

**STATE WATER RESOURCES CONTROL BOARD  
DIVISION OF WATER RIGHTS  
STAFF REPORT  
FEBRUARY 18, 2019**

**SUBJECT**

PUBLIC WORKSHOP ON STATUS OF PHASE 1 OF THE SALTON SEA MANAGEMENT PROGRAM

**Water Right Order WR 2017-0134**

On October 28, 2002, the State Water Resources Control Board (State Water Board) issued [Order WR 2002-0013](#) which approved the long-term transfer of water from the Imperial Irrigation District (IID) to the San Diego County Water Authority, the Coachella Valley Water District, and the Metropolitan Water District of Southern California. On December 20, 2002, the State Water Board issued [Order WR 2002-0016](#), which [revised Order WR 2002-0013](#).

On November 18, 2014, IID filed a Petition for Change seeking modification of Revised Order WR 2002-0013. In May 2015, Governor Edmund G. Brown, Jr. established the Salton Sea Task Force to identify realistic short- and medium-term goals to respond to potential air quality and ecological impacts resulting from reduced flows of fresh water to the Salton Sea. As a part of the Salton Sea Task Force, the State Water Board regularly monitors and assesses progress on the implementation of the Salton Sea Task Force's [Salton Sea Management Program](#) (SSMP) and held workshops on March 18, 2015, January 5, 2016, April 19, 2016, November 15, 2016, and September 7, 2017. On November 7, 2017, the State Water Board adopted [Order WR 2017-0134](#) amending revised Order WR 2002-0013 to incorporate additional conditions that set forth specific restoration milestones (see Table 1) to address public health and environmental concerns within [Phase 1 of the SSMP](#).

Table 1: Specific restoration milestones to address public health and environmental concerns within phase 1 of the SSMP.

Year	Total number of acres of habitat and dust-suppression projects that shall be completed each year (annual milestones).	Report due to State Water Board on progress made toward meeting each annual milestone target.
2018	500	First quarter of 2019
2019	1,300	First quarter of 2020
2020	1,700	First quarter of 2021
2021	3,500	First quarter of 2022
2022	1,750	First quarter of 2023
2023	2,750	First quarter of 2024
2024	2,700	First quarter of 2025
2025	3,400	First quarter of 2026
2026	4,000	First quarter of 2027
2027	4,000	First quarter of 2028
2028	4,200	First quarter of 2029
Total acres to be completed by the end of 2028: 29,800		

Order WR 2017-0134 requires that the State Water Board hold a public meeting no later than March 31 of each year during Phase 1 of the SSMP to receive oral and written comment on the status of Salton Sea restoration. The order also requires a report from the California Natural Resources Agency (Resources Agency), due in the 1st quarter of 2019, to identify:

- (i) completed projects and milestones achieved in the prior year;
- (ii) amount of acreage of completed projects that provide dust suppression and habitat restoration, broken down by habitat type;
- (iii) upcoming projects to be completed and milestones to be achieved prior to the next annual progress report;
- (iv) the status of financial resources and permits that have not been secured for future projects;
- (v) any anticipated departures from the dates and acreages identified in condition 24 of the order (see table 1), and;
- (vi) progress toward development of the long-range plan described in condition 26 of the order.

### Structure of the SSMP

The SSMP is implemented by the Resources Agency through the Department of Water Resources and Department of Fish and Wildlife. Due to the complexity of the Salton Sea and the long-term management goals for the Salton Sea, the SSMP created six advisory committees (see table 2) to provide input from various stakeholders including local and regional entities, non-governmental organizations, academic institutions, and local residents.

Table 2: SSMP Advisory Committees

Committee	Purpose	2018 Meetings
Science	To provide scientific expertise and guidance on SSMP projects and efforts.	January 30 <sup>th</sup> June 11 <sup>th</sup>
10-Year Plan	To advance implementation of the 10-Year Plan by providing input and making recommendations to resolve issues and concerns.	February 7 <sup>th</sup> June 12 <sup>th</sup> November 13 <sup>th</sup>
Air Quality	To provide guidance on air quality regulatory compliance and coordinate with air boards.	February 6 <sup>th</sup>
Long Range Planning	To consider alternative long-range solutions and recommend those that should advance to scientific review.	April 11 <sup>th</sup> August 29 <sup>th</sup>
Community Engagement	To advise the State in engaging local communities to inform them and solicit meaningful input regarding health, air quality, and social aspects of SSMP projects.	July 10 <sup>th</sup> November 13 <sup>th</sup>
Water Quality	To provide the State technical and regulatory guidance for water quality monitoring and the development of standards for mitigation and development of water quality standards.	October 31 <sup>st</sup>

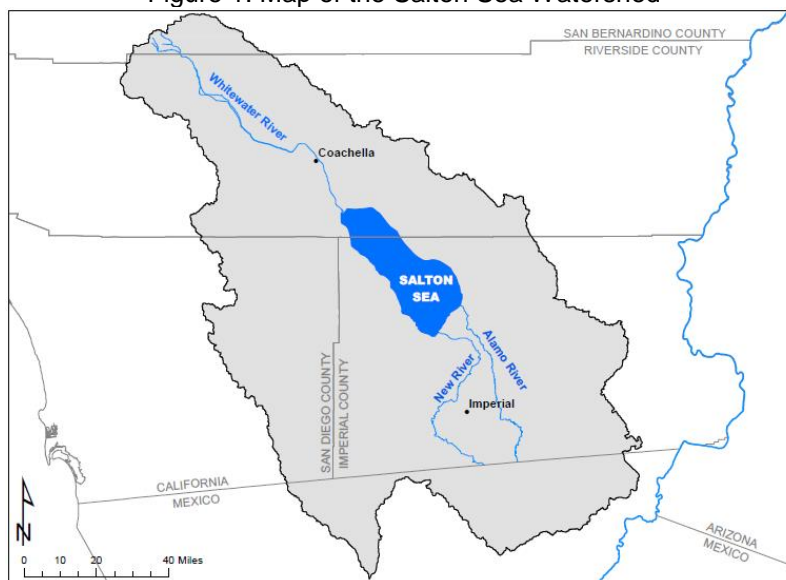
### The Salton Sea

#### Description of the Salton Sea

Located in the Salton Basin (part of the Colorado River delta), the Salton Sea is California's largest lake, with a surface elevation of approximately 228 feet below sea level. The Salton Sea watershed encompasses an area of approximately 8,000 square miles from San Bernardino County to the Mexicali Valley. The Salton Sea lies at the lowest point in the Salton Basin and collects runoff and agricultural drainage from most of Imperial County, a portion of Riverside County, smaller portions of San Bernardino and San Diego Counties, as well as the northern portion of the Mexicali Valley (Figure 1). Over the last several hundred thousand years, the Colorado River has periodically meandered west to fill the Salton Basin, creating ancestral freshwater lakes that ultimately evaporated away after the river meandered back towards the east. The current iteration of the Salton Sea was formed in 1905 when massive flooding caused the Colorado River to break through an irrigation canal to flow uncontrolled directly into the

Salton Basin for 18 months, creating the modern Salton Sea. Once the breach in the irrigation canal was fixed, the Salton Sea has been primarily sustained by agricultural drain water, approximately 80 percent of which flows 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.

Figure 1: Map of the Salton Sea Watershed



Environmental Conditions of the Salton Sea

The environmental conditions are changing rapidly within the Salton Sea watershed caused by water transfers under the [Quantification Settlement Agreement](#), water management planning within Coachella, Imperial, and Mexicali Valleys, and effects from climate change. There will be a reduction of inflows to the Salton Sea as time progresses, and it will result in declining surface water elevations and increased salinity at the Salton Sea. The current conditions of the Salton Sea are shown in Table 2.

Table 2: Current Conditions of the Salton Sea, as of February 12, 2019\*

Surface water elevation	<b>-236.85 feet, NGVD 1929</b>
Surface water elevation (Feb 2003)	<b>-228.4 feet, NGVD 1929</b>
Change from 2003 elevation	<b>-8.45 feet</b>
Reduction in Salton Sea area since 2003	<b>24,200 acres (38 sq. miles)</b>
Dust Control Projects Implemented	<b>1,144 acres**</b>
Habitat Project Implemented	<b>49 acres***</b>
Passive Revegetation	<b>~1,800 acres</b>
Net Exposed Playa	<b>~21,400 acres (33 sq. miles)</b>

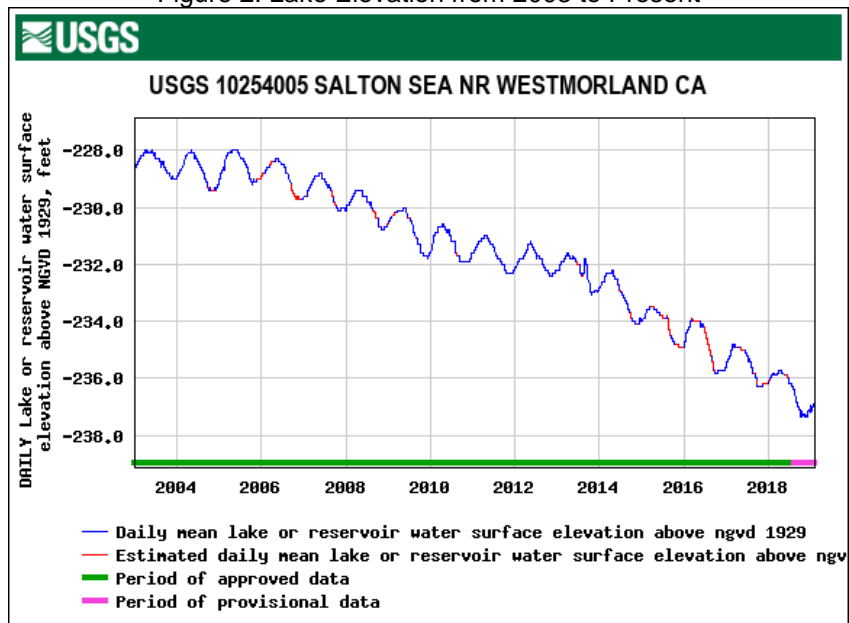
\*Information available by the Pacific Institute: <https://pacinst.org/current-information-salton-sea/>

\*\*Existing projects implemented separate from the SSMP

\*\*\*49 acres from completion of Phase 1 of Torres Martinez Wetlands

Since 2003, there has been a steady decline in the surface water elevation of the Salton Sea which continued to decline during 2018 (see Figure 2).

Figure 2: Lake Elevation from 2003 to Present



Data available from: [https://waterdata.usgs.gov/ca/nwis/uv?site\\_no=10254005](https://waterdata.usgs.gov/ca/nwis/uv?site_no=10254005)

### *Changes in Air Quality*

A preliminary draft Salton Sea 2018 Air Quality Update being prepared by the California Air Resources Board indicates that emissions from exposed Salton Sea playa, at the current time, are not greater than emissions from other disturbed soil surfaces near shorelines monitoring stations. The draft Update indicates documented occurrences of very high levels of windblown dust, or PM10 (particulate matter with diameters of 10 micrometers or less), are caused by environmental conditions located away from the Salton Sea and the dust is not derived from the exposed playa nor is it being caused by the water transfer. However, the windblown dust moving into the Salton Sea can disturb exposed playa and currently the only communities that could be impacted by windblown playa dust is Bombay Beach, Niland, and Calipatria.

### *Changes in Wildlife*

Audubon California completed a rapid-assessment waterbird survey in November 2018 and documented that (1) fish-eating waterbirds continue to decline in numbers compared to previous surveys; (2) larger wading birds continue in small numbers but are focused around freshwater inlets; (3) eared grebes have had a small increase in numbers possibly due to an increased population of water boatman (insects); (4) ruddy ducks roughly doubled in numbers, and; (5) shorebirds continue to increase.

### *Other Considerations or Notable Information on the Salton Sea*

In October 2018, IID released a technical report documenting the historical and future hydrology of the Salton Sea. The report concluded that the Salton Sea is experiencing rapid changes associated with water management and tributary watersheds. The report summarized that “in recent years the Salton Sea inflows have been closer to 1.1 [million acre-feet per year] maf/yr. Due to the future anticipated changes in the watershed, future mean flows under [a no action scenario] are expected to be approximately 732,000 [acre-feet per year] af/yr over the period of 2016 to 2077, and 716,000 af/yr for the period 2018 to 2047.”

### **Funding for the SSMP**

The Legislative Analyst's Office (LAO) released a status update report of the Salton Sea in August 2018. The report included a summary of funding that have been authorized by the State for the Salton Sea since 2000. As of June 2018, \$730.1 million has been authorized for Salton Sea projects, and of that, \$507.5 million remains unspent. Implementing the goals of Phase 1 of the SSMP are projected in the LAO Report to cost \$420 million. At the current time, there is enough funding available to implement Phase 1 projects. However, there is uncertainty of long-term funding for the operations and maintenance of the Phase 1 projects and future phases of the SSMP.

### **Staff Oversight Activities for 2018**

The State Water Board held two informational items before the Board on March 18<sup>th</sup> and October 16<sup>th</sup> to hear an update from the Resources Agency on the status of the SSMP. Both informational items included a presentation from the Resources Agency and written and oral comments from non-governmental organizations and local residents of the Salton Sea.

State Water Board staff also attended several SSMP advisory committee meetings, a legislative oversight hearing by the Assembly Committee on Water, Parks, and Wildlife; a symposium on *Shrinking Shorelines and the Salton Sea: Consideration of Community Impacts, Recent Research, and Possible Solutions*; and, a meeting held by the Colorado Regional Water Quality Control Board.

### **Staff Assessment of Reports Required by WR 2017-0134**

As of February 18, 2019, the annual report as described above has not been submitted to the State Water Board. However, staff have maintained their oversight role of the SSMP and are aware that the State has yet to secure land control through an easement agreement with IID. The Resources Agency has been unable to achieve the 2018 acreage milestone of 500 acres. WR 2017-0134 anticipated that there could be a situation where the annual acreage milestone was not achieved. Should an annual milestone shortfall exceeding 20 percent of a year's annual obligation occur, the State would then be required to submit a deficiency plan to the State Water Board describing how the State would rectify the deficiency. Zero of the 500 acres for the 2018 acreage milestone was achieved, therefore, the State will also be submitting a deficiency report. The State Water Board has yet to receive the deficiency report.

### **Conclusions**

State Water Board staff are aware that the State was unable to achieve the 2018 acreage milestone target of 500 acres of dust suppression and habitat construction projects. The State Water Board has yet to receive the annual report and the deficiency plan. Once the annual report and deficiency plan has been submitted, State Water Board staff will review and release the documents for public viewing on the State Water Board's Salton Sea website located at: [https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/salton\\_sea/](https://www.waterboards.ca.gov/waterrights/water_issues/programs/salton_sea/).

### **Documents Referenced**

Legislative Analyst's Office. *The Salton Sea: A Status Update* (August 29, 2018), <https://lao.ca.gov/Publications/Report/3879>

Imperial Irrigation District. *Salton Sea Hydrology Development* (October 2018), <https://www.iid.com/home/showdocument?id=17297>

Audubon California. *Latest Survey Results from the Salton Sea* (November 30, 2018), <http://ca.audubon.org/news/latest-survey-results-salton-sea>

California Air Resources Board. *Preliminary Draft Salton Sea 2018 Air Quality Update* (undated), provided by Earl Withycombe.