

# The Salton Sea

**In Search of a Sustainable Future**



**DIVERSIFICATION**  
Enhancing Water  
Supply Reliability

The Salton Sea is the largest lake in California, covering about 375 square miles of Imperial and Riverside counties. It is in the Salton Basin, which from the earliest documented history has periodically filled with water, most notably ancient Lake Cahuilla. In its current form, the Salton Sea was created by accident when a dike gave way and the Colorado River flooded the basin in 1905.

Since then, the sea has been fed mainly by agricultural runoff in the New and Alamo rivers (which start in Mexico and flow through the Imperial Valley) and the Whitewater River in the Coachella Valley. Today, the Salton Sea provides habitat for a wide range of bird species, including migratory birds on the Pacific Flyway.

In recent years, questions have surfaced



about the potential impacts on the sea caused by the Quantification Settlement Agreement, a historic set of documents signed in 2003 to reduce California's use of the Colorado River to its annual allotment of 4.4 million acre-feet largely through water conservation-and-transfer agreements.

The QSA provides the state with a means to manage its Colorado River supplies through

a water conservation program funded largely by the San Diego County Water Authority. Related efforts by the Water Authority and partnering agencies (Coachella Valley Water District and Imperial Irrigation District), to provide environmental funding under the QSA Joint Powers Authority, are a critical component of the sea's future. Through that ongoing effort, the JPA has mitigated the impacts of the water transfers from the start and set the stage for the state to carry out its responsibility for a restoration program at the sea.

## State Water Board Stipulated Order

In March 2017, the State of California produced an initial draft of its Salton Sea Management Program Phase I 10-Year Plan, which provides a path toward a smaller, but more sustainable, Salton Sea. The Water Authority, Imperial Irrigation District and Imperial County developed a consensus plan in July 2017 that resulted in a draft stipulated order. The stipulated order was revised following a September 2017 workshop by the State Water Resources Control Board and subsequent negotiations among the parties, with final adoption in November 2017.

The adopted order calls for the state's Salton Sea Management Program to:

- Provide dust control and restore habitat on 30,000 acres of exposed playa over 10 years
- Allow for the continued implementation of the mitigation program approved as part of the original Water Rights Order for the QSA
- Grant the State Water Board oversight authority of restoration efforts
- Develop a draft long-term plan for restoration by 2022

**Salton Sea Surface Roughening**



More than 1,300 acres of on-the-ground air quality projects, like surface roughening (pictured above) and vegetation enhancement, were completed in 2018. Another 1,000 acres is being established in 2019.

**Decades of Environmental Concerns**

The sea’s environmental issues predate the QSA by decades. As far back as the 1960s, the sea has been monitored for rising salinity and selenium levels, two hallmarks of an inland body of water with no outlets fed by nutrient-rich agricultural runoff. Long before the QSA, both state and federal authorities forecasted a troubled future for the Salton Sea. In particular, salinity was expected to eventually threaten fish habitat even without a reduction of inflows to the sea. Under those conditions, the State of California assumed responsibility for developing and implementing a “restoration” program for the sea, separate from “mitigating” the discrete impacts of the QSA water transfers.

Another related environmental issue is the sea’s receding shoreline due to factors unrelated to the QSA, such as Mexico diverting substantial amounts of water from the New River for reuse south of the international border, and changing agricultural practices in the Imperial Valley.

Attention has recently focused on fugi-

tive dust that might be created at the sea as a result of the QSA. However, Imperial and eastern Riverside counties – by the nature of their desert environment – have been designated by the U.S. Environmental Protection Agency as areas of non-attainment for dust particles known as PM10. Windblown dust from the surrounding desert, dirt roads, off-roading activities, and pollution from Mexico are all factors in the current non-attainment designation – not the QSA.

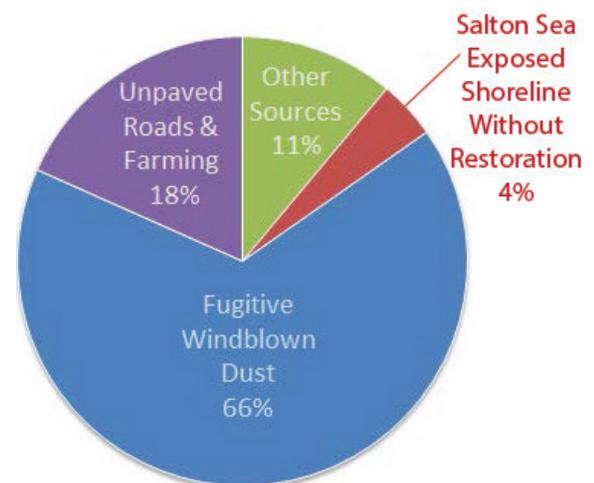
**Funding a Mitigation Program**

Recognizing the need for water conservation and for ensuring beneficial use of California’s Colorado River supplies, the State Water Resources Control Board adopted a Revised Water Rights Order in 2002 that allowed the nation’s largest agriculture-to-urban water transfer to move forward. As part of the QSA, the Water Authority receives up to 200,000 acre-feet annually of water conserved in the Imperial Valley as part of the Water Authority’s water supply reliability strategy.

In addition, Coachella Valley Water District receives up to 100,000 acre-feet of conserved water from Imperial Valley each year. The QSA also facilitated the extension of an earlier agreement in which the Metro-

**Fugitive Dust Drives Air Quality Problems**

**Projected PM10 Sources in 2047**



Imperial County does not meet federal air quality standards for PM10. Even if no restoration is implemented at the sea by 2047, pollution from exposed playa would only account for a small amount of emissions and windblown dust would continue to drive air quality problems.

## Salton Sea Vegetation Enhancement



*Between 2003 and 2017, the Water Authority and its QSA JPA partners delivered mitigation water to the sea, giving the state time to develop a restoration program. In 2018, the mitigation program shifted to on-the-ground air quality mitigation projects. Vegetation enhancement (pictured above) is one of the mitigation strategies at the sea.*

politan Water District of Southern California receives 105,000 acre-feet of conserved water annually from IID.

The 2002 State Board order anticipated that QSA water transfers would have environmental impacts, including impacts on the Salton Sea. The parties involved in the QSA followed the state's arduous environmental permitting process that established air quality mitigation measures for the Salton Sea, which were incorporated by the State Board and upheld by the State Court of Appeal.

The State Board's order found that these mitigation measures would prevent substantial harm to the environment. The air quality mitigation measures have been incorporated into the mitigation program being implemented by IID and funded by the JPA, which is comprised of the Water Authority, IID, CVWD and the State of California.

As part of the JPA, the three water agencies committed to pay up to \$133 million in 2003 dollars, or \$288 million in nominal dollars. The Water Authority is responsible for approximately 40 percent of those costs.

Under state law, any mitigation expenses above \$133 million are the unconditional responsibility of the State of California. Additionally, the Water Authority, IID, and CVWD agreed to pay \$67 million in nominal dollars as seed money to jumpstart a state restora-

tion program. The Water Authority has fully paid its share of this funding.

### Fulfilling a Mitigation Promise

The Water Authority has met all of its financial commitments since 2003 and is in compliance with all state and federal environmental obligations. Most of that funding has gone toward providing bucket-for-bucket mitigation water to the Salton Sea from 2003 through 2017 to eliminate any impact of the water transfers on the sea's shoreline.

JPA funding has also paid for the placement of six stations around the sea to monitor air quality, construction of a 950-acre managed marsh as new wildlife habitat, and a series of air quality pilot projects to test the most effective ways to address potential QSA impacts around the sea since mitigation water deliveries ended in 2017. In 2018, the emphasis shifted from pilot projects to larger implementation of on-the-ground air quality projects.

## Salton Sea News

- Though the state of California is two years behind on achieving goals adopted in 2017 by the State Water Resources Control Board, efforts are underway to advance restoration projects.
- With permits in place, land issues resolved, and a design/build plan in place, the state anticipates work would begin by the end of 2020 on a nearly 4,000-acre Species Conservation Habitat Project. Completion is anticipated for 2023.
- The 500-plus acre Red Hill Marina wetlands project – a joint federal, state and Imperial Irrigation District project – is expected to be completed by early 2021.
- The state began work on a 9,000-acre dust suppression project with a 120-acre “ground roughening” site near the mouth of the New River. More projects are expected to advance over the next two years toward the 9,000-acre target.
- A recent air quality study indicates exposed areas around the Salton Sea are a minimal contributor to the region's overall air quality issues as emissions from off-site sources continue to have the largest impact.

## The Salton Sea

The water agencies' seed money for restoration, which the state placed in the Salton Sea Restoration Fund, has allowed shovel-ready projects to move forward. In 2020, work is expected to move forward on approximately 4,000 acres of wetlands and shoreline habitat. The water agencies' money also funded a feasibility study and financial plan developed by the California Natural Resources Agency and the Salton Sea Authority. These studies have become the basis for much of the State's Salton Sea Management Program.

### Forging a Path Forward

From the signing of the QSA in 2003, the Water Authority has advocated for the state to meet both its mitigation and restoration obligations.

In 2016, the state's restoration program became the Salton Sea Management Program under the California Natural Resources Agency. The program focuses on adaptive management with incremental

implementation. In addition, the state released its Phase I 10-Year Plan for restoration of the Salton Sea in March 2017. That plan calls for a phased, incremental approach with annual acreage targets for restoration projects on a total of 30,000 acres of exposed playa. Proposed projects promote habitat creation and protection of human health. The total estimated cost for implementing the 10-year plan is more than \$400 million, with \$80 million available from Proposition 1, and \$200 million from Proposition 68, a water and park bond passed by voters in June 2018. Efforts are also underway to secure an additional \$200 million in federal funding through the 2018 Farm Bill.

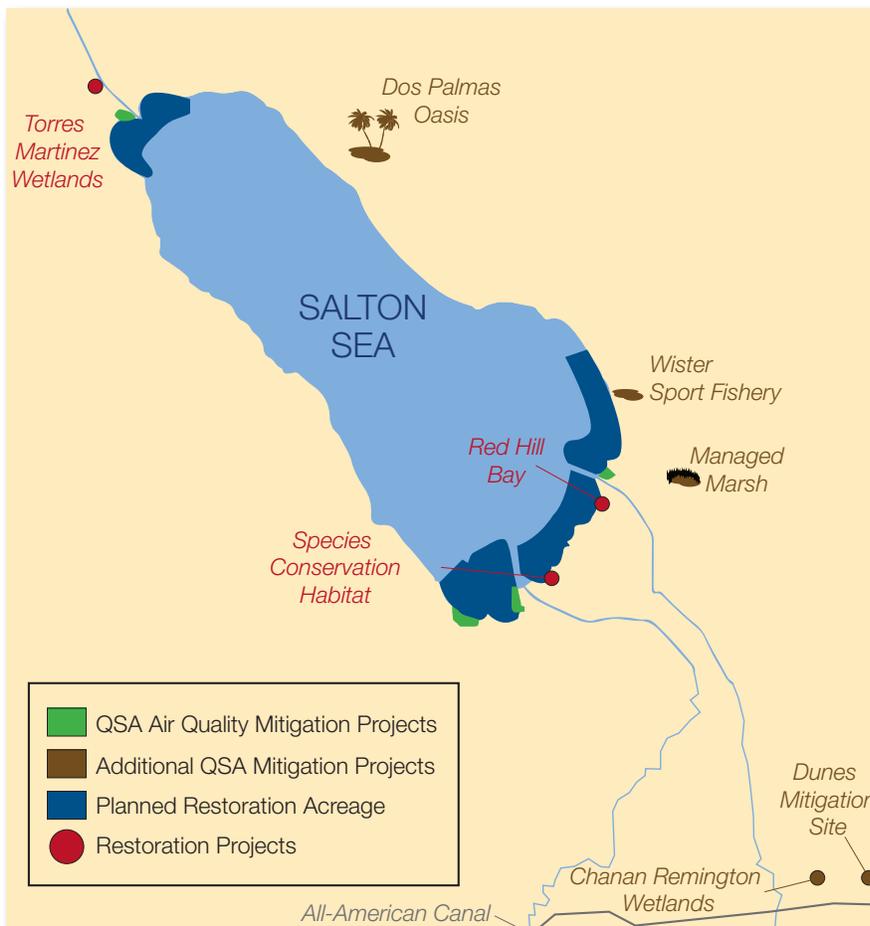
The Water Authority will continue to work with its JPA partners on implementing QSA mitigation projects while engaging with other stakeholders in the ongoing effort to ensure the state implements its 10-year plan and develops a long-term restoration program at the Salton Sea. ■



### AF = acre-foot

One acre-foot is approximately 325,900 gallons, enough to supply 2.5 single-family households of four for a year.

### Salton Sea Mitigation & Restoration Sites



Several mitigation and restoration projects supported by the Water Authority are underway in the Salton Sea Basin.



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