to compensate for reduced inflows likely would entail following land, which had the potential to cause socio-economic impacts within Imperial County. In Revised Order WRO 2002-0013, the State Water Board balanced the important water supply benefits of the transfer against these competing interests, and concluded that approval of the transfer should be conditioned on maintaining the salinity levels at the Salton Sea that would have existed in the absence of the transfer for a period of 15 years. The purpose of this condition was to mitigate the impacts of the transfer to the Salton Sea for a long enough period to study the feasibility of long-term restoration actions and develop a restoration plan. The Board reserved authority to add, delete, or modify the salinity mitigation

requirement in light of the results of a study on the feasibility of Salton Sea restoration. The Board also required any air quality impacts of the transfer to be mitigated.

State legislation enacted in 2003 established the Legislature's intent that the State of California undertake restoration of the Salton Sea, and required the Resources Agency to conduct a study to determine a preferred restoration alternative. In May 2007, the Resources Agency published its Salton Sea Ecosystem Restoration Program Preferred Alternative Report and Funding plan. The report considered nine separate alternatives for Salton Sea restoration and identified a preferred alternative. The preferred alternative was projected to cost \$8.9 billion and has yet to be funded. In August 2013, the Department of Water Resources, Department of Fish and Wildlife, the United States Geological Survey and the United States Bureau of Reclamation issued an interagency Monitoring and Assessment Plan in support of ecological restoration at the Salton Sea. The Monitoring and Assessment Plan will allow assessment of existing ecosystem projects as well as establish a baseline against which to measure the success of future activities, thereby contributing to more effective and targeted environmental mitigation efforts at the Salton Sea.

On November 18, 2014, IID filed a Petition for Change seeking modification of Revised Order WRO 2002-0013. The petition notes that the requirement to mitigate for the salinity impacts of the transfer to SDCWA, CVWD, and MWD will end in 2017, at which point the ongoing decline of the Salton Sea's water surface elevation and the ongoing increase in salinity levels at the Salton Sea is expected to accelerate if no program to restore the Salton Sea is in effect. Accordingly, IID requests the Board to order the parties to the QSA and the Salton Sea Authority to meet and confer in an effort to achieve consensus around a realistic, feasible restoration plan for the Salton Sea and a mechanism for funding the plan. IID also requests that the State Water Board modify Revised Order WRO 2002-0013 to require the State of California to fulfill its commitment to restore the Salton Sea as a condition of the Board's approval of the transfer.

ISSUES FOR DISCUSSION AT WORKSHOP

The specific relief that IID has requested pursuant to its petition may not be appropriate for several reasons. First, although the conserved water transfer from IID to SDCWA, CVWD, and MWD has the potential to exacerbate the air and water quality problems at the Salton Sea, those problems would exist in the absence of the transfer. Second, the California Water Action Plan calls for the Natural Resources Agency, in partnership with the Salton Sea Authority, to take the lead on coordinating state, local and federal restoration efforts and working with local stakeholders to develop a shared vision for the future of the Salton Sea. Third, making approval of the transfer contingent on restoration of the Salton Sea has the potential to unravel the complex series of agreements that make up the QSA, which would have significant water supply implications for the State. Despite these problems, IID has brought an issue of statewide importance to the Board's attention, and the Board is interested in hearing input from the parties on what role the Board can and should play to protect the beneficial uses of the Salton Sea, consistent with the California Water Action Plan, without jeopardizing the important water supply benefits of the QSA.

The State Water Board is aware that there are several different plans being discussed for the Salton Sea. At this workshop, the State Water Board would like to hear the status of mitigation and restoration planning, timing and funding of work, as well as efforts to provide an overall framework to address the long term Salton Sea issues. The State Water Board would like to engage in a general policy discussion of the willingness of interested parties to develop a shared vision for the future of Salton Sea, if there is not one at this time. The workshop will focus on larger planning and implementation needs rather than specific technical issues.

The State Water Board is specifically interested in receiving input regarding the following questions, based on the current status of efforts focused on the Salton Sea:

1. How can the State Water Board promote implementation of a reasonable and sustainable plan to address the air, wildlife, and water quality problems at the Salton Sea?
2. If there is a necessary and appropriate role for the State Water Board, what specific issues or obstacles need to be addressed, and in what sequence and timeframe?
3. What changes, if any, should the State Water Board consider making to Revised Order WRO 2002-0013?

SUBMISSION OF WRITTEN COMMENTS

The workshop is an opportunity for interested persons to provide input to the State Water Board regarding the issues described above. The State Water Board encourages interested persons to submit their comments in writing. Comment letters should be submitted by **12 noon, Wednesday, March 11, 2015**.

For submittals less than 15 megabytes in total size, interested persons should email the submittal to Jeanine Townsend, Clerk to the Board, at: commentletters@waterboards.ca.gov. Please indicate in the subject line: **“Comment Letter: Salton Sea”**.

For submittals more than 15 megabytes in total size, interested persons should (1) email a summary of their written information to Jeanine Townsend, Clerk to the Board, at commentletters@waterboards.ca.gov; and (2) mail or hand deliver any additional information on a CD/DVD. For emails and other correspondence, please indicate in the subject line: **“Comment Letter: Salton Sea”**.

Mail should be postmarked by the comment deadline indicated above and addressed as follows:

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Hand deliveries should be delivered by the comment deadline indicated above to the following address:

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
Joe Serna, Jr.-Cal/EPA Headquarters Building
1001 I Street, 24th Floor, Sacramento, CA

Interested persons with hand deliveries must check in with the Visitor and Environmental Services Center on the first floor of the Joe Serna, Jr.-Cal/EPA Headquarters Building who will contact State Water Board staff to pick up any hand deliveries. Couriers delivering comments must check in with lobby security and have them contact Ms. Townsend at (916) 341-5600.

PROCEDURAL MATTERS

While a quorum of the State Water Board may be present, the State Water Board will not take formal action at the workshop. There will be no sworn testimony or cross-examination of participants, but the State Water Board and its staff may ask clarifying questions.

The workshop is an opportunity for interested persons to provide input to the State Water Board relative to the issues for discussion at the workshop. At the workshop, participants will be given an opportunity to summarize and supplement any written comments with oral presentations. To ensure a productive and efficient workshop, oral presentations will be limited to five minutes or otherwise at the discretion of the Chair of the State Water Board.

Participants with common interests are encouraged to coordinate and provide oral presentations as a group. For those participants wishing to organize and present comments as a group, please contact Mitchell Moody by Wednesday, March 3, 2015 at (916) 341-5383 to ensure that adequate time is allotted.

WEBCAST OF WORKSHOP

A broadcast of the meeting will be available at: <http://www.calepa.ca.gov/broadcast/>

TRAVEL, ACCESSIBILITY, AND SECURITY

Information regarding travel to the Joe Serna, Jr.-Cal/EPA Headquarters Building is available at: <http://www.calepa.ca.gov/EPAbldg/location.htm>

The Joe Serna, Jr.-Cal/EPA Headquarters Building is accessible to persons with disabilities. Individuals who require special accommodations are requested to contact Ms. Michele Villados, at (916) 341-5881, at least five working days prior to the meeting. Persons with hearing or speech impairments may contact us using the California Relay Service Telecommunications Device for the Deaf (TDD) at (800) 735-2929 or voice line at (800) 735-2922.


Due to enhanced security precautions at the Joe Serna, Jr.-Cal/EPA Headquarters Building, all visitors are required to register with security staff prior to attending any meeting. To sign in and receive a visitor's badge, visitors must go to the Visitor and Environmental Services Center, located just inside and to the left of the Joe Serna, Jr.-Cal/EPA Headquarters Building's main public entrance. Depending on their destination and the building's security level, visitors may be asked to show valid picture identification. Valid picture identification can take the form of a current driver's license, military identification card, or state or federal identification card. Depending on the size and number of meetings scheduled on any given day, the security check-in could take up to 15 minutes. Please allow adequate time to sign in before being directed to the workshop.

INFORMATION REGARDING WORKSHOP

Please direct any inquiries concerning this notice to Mitchell Moody, Water Resources Control Engineer, at (916) 341-5383 or mitchell.moody@waterboards.ca.gov. Additional information is available at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/salton_sea/.

February 6, 2015

Date



Jeanine Townsend
Clerk to the Board

Hazard's Toll

The Costs of Inaction at the Salton Sea

By
Michael J. Cohen

September 2014

A report of the



654 13th Street
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complete report available online at pacinst.org/publication/hazards-toll

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HAZARD'S TOLL

The Costs of Inaction at the Salton Sea

EXECUTIVE SUMMARY

The Salton Sea, a 350 square mile saltwater lake in southeastern California, faces disaster. In the next fifteen years:

- The amount of water flowing into the lake will decrease by about 40%;
- Its surface will drop by twenty feet and its volume will decrease by more than 60%;
- Salinity will triple; and
- The shrinking lake will expose 100 square miles of dust-generating lake bottom to the region's blowing winds, worsening the already poor air quality in the region.

To date, neither the state legislature nor any other agency has taken any action to fund any Salton Sea revitalization plan. In 2003, California accepted responsibility for funding air quality management projects at the Salton Sea, but the legislature has yet to take any action to fund such projects. A local agency is developing plans for air quality management on a portion of the exposed Salton Sea lakebed, but it lacks the funding necessary to implement these plans. With the exception of three relatively modest habitat projects scheduled for construction next year, no projects are currently funded or expected to be constructed at the Salton Sea in the near future. As a result, the lake's habitat value for hundreds of species of resident and migratory birds will rapidly decline, affecting hundreds of thousands of birds and diminishing the lake's appeal.

If current trends continue, by 2045:

- As much as 150 square miles of lakebed will be exposed;
- Exposed lakebed will add as much as 100 tons of fine dust into the air *per day*;
- The total population of the air basin (currently about 650,000) will nearly double;

- The lake will be filled with algae, bacteria, and viruses, providing no value to birds or people.

These deteriorating conditions at the Salton Sea will have adverse impacts on public health, property values, agricultural production, recreational revenue, and the region's habitat value for birds and wildlife generally. These impacts impose costs on people in the area and, to a lesser extent, on Californians generally.

Many people assume that deferring Salton Sea-related decisions and actions will not result in any additional costs, implicitly assigning these impacts a value of zero. Decision-makers have weighed the high costs of Salton Sea revitalization and the lower but still significant costs of mitigation against this assumed zero cost of not taking action, and have yet to approve or fund any major projects at the Salton Sea. This inaction and delay imposes real costs.

Objective

The objective of this report is to estimate the costs of inaction - defined as the absence of any large-scale revitalization or air quality management project - at the Salton Sea, to provide decision-makers and the



Bombay Beach ruin, on the shore of the Salton Sea.

Photograph © Andrew Morang / worldofdecay.blogspot.com.

general public with information for deciding on a path forward. Specifically, this report estimates the impacts of the deteriorating Salton Sea on:

- health care costs, due to the adverse impact that increased dust emissions have on human health;
- regional property values, due to real and perceived health threats and declining aesthetic value;
- agricultural productivity, due to dust emissions and loss of the Sea's buffering impacts on temperature and humidity in nearby farmland;
- recreational revenues; and
- ecological values, including impacts to threatened and endangered species.

The Costs of Action

The California Natural Resources Agency estimated the capital cost for its 2007 preferred Salton Sea revitalization alternative at about \$10 billion (all costs adjusted to 2013 dollars), plus annual operations & maintenance costs of \$150 million once fully constructed, yielding a total present value of \$9.6 billion at a 4% discount rate, through the year 2047. These projected revitalization costs are separate and distinct from the costs projected for mitigating (off-setting the impacts of) the Imperial Valley-San Diego water transfer. The present value of the state's conceptual mitigation plan is about \$1.7 billion through 2047. These values represent the costs of 'action' at the Salton Sea.

Inaction Costs - Public Health

Many scientific and medical studies document the link between blowing dust and a broad range of public health impacts, including childhood and adult asthma, cardiac disease, lung cancer, and increased mortality rates. Two previous studies suggest methods to estimate the magnitude of these costs at the Salton Sea: based on the estimated per capita cost of exceeding federal air quality standards, or based on a cost per unit of exposed dust. Using the first method, the public health costs of continuing not

to meet federal air quality standards - exacerbated by expected Salton Sea dust emissions and a rapidly growing population - generate a present value as high as \$21 billion. Using the second method, under a worst case scenario, with high projected dust emissions and very limited air quality management, the present value cost of uncontrolled dust emissions on public health could be \$37 billion through 2047. Assuming a much lower rate of emissions and implementation of dust control measures on portions of the exposed Salton Sea lakebed reduces the estimate of public health costs to about \$3 billion. Annual public health costs increase as the Salton Sea shrinks, exposing more dust-emitting lakebed; but even in the near term, they could still exceed hundreds of millions of dollars per year.

Inaction Costs - Property Value

Studies on the economic impacts of environmental hazards in other areas, such as landfills, confined animal feeding operations, and refineries, offer methods for estimating potential impacts to property values at the Salton Sea. Regional or state polling data on public perceptions of the Salton Sea would be informative, but no such polls have been conducted in at least a decade. Blowing dust and the stigma associated with a deteriorating lake pose a risk to property values within several miles of the lake, suggesting that property devaluation in the immediate area associated with the deteriorating Salton Sea is likely to be at least \$400 million. Dust and noxious odors could also depress property values and revenues in the Coachella Valley more broadly, which includes 124 golf courses as well as numerous resorts and vacation homes, so the total impact on property values could be as much as \$7 billion.

Inaction Costs - Agricultural Productivity

Insufficient information exists to estimate the potential costs associated with either the impacts of blowing dust and salt on crop productivity near the Salton Sea or the diminished micro-climate benefits that will occur as the lake shrinks. Both of these impacts will be felt within a few miles of the Salton

Sea, so their overall cost may be small relative to the magnitude of Imperial and Coachella valley agriculture generally, but these impacts could be significant at the scale of the individual farm.

Inaction Costs - Recreational Revenues

The future Salton Sea will continue to experience declines in visitation to the lake and in direct recreation-related expenditures. Recent declines have caused a loss of \$6 million per year in direct spending at the Salton Sea State Recreation Area relative to estimated historic rates, suggesting the loss of \$110 - \$150 million in present value through 2047. Given the absence of records or surveys of current and historic expenditures for Salton Sea recreation as a whole, this rough estimate should be considered very conservative.

Inaction Costs - Ecological Values

The Salton Sea currently provides tens of thousands of acres of shoreline and near-shore habitats to hundreds of thousands of birds. More than 400 species of birds use the Salton Sea, including a large number of special status species. As the lake deteriorates, the size and quality of its habitats will diminish, reducing its value to the resident and migratory birds that depend upon it. Through contingent valuation surveys and other methods, people have expressed a willingness to pay to preserve similar values at other locations. Previous studies have indicated that Californians as a whole have valued wetland habitats at about \$60,000 per



Caspian tern at the Salton Sea.

Photograph © Jenny E. Ross / www.jennyross.com.

acre, suggesting that the Salton Sea provided some \$2.6 billion annually in shoreline habitat value as recently as the year 2000. Transferring the benefits Californians have reported for Mono Lake suggests a potential non-use valuation of the Salton Sea on the order of \$1.9 billion annually. Depending on the discount rate, these annual values translate into present values ranging from \$10 billion to \$26 billion through 2047.

Conclusion

The high costs of the California Natural Resources Agency's proposed 'preferred alternative' have inhibited deliberation and deterred any meaningful investment in the revitalization of the Salton Sea. The assumption seems to be that delaying action at the Salton Sea will result in business as usual, with no additional costs. This is clearly not the case. Because the Salton Sea has changed over the past decade and will soon enter a period of very rapid deterioration, the costs of inaction are escalating rapidly. *When* a project is implemented dramatically affects the inaction costs estimated above. Postponing decisions and actions for the Salton Sea imposes significant costs on the people and property owners in the region, and lesser costs on Californians generally.

Figure ES-1 compares the project costs of the state's proposed revitalization alternative and of its conceptual mitigation plan with the estimated inaction costs for public health and non-use benefits, and with the one-time estimated devaluation of property in the region, through the year 2047. In the figure, the higher estimated inaction costs appear in red, while the lower estimates appear in orange. These estimated costs provide an initial basis for comparison with the estimated project costs of revitalization or mitigation, shown in black, to demonstrate that the costs of inaction are not zero. Even at the low estimate, the long-term social and economic costs of a deteriorating Salton Sea could approach \$29 billion, well in excess of the project cost of the state's revitalization plan. A more robust comparison would require additional information about the total economic costs and benefits of the revitalization and mitigation projects.

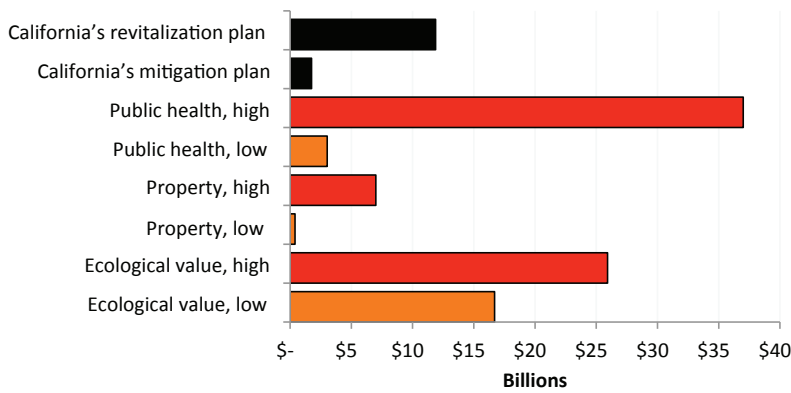


Figure ES-1. Present values of estimated costs of Salton Sea action and inaction, through 2047.

Figure ES-1 indicates that the costs of inaction greatly exceed the costs of action at the Salton Sea, strongly suggesting that action at the Salton Sea should be funded and implemented quickly. However, not all 'actions' would avoid the 'inaction' costs: a mitigation plan designed only to control dust emissions would not

improve recreation in the region, nor would it improve property values or promote economic development; such a plan would do little to improve declining ecological values. A project that both controls dust and creates habitat could limit or avoid public health costs, reduce or eliminate impacts to property values, and maintain or even enhance ecological values. A more comprehensive revitalization plan should also be evaluated within this broader context of created benefits and avoided costs. In all cases, delaying action imposes real costs.

The consequences of continued inaction at the Salton Sea will be felt most directly by the 650,000 people who live in harm's way of the Salton Sea's dust, as well as by the birds and other life that depend on the lake. These consequences generate real costs. These considerable costs, estimated for the first time by this report, demonstrate the urgent need for action at the Salton Sea.

Hazard's Toll The Costs of Inaction at the Salton Sea

By
Michael J. Cohen

September 2014

A report of the



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complete report available online at pacinst.org/publication/hazards-toll

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A CALL TO ACTION FOR CALIFORNIA...

Time is running out on the state's unmet obligation to restore the Salton Sea

- In 2003, the Legislature recognized that the benefits of the Quantification Settlement Agreement flow to all Californians and committed the state to assuming the cost of Salton Sea restoration.
- The serious and far-reaching environmental effects of the QSA on the Salton Sea were widely known at the time. Absent the Legislature's statutory commitment, which the QSA parties relied on in approving the agreement, the nation's largest agricultural-to-urban water transfer could not have moved forward.
- Under the State Water Resources Control Board's revised order (WRO 2002-0013), the Imperial Irrigation District has been following land to generate mitigation water for the Salton Sea. In 2017, that mitigation water, which was intended to provide the state sufficient time to select, adopt and fund Salton Sea restoration, will end and any real hope of building a smaller but sustainable sea will end with it.

The failure to act now will have devastating impacts on the region, its economy and way of life

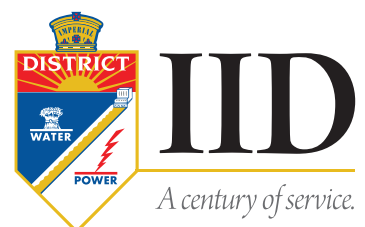
- Windblown dust emissions from as much as 100,000 acres of exposed lakebed will dramatically worsen the already-poor air quality in the Imperial and Coachella valleys and imperil the region's largely agricultural economy, which accounts for nearly 50 percent of all local employment.
- The incidence of asthma, heart and lung disease and even premature death among the working-class population of this mainly rural and economically disadvantaged region can be expected to increase exponentially in the years ahead.
- The environment at the Salton Sea, including what the Audubon Society calls an environmental stronghold because it contains some of the most important bird habitat in the hemisphere, will be lost if the state continues to shirk its restoration commitment.

At a time of water scarcity, IID stands behind the QSA and for a smaller but sustainable Salton Sea

- IID is mindful of the challenges posed by the ongoing drought and is focused on solving the problem at the Salton Sea without upending the QSA or the water transfers it authorized.
- The QSA is a cornerstone of sound water policy in the state, a delicate compromise that must be enforced in its entirety and the state's unequivocal Salton Sea restoration obligation remains an essential component of that compromise.
- The development of renewable energy resources in and around the Salton Sea represents a true water/energy nexus and can serve as a springboard to a smaller but sustainable body of water that can also help to advance the state's climate change goals.

The high cost of doing nothing at the Salton Sea demands nothing less than action — and urgency

- A recent study by the Pacific Institute estimates that continued inaction by the state in meeting its restoration obligation at the Salton Sea could cost up to \$70 billion over the life of the QSA.
- IID and its urban partners have met all of their milestones under the QSA, even though doing so has been difficult and fraught with uncertainty.
- SWRCB should require the state, the QSA parties and other stakeholders to work together to identify a realistic and durable funding mechanism for Salton Sea restoration. Dialogue among the parties is a necessary first step in the process, followed by an order by SWRCB conditioning the water transfers on restoration of the Salton Sea, according to a specific timetable, and in a manner that averts the dire public-health, environmental and economic consequences that loom for the region.



MUNGER, TOLLES & OLSON LLP

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Michael Lauffer
Chief Counsel
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Re: Imperial Irrigation District Petition for Modification of Revised Water Rights Order 2002-13

Dear Messrs. Howard and Lauffer:

Enclosed please find a Petition for Modification of Revised Water Rights Order 2002-13, which the Imperial Irrigation District (IID) is filing today with the State Water Resources Control Board. A check with payment of the filing fee of \$6,153 is included, as is a separate check for \$850 made payable to the Department of Fish and Wildlife.

IID is filing this petition in an effort to start a collaborative process to ensure restoration of the Salton Sea and prevent a looming environmental and public-health crisis at the Sea and in the Imperial and Coachella valleys. To date, the State of California has not fulfilled its statutory commitment to restore the Salton Sea—a commitment that the Legislature undertook in order to facilitate the negotiation and signing of the Quantification Settlement Agreement (QSA). In Revised WRO 2002-13, the Board approved the long-term water transfers envisioned by the QSA, conditioned upon the implementation of certain mitigation measures that would provide temporary relief from the effects of the transfers while the State's broader restoration work was carried out. The Board retained continuing authority to revisit the matter as circumstances warranted.

STATE WATER RESOURCES CONTROL BOARD
DIRECTOR
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Thomas Howard
Michael Lauffer
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This petition asks the Board to revisit the matter because it is warranted to require the State to fulfill its statutory commitment to restore the Salton Sea as an added condition of the QSA transfers. In the 12 years since Revised WRO 2002-13, the State has made scant progress toward performance of that commitment. This inaction already has had significant environmental and public-health impacts for the people of the Imperial and Coachella valleys, and those impacts will only accelerate when deliveries of mitigation water end in 2017. IID submits this petition requesting that the Board exercise its statutory and continuing authority to revisit Revised WRO 2002-13.

As set forth in detail in the body of the petition, IID asks that the Board initiate a collaborative dialogue, involving workshops and status conferences, among the QSA parties, the Salton Sea Authority member agencies, and other key stakeholders, with the objective of building consensus around a restoration and funding plan that can be implemented immediately. Given the urgency of the situation at the Salton Sea, IID requests that the Board notice and schedule a public hearing for no more than nine months from today's date, at which time the Board may assess the results of that collaborative dialogue and receive legal and factual submissions regarding restoration of the Sea as a condition of the QSA transfers. The Board should then issue an order modifying Revised WRO 2002-13 and requiring the State to fulfill its commitment to restore the Sea as a condition of the QSA transfers.

IID looks forward to working cooperatively with the other QSA parties, key stakeholders, and Board staff to craft a workable solution that averts the looming environmental and public-health crisis at the Salton Sea and in the Imperial and Coachella valleys, and that promotes stability and sound water policy in California during this time of drought.

Very truly yours,



Ronald L. Olson

RLO:bap

Enclosure



February 18, 2015

The Honorable Felicia Marcus
Chair
State Water Resources Control Board
1001 I St.
Sacramento, CA 95814

RE: Support for Imperial Irrigation District Request to Convene a Collaborative Process

Dear Chairwoman Marcus:

On behalf of Audubon California, Defenders of Wildlife, the Pacific Institute and Sierra Club California, we write to thank you and the State Water Resources Control Board for scheduling a public workshop on March 18 regarding the status of the Salton Sea and Revised Order WRO 2002-0013. We support the Imperial Irrigation District's (IID) request to your board to convene a series of stakeholder meetings to discuss the current and future status of the State of California's restoration efforts at the Salton Sea and discuss whether or not Revised Order WRO 2001-0013 should be amended. We are encouraged that the Board has scheduled this first workshop. We plan to participate in the workshop and will submit written comments in advance, as requested.

As you know, the Salton Sea is our state's largest lake and one of its most significant natural and environmental resources. The Salton Sea provides a diverse array of wildlife habitats that support several threatened and endangered species, as well as more than 400 species of resident and migratory birds, and serves as a critical link on the Pacific Flyway. The Sea is also home to the Sonny Bono Salton Sea National Wildlife Refuge and the Salton Sea State Recreation Area, both serving as recreational destinations and attracting thousands of visitors annually.

Mitigation water currently delivered to the Salton Sea as required by the Quantification Settlement Agreement (QSA) and the Board's Revised WRO 2002-13 will stop at the end of 2017. This will greatly accelerate the decline of the lake's surface water level, roughly tripling the lake's salinity within a dozen years, and will expose tens of thousands of acres of highly emissive lakebed, as documented in Resource Agency's 2007 [PEIR](#). Not only is this an issue of statewide importance, it is an issue of the utmost importance to the residents of the Imperial and Coachella Valleys because it is they who will have to live with the lasting impacts of a dying Salton Sea. If no immediate course of action is put in place, the negative impacts to the environment, public health and the local economy will be substantial. The Pacific Institute's recent [Hazard's Toll: The Costs of Inaction at the Salton Sea](#) estimates that the total costs of these negative impacts could run into the tens of billions of dollars over the next thirty years.

The State of California has failed to meet its responsibilities under the QSA and the accompanying legislation as well as to the people and wildlife resources of California. While the State of California has

benefited greatly from the QSA, as detailed in IID's petition, since the release of the Resource Agency's PEIR almost eight years ago, the state has repeatedly deferred and delayed any effort to undertake the restoration of the Salton Sea. Unfortunately, as time quickly runs out, it appears that high-level state engagement in the Salton Sea will require the intervention of your Board to ensure that the state lives up to its commitments. Without timely intervention, the devastating impacts on the Salton Sea, its fish and wildlife resources, and the counties of Imperial and Riverside will likely lead to an unraveling of the QSA and all of its benefits to urban Southern California as well as the rest of the state. A water supply interruption for much of coastal Southern California will ripple throughout the state and create additional pressures on our already strained state water system.

Such an outcome is not in anybody's interest. Your Board's involvement in this critical issue will raise its profile and encourage participation and commitment from all stakeholders involved. Again, we thank you and the Board for scheduling this first workshop and encourage you to convene a series of stakeholder meetings that include not only the QSA parties and the Salton Sea Authority, but also those stakeholders representing fish and wildlife, water quality, and public health interests. It is imperative that this process results in a credible, feasible plan for funding and implementing a timely, appropriate plan for the Salton Sea.

Sincerely,



Michael Cohen
Senior Associate
Pacific Institute



Kimberly Delfino
California Program Director
Defenders of Wildlife



Michael Lynes
Director of Public Policy
Audubon California



Kathryn Phillips
Director
Sierra Club California

cc: Thomas Howard, State Water Resources Control Board
Steve Benson, Imperial Irrigation District
Roger Shintaku, Salton Sea Authority