
State Water Resources Control Board

STATE WATER RESOURCES CONTROL BOARD DIVISION OF WATER RIGHTS STAFF REPORT April 2023

Annual Workshop on Status of Phase 1 of the Salton Sea Management Program

Introduction

This staff report provides information to interested parties who may participate in the annual workshop on the status of the Salton Sea Management Program (SSMP) as part of the State Water Resources Control Board's (State Water Board) oversight role of the SSMP.

The staff report is organized into six sections.

Section 1: Purpose of Workshop provides a high-level summary of why the State Water Board is holding the workshop. **Section 2: SSMP Annual Report** provides an overview of purpose and submittal of CNRA's annual report. **Section 3: Water Right Transfer** provides a background and history of water rights order WRO 2017-0134. **Section 4: Salton Sea Watershed** provides a description and current environmental conditions of the Salton Sea. **Section 5: Staff Activities** provides information regarding State Water Board staff activities since last year's workshop. **Section 6: More Information** provides a link to the State Water Board's Salton Sea webpage and staff contact information.

Section 1: Purpose of Workshop

The State Water Board hosts an annual workshop so interested parties can review and comment on activities that the State of California, with California Natural Resources Agency (CNRA) as lead, has done over the previous year to help address environmental issues at and surrounding the Salton Sea.

In addition to information presented by CNRA, the workshop is an opportunity to hear from various panels on their perspectives and involvement in the SSMP effort, and for the State Water Board to receive comments from the public.

The State Water Board's role in hosting the annual workshop came about as a result of recommendations made by the State's [Salton Sea Task Force](#), and through continued oversight of a [water right transfer order](#). Condition 28 of [Order WRO 2017-0134](#) requires the State Water Board to hold an annual workshop and receive an annual report from CNRA no later than March 31 of each year. In 2020, the annual workshop

was delayed until August due to the pandemic. In 2021, 2022, and again now in 2023, the workshop is being delayed to allow sufficient time for review of the annual report by the public and State Water Board staff ahead of the workshop, as well as to allow additional time for public engagement and participation, including ensuring meeting materials are translated into Spanish.

Section 2: Salton Sea Management Program Annual Report

The main focus of the workshop is an update from CNRA on the SSMP, based on their annual report. CNRA submitted their 2023 SSMP annual report to the State Water Board on March 22, 2023, before the annual end of March deadline set forth in WRO 2017-0134, and made the report available on their webpage in both English and Spanish. State Water Board staff recognize that the CNRA annual report, while prepared in compliance with WRO 2017-0134, contains additional content beyond the requirements, including updates on planning, permitting, and construction activities intended to support the delivery of future milestones, as well as information on environmental conditions at the Sea. The report is accessible in English and Spanish on the CNRA website at: saltonseaca.gov.

Select Information from the Annual Report

The 84-page report was prepared by CNRA, Department of Water Resources and California Department of Fish and Wildlife. Stakeholders interested in the status of Salton Sea Management Program are encouraged to review the annual report in its entirety.

CNRA Report Table 1 provides information on activities identified in State Water Board Order WRO 2017-0134. For reader ease of reference, a copy of this table is provided below with an added explanation of where to find additional information on the topic within the report.

CNRA Report Table 1: Activities identified in State Water Board Order WR 2017-0134 (SSMP Annual Report, page 5)

Item	Reporting Requirement	SSMP Activity
(i)	Completed projects and milestones achieved in the prior year.	The following are key accomplishments in 2022: Major progress on the SCH Project: Completion of most pond berms, nesting islands, the causeway connecting the saline water source to the pump and habitat ponds; and of the New River Diversion Structure. Implementation of vegetation enhancement projects at Clubhouse, Bombay Beach West, and Tule Wash.

		<p>Completion and public release of several key planning documents: NEPA Draft Environmental Assessment for the Phase I: 10-Year Plan, Independent Review Panel report on water importation options, public draft of the Long-Range Plan, and the Monitoring Implementation Plan.</p> <p>Development of project concepts for the following five projects targeted to begin implementation by 2024/2025: SCH Expansion, main North Lake project, San Felipe Fan, SCH Vegetation Project, and Wister Unit Marsh Bird Habitat.</p> <p><i>Additional information on SSMP projects and milestones can be found in the Introduction and Purpose (chapter 1) and SSMP Project Delivery (chapter 2) sections of the report.</i></p>
(ii)	<p>Amount of acreage of completed projects that provide dust suppression and habitat restoration, broken down by habitat type</p>	<p><u>Vegetation Enhancement Projects:</u> Approximately 290 acres seeded and/or planted within the existing rows of grass bales at Clubhouse and West Bombay Beach sites. An additional 1,085 acres of vegetation enhancement projects began implementation at Clubhouse, Tule Wash, and West Bombay Beach.</p> <p><u>Habitat Projects:</u> Continued progress on the 4,110-acre SCH project with completion expected in 2023, and initiation of the North Lake Demonstration Pilot Project. Progress on the detailed design of the Audubon Wetland Project at Bombay Beach.</p> <p><i>Additional information on acreage is provided in table 3 within the report, located on page 58, and partially shown in the table below.</i></p>
(iii)	<p>Upcoming projects to be completed and milestones to be achieved prior to the next annual progress report</p>	<ol style="list-style-type: none"> 1. Completion of the SCH project 2. Complete drilling of five groundwater production wells to support vegetation projects around the Sea. 3. Complete implementation of three vegetation enhancement projects (Tule Wash, Clubhouse, and West Bombay Beach).

		<p>4. Publish Final EA for the Phase 1: 10-Year Plan.</p> <p>5. Design SCH expansion project that includes additional ponds to the north that utilize infrastructure constructed for the SCH.</p> <p>6. Finalize design of the North Lake Demonstration Pilot Project.</p> <p>7. Obtain land access and water rights for the five additional project areas described above under item (i).</p> <p>8. Complete design for the North Lake Project (beyond the Demonstration Pilot Project).</p> <p>9. Work with partners to facilitate progress on the Audubon Wetlands Project and Desert Shores.</p> <p><i>Additional information on upcoming projects can be found in the SSMP Project Delivery (chapter 2) and Next Steps (chapter 6) sections of the report.</i></p>
(iv)	Status of financial resources and permits that have not been secured for future projects	<p>Financial Resources: Funding has been appropriated for the completion of the SCH, the three vegetation enhancement projects, the North Lake Project Demonstration Pilot Project, and partial funding for the SCH expansion and the main North Lake Project. Resources in the form of staff time are allocated to the Audubon Wetlands Project. Future funding will be required for all other Phase 1: 10-Year Plan projects identified in the report. Additional federal funding will be obtained from drought-related funding from the U.S. Bureau of Reclamation, and from the Natural Resources Conservation Service.</p> <p>Permits: Permit needs are evaluated on a project-by-project basis and have been obtained for all projects now under construction. When the EA is completed and the Letter of Permission procedures are in place, the SSMP will have a streamlined mechanism to receive federal permits and land access for additional Phase I: 10-Year Plan projects. The SSMP Team is supporting the NEPA and permitting effort. The SSMP</p>

		<p>Team has also been tracking the recently implemented Statewide Restoration General order and plans to utilize it for certain 401 certifications.</p> <p><i>The Planning section of the report (chapter 5) describes planning and funding, and Table 5 in Appendix B of the report further explains funding availability for the SSMP.</i></p>
(v)	Any anticipated departures from the dates and acreages identified in Condition 24 of the State Water Board Order	<p>There have been departures from project delivery dates, in many cases related to delays associated with securing land access and water rights. Based on current understanding of the steps required to implement additional projects, Chapter 6 describes anticipated dates to achieve the acreage schedule. However, because the State is not a significant landowner around the perimeter of the Sea, the timely implementation of all projects on the ground is contingent on expedited support from entities that do own or administer these lands. An important step forward is the Salton Sea Commitment Agreement between Colorado River water users, signed in December 2022, that includes a provision to establish programmatic land access agreements to enable state agencies to implement projects. Similar to land access, there is a need to obtain legal access to surface water sources and also develop groundwater resources in regions where surface water availability is minimal.</p> <p><i>Chapter 6 of the report describes anticipated dates to achieve the acreage schedule.</i></p>
(vi)	Progress toward development of the long-range plan described in condition 26 of the order	<p>The SSMP Team contracted with the University of California at Santa Cruz to convene an Independent Review Panel to conduct a feasibility analysis for water importation. This panel provided its recommendations in September 2022, and the report is publicly available. The results of the IRP report informed restoration options for the draft Long-Range Plan. A public draft of this plan was released by the SSMP Team</p>

		<p>in December 2022. This plan will be a focus of additional NEPA analysis by the U.S. Army Corps of Engineers.</p> <p><i>Development of the Long-Range Plan is discussed in more detail in the Planning section of the report, beginning on page 39 (chapter 5). Table 2 of the report, on page 42, shows the evaluation status of restoration concepts from the Long-Range Plan.</i></p>
(vii)	In the event an annual milestone shortfall exceeds 20 percent of a year's annual obligation, a plan that will cure the deficiency within 12 months	The State's vision for future project delivery to meet the annual obligations is described throughout the report and is summarized in Chapter 6.

CNRA Table 3 of the report, on page 58, provides a summary of SSMP projects with acreages. A partial copy of the table is provided below. The project status column was omitted but can be viewed by accessing the CNRA report.

CNRA Report Table 3: SSMP Project Summary (Project status column omitted) (SSMP Annual Report, page 58)

Year End Goal	WR 2017-0134 Target Acres	Cumulative WR-2017-0134 Target Acres	Completed and Planned Land Access Acres	Cumulative Land Access Acres	SSMP Completed and Planned Acres	SSMP Cumulative Completed Acres (Mid-Range)
2018	500	500				
2019	1,300	1,800	4,100	4,100		
2020	1,700	3,500	4,100	4,100	755	755
2021	3,500	7,000	1,700	5,800	1,000-2,000	2,255
2022	1,750	8,750		5,800	290	~2,600
2023	2,750	11,500	~10,000	15,800	5,400	7,000
2024	2,700	14,200	2,000-3,000	14,700	1,000	~8,000
2025	3,400	17,600	2,000-3,000	17,200	~10,000	~18,000
2026	4,000	21,600	[1]			
2027	4,000	25,600	[1]			
2028	4,200	29,800	[1]			

[1] A comprehensive project pipeline and schedule will be developed following the completion of the 10-Year Plan NEPA Environmental Assessment process in early 2023.

Section 3. Water Right Transfer

On October 28, 2002, the State Water Board issued [Water Rights Order \(WRO\) 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 WRO 2002-0016](#), which revised the original Order.

On November 18, 2014, IID filed a Petition for Change seeking modification of Revised Order WRO 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 monitored and assessed progress on the implementation of the 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 WRO 2017-0134 amending revised Order WRO 2002-0013 to incorporate additional conditions that set forth specific restoration milestones (see State Water Board Table 1) to address public health and environmental concerns within [Phase 1 of the SSMP](#).

WRO 2017-0134 requires that the State Water Board hold a public meeting during each year of Phase 1 of the SSMP to receive oral and written comment on the status of Salton Sea restoration. The order also requires an annual report from the California Natural Resources Agency (CNRA), 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 State Water Board Table 1);
- vi. progress toward development of the long-range plan described in condition 26 of the order, and;
- vii. in the event an annual milestone shortfall exceeds 20 percent of a year's annual obligation, a plan that will cure the deficiency within 12 months.

WRO 2017-0134 contains annual implementation acreage milestones and cumulative amounts for 2018 through 2028, shown in the table below, including a requirement that no less than 50 percent of the annual milestones shall provide habitat benefits for fish and wildlife that depend on the Salton Sea ecosystem.

State Water Board Table 1: Specific restoration milestones to address public health and environmental concerns within Phase 1 of the SSMP.

Year	Total acreage of habitat and dust-suppression projects that shall be completed each year (annual milestones).	Cumulative acreage to be completed by the end of each year.
2018	500	500
2019	1,300	1,800
2020	1,700	3,500
2021	3,500	7,000
2022	1,750	8,750
2023	2,750	11,500
2024	2,700	14,200
2025	3,400	17,600
2026	4,000	21,600
2027	4,000	25,600
2028	4,200	29,800

Section 4: Salton Sea Watershed

Description of the Salton Sea

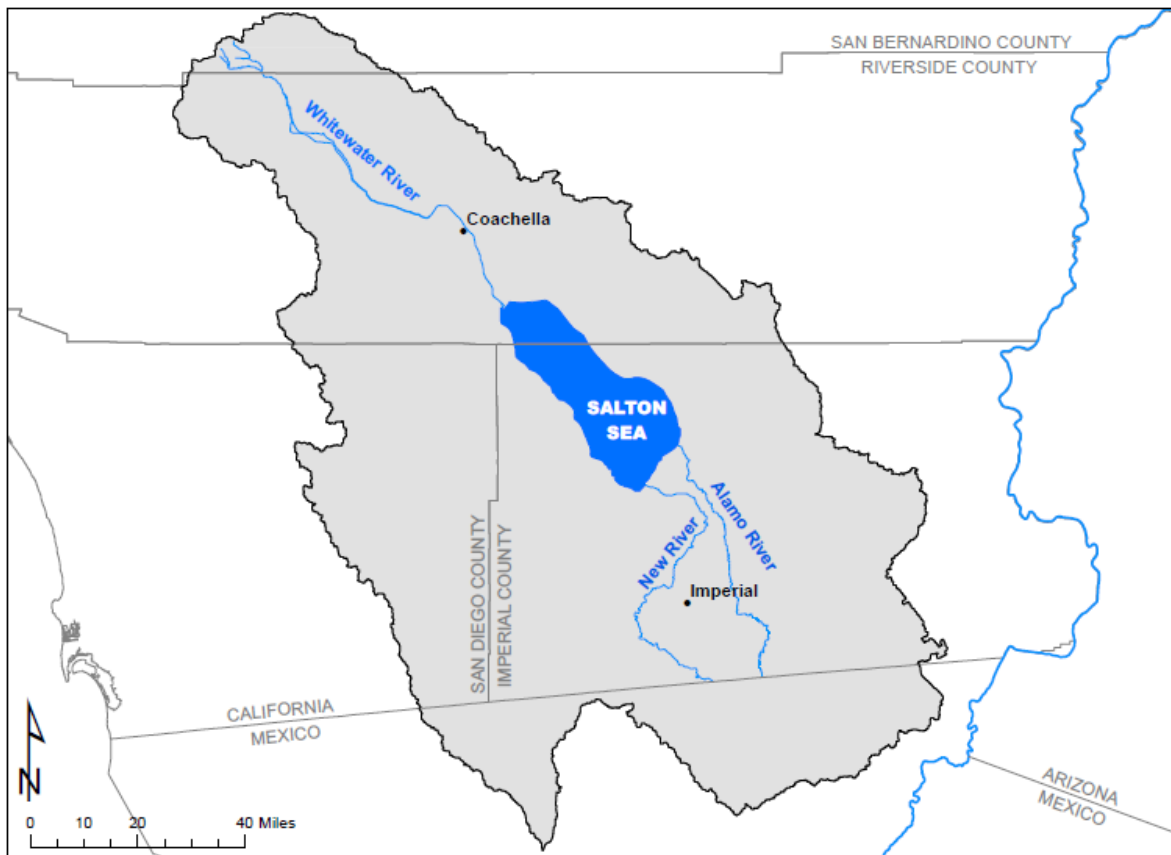
Located in the Salton Basin (part of the Colorado River delta), the Salton Sea is California's largest lake, with a surface elevation of approximately 240 feet below sea level. The Salton Sea watershed encompasses an area of approximately 8,000 square miles from San Bernardino County to the Mexicali 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 (see Figure 1).

Over the past millennia, the meandering Colorado River periodically filled the Salton Basin, creating ancestral freshwater lakes that eventually evaporated. Today's Sea was formed in 1905 when massive flooding caused the Colorado River to break through an irrigation canal and flowed uncontrolled into the Salton Basin for 18 months. After 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 farming-heavy Imperial Valley to the south. However, inflow into the Sea has declined over the past several decades, causing the water level to recede. This has led to increased salinity and concentrated nutrients from farm runoff, both of which create inhospitable conditions for animal life. The Sea is currently more than twice as salty as the ocean, and nutrient pollution has caused an overgrowth of algae which are depleting oxygen

levels. Many species depend on the Salton Sea ecosystem: it is home to many species of fish and is a critical stop on the Pacific Flyway for migrating birds, including several threatened and endangered species.

Further, receding water levels create public health risks for nearby residents due to air pollution from dust particles released from the previously submerged lakebed. With no natural outlet, decades of agricultural and wastewater accumulation are embedded in the Sea's now-exposed soils. As the Sea continues to shrink, more of this particulate matter that contains dangerous pollutants will be released into the air.

Figure 1: Map of the Salton Sea Watershed



Environmental Conditions of the Salton Sea

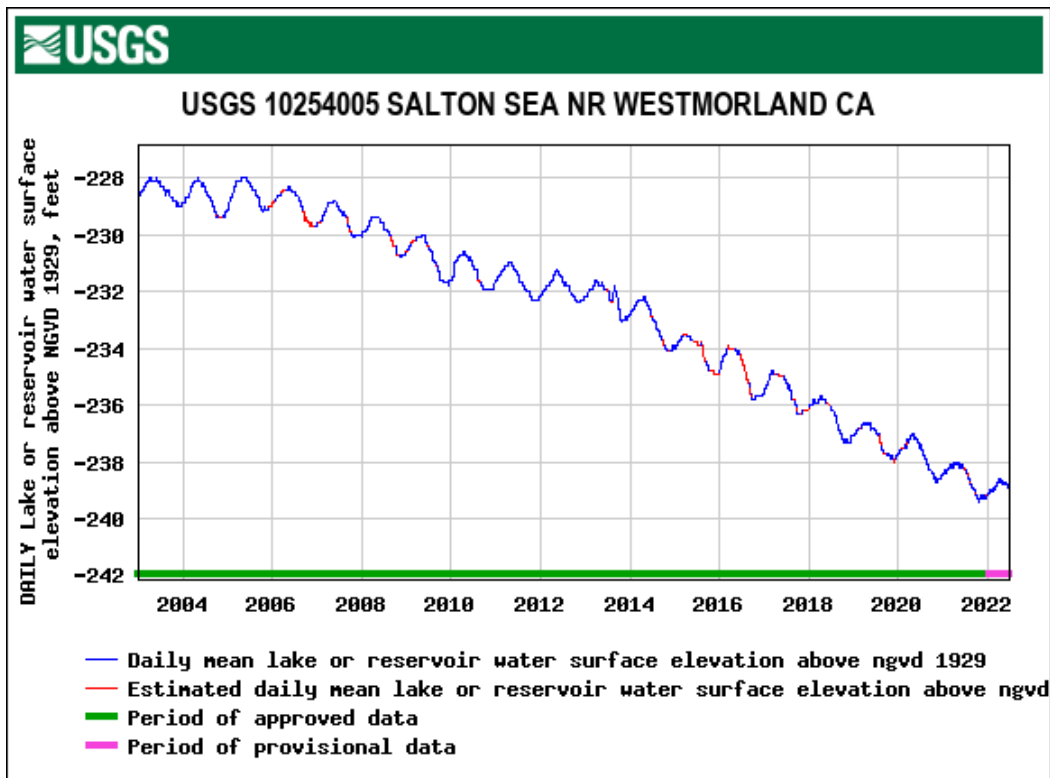
The environmental conditions are changing rapidly within the Salton Sea watershed caused by water transfers under the 2003 [Quantification Settlement Agreement](#) and water management planning within Coachella, Imperial, and Mexicali Valleys. While inflows into the Sea have remained relatively stable over the last few years, they remain lower than the evaporative loss from the Sea's surface. There will therefore be a reduction of inflows to the Salton Sea as time progresses, which without restoration actions will result in declining surface water elevations and increased salinity at the Salton Sea. Additionally, ongoing drought conditions on the Colorado River will influence the conditions at the Salton Sea, as the Colorado River is the sole source of

water for the Imperial Valley, and the main source of inflow into the Salton Sea. Near-term reductions in water use and increases in water conservation can reduce inflows to the Sea and result in additional acres of exposed lakebed.

As of March 14, 2023, the Pacific Institute provides that the current elevation of the Sea is 239.7 feet below mean sea level. This is a drop of 10.8 feet, from to the 2003 baseline elevation of 228.9 feet below mean sea level. The reduction of Salton Sea area is currently 28,800 acres (45 sq. miles), and there are approximately 17,700 acres of net exposed playa.

Since 2003, there has been a steady decline in the surface water elevation of the Salton Sea, as shown in Figure 2 below.

Figure 2: Salton Sea Elevation from 2003 to Present



Data available from USGS at:

https://waterdata.usgs.gov/ca/nwis/uv?site_no=10254005

Section 5. Staff Activities

The State Water Board has a designated staff lead for engagement on the SSMP. Staff activities include planning of the annual State Board workshop and engaging on SSMP- related activities. During 2022, the State Water Board held a virtual public workshop regarding the Salton Sea as required by WRO 2017-0134 on April 20, 2022.

Written and oral comments were provided by several state and local entities, interested parties, and members of the public. Staff also updated the State Water Board Salton Sea webpage.

During 2022, State Water Board staff attended SSMP Community Engagement Committee meetings on June 8 and August 23, SSMP Science Committee meetings on February 17 and December 1, Long-Range Planning Committee meetings on March 2, May 4, July 6, September 7, and October 12, a Water Importation Feasibility Study meeting on April 11, and Army Corps of Engineers meetings on the Draft Environmental Assessment for the SSMP on July 7 and July 12. Additionally, staff virtually attended the Salton Sea Summit on April 6 and 7, Salton Sea Authority (SSA) Board of Directors meetings on January 27, February 24, March 24, April 28, May 26, June 23, August 25, October 13, and December 8, as well as webinars hosted by Pacific Institute.

State Water Board staff also attended a meeting with local community groups and CNRA on October 23, a tour of the Species Conservation Habitat site on October 24, and the Salton Sea Health Summit on October 27.

Section 6: More Information

The annual report, as required by WRO 2017-0134, was released by CNRA on March 22, 2023 in both English and Spanish. The annual report is available on [CNRA's Salton Sea website](#) and the [State Water Board's Salton Sea webpage](#). CNRA will present information from their report during the May 16-17th workshop.

The State Water Board maintains a webpage with additional information on the Salton Sea and engagement on the Salton Sea Management Program: waterboards.ca.gov/salton_sea/

For questions regarding this staff report or the upcoming workshop, contact Stephanie Holstege, Senior Environmental Scientist, Specialist at stephanie.holstege@waterboards.ca.gov.