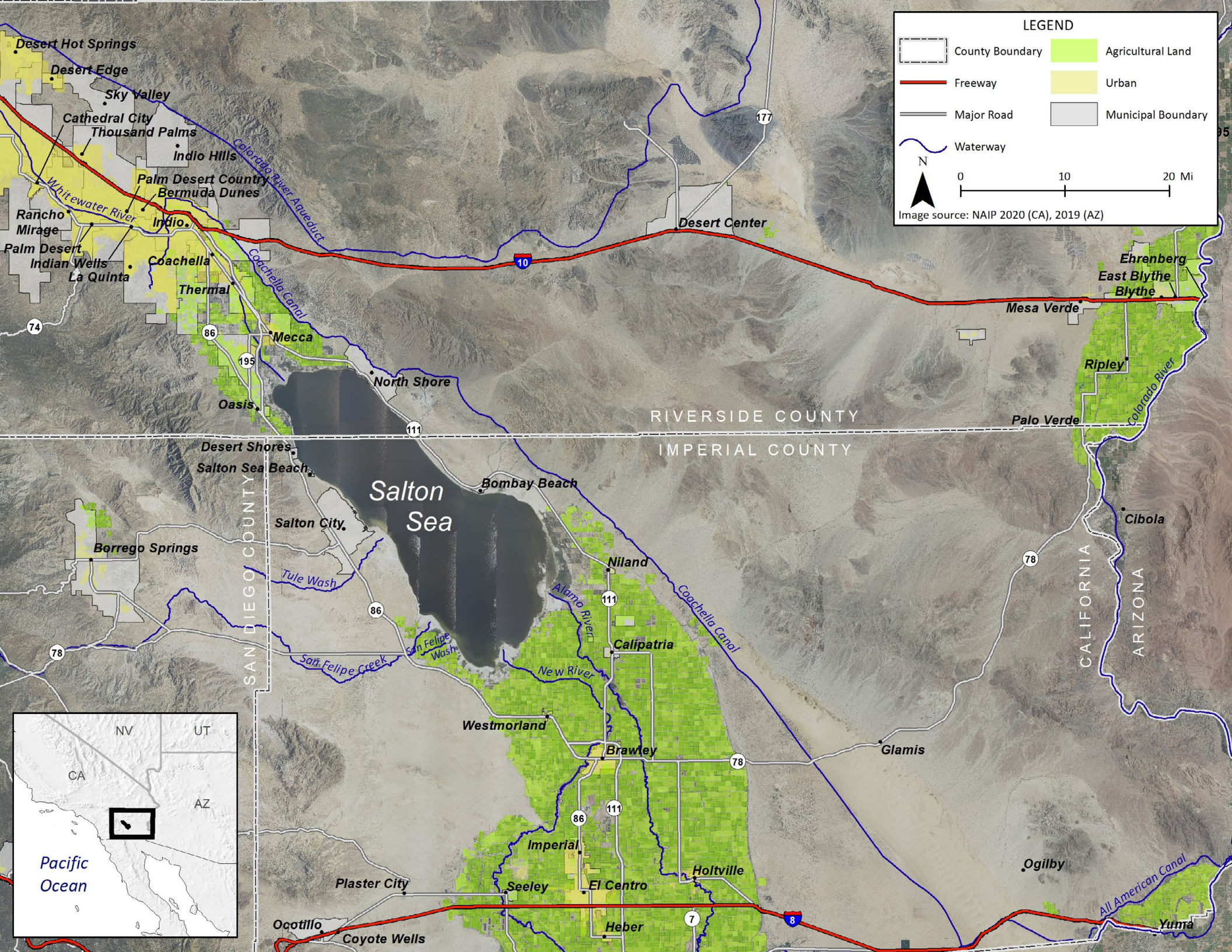


CALIFORNIA NATURAL RESOURCES AGENCY

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Annual Report on the Salton Sea Management Program

March 2024


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Urban
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Oasis
North Shore
Desert Center
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East Blythe
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Palo Verde
Colorado River
Colorado River Aqueduct
Whitewater River
Coachella Canal
RIVERSIDE COUNTY
IMPERIAL COUNTY
SAN DIEGO COUNTY
CALIFORNIA
ARIZONA
Salton Sea
Desert Shores
Salton Sea Beach
Bombay Beach
Salton City
Borrego Springs
Tule Wash
San Felipe Wash
San Felipe Creek
Niland
Alamo River
New River
Calipatria
Cibola
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Plaster City
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CALIFORNIA NATURAL RESOURCES AGENCY

Annual Report on the Salton Sea Management Program

March 2024

Prepared for:

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

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CALIFORNIA DEPARTMENT OF FISH & WILDLIFE

CALIFORNIA NATURAL RESOURCES AGENCY

Prepared in compliance with Order WR 2017-0134

Contents

Project Team vi

Acknowledgments vi

Executive Summary vii

Project Delivery vii

Partnerships viii

Planning ix

Community Engagement and Transparency x

Next Steps xi

1 Introduction and Purpose 1

1.1 Notable Highlights Since Preparation of 2023 Annual Report 2

1.2 Updates for State Water Resources Control Board Order WR 2017-0134 3

1.3 Report Organization 6

2 SSMP Project Delivery 7

2.1 Land Access 7

2.2 Project Updates 8

2.3 Non-SSMP Project Updates 27

3 Partnerships 31

3.1 Audubon California 31

3.2 Bureau of Land Management 32

3.3 California Air Resources Board 32

3.4 Coachella Valley Water District 32

3.5 Colorado River Basin Regional Water Quality Control Board 32

3.6 Imperial Irrigation District 32

3.7 Imperial County 33

3.8 Imperial County Air Pollution Control District 33

3.9 Natural Resources Conservation Service 34

3.10 Riverside County 34

3.11 Salton Sea Authority 34

3.12 South Coast Air Quality Management District 35

3.13 Torres Martinez Desert Cahuilla Indians 35

3.14 Government-to-Government Consultations and Partnership with California Native American Tribes 35

3.15 U.S. Army Corps of Engineers 36

3.16 U.S. Bureau of Reclamation 37

3.17 U.S. Fish and Wildlife Service 37

4 Community Engagement 39

4.1 Community Engagement Committee 39

4.2 Engagement Activities 40

4.3 Engagement for the Salton Sea Management Program and Community Needs Report 40

4.4 SSMP Project Tracker Website 41

4.5 Enhanced SSMP Presence in the Region 41

4.6 The SSMP Website and E-Newsletter 42

4.7 Contacting the SSMP Team 42

5 Planning 43

5.1 Environmental Planning 44

5.2 Phase 1 Project Planning 44

5.3 Phase 2: Salton Sea Long-Range Plan 45

5.4 Salton Sea Science Program and Monitoring Implementation Plan 45

5.5 The Salton Sea Community Needs Report 46

5.6 Organizational Capacity 46

5.7 Funding Status and Planning 48

6 Next Steps 49

6.1 Key Program Activities in 2024 49

6.2 Key Program Activities in 2025-2026 52

6.3 Meeting State Water Resources Control Board Order WR 2017-0134 Targets 52

7 References 57

Acronyms and Glossary 59

Appendix A. Existing Conditions 61

A.1 Inflows 61

A.2 Salton Sea Elevation and Salinity 62

A.3 Salton Sea Fish Surveys 63

A.4 Salton Sea Bird Surveys 64

Appendix B. Funding Status 67

Figures

Figure 1. Landownership around the Salton Sea.....8

Figure 2. Projects in progress and potential future projects under consideration at the Salton Sea. 9

Figure 3. Salton Sea Species Conservation Habitat project overview and schematic. 10

Figure 4. The saline pump station at SCH. 10

Figure 5. The SCH New River Diversion and Intake structure..... 10

Figure 7. The Visitor Observation Area at SCH. 11

Figure 8. Layout of the vegetation enhancement project at the Clubhouse site..... 14

Figure 9. Site features and activities at the Clubhouse site..... 15

Figure 10. Recent plant growth at the Clubhouse site..... 16

Figure 11. Layout of vegetation enhancement project as presently implemented at the Tule Wash site. 17

Figure 12. Site features and activities at the Tule Wash site. 18

Figure 13. Layout of vegetation enhancement project at the West Bombay Beach site. 19

Figure 14. Site features and activities at the West Bombay Beach site. 20

Figure 15. Proposed project area of Reclamation-administered land for vegetation enhancement and dust suppression at the San Felipe Fan site..... 21

Figure 16. Location of projects along the northern shore of the Salton Sea. 23

Figure 17. Marsh habitat occupied by Yuma Ridgeway's Rail and California Black Rail. 23

Figure 18. Area covered with wetland habitat at the North Lake Project site. 24

Figure 19. SCH Expansion Project location with possible pond boundaries..... 25

Figure 20. New River water diverted in left diversion channel with steel sheet piles and dewatering wells. 29

Figure 21. Wet well construction within the New River channel, protected by steel sheet piles and dewatering wells..... 29

Figure 22. Salton Sea Management Program organizational chart. 47

Figure 23. SSAM model-predicted water surface elevation and observed elevation (NAVD88 datum). 63

Figure 24. SSAM model-predicted salinity and observed salinity (mg/l)..... 63

Tables

Table 1. Activities Identified in State Water Board Order WR 2017-0134 3

Table 2. SSMP Projects Summary.....53

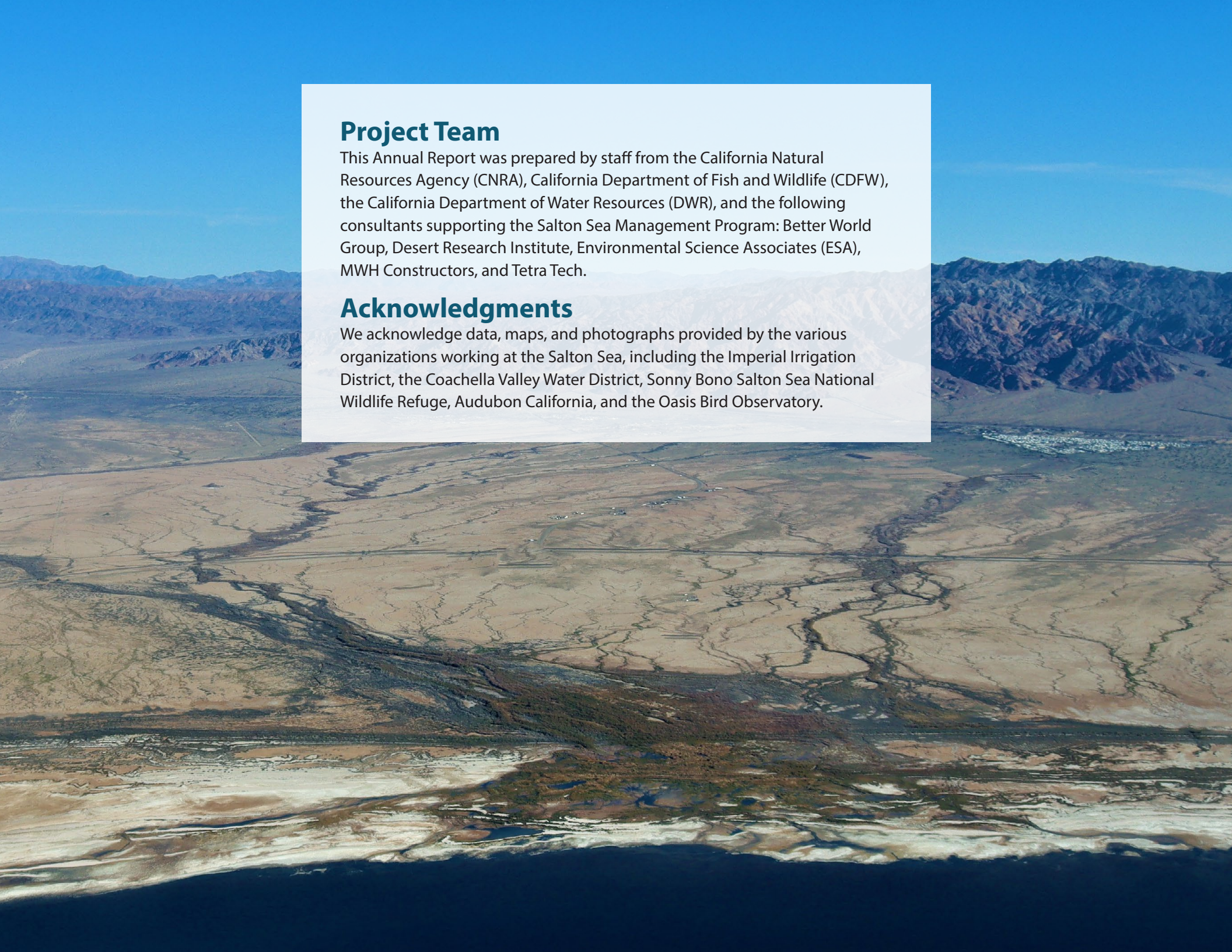
Table 3. SSMP Projects Planned Over 2024-2028 55

Table 4. Water Inflow to the Sea by Year (in thousand acre-feet [TAFY]).....61

Table 5. Funding Available for the Salton Sea Management Program (in millions).....67

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Project Team

This Annual Report was prepared by staff from the California Natural Resources Agency (CNRA), California Department of Fish and Wildlife (CDFW), the California Department of Water Resources (DWR), and the following consultants supporting the Salton Sea Management Program: Better World Group, Desert Research Institute, Environmental Science Associates (ESA), MWH Constructors, and Tetra Tech.

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Executive Summary

Significant, measurable progress continued at the Salton Sea (Sea) over the last year. The largest restoration project in the Sea's history neared completion, suppressing dust and restoring habitat across thousands of acres at the south end of the Sea. In other areas along the Sea, hundreds of acres now host native vegetation recently planted to suppress dust over coming decades. These plants have taken root, are growing and are beginning to serve their purpose. This year also witnessed the first major investment by federal agencies to stabilize the Sea; the U.S. Bureau of Reclamation (Reclamation) granted $70 million to accelerate local restoration projects.



Great progress also occurred to accelerate additional improvements under the current Phase 1: 10-Year Plan. Key planning and permitting advanced high priority restoration projects and key staff positions were filled on the Salton Sea Management Program (SSMP) to ramp up this work. Partnerships have strengthened with community groups and leaders that are helping shape our efforts at the Sea, and a long-planned Community Needs Report is nearing completion to galvanize further improvements at the Sea.

This report provides specific updates on the SSMP's activities in 2023 and planning for future projects, ongoing partnerships to help the SSMP meet its goals, community engagement, and next steps. While we share constructive progress in this annual report, we recognize that significant work remains ahead, and we must continue to accelerate and broaden our work at the Sea.

Project Delivery

Work continued in 2023 on the Species Conservation Habitat (SCH) site, achieving key milestones towards project completion. These include construction of the Saline Pump Station, the New River Diversion structure (and its associated intake structure, equipment, and piping), and the near

completion of the Visitor Observation Area. In December 2023, Reclamation granted the State $70 million to begin the expansion of the SCH Project and to accelerate dust suppression and aquatic habitat projects at the Sea. The $70 million was released in connection with actions by the Imperial Irrigation District (IID) to conserve water in 2023. The funding is a portion of the $250 million in federal funding for the 2022 *Commitment to Support Salton Sea Management Related to Water Conservation in the Lower Colorado River Basin Agreement* (hereafter, the Salton Sea Commitments Agreement). The SSMP Team made intentional schedule modifications for filling constructed habitat ponds at the SCH Project to allow equipment access to expand the Project. Commissioning of the SCH Project will be aligned with the construction of additional ponds in the expanded project area, starting in late 2024 to early 2025.

Vegetation enhancement work at the Clubhouse, Tule Wash, and West Bombay Beach sites continued at a rapid pace. The Clubhouse site is largely complete with a combination of grass bales, stormwater spreading features, drip irrigation, and seeding/planting implemented on 368 acres of the 399-acre project area. Four groundwater wells have been drilled at the Clubhouse site (two deep and two shallow) to provide a local source of water for irrigation. Completion of the vegetation establishment at the Clubhouse site demonstrated successful growth of native vegetation from plants and seed and serves as a template for similar application on exposed lakebed areas. Air quality and saltation monitoring at the Clubhouse C site shows more than a 95 percent reduction of dust emissions over two years of data collection (from two transects with a total of six stations).

Work is actively proceeding at the larger Tule Wash vegetation enhancement site, where bales and planting have been developed over 243 acres. Bales and stormwater spreading features have been implemented on an additional 317 acres. Access roads and pads for groundwater wells are being constructed throughout the project area. Work is currently continuing on the remaining 657 acres of the project area.

Two key land access milestones were achieved in 2023 – 1) a draft programmatic land access agreement with Reclamation that will support future expedited site-specific access to Bureau lands and 2) negotiated easement terms with IID to expand the SCH Project. Land access continues to be a foundational need to enable restoration project implementation.

Insights gained from the above set of projects—especially related to efficient project delivery, permitting and field survey needs, water needs, timing of construction, and construction costs—support the identification of additional projects that will help the State meet the 29,800-acre target for projects at the Salton Sea. A planning exercise underway to identify a full suite of potential projects will be shared publicly in 2024.

Partnerships

Partnerships with communities, Tribal governments, interested parties, and local, state, and federal agencies are crucial to achieving the goals of the SSMP. In 2023, the State, Reclamation, IID, and other parties to the Salton Sea Commitments Agreement met quarterly with partners at a principal level to continue the momentum of the commitments described in the agreement, along with additional Salton Sea partners. This series of meetings was led by CNRA Secretary Wade Crowfoot and Reclamation Commissioner, Camille Calimlim Touton.

The State Team worked closely with the U.S. Army Corps of Engineers (USACE) to advance long-range planning at the Salton Sea, beyond the activities being undertaken to complete the 29,800-acre target for Phase 1. The SSMP met regularly with the USACE to develop a framework to approach the development of the *Imperial Streams and Salton Sea Ecosystem Restoration Feasibility Study* (hereafter, Feasibility Study). In March 2023, the USACE held a planning charette workshop with key partners, leaders, and experts from across the whole of government focused on laying the foundation for the USACE's six-step planning process. These steps include: identifying problems and opportunities; inventorying and forecasting conditions; formulating alternative plans; evaluating alternative plans; comparing alternative plans; and finally selecting a plan for adoption. Later in the year, on November 21, 2023, the USACE formally accepted the framework to develop the Feasibility Study.

Aerial view looking north of the SCH New River diversion system, the East and West Sedimentation Basins, and the New River and its riparian vegetation.



Members of the State Team continued to work closely with community organizations; Tribal governments; local, state, and federal agencies; and other interested parties. The State Team is working with partners to pursue available funding sources; develop projects; share data; improve community engagement, outreach, and involvement; and streamline planning and approval processes. In addition, the SSMP Team is collaborating with partners to develop land access, water availability, and public access opportunities as key elements for the success of the SSMP.

Planning

In 2023, the SSMP Team continued its planning activities on four main fronts. This included work on finalizing the Environmental Assessment (EA) for the Phase 1: 10-Year Plan being developed with six federal agencies, which will provide

comprehensive National Environmental Policy Act (NEPA) compliance, a Programmatic Agreement for Section 106 compliance, a framework Biological Opinion for Section 7 compliance, and a Clean Water Act permitting structure for additional Phase 1 projects. The EA will be finalized following completion and execution of the Programmatic Agreement between the USACE and the State Historic Preservation Officer (SHPO), which will contain a standardized review procedure for compliance with Section 106 of the National Historic Preservation Act (NHPA).

To meet its commitment for long-term planning beyond Phase 1, the SSMP prepared the Final Long-Range Plan (LRP), which is scheduled for release in March 2024. This plan will be a focus of additional feasibility analysis by the USACE.

The Salton Sea Monitoring Implementation Plan (MIP) was developed in collaboration with the SSMP Science Committee and multiple working groups in 2022. In 2023, the SSMP Team developed the first Annual Workplan for 2024. The Annual Workplan serves as a lookahead planning reference and index for monitoring and research projects occurring at the Sea to help foster collaboration and information sharing.

In January 2024, the Team also released the Salton Sea Management Program and Community Needs Report for public comment. This report identifies community needs related to the Salton Sea, describes the status of SSMP efforts, and lists potential opportunities for the SSMP to address these needs while implementing restoration projects. Vital needs identified by communities and described within this document include the following: community engagement, meaningful tribal consultation, equitable outdoor access, public health, workforce and sustainable economic development, climate action, transportation, and broadband access. Public comments and feedback will be analyzed and incorporated where feasible into the final report later in 2024.

Natural Resources Secretary Wade Crowfoot speaking at the SWRCB Community Tour, May 2023



Community Engagement and Transparency

The SSMP Team continued to place a strong focus on community engagement throughout 2023. The SSMP Team continues to improve and actively maintain a program that enables consistent lines of open communication to serve and engage the frontline communities of the Salton Sea region, creating opportunities for community members to share concerns, provide input, and contribute to the delivery of projects that improve conditions for communities around the Salton Sea.

The SSMP Community Engagement Committee and its subcommittees serve as the hub and primary venue to plan engagement activities and identify the best outreach and involvement strategies for SSMP public events. The Community Engagement Committee consists of representatives from community-based

organizations, stakeholder groups, local leaders, governmental agencies, and Tribal governments. It also enlists leaders of local community groups and nongovernmental organizations (NGOs) to help guide SSMP engagement efforts, reach community members through varying communications channels, and increase community engagement in SSMP planning activities.

As major milestones were completed at the SCH project in 2023, the State hosted numerous tours of the project site with agency and community partners. This included a multi-agency and partner tour during the 2023 State Water Resources Control Board Workshop on the Salton Sea, held in Imperial County in May. Many working tours with partner agencies, Tribes, NGOs, and Community-Based Organizations (CBOs) were conducted throughout the year. Finally, in December 2023 principals and partners of the Salton Sea Commitments Agreement toured the SCH and announced the first $70 million dollars committed by Reclamation to accelerate projects and fund an expansion of the current SCH footprint.

Throughout the year, the SSMP Team presented updates during multiple existing events, including regional city council meetings during the fall and winter of 2023, which are continuing into 2024. These presentations provided a succinct overview of the progress the SSMP Team is making to improve conditions and restore ecological value at the Salton Sea.

Another project leading to greater transparency for the SSMP is the Project Tracker website. The comprehensive database and dashboard clearly show progress towards the program goals, project phases, and acreage targets by activity and category. Fact sheets will also be downloadable in English and Spanish as the Project Tracker is updated. The Project Tracker is accessible through the CNRA Salton Sea website "Projects" tab.

Next Steps

Major next steps to be accomplished in 2024 are summarized below. Work will continue on major structures for the SCH Project, including operation and maintenance facilities, the Visitor Observation Area, and maintenance access. The SSMP Team will work with the Design-Build entity on design of the approximately 1,000-acre East Pond 1 SCH Expansion using the first installment of the federal funding under the Salton Sea Commitments Agreement. Deferring the commissioning of the SCH (including filling of the habitat ponds) will allow equipment access for the expansion and allow soil and material to be economically sourced from the footprint of the SCH.

Work will continue at the vegetation enhancement sites on Reclamation land, notably at the largest site in Tule Wash (1,217 acres). Access roads across the approximately 5-mile-long site will be expanded and completed for ease of initial bale placement, planting, and irrigation activities. Work is planned on IID land adjacent to the existing Clubhouse and Tule Wash vegetation enhancement project sites; these encompass an additional 382 acres. The SSMP envisions using the same approach as used on the nearby Reclamation parcels. The SSMP Team will take advantage of newly built access roads for ease of access to these sites and new groundwater wells for irrigation.

Other projects led by partner organizations will be advanced in 2024. The SSMP Team will continue to work with the SSA and Riverside County to plan and construct the 160-acre North Lake Pilot Demonstration Project, located at the northern end of the Salton Sea, in Riverside County near the unincorporated community of North Shore. In 2024, project design will begin, and project construction is anticipated to begin in 2025. Audubon California will conduct geotechnical surveys to inform the design of the Audubon Bombay Beach Wetland Enhancement Project. The SSMP will continue to collaborate with Audubon on the 65 percent design, to support additional funding, permitting, and for long-term operations and maintenance. Land-access agreements have been prioritized and will continue to final development between Audubon, the State, Reclamation, and IID. Imperial County plans to complete CEQA compliance for the Desert Shores Channel Restoration Project. SSA is the lead for this project, and will continue to work with the project management firm that was hired in 2023 to lead the project design and

provide opportunities for robust public input opportunities in 2024.

In 2024, the SSMP Team and USACE will complete the EA for the Phase 1: 10-Year Plan. This sets the stage for various types of project activities over the next few years as the lakebed becomes exposed. Phase 2 planning (beyond the Phase 1: 10-Year Plan) will be conducted through the Imperial Streams and Salton Sea Ecosystem Restoration Feasibility Study (Feasibility Study), which progresses the restoration concepts identified in the LRP for further evaluation under the USACE's process. Coordination and planning with USACE and SSA began in 2023 and will continue in 2024. This planning process utilizes USACE's planning framework to develop a feasibility study.

In addition to significant activities in 2024 on these projects, conceptual design and planning will continue on other projects targeted for implementation in 2025 and beyond. The lessons learned from the current projects are being used to develop an additional set of specific habitat, wetland, and dust suppression projects that will help meet the cumulative 29,800-acre target in the State Board Order.

The SSMP Team encourages the public, community partners, Tribal governments, and other interested parties to get involved in our planning and project implementation efforts through a number of venues. These include the following:

- Attend workshops and committee meetings: Most meetings are open to the public and are accessible virtually. Updates on future meetings are provided through newsletters, flyers, and announcements via both traditional and social media.
- Communicate via email: Interested individuals can reach out by email at cnra-saltonsea@resources.ca.gov.
- Receive website updates and newsletters: Information on current and future updates is provided on the SSMP website: https://saltonsea.ca.gov/. Interested individuals may also sign up to receive regular email updates about the SSMP.



1 Introduction and Purpose

The future of the Salton Sea (Sea) remains a central focus of the Newsom Administration, with an emphasis on implementing projects on the ground that benefit the communities and wildlife that depend on the Sea. While the drought in the Colorado River Basin eased during 2023, developing a pathway for future projects at the Salton Sea during this decade and beyond remains a critical issue. This work is driven by the Salton Sea Management Program (SSMP) — led by the California Natural Resources Agency (CNRA) in collaboration with the California Department of Water Resources (DWR) and the California Department of Fish and Wildlife (CDFW). Together these agencies are known as the SSMP Team. The SSMP Team worked closely with local, state, Tribal, and federal partners to advance projects in 2023. The relationships that have been developed and the project experience gained thus far will help accelerate project delivery in 2024 and beyond.



The SSMP Team remains focused on the following four goals:

- Drive implementation of the SSMP's Phase 1: 10-Year Plan, which aims to improve conditions around the Sea by constructing nearly 30,000 acres of projects to suppress dust from exposed lakebed and create habitat for fish and birds;
- Work with U.S. Army Corps of Engineers (USACE) and the Salton Sea Authority (SSA) to develop and complete the *Imperial Streams and Salton Sea Ecosystem Restoration Feasibility Study* to identify actions for long-term restoration of the Sea;
- Continue to strengthen partnerships with the Federal government, local governments and non-profits, Tribal governments, and communities to deliver projects and institutionalize inclusive

Report Goals

This report highlights project planning and implementation activities during 2023 to meet the requirements of State Water Resources Control Board Order WR 2017-0134. The primary focus is on work completed in 2023 and specific plans for projects from 2024 to 2028, the growing capacity of the SSMP Team to meet future goals, and ongoing engagement with regional partners and local communities. This report also includes an update on the funding status of the program.

community engagement within and across SSMP projects; and

- Add capacity and expertise to the SSMP Team to enable the State to deliver projects on an expanded scale.

1.1 Notable Highlights Since Preparation of 2023 Annual Report

- The State, Reclamation, Imperial Irrigation District (IID), and other parties to the Salton Sea Commitments Agreement met with partners quarterly at a principal level to continue momentum on the commitments in the December 2022 agreement, along with interested Salton Sea partners. This series of meetings was led by CNRA Secretary Wade Crowfoot and Reclamation Commissioner, Camille Calimlim Touton.
- On November 21, 2023, the USACE accepted the framework to develop the *Imperial Streams and Salton Sea Ecosystem Restoration Feasibility Study,* which formally initiated this work.
- The Species Conservation Habitat (SCH) Project remained on schedule, completed major milestones, and commissioned approximately 130 acres in 2023. The SCH Project now is being planned to expand from a 4,100-acre project to approximately a 5,100-acre project starting in 2024 with the 1,000-acre East Pond 1. The SSMP Team continues to pursue additional expansion of the SCH Project to add 4,000 to 6,000 acres to the project as funding becomes available. Commissioning of the SCH Project will align with the schedule for expanding the project with the initial 1,000-acre East Pond 1 and further acreage.
- Vegetation enhancement projects comprising of bale placement, furrows, drip irrigation lines, and planting and seeding were implemented at the Clubhouse and Tule Wash sites; 394 acres were completed, and 464 acres of interim dust suppression were implemented. Completed project areas include planting and irrigation zones. Interim dust suppression refers to the placement of bales and furrows where additional planting and irrigation is still to be added. The Clubhouse project site is complete, and work continues in 2024 on the remaining acres at Tule Wash.
- Two deep and two shallow groundwater production wells have been installed at the Clubhouse site. Production wells will begin operating throughout 2024. Monitoring wells associated with each pair of production wells will track water elevation over time.
- Major access improvements have occurred at the Tule Wash project site, allowing the project team to implement dust control more efficiently and install groundwater wells. These access roads will also support future project expansion as additional areas in the surrounding region become exposed.
- On August 15, 2023, the U.S. Bureau of Land Management (BLM) approved the temporary land access needed to begin geotechnical investigations critical to inform the design of the North Lake Pilot Demonstration Project, joining four other landowners who granted temporary access for the survey work. Surveys and geotechnical investigations began in October 2023 and will continue into 2024.
- On August 28, 2023, the Torres Martinez Desert Cahuilla Indians Tribe formally approved the SSMP's request for a temporary entry permit (TEP) to allow access to the Tribal lands needed to complete biological, cultural, and other surveys which will inform the development of the North Lake Project, Alternative H site.
- In January 2024, the draft SSMP and Community Needs Report was released for public comment. This report, in addition to a commissioned report by Better World Group, is the culmination of nearly two years of research, surveys, interviews, and community meetings.
- The SSA worked with Imperial County to hire a project management firm to coordinate and plan next steps towards implementation of the Desert Shores project.

- In March 2024, the final version of the Long-Range Plan (LRP) is planned for release along with a response to comments compiled during the development of the Plan. This information has been transmitted to the USACE to inform the development of the next phase of the Salton Sea Feasibility Study.
- In 2023, the SSMP added nine new positions bolstering organizational capacity to deliver on its commitments.

1.2 Updates for State Water Resources Control Board Order WR 2017-0134

Table 1 provides an overview of the reporting requirements defined in the State Water Resources Control Board Order WR 2017-0134 (Order). This 2024 Annual Report on the Salton Sea Management Program goes beyond the requirements in the Order and provides an update on the extensive range of management, planning, permitting, and construction activities intended to support the delivery of future SSMP milestones. The Order also requires an update on environmental conditions at the Sea. This information is summarized in Appendix A of the report.

Table 1. Activities Identified in State Water Board Order WR 2017-0134

Item	Reporting Requirement	SSMP Activity
(i)	Completed projects and milestones achieved in the prior year.	The following are key accomplishments in 2023: • Completed major construction features and structures at the SCH site, with intentional schedule modifications for filling habitat ponds to allow construction of an adjacent habitat site (termed the SCH Expansion project). • Completion of the vegetation establishment at the Clubhouse site; demonstrated successful growth of native vegetation from plants and seed. • Drilling of groundwater wells at the Clubhouse site that will provide a local source of water for plant germination and establishment. • Major access improvements have occurred at the Tule Wash project site, allowing the project to implement dust control more efficiently and install groundwater wells. • Deployment of an additional three air quality monitoring transects (9 stations). One transect was deployed at the Clubhouse A site, one at Tule Wash, and one at West Bombay Beach in 2023. • Completion of geotechnical site survey work at the North Lake Pilot Demonstration Project site. • Release of the Salton Sea Community Needs Report for public input. • Development of the first MIP Annual Working Plan for 2024. • Added nine new positions to the SSMP, increasing organizational capacity as further described in Section 5.6 • Securing the first $70 million dollars of federal funding to accelerate project implementation.

Table 1. Activities Identified in State Water Board Order WR 2017-0134 (Contd.)

Item	Reporting Requirement	SSMP Activity
(ii)	Amount of acreage of completed work that provides dust suppression and habitat creation, broken down by habitat type.	**Vegetation Enhancement Projects:** 414 acres completed on the Clubhouse and Tule Wash Project sites. **Habitat Projects:** 130 acres in the sedimentation basins and at the south end of the diversion structure on either side of the New River Diversion Channel within the SCH footprint. **Interim Dust Suppression Projects:** Projects reducing dust emissions implemented on an additional 319 acres at the Tule Wash site. A total of 1,599 acres of interim dust suppression are in place to date. A total of 167 acres of habitat and 704 acres of dust suppression through vegetation enhancement projects have been completed to date.
(iii)	Upcoming projects to be completed and milestones to be achieved prior to the next annual progress report.	The following are key activities planned in 2024: • Complete final design and specifications for the North Lake Pilot Demonstration Project. • Continue to partner with Audubon to complete land easements and further design for the Bombay Beach Wetlands Enhancement Project. • Continue to partner with SSA and Imperial County to advance the Desert Shores Channel Restoration Project. • Begin planning for a data management site and develop recommendations and criteria for software and organization. • Update and reorganize the SSMP website and launch the Project Tracker on the website. • Begin construction on the East Pond 1 Expansion of the SCH. • Targeting completion of approximately 500 acres at Tule Wash. • Initiate Vegetation Enhancement work on IID Parcels at the Clubhouse and Tule Wash sites. • Complete the Phase 1: 10-Year Plan EA with the USACE as the Lead Federal Agency and five Cooperating Agencies to provide NEPA coverage for future projects in the program. • Re-initiate the Natural Resources Conservation Service (NRCS) Watershed Planning Process. • Develop an MIP annual workplan in the current year for the next year (i.e., develop 2025 in 2024).

Table 1. Activities Identified in State Water Board Order WR 2017-0134 (Contd.)

Item	Reporting Requirement	SSMP Activity
(iv)	Status of financial resources and permits that have not been secured for future projects.	**Financial resources**: Development of the NRCS Watershed Plan using work done for the SSMP 10-Year Plan EA would release federal funding through the U.S. Department of Agriculture (USDA) Watershed Planning assistance in fiscal year 2025-2026 or 2026-2027. $70 million of $245 million committed by the Department of Interior was received in December 2023. The remaining federal funding is contingent upon additional water conservation actions by IID. **Permits**: NEPA coverage for the projects in the program is planned to be completed in 2024, as is setting up the Letter of Permission (LOP) Procedures to comply with Clean Water Act Section 404. Other permits will be assessed on a project-by-project basis, but for projects that qualify, the State will seek to use the Restoration General Order for 401 certification and to continue to develop a Restoration Management Permit with CDFW for State Endangered Species coverage.
(v)	Any anticipated departures from the dates and acreages identified in Condition 24 of the State Water Board Order.	Completed acreage has been lower than the SWRCB annual and cumulative targets for 2019-2023, although significant additional project acres are planned to be initiated upon completion of the NEPA and LOP procedures noted above.
(vi)	Progress toward development of the Long-Range Plan (LRP) described in Condition 26.	The public draft of the LRP was released by the SSMP Team in December 2022 in compliance with Condition 26. The appendices, including Air Quality Modeling, were released in February 2023. After the conclusion of a 45-day comment period on March 17. 2023, the SSMP compiled and reviewed the comments and completed an update in March 2024. This plan will be a focus of additional feasibility analysis by the USACE.
(vii)	Should an annual milestone shortfall exceed 20 percent of a year's annual obligation, the report will also include 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 this report and is summarized in Chapter 6.

1.3 Report Organization

This report follows the general outline of the previous annual reports. Chapter 2 provides project updates, including summarizing land access status and project status. Chapter 3 describes updates on partnerships across the region to facilitate the development of projects, including federal, state, and local agencies, Tribal governments, and other nongovernmental organizations (NGOs). Chapter 4 presents engagement with the community and Salton Sea Partners. Chapter 5 describes planning activities at various levels, such as program planning, environmental planning, and funding to support the future implementation of the Phase 1: 10-Year Plan projects. Chapter 6 describes the near-term steps for 2024 to 2026 and project delivery and planning for meeting the longer-term targets of the State Water Resources Control Board Order WR 2017-0134. Chapter 7 contains the references. Appendix A contains a summary of data describing existing environmental conditions at the Sea, including inflows, water elevation, and salinity, and a summary of recent bird and fish surveys. Appendix B provides a detailed breakdown of the funding availability and sources for the SSMP.

2 SSMP Project Delivery

Since CNRA's last report to the State Water Board in March 2023, the SSMP Team has actively worked to expand land access agreements with different landowners to continue to meet project targets for future years and has moved forward on a variety of aquatic habitat, wetland, dust suppression, and vegetation projects. These projects include work on the SCH project, plans for an adjacent project with several thousand acres of managed saline water habitat, and active construction on dust suppression projects at sites in areas distant from surface water sources. Field surveys or design work that will set the stage for additional construction over the next two years has been carried out at several other smaller projects, such as the North Lake Pilot Demonstration Project, the Audubon Bombay Beach Wetland Enhancement Project, and the North Lake Project. An overview of all active SSMP projects in progress is provided in this chapter.

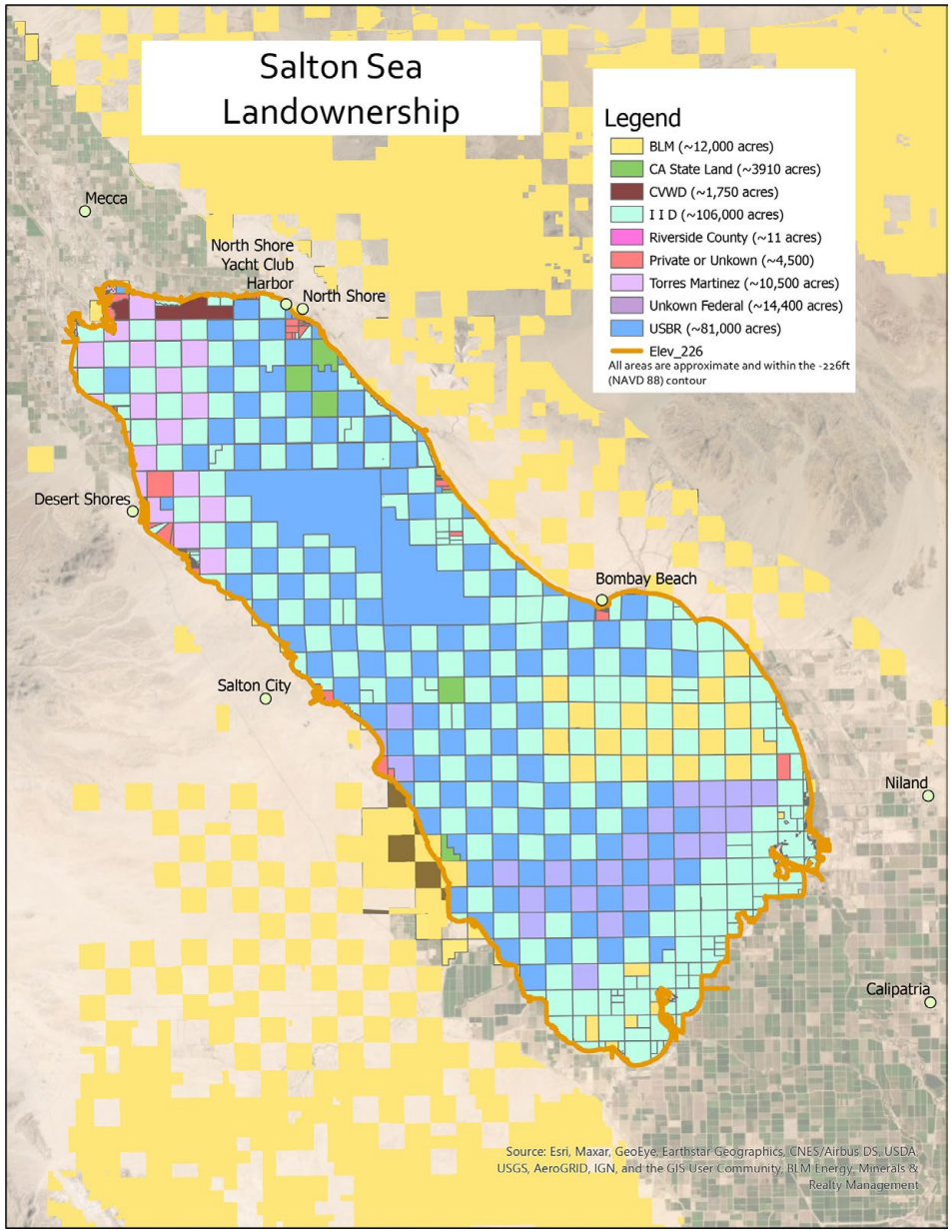


2.1 Land Access

Land around the Salton Sea is owned by local, state, Tribal, and federal entities – all with differing processes and procedures for land access. There are also a significant number of private landowners on affected parcels. A single template cannot be applied across the board to streamline the process. A breakdown of ownership on the roughly 235,000 acres of land around and under the Sea shows the following major landowners: IID (106,000 acres); U.S. Bureau of Reclamation (Reclamation) (82,000 acres); U.S. Bureau of Land Management (BLM) (12,000 acres); and the Torres Martinez Desert Cahuilla Indians (10,500 acres) (**Figure 1**). Of the remaining 25,000 acres, only 3,900 acres are owned by the State and the rest is owned by other entities. Most of the State-owned land is currently under water and thus is not amenable to habitat or dust suppression project development.

Because of this limited landownership, the SSMP must enter into a land access agreement(s) for each project site before project design can be finalized, any necessary water rights or use agreements can be applied for or entered into, and implementation can begin. Varied landownership also impacts project timelines and increases costs for project delivery. Each project site may span multiple parcels under different ownership, so multiple land-use agreements may be required for access to and implementation

Figure 1. Landownership around the Salton Sea.



of a single project. This presents a significant challenge for the SSMP. Without complete and expeditious cooperation from the landowners, the SSMP will continue to experience delays in project delivery.

Recognizing the critical role of land access in timely project delivery, as part of the December 2022 Salton Sea Commitment Agreement to address the long-running drought on the Colorado River, the Department of Interior, IID, and Coachella Valley Water District (CVWD) agreed to establish programmatic land access agreements to enable state agencies to implement projects. During 2023, the SSMP Team developed and finalized a programmatic land access agreement with Reclamation that will be utilized once the Phase 1 National Environmental Policy Act (NEPA) Environmental Assessment (EA) is complete to expedite access to Reclamation lands for Phase 1 restoration projects. In September 2023, the IID Board approved an amendment to the existing SCH easement to enable the expansion of the SCH Project, which is expected to be recorded for the first 1,000-acre expansion area in the first quarter of 2024. An additional agreement for approximately 380 acres of land owned by IID is nearly complete for vegetation enhancement sites. The SSMP continues to pursue programmatic land access with IID.

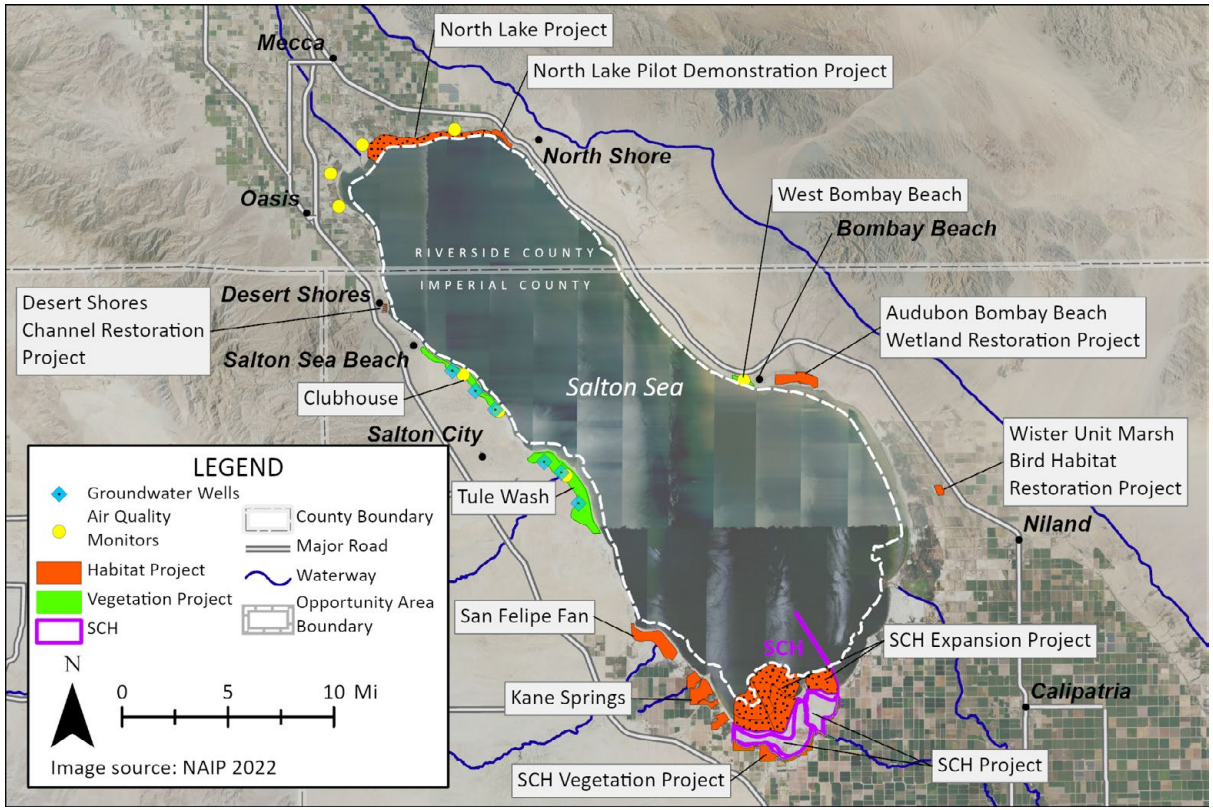
2.2 Project Updates

Projects in progress at the Salton Sea are shown in **Figure 2**, illustrating the wide range of activities currently being undertaken by the SSMP Team and its partners toward implementation of projects at the Sea and its surrounding communities. The SSMP Team has undertaken an inclusive approach with public outreach at key steps to identify these future projects for development at the Sea.

2.2.1 Species Conservation Habitat Project

Implementation of the SCH Project, via a design-build contract, was initiated in 2021 and nears completion. The SCH Project will restore approximately 4,100 acres of shallow water habitat lost as a result of the Salton Sea's increasing salinity and receding shoreline. It is the SSMP's

Figure 2. Projects in progress and potential future projects under consideration at the Salton Sea. Project areas with dotted patterns indicate approximate footprints. The Opportunity Area boundary indicates the portion of the Sea covered by the NEPA EA for the Phase 1: 10-Year Program (described further in Chapter 5).



first large-scale project and has created a network of ponds and wetlands to provide important fish and bird habitat while suppressing dust emissions to improve regional air quality as the Salton Sea continues to recede.

The SCH Project is the first of many projects the SSMP Team will implement as part of the Phase 1: 10-Year Plan. It was chosen as the first large-scale project in part because water-balance models show that, as the Sea recedes, the southern end of the Sea will experience some of the earliest lakebed exposure given its shallow bathymetry.

Figure 3 presents a schematic overview of the SCH Project. The SCH will create deep-water habitat to support the fish-eating birds of the Pacific Flyway that the Salton Sea can no longer support. The marine environment created will be achieved by mixing brackish water from the New River and hypersaline water from the Salton Sea. The targeted salinity is between 20 and 40 parts per thousand (ppt or g/L of salt), which will not only support fish for the birds to forage on but also the endangered Desert Pupfish. The ponds will be up to 10 feet deep to provide refuge for the fish from predators and strong temperature variations. The water from the New River will be fed by gravity to the mixing basins, and the Salton Sea water will be actively pumped. Once the water is mixed to achieve the required salinity, the water will then flow into the sedimentation basins, which are designed to remove 75 percent of the suspended solids. Once the targeted salinity and suspended solid concentrations are achieved, the water will be distributed to the different ponds via outflow structures. The water in the SCH has an average residence time of 90 days to prevent water quality issues that are harmful to wildlife.

The SCH's flood buffer zone helps the SCH withstand the risk of flooding in major storm events, including a 100-year flood on the New River and seasonal flash flooding. The flood buffer zone is a 600-acre area able to store flood water and convey it to the Sea. The project is engineered to contain or pass flow as necessary to prevent the breaching of its levees. The SCH also provides islands for birds to roost, nest, and loaf. The islands are specifically designed to provide safety for birds from land predators and the high desert winds. The substrate on the islands was specifically chosen to not harm the birds and their eggs.

Figure 3. Salton Sea Species Conservation Habitat project overview and schematic.

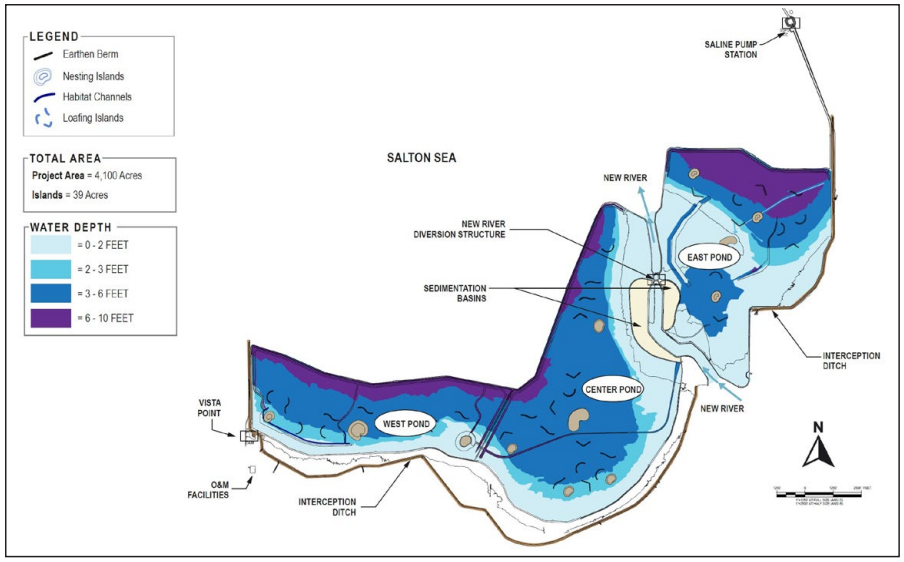


Figure 4. The saline pump station at SCH.



Figure 5. The SCH New River Diversion and Intake structure.



Once completed, the SCH will provide habitat for all the bird guilds that used to call the Salton Sea home.

In 2023, work completed on this project included the following:

- Construction of 130 wetted acres creating immediate dust control was completed.
- Construction of the Saline Pump Station including associated equipment and piping was completed (**Figure 4**).
- Construction of the boat ramp was completed and has enabled CDFW boats to conduct monitoring activities (e.g., water quality, coordinated shorebird surveys) (**Figure 4**). Monitoring activities by boat had not been performed for several years due to the lack of a usable boat ramp.
- Construction of the New River Diversion and intake structure including associated equipment and piping was completed (**Figure 5**).

Figure 6. The O&M pad and garage structure at SCH.



Figure 7. The Visitor Observation Area at SCH.



- Construction of the operations and maintenance (O&M) pad including the operation building and garage structure was completed (**Figure 6**).
- Construction of the visitor observation area infrastructure was completed (**Figure 7**).

Testing and commissioning of all components of the overall SCH Project will continue through early 2024, which represents an important milestone for the project.

2.2.2 Vegetation Enhancement Projects as Part of the Dust Suppression Action Plan

The SSMP Team released the Dust Suppression Action Plan (DSAP) in July 2020 to accelerate priority SSMP projects that limit dust emissions and restore habitat at the Sea (CNRA, 2020). The DSAP identifies up to 9,800 acres of project planning areas on exposed or soon-to-be exposed lakebed around the Sea, describes potential dust suppression concepts, and outlines the steps needed to transition from concept to on-the-ground implementation. The DSAP was shaped by important input received from local communities, stakeholders, and regulatory agencies.

The goal of vegetation enhancement projects is to suppress dust from exposed lakebed areas around the Salton Sea through native vegetation establishment, enhancement of existing vegetation stands, and stabilization of the lakebed through physical means to allow seed germination and plant growth (collectively referred to as "vegetation enhancement"). These projects have been prioritized for emissive areas of the exposed lakebed where surface water supplies are extremely limited and other forms of aquatic habitat creation (such as ponds or wetlands) are generally not possible. Project implementation at the Salton Sea suggests that the water needs for vegetation establishment are roughly one-tenth of the water needs for aquatic habitat creation. As part of the DSAP, the SSMP identified emissive regions around the Sea and a set of potential measures to reduce dust emissions.

2.2.2.1 U.S. Bureau of Reclamation and SSMP Collaborative Projects: Clubhouse, Tule Wash, and West Bombay Beach

The SSMP Team obtained site access from Reclamation in 2020 to develop dust suppression projects at high priority. Three sites with



significant Reclamation-owned land, Clubhouse, Tule Wash, and West Bombay Beach (**Figure 2**), were prioritized. Two sites are located near the community of Salton City: Clubhouse (399 acres) and Tule Wash (1,217 acres). Clubhouse and Tule Wash sites will be expanded in the next set of projects planned for implementation and as site access is finalized with IID. The West Bombay Beach site (93 acres) is located near the community of Bombay Beach. Collectively, these sites total 1,709 acres. The Clubhouse and Tule Wash sites were identified in the DSAP as high priority sites for dust suppression because of their emissivity potential and proximity to communities. West Bombay Beach was added due to its emissivity potential and proximity to the community of Bombay Beach.

After site-specific evaluation of project opportunities and constraints, the vegetation enhancement approach was selected for several reasons. Once the initial stands are established, the plants stabilize the ground surface and thus

create conditions for additional plant germination and growth. Similarly, while irrigation water is needed for initial establishment and growth, over time, these native species are expected to survive without additional watering—a key consideration in the selected project sites. Finally, these stands are a natural solution to the problem of dust emissions from the lakebed: once projects are mature, they can be expected to continue to perform with limited human intervention.

The exposed lakebed of the Salton Sea is a challenging environment in which to grow vegetation. Projects are designed to address the following environmental constraints:

- Very limited rainfall (approximately 3 inches per year) or access to surface water resources. The surface water that is available is highly variable and may occur in the form of stormwater flows only a few times each year.
- Extremely high air temperatures, with daytime high temperatures exceeding 100o F over several months of the year.
- High salt content in project soils or even the presence of salt crusts from evaporated salts, which may limit plant germination success at many locations.
- High wind speeds and unstable soil conditions subject to wind erosion, limiting germination success or growth of small plants.

Additional practical constraints include site access and distance from public roads in many areas and recreational vehicle disturbance in more accessible areas.

The SSMP Team and its local contractors evaluate the conditions of each site to design and implement vegetation enhancement projects, carrying out some or all of the following activities:

1. Identify and/or develop access routes to sites and within sites to implement dust suppression.
2. Implement interim dust emission control. Large furrows and engineered roughness in the form of grass bale placement, both identified in the DSAP, have been used at project sites to reduce surface wind speeds, and thus saltation and dust emissions from exposed lakebed. This brings immediate dust suppression benefits and supports plant growth by reducing wind abrasion. The type of interim dust emission control is selected based on soil type, and roughening features are spaced and aligned to maximize dust suppression.
3. Identify minimally emissive project areas requiring limited or no additional intervention. Water and potentially fertilizer is applied to enhance existing vegetation stands. Areas with mechanically stable salt crusts are identified, and no additional project work is required.
4. Develop irrigation and stormwater spreading features. Drip irrigation and/or trucked in water are used to seed support germination and plant growth. Less water is planned to be applied as vegetation becomes established. Stormwater spreading features are implemented to capture natural sheet flow during storm events to support seed germination and plant growth.
5. Seed and/or plant project sites. Native shrub and tree species that are tolerant of the arid and saline conditions around the Sea are used. Seed was collected from existing mature plants in the field and sourced from seed suppliers in the region to develop a seed mix for direct site application. Nursery grown plants are also used for planting. Vegetation species include Iodine Bush, Big Saltbush, Saltgrass, Allscale, Honey Mesquite, Smoketree, etc.
6. Develop groundwater supply and water conveyance. Groundwater wells will provide a stable and local water supply. Initial testing is required to confirm that well yields are sustainable and that the water quality is adequate for plant growth.

The current focus of work on the Clubhouse, Tule Wash, and West Bombay Beach sites is immediate dust suppression, using grass bales and furrows, and longer-term vegetation enhancement to achieve 30 percent vegetative cover through installation of drip irrigation and seeding and

planting with native species. In 2023, groundwater well installation was a key focus to provide a reliable water supply to vegetation enhancement sites.

The following work at vegetation enhancement projects was completed in 2023. The program is reporting completed acreage as (1) areas that have been planted or seeded and have irrigation, (2) areas that have been evaluated and contain heaved crusts, which are deemed non-emissive and cannot be planted on, and (3) existing stands of vegetation, which have been identified, fertilized, and given supplemental water to foster new growth. During the past two years, higher than normal precipitation during the planting seasons has affected these sites because of trafficability outside of the access roads. While the precipitation is beneficial from the standpoint of plant growth and flushing salinity from surface soils, fieldwork is delayed. The SSMP Team continues to navigate these potential impacts in completing planting and irrigation over the remaining acreage.

Clubhouse (399 acres)

Implementation was completed on 368 acres of the 399-acre project area with engineered roughness (i.e., grass bales), stormwater spreading features, drip irrigation, and seeding/planting (**Figure 8**). **Figure 9** and **Figure 10** show recent site conditions and new plant growth at these formerly barren locations. Four groundwater wells were installed at the Clubhouse site (two deep and two shallow) to provide a moderately saline source (approximately 10-20 ppt salinity) of water for irrigation.

Air quality and saltation monitoring at the Clubhouse C site shows a more than 95 percent reduction in dust emissions over two years of data collection (two transects with a total of six stations).

Additional air quality monitoring transects (three stations) were deployed at the Clubhouse A site in 2023.

Figure 8. Layout of the vegetation enhancement project at the Clubhouse site.

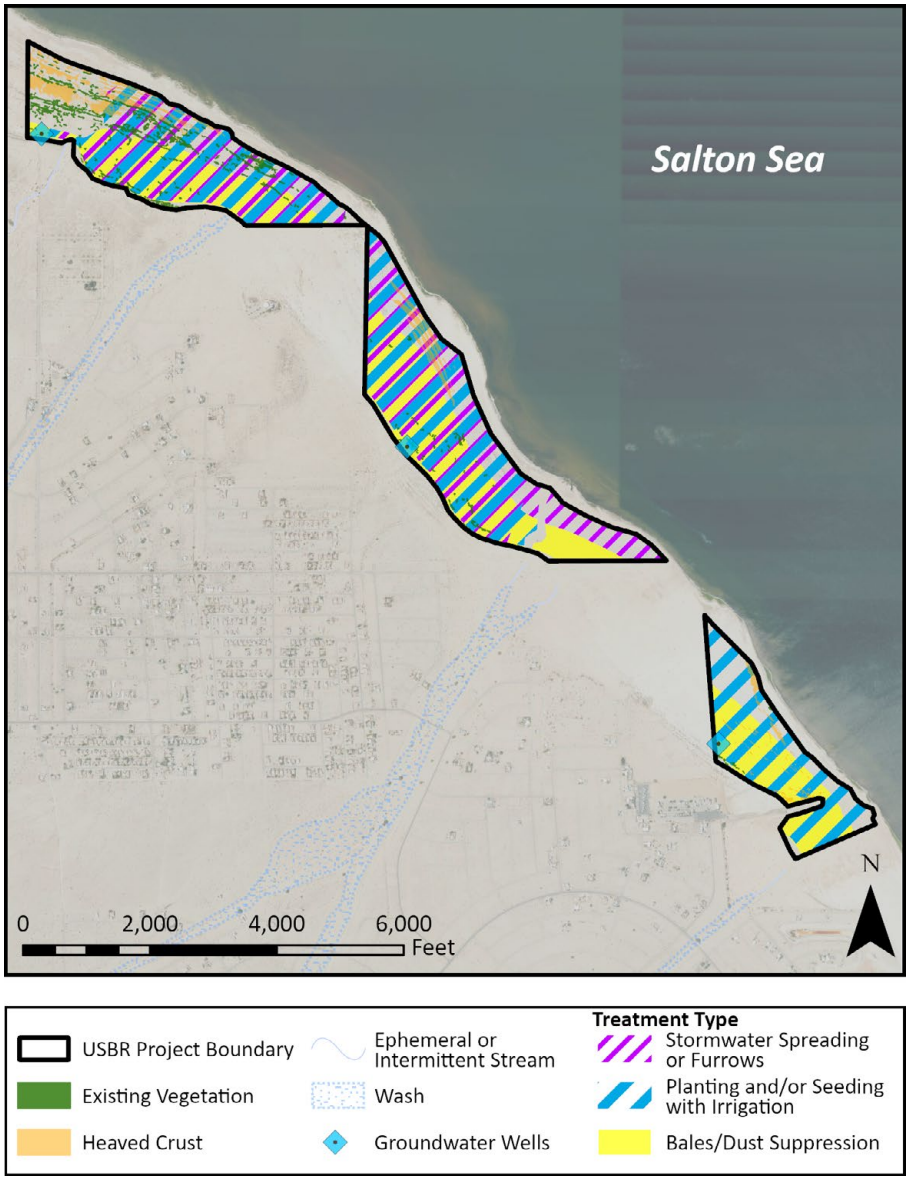


Figure 9. Site features and activities at the Clubhouse site.



Figure 10. Recent plant growth at the Clubhouse site.



Tule Wash (1,217 acres)

243 acres were completed (**Figure 11**). Bales, planting, access roads, and well pads for groundwater wells have been developed on these acres.

Bales and stormwater spreading features have been implemented on an additional 319 acres, and these remain to be planted as the irrigation systems come online. **Figure 12** shows recent conditions at this site.

Site work on an additional 656 acres will be implemented using similar methodologies in 2024.

An air quality monitoring transect (three stations) was deployed at the Tule Wash site in 2023.

Figure 11. Layout of vegetation enhancement project as presently implemented at the Tule Wash site. Design work is being finalized in the southernmost parcels, shown without treatment type colors.

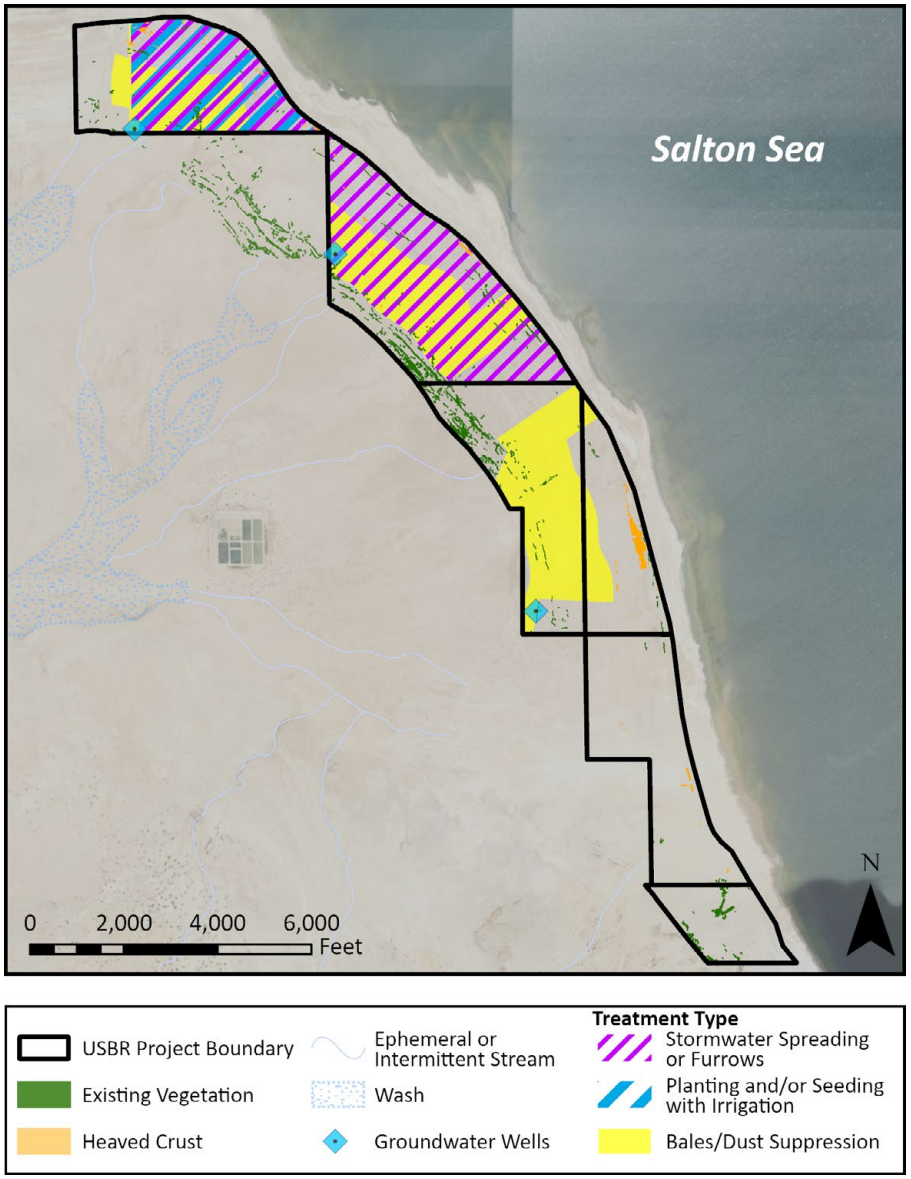


Figure 12. Site features and activities at the Tule Wash site.



West Bombay Beach (93 acres)

93 acres of stormwater spreading features and bales have been placed (**Figure 13**).

An exploratory borehole was developed for a groundwater supply in 2023, but no water was found to a depth of 800 feet. Thus, additional water sources are being evaluated for long-term development at this site, and additional planting will be done when there is greater confidence in water supply.

Figure 14 shows current conditions at the site, including water accumulation in furrows from natural storm flows and plant growth.

An air quality monitoring transect (three stations) was deployed at the site in 2023.

The permits associated with the sites require monitoring and these will be documented each year. This includes the following:

- Air quality monitoring using the sensor network currently deployed at all dust suppression sites (five transects of three stations each) and four additional sites on the North Lake to understand potential emissions from this region. A total of 19 air quality stations are currently operational, and the State Team is currently working on a way to share the data online.
- Water quality impact reporting for the site under the Storm Water Pollution Prevention Plan (SWPPP).
- Water use reporting as part of the temporary water rights obtained at the three dust project sites.
- Monitoring of vegetation growth and achievement of target cover (30%), including status of invasive species, to be documented through ground and aerial observations.

Figure 13. Layout of vegetation enhancement project at the West Bombay Beach site.

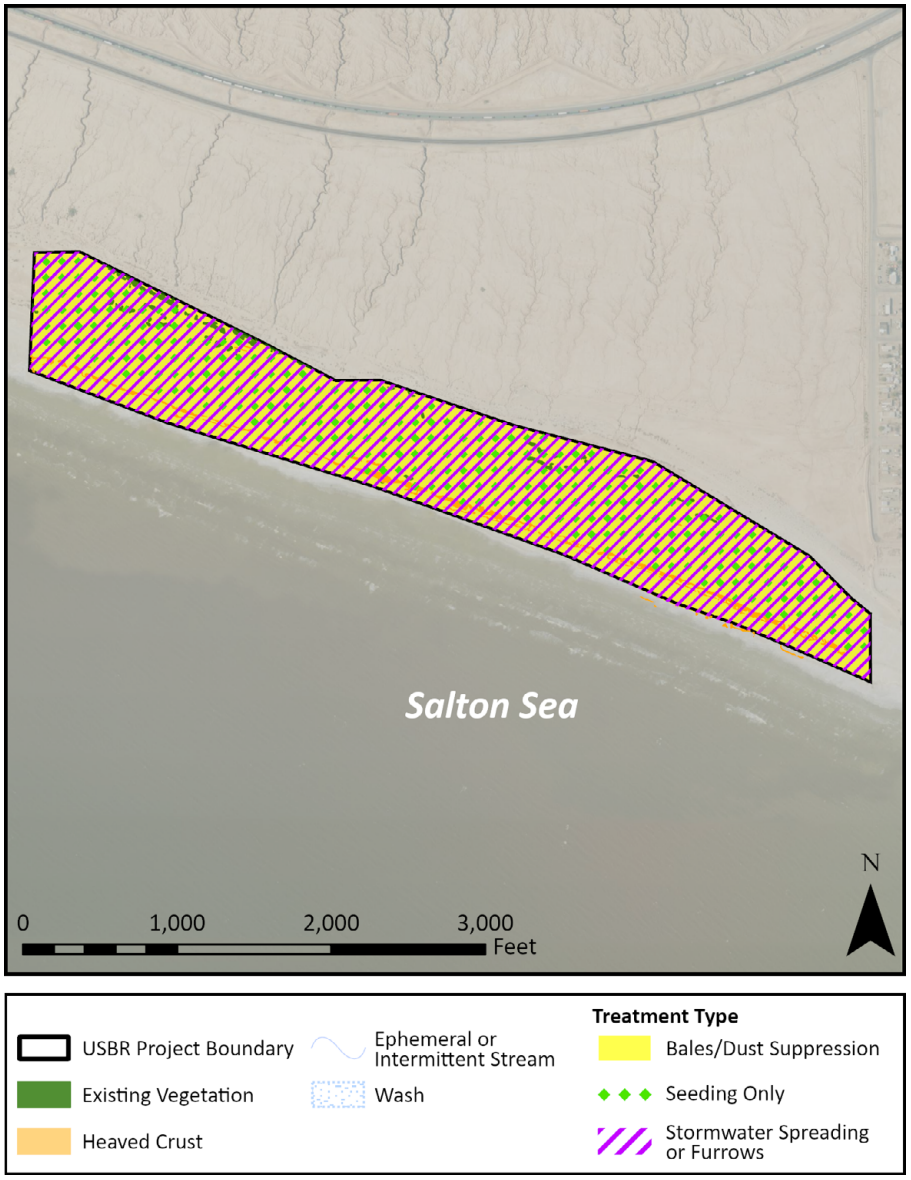


Figure 14. Site features and activities at the West Bombay Beach site.

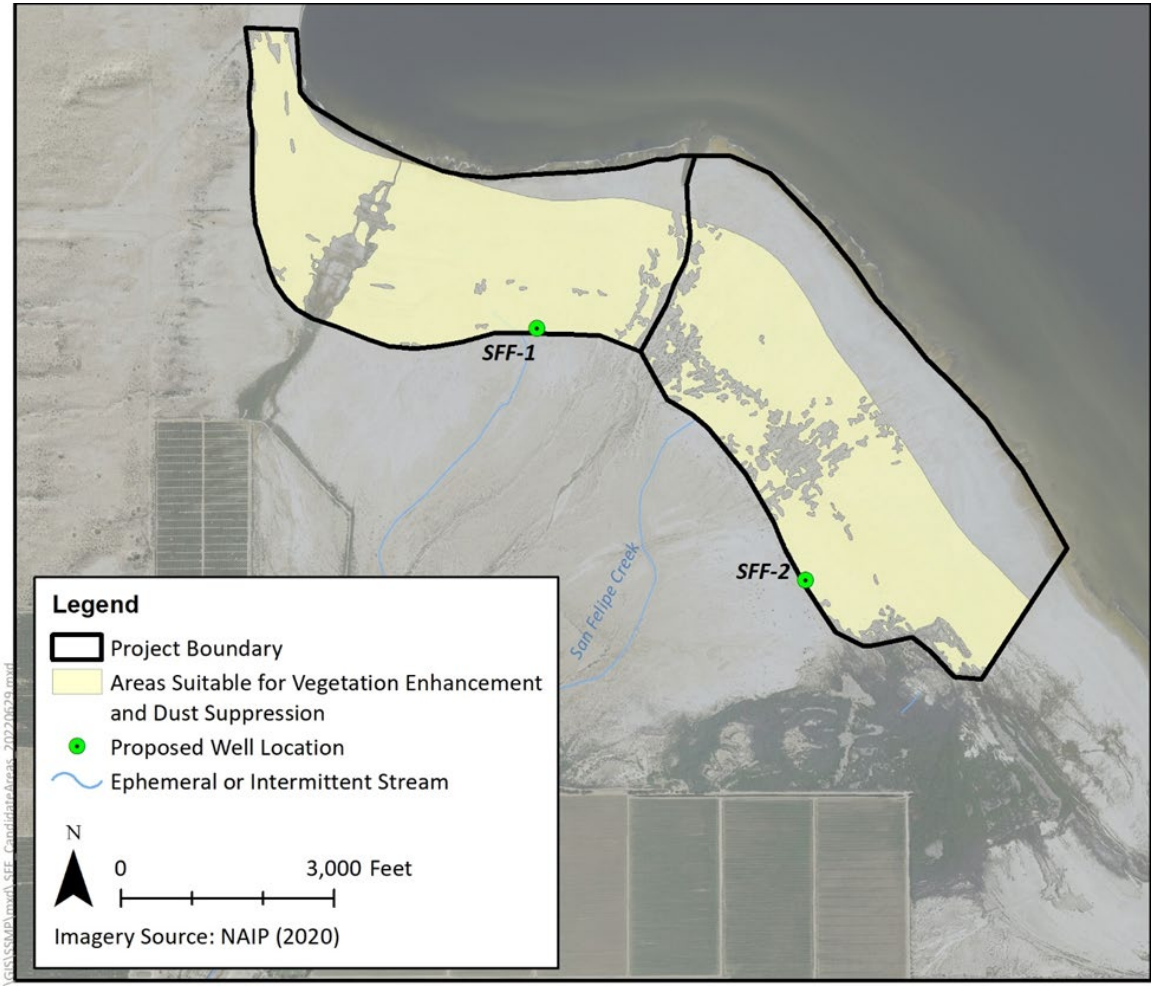


2.2.2.2 San Felipe Fan

The San Felipe Fan is an area of exposed lakebed where the San Felipe Creek flows into the Salton Sea. Approximately 90-95 percent of the site is unvegetated, which is defined as having less than 15 percent vegetation cover. The areas suitable for vegetation enhancement and dust suppression at the project site are shown in **Figure 15**. The project design concept at this location involves the spreading of inflowing water to support vegetation. Use of stormwater flooding will need to be designed to enhance and support habitat for the endangered desert pupfish in San Felipe Creek. Because this would require more complex environmental compliance, this project will be covered by the NEPA EA being developed for the Phase 1: 10-Year Plan.

The conceptual design involves the construction of lateral ditches perpendicular to the creek and along the contours so that stormwater can be retained in the ditches and infiltrated into the soil for vegetation uptake. Other proposed components and activities include the following: 1) increasing the surface roughness through placement of non-erodible organic elements, primarily grass bales; 2) planting and seeding of native halophytic species across the site to create a plant canopy cover of 30%; 3) creating rock weirs on San Felipe Creek and adjacent swales and berms to promote stormwater spreading; 4) establishing groundwater supplies; and 5) installing irrigation lines for distributing water where needed.

Figure 15. Proposed project area of Reclamation-administered land for vegetation enhancement and dust suppression at the San Felipe Fan site.



Design elements and features from the Audubon Bombay Beach Wetland Enhancement Project (see Section 2.2.7) will be considered for use at the San Felipe Fan Project site. Like the Audubon Project, the San Felipe Fan Project presents an opportunity to divert and disperse inflowing water to preserve and enhance existing wetlands on the site and for additional aquatic and wetland habitat creation. In this way, it will be possible to enhance and support habitat for the endangered desert pupfish in San Felipe Creek.

2.2.3 North Lake Pilot Demonstration Project

The SSMP Team continues to work with the SSA and Riverside County to plan and construct the North Lake Pilot Demonstration Project, an approximately 160-acre lake, located at the northern end of the Salton Sea in Riverside County near the unincorporated community of North Shore (**Figure 16**). This project could eventually become integrated into the adjacent, larger North Lake Project. In 2021, a $19.25 million Proposition 68 funding agreement was finalized between the SSMP and SSA to plan and construct the project. The project is planned to create both shallow- and deep-water habitat near the North Shore Beach and Yacht Club Community Center. The project is planned to restore and manage habitat for fish and birds, control dust, and provide recreational opportunities. In 2023, a water supply analysis was completed, temporary land access was obtained for surveys, geotechnical investigations were completed, and two community meetings were held to share plans for the project and solicit comments and feedback. In 2024, project design will begin, and project construction is anticipated to start in 2025.

2.2.4 Desert Shores Channel Restoration Project

This project is located adjacent to the Desert Shores community in the marina that has become disconnected from the Sea (**Figure 16**) and is being led by SSA, in partnership with Imperial County and the State. Implementation of the Desert Shores Channel Restoration Project would refill the five southernmost boat channels in the Desert Shores Marina. The SSMP Team is collaborating with Imperial County, Reclamation, and SSA on this project. Reclamation has committed $1.25 million to SSA.

The project aims to meet the project goals of habitat restoration and dust suppression by refilling the channels with water at a salinity level that provides habitat for fish and birds. In addition, habitat benefits are anticipated through revegetation.

The project would construct a berm across the former boat channel connection to the Salton Sea. Water would then be pumped from wells into the channels contained by the berm at a rate sufficient to refill the channels, offset losses from evaporation and seepage, and circulate water.

This project is an example of the partnerships between local, state, and federal agencies. Imperial County leads efforts to complete environmental compliance under the California Environmental Quality Act (CEQA). In addition, the SSMP is including the project in the EA for the SSMP Phase 1: 10-Year Plan. Design and implementation will be within the responsibilities of local agencies. In 2023, the SSA hired a project management consultant to facilitate coordination on the project with Imperial County and the Desert Shores community and outline next steps to move the project towards construction.

Key next steps for this project include the following:

- The SSMP Team will continue to support the local agency team with technical expertise and coverage of the project in the Phase 1: 10-Year Plan EA.
- SSA and Imperial County will host a planning charette in early 2024 to inform next steps.

2.2.5 North Lake Project

In 2022, the SSMP Team completed the Project Description for the North Lake Project, drawing on conceptual design work taking place over the prior several years. The Project Description details Alternative H, the current 1,615-acre preferred alternative (**Figure 16**). The project conceptual design consists of three cells separated by causeways. The multiple-cell design allows for independent operation of each cell. The causeways also serve as access roads to the main southern berm parallel to the shoreline for construction and maintenance purposes. In 2023, with temporary land access secured for most of the planned project area, biological surveys began, and work needed to prepare an aquatic resource delineation report was completed for most of the planned project site. During the 2023 marsh bird survey period for Yuma Ridgeway Rails and California Black Rails, their presence was found at two wetlands areas within the planned project areas (**Figure 17**).

Based on additional field surveys conducted in December 2023, the water sources, water quality,

Figure 16. Location of projects along the northern shore of the Salton Sea.

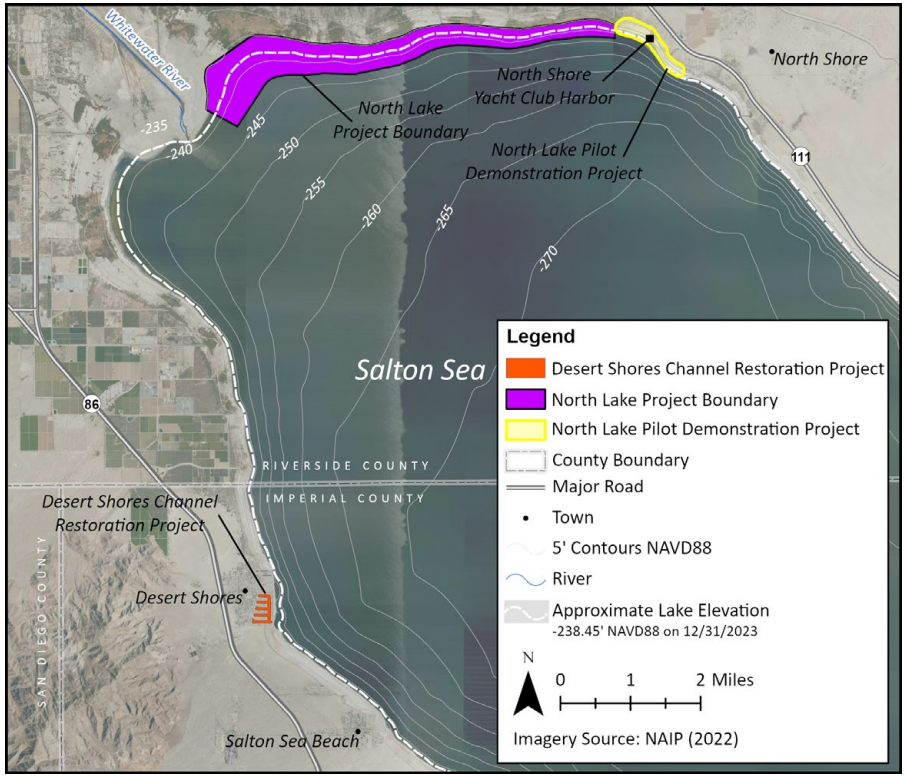


Figure 17. Marsh habitat occupied by Yuma Ridgeway's Rail and California Black Rail.



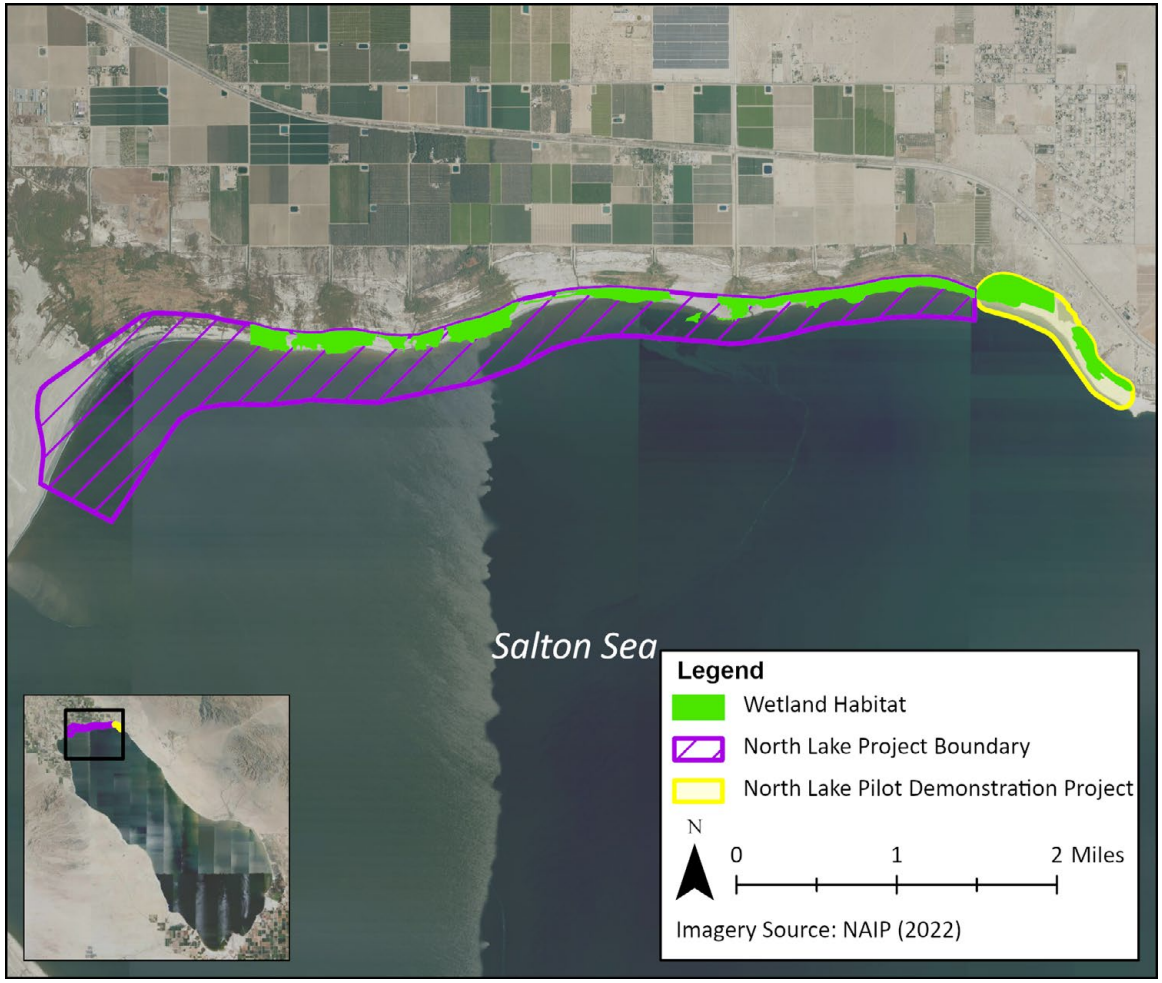
and existing wetland areas were defined for this project. Notably, a significant portion of the Alternative H site has yet to be exposed and is currently inundated with water. Of the area that is exposed, much of the area is covered with wetland habitat (**Figure 18**). Wetland areas have naturally formed where agricultural drains reach the lakebed.

Given the additional water and site information obtained, next steps are to refine the footprint and aquatic features (wetlands and or deeper ponds) of the North Lake Project. The project will be covered by the NEPA EA being developed for the Phase 1: 10-Year Plan.

Key next steps for this project include the following:

- Conduct 2024 marsh bird surveys for rails to update their presence information.
- Complete additional biological, cultural, and archeological surveys in coordination and collaboration with the Torres Martinez Desert Cahuilla Indians.
- Complete the Aquatic Resources Delineation Report.
- Develop a model to determine the water supply needs for the newly established wetlands.
- Update the project concept and preliminary design.

Figure 18. Area covered with wetland habitat at the North Lake Project site.



2.2.6 SCH Expansion Project

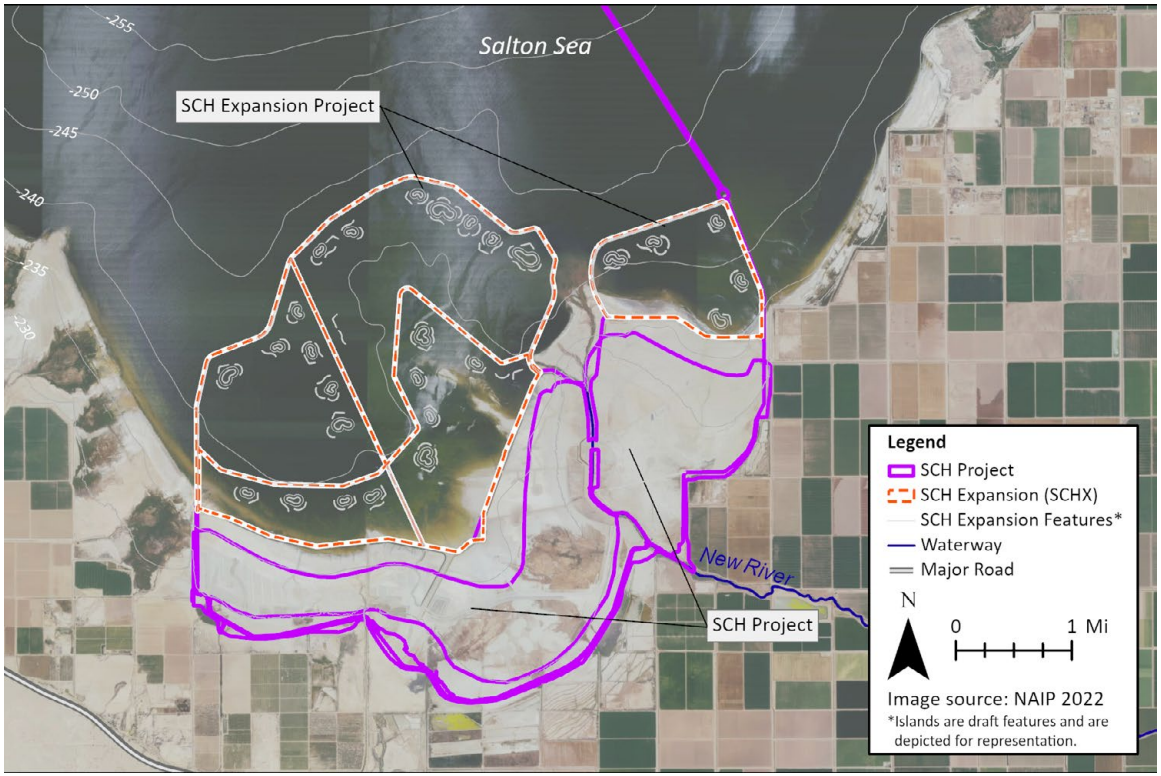
The goal of this project is to create aquatic habitat downstream and adjacent to the SCH within the Aquatic Habitat Opportunity Area described in the NEPA EA. Portions of this area are underwater but are expected to become exposed as the Sea recedes. Construction of additional berms would provide additional aquatic pond habitat using the existing water conveyance, pumping facilities, and diversion infrastructure constructed for the SCH Project.

In 2023, the SSMP Team worked to define project scope and budget and determined that the pond on the east side of the New River (East Pond 1) will be the focus of the expansion in 2024. In December 2023, Reclamation granted the State $70 million to begin the expansion of the SCH Project to accelerate dust suppression and aquatic habitat projects at the Sea. The funding is a portion of the $250 million in federal funding commitments in the 2022 Commitment to Support Salton Sea Management Related to Water Conservation in the Lower Colorado River Basin Agreement, and the $70 million was released in connection to IID's actions to conserve water in 2023.

In 2024, the SSMP Team will work with the Design-Build entity to progress the design of the approximately 1,000-acre East Pond 1 Expansion (**Figure 19**). Construction is expected to begin in the second quarter of 2024 with berm construction completed by the first quarter of 2025. East Pond 1 will create up to 1,000 acres of additional aquatic habitat. The SSMP Team intentionally made schedule modifications for filling constructed habitat ponds at the SCH Project to allow equipment access to expand the SCH Project. Commissioning of portions of the SCH Project will be aligned with the construction of additional ponds in the expanded project area, starting in early 2025.

In addition to East Pond 1, the SSMP Team is working to expand the western area of the current SCH by an additional 4,000 acres.

Figure 19. SCH Expansion Project location with possible pond boundaries.



This second step of the expansion will rely upon federal funding conditional on the implementation of conservation measures by IID.

2.2.7 Audubon Bombay Beach Wetland Enhancement Project

The SSMP Team is coordinating with Audubon California to advance the first phase of the Bombay Beach Wetland Enhancement Project which aims to stabilize, preserve, and enhance an existing emergent wetland of over 564 acres adjacent to the community of Bombay Beach. As the Sea's elevation has declined, water from a confluence of surface water flow and groundwater discharges has created wetlands along the exposed lakebed that provide habitat for waterbirds, including shorebirds and rails, and desert pupfish. However, under natural conditions, these habitats tend to drain and dry out. Tamarisk, a non-native shrub, has invaded the upslope areas, consuming large amounts of the available water and degrading the habitat quality. An opportunity exists to stabilize and enhance these existing habitat areas and to divert and disperse water for additional aquatic and wetland habitat creation. The project is being included for analysis in the EA being developed for the SSMP Phase 1: 10-year Plan.

This project is an example of a partnership, with Audubon continuing to lead the effort on design and funding and the State Team assisting with the Phase 1: 10-Year Plan EA for NEPA coverage and collaborating on design, public access potential, and the process to secure land access. Reclamation has provided funding to Audubon to date for this project.

In December 2022, the Audubon project became the first SSMP project to receive a CEQA statutory exemption for restoration projects. The Director of the CDFW concurred with CNRA that the Bombay Beach Wetland Enhancement project meets the qualifying criteria for the exemption, as set forth in subdivisions (a) to (d), inclusive, of Public Resources Code section 21080.56. The concurrence signifies the continued commitment by the SSMP Team in advancing the "Cutting the Green Tape" initiative, which is a collaborative effort to increase the pace and scale of restoration projects in California in a way that protects the environment and results in long-term net benefits to climate resiliency, biodiversity, and sensitive species recovery. CDFW's concurrence is posted on the CDFW website as provided by Public Resources Code section 21080.56.

In 2023, regular design and principal meetings were held to develop a 30 percent design and a path towards 60 percent design. The SSMP Team

provided consistent feedback on the design of project habitat creation features, their placement in the project, and the design of maintenance and monitoring access roads to and within the project footprint.

Originally, there was a second phase of the project that included additional restoration acreage as the Sea receded and a public access component. This second phase has been deprioritized by Audubon at this time, with hopes that the State or some other entity will revisit it at a later date. However, Audubon is working with the SSMP and landowners to evaluate opportunities to integrate public access components into Phase I, using existing maintenance and monitoring roads as a means to have pedestrian access. Audubon, the State, IID, and Reclamation have been meeting to understand what the community would like to see through outreach conducted by Audubon and see how it can best fit into Phase I work.

With Audubon leading the project implementation, important steps are expected in 2024 as follows:

- Continue to advance and finalize land access agreements between Audubon, the State, Reclamation, and IID.
- Complete 100 percent design.
- Complete geotechnical exploration.
- Complete NEPA coverage.
- Develop a schedule for the start of construction.

2.2.8 Imperial Wildlife Area Wister Unit Marsh Bird Habitat Restoration Project

A bird habitat restoration project is proposed for development at the Wister Unit of the Imperial Wildlife Area with an estimated 150 acres. The area has historically been operated for waterfowl and other wildlife. The area has a series of reservoirs and ponds that gravity flow from east to west and are managed by the CDFW. The project envisions ponds that may support wetland species such as Ridgway's rail, black rail, other secretive marsh birds and other avian species. There may also be an opportunity to include a desert pupfish pond. The project may include invasive species removal, walking trails, interpretive signs, and a viewing platform to support recreational use of the marsh. Further land access is not required at this site because this is part of an existing CDFW wildlife area.

The three project components are as follows:

- Wetland Restoration – Unit Y16: This area was historically operated as waterfowl ponds but has been fallowed due to an overgrowth of invasive vegetation associated with berm renovation needed to address chronic berm leakage. Restoration of this area would enhance habitat quality to support waterfowl and marsh birds that are being displaced as the Salton Sea shoreline recedes. In addition, the inclusion of a walkway or path would provide additional opportunities for public engagement and recreation.
- Wister Unit - Invasive Vegetation Removal: Invasive species line most drains and ponds in the area and consume a disproportionately large amount of water, thereby reducing the amount of water available downstream to enter the Salton Sea and/or future projects. Removal of invasive tamarisk and phragmites will result in an increase in both habitat quality and water availability.
- Greenhouse Facilities: Construction of a greenhouse with an associated outdoor hardening off growing ground, seed collection, and seed storage facilities would greatly support restoration work on the Imperial Wildlife Area and improve the State's capabilities to implement SSMP projects by providing a local, state-managed capability for growing native plants.

Funding to advance this project was proposed in the Governor's budget for 2024-2025, which is under development with the Legislature.

2.2.9 SCH Vegetation Project

This vegetation project is envisioned to cover 537 acres south of the current footprint of the SCH project and to serve as a buffer between aquatic habitat and the agricultural lands and duck clubs south of SCH. The proposed project includes the development of wetland and upland vegetated habitat across the project area, with vegetation type dependent on the elevation of individual parcels and the water source and quantity available. Some wetland areas are proposed to be

constructed at the same time as the connections that carry agricultural drain water to the SCH interceptor ditch.

Next steps in developing this project include the following:

- Formalization of water and land use agreements with IID.
- Implementation of design-build contracts for the wetland mitigation parcel construction.

2.3 Non-SSMP Project Updates

Additional major restoration work, largely independent of SSMP Team staff or resources, continues to be performed by partner organizations while also benefiting the Salton Sea environment. Three key projects are noted below.

2.3.1 Quantification Settlement Agreement Mitigation Implemented by IID

As part of the Quantification Settlement Agreement (QSA) water transfer, IID is required to implement environmental mitigation for QSA environmental impacts. Important projects related to this include Managed Marsh (marsh habitat creation), burrowing owl conservation, desert pupfish refugium and monitoring, and the Salton Sea Air Quality Mitigation Program (SSAQMP). The habitat goals for the Managed Marsh include 959 acres of aquatic habitat, including 341 acres of non-emergent vegetation and 618 acres of open water/emergent vegetation. In Nov 2022, IID informed the QSA Joint Power Authority (JPA) that they had completed the Managed Marsh Mitigation as required in the QSA. Although IID will continue to perform operation and maintenance on the Managed Marsh, it was determined by the JPA in March 2023 that this particular mitigation measure was complete. Other mitigation measures are still being conducted and are in various stages of completion, such as the burrowing owl conservation program, which includes periodic population studies and pre-inspection surveys to mark potential burrows before operation, and maintenance or construction activities within IID's irrigation and drainage system. The desert pupfish refugium was built in 2010 and stocked in 2015. Ongoing monitoring of pupfish use of direct-to-sea drains occurs annually. A pupfish connectivity plan was drafted by IID in 2023 for review by the Habitat Conservation Program Implementation Team. The review and finalization of the pupfish connectivity plan is expected to take place in 2024.

The SSAQMP is a comprehensive science-based adaptive approach to address air quality mitigation requirements associated with the QSA water transfer. The SSAQMP includes mapping playa exposure, modeling wind conditions, and estimating annual emissions. Data from the annual emissions monitoring program is used to recommend proactive dust control projects on areas that have the potential to become emissive. Since 2016, IID has implemented over 2,400 acres of surface roughening and vegetation enhancement projects around the Salton Sea on high priority exposed playa. One deep groundwater well and six shallow groundwater wells have been developed for the future establishment of vegetation near Salton City and Bombay Beach. Remote sensing, ground-based sensors, and imaging are used to monitor and adaptively manage implemented projects. Annual reports and data from the SSAQMP are shared with the Imperial County Air Pollution Control District (ICAPCD), South Coast Air Quality Management District (SCAQMD), and SSMP.

Additional information about QSA environmental mitigation can be found at www.iid.com/water/library/qsa-water-transfer/mitigation-implementation.

Funding for the implementation of QSA environmental mitigation activities is from the QSA JPA, which is comprised of designated representatives from the California Department of Fish and Wildlife, CVWD, IID, and San Diego County Water Authority. Additional information about the QSA JPA can be found at www.qsajpa.org.

2.3.2 Torres Martinez Wetland and Vegetation Restoration Projects

The Torres Martinez Desert Cahuilla Indians have a goal of preserving and enhancing desert habitat around the Sea, and of re-developing, expanding, and upgrading Tribal lands for the benefit of Tribal members and area residents. Several projects are being designed and implemented in support of these goals. One of these projects is a restoration and wetland rehabilitation project on Tribal land

near the mouth of the Whitewater River (a similar wetlands project on the site was constructed in 2003 but destroyed by a major flood in 2012).

This project will remove invasive species, such as tamarisk, from existing holding ponds, construct swales to retain water flow, construct raised plant beds, and distribute compost material to allow native plant life to be restored. Moreover, the vegetation traps toxic soil particles and further reduces dust emissions for surrounding communities.

Additional revegetation projects at other locations along the Sea are also being envisioned by the Torres Martinez Tribe to reduce dust emissions on barren lands and to provide habitat for fish and birds. Several endangered, threatened, and sensitive species, such as desert pupfish, eared grebe, and black skimmer inhabit the area and would benefit from restoring habitat that has been lost as the Sea recedes.

The wetland project has three main features: water treatment, fresh and brackish habitat wetlands, and surface stabilization of sediments. First, the subsurface vertical flow wetland treats Whitewater River flows for sediments, nutrients, and pesticide/herbicide residues. The treated water is then introduced into freshwater habitat wetland, and finally blended with Salton Sea water to create an additional shallow saline habitat for shorebirds. Water to fill the wetlands is pumped from groundwater and the nearby Whitewater River, which is infiltrated by agricultural drainage canals and runoff from the western portion of the Coachella Valley.

The Torres Martinez Desert Cahuilla Indians continue to be actively working with the SSA to revitalize the Salton Sea in consultation and cooperation with state and federal governments.

2.3.3 New River Improvement Project

The New River contains untreated wastewater and other pollutants from Mexico as it flows north through the City of Calexico, CA, before emptying out into the Salton Sea. This polluted waterway is a threat to human health and ecosystems and limits economic development in the Imperial Valley. To address this long-standing problem, a project has been conceived that will encase the New River's polluted water in the Calexico area, minimizing direct or indirect human contact. The project also includes an automated trash screen for the river downstream from the United States-Mexico International Boundary to remove solid waste. Furthermore, the project will also reroute treated and disinfected wastewater from the Calexico treatment plant to restore flow in the river channel through the city to maintain floodplain wetlands and improve water quality. The New River Improvement Project (NRIP) is being funded with approximately $28 million from state funds.

Under the leadership of the California Environmental Protection Agency and the State Water Resources Control Board (SWRCB), the SSMP was able to secure additional funding for the NRIP. On January 30, 2023, DWR executed a grant agreement with the SWRCB to provide an additional $18.5 million towards the project. On June 13, 2023, DWR executed a grant agreement with the Department of Parks and Recreation to provide an additional $2.5 million towards the project.

On February 27, 2023, the City of Calexico accepted a bid for the construction of the NRIP. The contractor fully mobilized to the project site in early summer 2023. Work in 2023 primarily included dewatering, excavation, grading, formwork, concrete pouring, and delivery of materials to the site (**Figure 20** and **Figure 21**). Significant issues have been encountered delaying the project and increasing costs:

- A delay in securing an encroachment permit from a private landowner prevented access to part of the site.
- Burrowing owls were discovered at the site which required following proper environmental compliance protocols.
- Two sewer crossings were found to be in the path of the bypass pipeline. These crossings were omitted from the original plans and scope of work. It was decided to replace sections of the pipelines due to their poor condition.

The current project completion is estimated to be December 2024; however, further delays may occur.

Figure 20. New River water diverted in left diversion channel with steel sheet piles and dewatering wells to allow construction of concrete lining in the New River with deep wet well to capture river water, which will be encased into a 72" diameter pipeline to convey approximately 1.5 miles downstream.



Figure 21. Wet well construction within the New River channel, protected by steel sheet piles and dewatering wells. This area will also include reinforced concrete channel construction. Upon completion of improvements, sheet piles and dewatering wells will be removed, the diversion channel will be removed, and this area will again be under water.





3 Partnerships

Partnerships with local, state, and federal agencies, the community, Tribal governments, and other interested parties are crucial in helping to fulfill the goals of the SSMP. The SSMP Team is working with partners to pursue available funding sources; develop projects; share data; improve community engagement, outreach, and involvement; and streamline planning and approval processes. In addition, the Team is collaborating with partners to develop templates for land access, water availability, and public access opportunities and other elements key to the success of the SSMP. In 2023 the State, Reclamation, IID, and other parties to the Salton Sea Commitment Agreement met with partners quarterly at a principal level, to continue the momentum of the commitments described in the agreement, along with interested Salton Sea partners. This series of meetings was led by CNRA Secretary Wade Crowfoot and Reclamation Commissioner Camille Calimlim Touton.



3.1 Audubon California

The SSMP Team has continued to partner with Audubon California to address data gaps and develop new projects. Audubon California has continued to conduct monthly shoreline surveys. They have collaborated with the SSMP during the development of the Salton Sea MIP and helped identify strategies to streamline data sharing between SSMP partners.

In addition, the SSMP Team has been working with Audubon California to support the Bombay Beach Wetland Enhancement Project, which would suppress dust while also creating managed wetland habitat on the east side of the Sea (additional details on this project are provided in Chapter 2). In 2023, regular design and principal meetings were held to develop a 30 percent design with an eye towards a 60 percent design. The SSMP Team provided consistent feedback on the design of the project habitat creation features, their placement in the project, and the design of the maintenance and monitoring access roads to and within the project footprint. The SSMP Team and Audubon have been working to identify public access and recreational opportunities.

Audubon California was a key partner in the Intermountain West Shorebird Survey conducted in August 2023 (Audubon California, 2023). Staff from

Audubon, along with USFWS, CDFW, Point Blue Conservation Science, and Oasis Bird Observatory, surveyed the entire 107-mile shoreline of the Salton Sea. Findings are presented in Appendix A (Existing Conditions).

3.2 Bureau of Land Management

BLM is a cooperating agency in preparing the EA for the Phase 1: 10-Year Plan. The State will continue to coordinate with BLM when projects are being designed and implemented on BLM land. Also, a portion of the ongoing SCH Project is being constructed on BLM land. The SSMP is also helping to coordinate with BLM on the North Lake Pilot Project to develop temporary access agreements for surveys and preconstruction work. In 2023, BLM leadership has been meeting with partners quarterly at a principal level, as part of the Salton Sea Commitment Agreement Working Group.

3.3 California Air Resources Board

The California Air Resources Board (CARB) is an active participant in vegetation enhancement, dust suppression projects, performance monitoring, and air quality monitoring activities with the SSMP's Air Quality Team. CARB staff helped in the preparation of the air quality monitoring plans and reports. On an ongoing basis, CARB staff are working with the SSMP Team to identify and review dust control strategies and monitoring requirements at individual project sites.

3.4 Coachella Valley Water District

The CVWD, which owns land along the northern shore of the Sea, as well as drains with inflows into the Sea, is an SSMP Team partner and has provided access to the team to install air quality monitoring equipment at four sites to evaluate the potential for dust emissivity. The State will continue to work with CVWD as projects planned along the northern shore are advanced in 2024 and beyond. SSMP has been coordinating with CVWD to gather water quality information to inform projects design at the northern end of the Sea.

3.5 Colorado River Basin Regional Water Quality Control Board

The construction or operation of some SSMP projects may impact water bodies that are regulated by the Colorado River Basin Regional Water Quality Control Board (CRBRWQCB). This may include direct discharges of pollutants (regulated by the National Pollutant Discharge Elimination System or NPDES permit) or stormwater discharges from project areas (requiring a Stormwater Pollution Prevention Plan or SWPPP). Necessary applications have been filed with the CRBRWQCB. A permit modification was received to permit the connection of IID drains to the SCH.

The SSMP Team continued coordination with CRBRWQCB to discuss SSMP program milestones and progress, upcoming permit needs, and to provide input into the CRBRWQCB planning processes. A regular standing meeting continued through 2023 to provide ongoing collaboration for project permitting and implementation and has led to a more efficient permitting process. In addition, a new meeting was established to coordinate water quality sampling in and around the Sea to inform both agency's programs, reduce duplicity, and maximize resources.

3.6 Imperial Irrigation District

The SSMP Team and IID have been collaborating on a broad range of Salton Sea management priorities, including the SCH Project, land access permits and agreements, dust suppression project planning and implementation, air quality monitoring, biological monitoring, data management strategies, and public engagement. IID was an integral partner and signatory in developing the December 2022 Salton Sea Commitment Agreement.

In support of DWR's groundwater well drilling activities (see Section 2.2.2), IID has shared geologic, water quality, and well yield data collected from a similar well drilled by IID near the Clubhouse site in early 2022.

In addition to collaborating on projects, IID has been supporting the SSMP Team with biological monitoring and developing an approach for sharing data among interested parties. CDFW, IID, and other partners have been cooperating to develop a pupfish interconnection plan that will be implemented around the Salton Sea and may eventually be integrated into SSMP projects.

Preparing to conduct sampling at the Salton Sea, November 2023.



The SSMP Team is working with IID to develop a Programmatic Land Access Agreement for future projects. The SSMP Team also worked with IID to amend the SCH Easement to accommodate work on the SCH Expansion. This easement amendment was approved by the IID Board of Directors and is pending final execution.

3.7 Imperial County

Imperial County and the SSMP Team have significant and complementary interests regarding the development and enhancement of activities that restore the Salton Sea ecosystem. Imperial County has sought to assist the SSMP Team with its restoration goals by soliciting Statements of Interest from local landowners willing to implement dust suppression projects on their property.

The SSMP Team organized regular interagency meetings on the Desert Shores Channel Restoration Project, which includes Imperial County and the SSA. Imperial County has taken a lead role in CEQA compliance and in developing a hydrologic analysis for groundwater availability for the project. Imperial County has been an invaluable partner in furthering the Desert Shores Channel Restoration Project. Imperial County also serves as a co-chair of the SSMP Community Engagement Committee with Alianza Coachella Valley. In this role, the County and Alianza Coachella Valley assist the SSMP Team with scheduling, developing agendas, reviewing materials and presentations, and meeting facilitation.

The SSMP Team recognizes that partnership with local agencies could provide substantial public benefits and will continue to coordinate with Imperial County to identify lands and projects that may be eligible for funding opportunities.

3.8 Imperial County Air Pollution Control District

ICAPCD is a key partner for the SSMP Team in implementing projects around the Sea. ICAPCD has regulatory authority over the contribution or control of anthropogenic fugitive dust emissions in the Salton Sea region within Imperial County. Dust suppression projects located within ICAPCD's jurisdiction are subject to its regulations. In July 2020, CNRA and the ICAPCD signed a Memorandum of Understanding (MOU) documenting their intent to coordinate and collaborate on the Desert Shores Channel Restoration Project described in Chapter 2. The project proposes to refill channels located between residences on the Salton Sea shoreline in the disadvantaged community of Desert Shores to provide habitat and air quality benefits. Under the MOU, CNRA will analyze and document the project's public benefits as part of the NEPA EA for the Phase 1: 10-Year Plan and as required for

funding under the SSMP. Furthermore, ICAPCD staff served as members of the Long-Range Planning Committee (LRPC) and MIP Working Groups.

3.9 Natural Resources Conservation Service

The Natural Resources Conservation Service (NRCS) is a federal cooperating agency developing the NEPA SSMP 10-year Plan EA. In 2022, the SSMP Team developed a Draft Watershed Plan as an appendix in the NEPA Draft EA. NRCS will use the appendix to develop a more focused supplement covering the Watershed Plan requirements in the National Watershed Program Manual. The NRCS-led activity is expected to begin in 2024 and will identify specific projects and the budget for planning and implementation that will be available to the SSMP from 2025 to 2026. The funding can be applied to projects on Tribal lands and non-federally owned lands. CNRA will remain the local sponsor organization.

3.10 Riverside County

The SSMP Team continues to meet regularly with the County of Riverside to coordinate project and planning priorities related to projects at the northern end of the Salton Sea. The SSMP Team assisted the County of Riverside and SSA with the review of the four project alternatives for the North Lake Demonstration Pilot Project, in the selection of a preferred alternative, and in the selection of suitable water supply sources. More information about the project can be found in Chapter 2. The project is planned as the initial phase of a larger North Lake concept. The North Lake concept is part of the EA document being developed for the SSMP.

3.11 Salton Sea Authority

The SSA is a JPA with a focus on protecting human health and revitalizing the environment and economy of the Salton Sea. The SSA's board members represent five of the major interested parties at the Sea: the CVWD, County of Imperial, County of Riverside, IID, and Torres Martinez Desert Cahuilla Indians. This representation makes the SSA uniquely positioned to assist in planning and implementing the SSMP.

CNRA and the SSA have signed an MOU outlining how the parties will coordinate and consult to support the broader goals of the Salton Sea restoration and the SSMP. The MOU contemplates continued close coordination between the SSA and the SSMP to ensure prompt communication of local priorities to CNRA through the SSA, as outlined in the MOU, and to seek out federal funding opportunities for projects that will help restore the Sea. CNRA staff hold regular standing meetings with SSA, serve as ex officio members on the SSA Board, provide monthly updates at Board meetings, and coordinate on planning, funding, and public outreach.

Consistent with the MOU, in 2022 CNRA entered into an Agreement with SSA aimed to enhance and promote community participation and engagement using different strategies through different tasks. Through the implementation of this Agreement, SSA will perform 1) outreach and engage with community members and other partners of the Salton Sea Region, 2) coordinate and engage with educational institutions, and 3) work with Community-Based Organizations (CBOs) to engage and solicit input around community amenities from frontline communities unable to attend SSMP meetings online, using meaningful "in-community" engagement within identified subregions around the Salton Sea. In 2023, SSA completed task 3 above by releasing a request for quote for a local CBO to conduct outreach to Salton Sea communities to inform the Community Needs reports.

As noted in Chapter 2, the SSA is leading the North Lake Demonstration Pilot Project, working with Riverside County. The North Lake Demonstration Project received $19.25 million to plan, design, and implement the approximately 160-acre lake in partnership with the State and Riverside County. In 2023, the SSMP met regularly for further development of this project.

The USACE, the DWR, and the SSA signed a cost-share agreement in December 2022 to launch the *Imperial Streams and Salton Sea Ecosystem Restoration Feasibility Study*, aimed at identifying potential ecosystem, flood-risk management, or other land- and water-resource projects and actions for the long-term restoration of the Sea. The Feasibility Study officially began in March 2023, as describe further below under the USACE section.

3.12 South Coast Air Quality Management District

SCAQMD has regulatory authority over the contribution or control of anthropogenic fugitive dust emissions in the Salton Sea region within Riverside County. Dust control projects located within SCAQMD's jurisdiction are subject to applicable Air District Rules and Regulations. The SSMP Team coordinated with the SCAQMD during the development of the DSAP, especially related to project areas in Riverside County. SCAQMD was an active part of the MIP Working Group. The State worked collaboratively with the SCAQMD prior to project construction and has coordinated with them on monitoring station locations in their jurisdiction.

3.13 Torres Martinez Desert Cahuilla Indians

The Torres Martinez Desert Cahuilla Indians have ancestral lands in the Salton Sea area and are a major landowner along the northern shore of the Salton Sea in the vicinity of the Whitewater River.

On March 16, 2022, Torres Martinez Desert Cahuilla Indians hosted Southern California Native American Tribes, CNRA, SSMP, DWR, CDFW, and the California Energy Commission (CEC) for an Inter-Tribal roundtable discussion on the Salton Sea. During this roundtable, Tribal and state leaders discussed partnerships and opportunities for restoration and conservation projects in and around the Salton Sea and Eastern Coachella Valley and the State's efforts regarding the development of renewable energy, lithium, and geothermal resources.

On November 4, 2022, with the assistance of the Torres Martinez Desert Cahuilla Indians, a joint Tribal meeting was held with Tribal governments for the SSMP to provide an update on the development of the LRP including the restoration concepts and the concept evaluation criteria. Tribal feedback and comments compiled during the meeting were incorporated into the LRP, mainly relating to acceptability criteria. Based on feedback, more information is needed to analyze the concepts. Primarily, site-specific information is needed to evaluate potential impacts to the access and protection of natural resources, cultural resources, and Tribal cultural resources and landscapes. Informational meetings related to the LRP and the USACE Feasibility Study will continue throughout 2024.

As an important partner in the region, CNRA is committed to regular government-to-government consultation and partnership with the Torres Martinez Desert Cahuilla Indians Tribe on all projects impacting the Salton Sea. Initial conversations on potential partnerships on northern shore projects have begun, and the State looks forward to working with the Tribe to implement projects to support their priorities and gather field data to help evaluate potential alternative approaches for dust suppression. The State plans to work with the Tribe to identify collaborative projects to expand on existing restoration work on exposed lakebed that is being funded by the Coachella Valley Mountains Conservancy. Tribe members are also represented on the Community Engagement Committee.

In September of 2023, the first TEP was finalized between the Torres Martinez Desert Cahuilla Indians and DWR. The TEP allow entry to three parcels of land to conduct reconnaissance and surveys needed to plan and design the North Lake Project. Beginning in October 2023, regular Tribal informational meetings were held with members and representatives of the Torres Martinez Desert Cahuilla Indians Tribe and the SSMP at a frequency of one to four times per month. The focus of these meetings has been to share information, develop a Tribal Agreement to compensate the Tribe for Tribal monitors and participation in the planning and development of projects, establish protocols and procedures for the SSMP to adhere to when accessing land and performing work around the Sea, schedule tours and site visits, as well as planning for ways to engage Tribal youth.

3.14 Government-to-Government Consultations and Partnership with California Native American Tribes

CNRA, DWR, and CDFW are all committed to meaningful and timely consultation with all California Native American Tribes with ancestral ties to the Salton Sea area. The CNRA Tribal Consultation policy requires the SSMP to provide Tribes with an opportunity for government-to-government consultation early in project

planning and development to ensure Tribal input is considered and cultural resources are protected.

CNRA initiated a formal government-to-government consultation process with 25 Tribal nations that may be affected by projects described in the DSAP and completed the consultation process in July 2020. CNRA's goal is to better understand Tribal priorities, interests, and concerns early in the development of SSMP-related plans and conceptual SSMP projects. Throughout the implementation and operation of SSMP projects, CNRA remains committed to meaningful consultations and development of partnerships with Tribes with interests and concerns related to SSMP projects.

In addition to the early project planning consultation, the USACE is leading Tribal Consultation for Section 106 compliance for the EA. The SSMP Team as well as the federal cooperating agencies were invited to participate in the consultations. In 2024, Tribal consultation for the EA will be completed.

Tribal engagement occurred during preparation of the LRP. This timely engagement was crucial to respectfully seek feedback and input into the LRP. Representatives of Tribal governments participated in the LRPC. Additionally, on March 16, 2022, the SSMP presented a proposal of the LRP process during a "Tribal Roundtable" meeting. During this presentation, the SSMP extended invitations for interested Tribal governments to join the LRPC. Lastly, an initial joint Tribal meeting was held on November 4, 2022. Tribal feedback and comments have been incorporated into the LRP, primarily relating to acceptability criteria. Based on feedback, more information is needed to analyze the concepts. Primarily, site-specific information is needed to evaluate potential impacts to the access and protection of natural resources and Tribal cultural resources and landscapes.

In 2023, the SSMP also initiated Tribal Consultation in compliance with CNRA policy on the SCH expansion.

3.15 U.S. Army Corps of Engineers

The USACE and DWR entered into an agreement under the Water Resources Development Act to facilitate funding of the NEPA process as well as permitting for SSMP projects. The USACE is the lead agency for the preparation of the NEPA EA; the draft document was released in June 2022. The USACE has continued to prioritize development of the EA and engaged the federal cooperating agencies and SSMP Team in regular meetings to further the NEPA and permitting process.

USACE staff are also working closely with the SSMP Team to prioritize project review and issue permits. The most recent were Nationwide Permits to support the vegetation enhancement projects. In addition to staff-level meetings, there is also senior-level coordination between the USACE and CNRA to advance Salton Sea project goals.

In December 2022, the California Department of Water Resources, SSA, and USACE Los Angeles District entered into a Feasibility Cost Share Agreement, effectively kicking off the Feasibility Study. Acknowledging the extensive work completed by the SSMP and other agencies and organizations to develop the Draft LRP, USACE adopted the restoration concepts set forth in the Long-Range Plan to evaluate in the Feasibility Study. The USACE study team plans to refine and build upon the LRP concepts to align with USACE policy and procedures and then apply their standard planning process as required by federal regulation.

During 2023, the three agencies worked together to develop a shared understanding of the scope of challenges and opportunities surrounding the Salton Sea. This scope was heavily informed by the Draft Long-Range Plan document, process, and public comments. Through this scoping effort, in August 2023, USACE affirmed the LRP restoration concepts as alternatives in the Feasibility Study. USACE also developed and presented a scope, schedule, and budget to complete the Feasibility Study. The scope and schedule incorporate preferred hydrologic, hydraulic, and ecological models, data collection needs, public involvement plans, and review plans to complete the study. Under this preferred scope, the study is expected to take between

six to eight years to complete and cost between $12-16 million.

Currently, USACE and the State of California have secured funding to cover $3 million of the Study's scope. This Cost Share Agreement allows the Corps and its partners to split the cost of the study and work collaboratively on possible solutions. Work is underway to secure the additional funds needed to complete the Feasibility Study.

3.16 U.S. Bureau of Reclamation

The SSMP Team meets regularly with Reclamation to advance the implementation of the vegetation enhancement projects described in Chapter 2. The SSMP has obtained land access agreements with Reclamation to develop and implement habitat and dust suppression projects on up to 1,700 acres at Clubhouse, Tule Wash, and West Bombay Beach. As these projects are implemented, the State plans to develop additional project areas on Reclamation lands, notably lands associated with the San Felipe Fan (identified in Chapter 2).

The SSMP Team worked with Reclamation to amend the funding agreement to support implementation of dust suppression and vegetation enhancement projects. The funds will be used to research, implement, and monitor various options to mitigate dust emissions that originate from the exposed lakebed. DWR will lead this effort and will coordinate with the appropriate state, federal, and local agencies and other interested parties to plan and implement dust suppression projects at the Salton Sea. The grant provides a framework for how state and federal funds can be leveraged to provide additional public health and environmental benefits at the Sea.

In December 2023, Reclamation granted the State $70 million to begin the expansion of the SCH Project to accelerate dust suppression and aquatic habitat projects at the Sea. The funding is a portion of the $250 million in federal funding commitments in the 2022 Commitment to Support Salton Sea Management Related to Water Conservation in the Lower Colorado River Basin Agreement, and the $70 million was released in connection to IID's actions to conserve water in 2023. If IID and CVWD follow through on Colorado River projects that would ultimately further reduce their use of Colorado River water, Reclamation will provide an additional $178 million over the next four years to expedite Salton Sea projects. During 2023, the SSMP Team developed and finalized a programmatic land access agreement with Reclamation that will be used once the Phase 1 NEPA EA is complete to expedite access to Reclamation lands for Phase 1 restoration projects.

3.17 U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) operates the Sonny Bono Salton Sea National Wildlife Refuge in Imperial County. USFWS partners with the SSMP Team on monitoring, information sharing, and desert pupfish relocation as part of the SCH Project and on developing the SCH vegetation projects that are adjacent to USFWS refuge lands. The USFWS also plays a key regulatory role for all SSMP activities that may affect federally endangered species at the Salton Sea. The USFWS is also a cooperating agency in preparing the EA for the Phase 1: 10-Year Plan. USFWS staff serve on the LRPC, the MIP Working Group, and chair the Science Committee. The USFWS is also an active member of the QSA Implementation Team and participates in quarterly meetings. The QSA Implementation Team is responsible for implementing the mitigation requirements of the QSA water transfer.

Continuing through 2023, a working group was formed with participants from the USFWS, CDFW, U.S. Geological Survey (USGS), DWR, University of Idaho, and Reclamation. The purpose of the working group is to discuss the current selenium research and the various construction and proposed projects affecting the marshes and the federally-listed Yuma Ridgway's Rail around the Salton Sea. A priority for this group is to identify risks, constraints, and opportunities for wetland enhancement and restoration around the Sea. This effort will also help create comprehensive documents to identify research needs and results, as well as standard protocols for data collection. DWR is helping to fund this selenium research allowing USGS to expand their work to include an area adjacent to SCH.



4 Community Engagement

The SSMP Team continued to place a strong focus on community engagement throughout 2023. The SSMP Team continues to seek to develop and actively maintain an engagement program that enables consistent lines of open communication to intentionally serve and engage the frontline communities of the Salton Sea region, creating opportunities for community members to share concerns and provide input, and ultimately contribute to the delivery of projects that improve conditions for communities around the Salton Sea.



The SSMP Community Engagement Committee serves as the hub and primary venue to plan engagement activities and identify best outreach and involvement strategies for SSMP public events, including coordination with the SSMP LRPC and the Science committee. The Community Engagement Committee consists of representatives from community-based organizations, stakeholder groups, local leaders, governmental agencies, and Tribal governments. It enlists leaders of local community groups and NGOs to help guide SSMP engagement efforts, reach community members through varying communications channels, and increase community engagement in SSMP planning activities.

4.1 Community Engagement Committee

The Community Engagement Committee advises and assists the State in engaging local communities and other interested parties to inform and solicit meaningful input regarding health, air quality, environmental, and social aspects of SSMP projects, for the State to integrate into the Phase 1: 10-Year Plan and long-term restoration projects for the Salton Sea. The Committee's Charter lays out its advisory role, its composition, and how the Committee is determined to be inclusive of all by implementing accepted principles underlying equity and environmental justice.

The Charter identified the need to create subgroups to further support the efforts of the Community Engagement Committee. In 2022, two groups were created with the support of the Committee Cochairs and the support of interested committee members to become active members of these subgroups. The Outreach Working Group met throughout 2023.

- The Annual Review Working Group meets to 1) review the Community Engagement Charter to identify and recommend updates to the State, 2) review existing membership to identify any gaps in representation within the membership including their respective networks, 3) allow existing members to choose whether they can or would like to continue serving on the Committee, and 4) evaluate the Chairs composition and their selection.
- The Outreach Working Group meets to 1) coordinate engagement opportunities and event promotion, 2) develop agendas together, 3) provide support during public community meetings, and 4) make recommendations to the SSMP for meaningful outreach and engagement.

4.2 Engagement Activities

Public engagement through virtual meetings has occurred as a part of all major ongoing SSMP activities. Over the past year, the SSMP Team has been involved in the following engagement activities:

- SSMP Update Community Meetings
- Community Engagement Committee Meetings
- Outreach Working Group Meetings
- Public Scoping Meetings for Salton Sea Feasibility Study, in partnership with the USACE
- NEPA EA Meetings
- MIP Meetings
- SCH Project Outreach
- SWRCB Annual Workshop

In addition, the SSMP Team members participated in and provided updates at various other regional meetings and forums, including the following:

- Community Meeting at Bombay Beach Community Services District
- East Coachella Valley AB 617 Meeting by SCAQMD
- Coachella Valley Water Counts Academy
- Monthly SSA Board meetings
- Quarterly QSA JPA meetings
- CRBRWQCB SSMP update in October followed by SCH Tour
- Salton Sea Action Committee Meetings
- Salton Sea Summit
- 2023 California Tribal Water Summit
- Environmental Health Leadership Summit
- Coachella Valley Water Counts Seminar
- California Economic Summit: SCH Tour and Vegetation Enhancement Project at Bombay Beach
- Resilient Salton Sea, ALIANZA Community
- Desert Managers Group Meeting
- Water Authority Monthly Board Meeting, San Diego County Water Authority

4.3 Engagement for the Salton Sea Management Program and Community Needs Report

In January 2024, the SSMP released the draft Salton Sea Management Program and Community Needs Report for a 60-day public comment period. This report identifies community needs related to the Salton Sea, describes the status of the SSMP efforts, and lists potential future opportunities with added funding and capacity, to address community needs while implementing restoration projects. The SSMP Team carried out a public engagement project in 2022 and 2023 with Better World Group Advisors, where communities and Tribes highlighted the following core needs related to the Salton Sea: community engagement, meaningful Tribal consultation, equitable outdoor access, public health, workforce and sustainable economic development, climate action, transportation, and broadband access.



Early in 2023, two Tribal-focused workshops were held by the SSMP to inform the reports. In addition, SSA collaborated with the SSMP and BWG to release a request for quote for a local CBO to conduct outreach to Salton Sea communities to inform the Community Needs reports. This tasked CBOs to engage and solicit input around community amenities from frontline communities unable to attend SSMP meetings online, using meaningful "in-community" engagement within identified subregions around the Salton Sea. The effort was led by SSA and funded through an outreach and engagement contract with CNRA.

4.4 SSMP Project Tracker Website

In 2023, the SSMP Project Tracker website was developed and is going through final quality assurance and quality control and will be made publicly available in the first quarter of 2024. The website will be an integrated site at www.saltonsea.ca.gov that tracks SSMP 10-Year Plan project activities and outcomes in one comprehensive location. This Project Tracker website has previously been reported as the Program Management Tool in previous Annual Reports. The website will also have a data dashboard which will report current progress towards meeting the requirements in State Water Resources Control Board Order 2017-0134.

4.5 Enhanced SSMP Presence in the Region

Local SSMP Team members served as point in coordinating and hosting tours of the SCH throughout 2023. During the latter months of 2023, the SSMP Team participated in multiple city council meetings from across the region in Riverside and Imperial County. The Team provided a succinct presentation about the work that the SSMP is doing to improve conditions and restore ecological value at the Salton Sea. The presentation included past, ongoing, and future work at the Sea, including the Phase 1: 10-year Plan and the Long-Range Plan, and inviting the audience to engage in the public process that the Feasibility Study, with the USACE, will bring for future long-term restoration of the Sea. The update also included several pictures of the SCH and Vegetation Enhancement Projects to uplift the work that is occurring at the Salton Sea today. Dates and locations of the meetings were as follows:

- October 25, 2023, Cathedral City
- October 26, 2023, Palm Desert

- November 1, 2023, City of Indio
- November 15, 2023, City of Calexico
- December 5, 2023, City of La Quinta
- December 6, 2023, City of Imperial
- December 13, 2023, City of Coachella

The Team expects to continue visiting other cities to provide the SSMP update presentation in person and to inform local communities about work at the Sea and spark an interest in participating in future SSMP engagement opportunities.

4.6 The SSMP Website and E-Newsletter

The SSMP Team continues to update the program website, www.saltonsea.ca.gov, to provide both information on SSMP projects and opportunities to offer input. The Team is working to make substantial updates to the structure of the website. The State also continues to share news and information via the CNRA SSMP Update e-newsletter that debuted in November 2019. The SSMP e-newsletter provides information on project delivery, important program milestones, the SSMP Team, upcoming meetings, and opportunities for engagement. It also offers opportunities for feedback and public comment periods. The SSMP e-newsletter is distributed through the CNRA Salton Sea electronic mailing list. You can register to receive the SSMP e-newsletter by clicking here.

4.7 Contacting the SSMP Team

We encourage the public, community partners, Tribal governments, and other interested parties to get involved!

We encourage participation in many ways:

- Attend workshops and committee meetings. Most meetings are open to the public and are accessible virtually. Updates on future meetings are provided through newsletters, flyers, and announcements in traditional and social media.
- Communicate via email: Interested individuals can reach out by email at cnra-saltonsea@resources.ca.gov.
- Receive website updates and newsletters: Information on current and future updates is provided on the SSMP website: https://saltonsea.ca.gov/. Interested individuals may also sign up to receive regular email updates about the SSMP.

5 Planning

In 2023, the SSMP Team continued its planning activities on five main fronts to continue its strategic vision for delivering dust suppression and habitat projects in the remaining years of the Phase 1: 10-Year Plan.



- The SSMP Team continues to work with the USACE and the federal cooperating agencies to complete the NEPA EA for the Phase 1: 10-Year Plan (CNRA, DWR, and CDFW, 2017). Public comments were received on the draft EA published in June 2022, and a revised final version is planned for release in late Spring 2024. The EA will be finalized following completion and execution of the Programmatic Agreement between the USACE and the State Historic Preservation Officer (SHPO) which will contain standardized review procedures for compliance with Section 106 of the National Historic Preservation Act (NHPA). Drafts of the Programmatic Agreement were developed and shared with federal cooperating agencies, SHPO, and Tribes in late 2022 and throughout 2023, and a final administrative draft is planned for the first quarter of 2024.
- The SSMP Team continues to meet its commitment for long-term planning beyond Phase 1 through the development of the LRP. A Draft LRP was submitted to the State Water Board in December 2022. After a public comment period, the SSMP Team prepared the Final LRP which is planned for release in March 2024. This plan will be a focus of additional NEPA analysis by the USACE.

- The Salton Sea Monitoring Implementation Plan (MIP), a regional-scale monitoring plan for the Salton Sea ecosystem, was completed in December 2022. The MIP recommended an Annual Work Plan be completed to outline planned and possible monitoring to take place the following year. The surveys and investigations in the Work Plan are anticipated to be completed during 2024. Also, in late 2024, it is anticipated that the 2025 Annual Work Plan will be initiated.
- The Team also developed and released the draft Salton Sea Management Program and Community Needs Report to identify core needs for Salton Sea communities. Vital needs identified by communities and discussed within this document include the following: community engagement, meaningful Tribal consultation, equitable outdoor access, public health, workforce and sustainable economic development, climate action, transportation, and broadband access.
- In 2023, the SSMP added nine new positions, bolstering organizational capacity to deliver on its commitments.

This chapter also presents an overview of the current funding status and financial plan for the program (Section 5.7). Additional planning efforts to enhance stakeholder engagement were described in Chapter 4 (Community Engagement).

5.1 Environmental Planning

The SSMP Team continues to work with the USACE and the federal cooperating agencies to complete the NEPA EA for the Phase 1: 10-Year Plan (CNRA, DWR, and CDFW, 2017). Public comments were received on the draft EA published in June 2022, and a revised final version is planned for release in late Spring 2024. The EA will be finalized following completion and execution of the Programmatic Agreement between the USACE and the SHPO, which will contain standardized review procedures for compliance with Section 106 of the NHPA. Drafts of the Programmatic Agreement were developed and shared with federal cooperating agencies, SHPO, and Tribes in late 2022 and during 2023, and a final administrative draft is planned for the first quarter of 2024. The resulting EA and permitting process will provide a framework for coordinating with all participating federal agencies and a streamlined approach for funding, land access, and permits.

This environmental document covers projects and activities such as creation of aquatic habitat at the Alamo, New, and Whitewater Rivers; the North Lake Pilot Demonstration Project; the North Lake Project; the Desert Shores Channel Restoration Project; the Audubon Bombay Beach Wetland Enhancement Project; and a variety of other dust suppression and habitat projects. As each project is designed, environmental planning and permitting will be reviewed and any additional permits that may be needed will be identified.

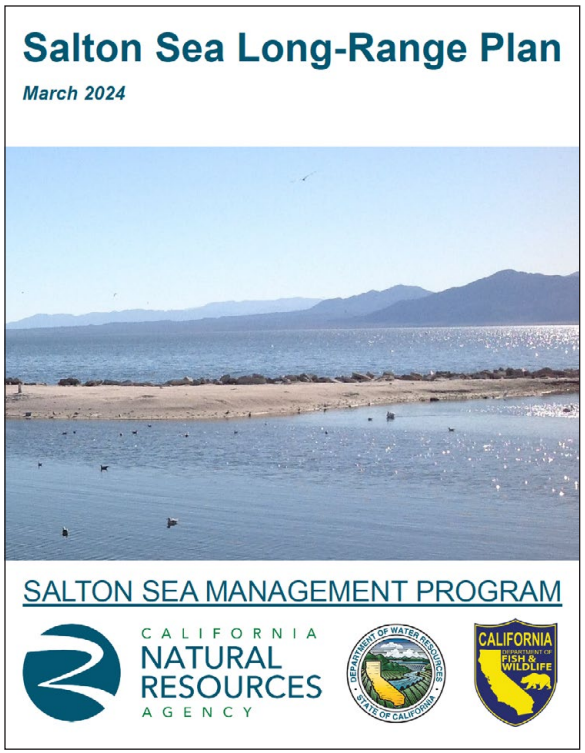
Beyond the EA, environmental planning is conducted for compliance with federal and state laws. As such, environmental planning needs are also identified and discussed with project partners such as Audubon, Imperial County, SSA, and Riverside County.

5.2 Phase 1 Project Planning

With the NEPA EA opportunity areas as a guide, the State Team is actively working to identify future specific projects to meet the State Water Resources Control Board Order target of 29,800 acres by 2028. This is being done 1) by identifying project areas and associated landowners and 2) by describing key attributes, such as water availability, elevation and year of exposure, dust emissions avoided, water needs, and other features related to the type of project that could be constructed at the area. This approach will be used to evaluate different potential pathways to meet the cumulative 29,800-acre State Board Order milestone and support expanded project-level planning and implementation needed to carry out Phase 1 restoration. The SSMP intends to share more details in the next annual report for 2024, including methods used to identify specific project areas for future development as part of the Phase 1 10-Year Plan.

5.3 Phase 2: Salton Sea Long-Range Plan

The SSMP Team prepared the draft LRP to comply with State Water Resources Control Board Order WR 2017-0134 (Order). Condition 26 of the Order required the CNRA to issue a long-term plan no later than December 31, 2022. The Plan must be consistent with the requirements of the Order and the Salton Sea Restoration Act (Act) (Fish and Game Code § 2930, et seq.), including the statutory restoration objectives set forth in Fish and Game Code Section 2931, subdivision (c). The Plan was developed as a second phase to the Phase 1: 10-Year Plan.



The SSMP Team released the Final Salton Sea Long-Range Plan on March 15, 2024.

The public draft of the LRP was released by the SSMP Team in December 2022 (CNRA, 2022a). The Air Quality Appendix was released in February 2023. After the conclusion of a 45-day comment period on March 17, 2023, the SSMP Team compiled, reviewed, and responded to comments. The Final LRP is planned for release in March 2024. This final plan, as well as the comments submitted on the Draft LRP, will be considered by the USACE as part of their Feasibility Study. The planning process for civil works projects used by USACE includes the following steps: identifying problems and opportunities; inventorying and forecasting conditions; formulating alternative plans; evaluating alternative plans; comparing alternative plans; and finally recommending a plan for adoption.

5.4 Salton Sea Science Program and Monitoring Implementation Plan

The final version of the MIP was released in December 2022 and is available on the SSMP website (CNRA, DWR, and CDFW, 2022). The MIP was built from prior scientific efforts to identify, prioritize, and describe monitoring activities to track the status and trends of resources at the Salton Sea, which can be used to inform the implementation of the restoration programs.

The MIP recommended an annual study or work plan be produced, which would highlight the planned monitoring activities to be conducted in the upcoming year for SSMP agencies and implementing partners as part of the collaborative science within the Salton Sea ecosystem. This effort is also to promote coordination and information sharing among all entities conducting monitoring and research.

In 2023, DWR and CDFW collaborated with partner agencies, NGOs, and the scientific community to compile an inventory of planned monitoring and studies for 2024, including baseline status, effectiveness monitoring, and focused studies. The Work Plan promotes collaborative science to leverage partner expertise and investments. It supports the SSMP's vision for dust suppression and habitat projects during Phase 1, while also informing long-range planning beyond Phase 1. The 2024 Salton Sea Annual Work Plan is planned for release in March 2024.

The data collected will form a basis to evaluate the overall, long-term effectiveness of projects through an adaptive management approach. It is envisioned that individual projects would develop effective monitoring plans based off the MIP, tailored to that project's specific objectives. This would provide consistent methodology, facilitate comparison to regional trends, and allow roll-up of results across multiple projects. Where possible, monitoring activities would be coordinated among partners to increase data sharing and realize economies of scale.



5.5 The Salton Sea Community Needs Report

Over many decades, community members and organizations have advocated for multi-benefit infrastructure projects at the Salton Sea to address a range of community health, environmental, and economic needs. However, limitations on the use of bond funding, cost, and regulatory, technological, and landownership challenges have posed barriers to integrating these into the design of the SSMP projects to date. The SSMP Team carried out a public engagement project in 2022 and 2023 with Better World Group Advisors, where communities and Tribes highlighted the following core needs related to the Salton Sea: community engagement, meaningful Tribal consultation, equitable outdoor access, public health, workforce and sustainable economic development, climate action, transportation, and broadband access.

In January 2024, the SSMP released the draft Salton Sea Management Program and Community Needs Report for a 60-day public comment period. This report identified community needs related to the Salton Sea, described the status of SSMP efforts, and listed potential future opportunities with added funding and capacity, to address community needs while implementing restoration projects.

Accompanying the release of the SSMP report was a public draft of the Salton Sea Community Needs and Recommended Actions Report by Better World Group Advisors. This commissioned document reflects the broader feedback of community members and Tribes in public comment letters, interviews, and work group sessions as a part of CNRA and Better World Group's public engagement project. This report identified community needs and recommended actions that can be taken by federal, state, and local government agencies, business organizations, philanthropic groups, community-based groups, and nonprofit organizations.

In 2024, the SSMP will hold various in person and online meetings to gather input within the 60-day period. The SSMP aims to complete these reports in the second quarter of 2024. Public comments and feedback received in the comment period will be analyzed and incorporated where feasible, into the final report later in 2024.

5.6 Organizational Capacity



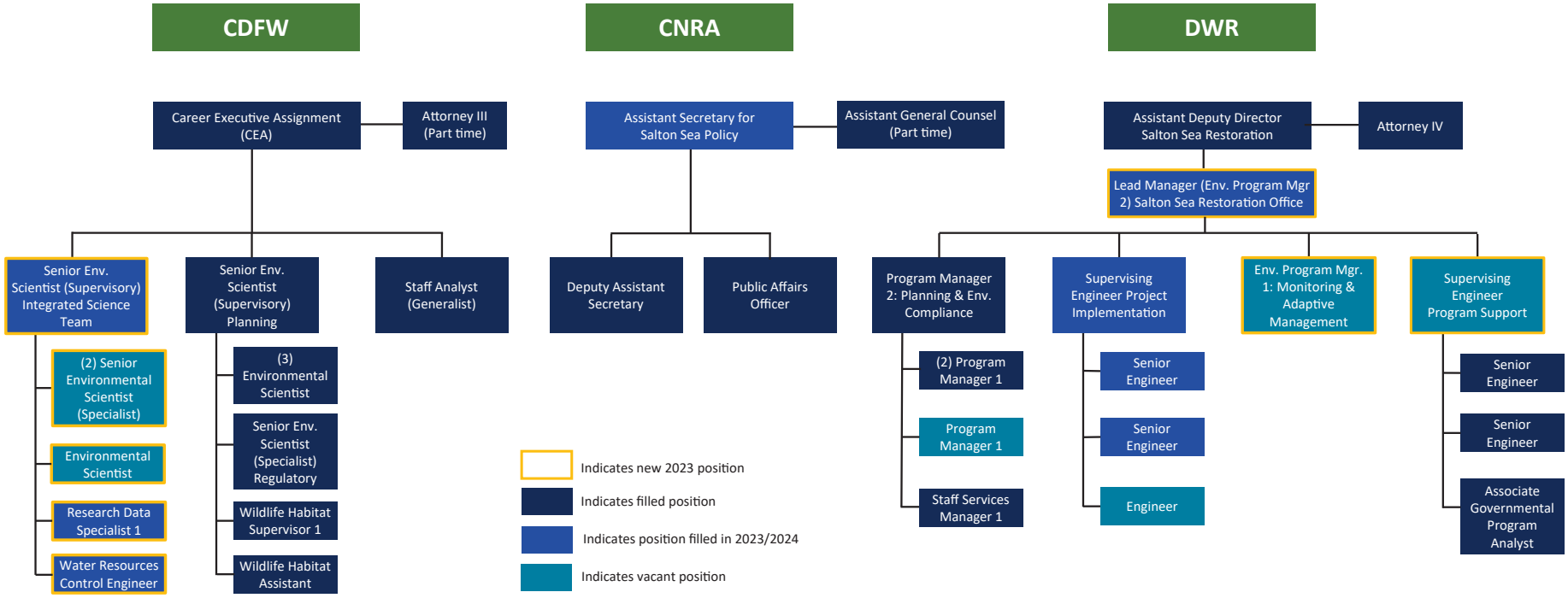
In early 2023, Samantha Arthur was appointed to the position of Assistant Secretary for Salton Sea Policy at the CNRA for the SSMP. She has been serving in this role since April of 2023. Samantha served as Working Lands Director for Audubon California from 2019-2023 and was Conservation Project Director there from 2016-2019 and Conservation Project Manager from 2014-2016. She was also a member of the

California Water Commission. "Samantha brings substantial experience planning and managing complex projects in California, particularly in the Central Valley, through her work with Audubon California. She understands state and federal processes and permitting agencies and shares our passion and commitment to driving implementation of projects at the Salton Sea," California Secretary for Natural Resources Wade Crowfoot said upon her appointment.

The current organization of the SSMP Team is shown in **Figure 22**. The SSMP Team consists of 35 full-time positions and includes staff from CNRA (3 positions), CDFW (15 positions), and DWR (17 positions). In 2023, the State added and filled nine new positions, as shown in **Figure 22**.

Besides increasing the number of staff on the SSMP Team, the SSMP has access to specialized staff through contracted services for planning, environmental analysis, engineering, outreach, and dust project implementation.

Figure 22. Salton Sea Management Program organizational chart.



5.7 Funding Status and Planning

In December 2023, Reclamation granted the State $70 million to begin the expansion of the SCH Project to accelerate dust suppression and aquatic habitat projects at the Sea. The funding is a portion of the $250 million in federal funding commitments in the 2022 Commitment to Support Salton Sea Management Related to Water Conservation in the Lower Colorado River Basin Agreement, and the $70 million was released in connection to IID's actions to conserve water in 2023.

In 2023, The SSMP requested 19 positions, 8 of which will take on operations, maintenance, and monitoring of the State's first completed aquatic and vegetation enhancement projects. Other positions will provide administrative, legal, outreach, technical, and permitting functions for the SSMP to complete project planning and implement the outstanding required acres. The SSMP also requested a $60 million General Fund for 2024-2025 to carry out planning, permitting, or implementation of upcoming capital outlay restoration projects, including the SCH Project Expansion, North Lake Project, Wister Unit Marsh Bird Habitat, San Felipe Fan, SCH Vegetation, and IID Clubhouse Vegetation Enhancement project. This budget proposal is detailed in the Governor's 2024-2025 proposed budget, currently under negotiation.

A detailed breakdown of sources and expenditures of SSMP funding from a variety of state and federal sources is shown in Appendix B.

6 Next Steps



6.1 Key Program Activities in 2024

Planning and project delivery activities are prioritized for advancement in 2024 to continue to drive progress towards the 29,800-acre milestone in the Phase I 10-Year Plan and advance long-term restoration planning. Project specific activities planned for 2024 are described in the preceding chapters and notable activities are summarized below.

In 2024, work will continue in the testing of major structures within the SCH footprint, as well as finishing the O&M facilities and workspace for the SSMP. The Visitor Observation Area will be further developed including signage and the design and installation of landscaping. Work will continue to improve drain and interceptor ditch maintenance access. Commissioning of the project is contingent on expansion of the SCH with additional ponds because soil and material sourced from the original footprint of the SCH have been identified for use to expand ponds.

The SSMP Team will work with the Design-Build entity to progress the design of the approximately 1,000-acre East Pond 1 Expansion using the first installment of the federal funding under the Salton Sea Commitments Agreement. Construction is expected to begin in the second quarter of 2024 with berm construction complete in the first quarter of 2025. East

Pond 1 will create up to 1,000 acres of additional aquatic habitat. Commissioning of portions of the SCH Project will begin in 2025 and will be aligned with the construction of additional ponds in the expanded project.

Implementation work will continue at the vegetation enhancement sites on Reclamation land, notably at the largest site in Tule Wash (1,217 acres). Access roads across the approximately 5-mile-long site will be expanded and completed to enable bale placement, planting, and irrigation activities. Weather permitting, the SSMP will complete all planting and irrigation across the remaining acres at Reclamation vegetation sites in 2024 (totaling 1,709 acres). During the past two years, higher than normal precipitation during the planting seasons has been beneficial to plant growth and soil quality, but precipitation has delayed fieldwork when site access is affected. Weather conditions may extend work on the Reclamation vegetation sites into the first planting season of 2025.

Groundwater well drilling and development will continue at Tule Wash, and pumps will be installed at Clubhouse to begin irrigating with groundwater. Drip irrigation will be installed at West Bombay Beach as a reliable water source to water newly planted vegetation and seed.

The SSMP Team will continue to monitor the performance of dust control at our sites with newly installed air monitoring transects installed in 2023. Vegetation establishment monitoring and maintenance will continue across all the vegetation enhancement sites.

In 2024, land access will be finalized with IID on land adjacent to the existing Clubhouse and Tule Wash vegetation enhancement project sites; these encompass an additional 382 acres. Funding proposed by the Administration in budget year 2024-2025 is planned to support implementation of vegetation enhancement on this acreage. The SSMP plans to use the same vegetation enhancement approaches as used on the Reclamation parcels currently under construction. The Team will take advantage of newly built access roads for ease of access to these IID sites and new groundwater wells for irrigation.

Other projects led by partner organizations will be advanced in 2024. Audubon California will conduct geotechnical surveys to inform the design of the first phase of the Audubon Bombay Beach Wetland Enhancement Project (564 acres). The SSMP will continue to collaborate with Audubon on the 65 percent design, oversee completion of full design, support permitting, and support identification of long-term operations and maintenance needs. Land-access agreements have been prioritized and will continue to final development between Audubon, the State, Reclamation, and IID.

Imperial County plans to complete CEQA for the Desert Shores Channel Restoration Project (approximately 30 acres). SSA is the lead for this



project and will continue to work with the project management firm that was hired in 2023 to lead the project design and provide opportunities for robust public input opportunities in 2024.

The SSMP Team will continue to work with the SSA and Riverside County to plan and construct the 160-acre North Lake Pilot Demonstration Project, located at the northern end of the Salton Sea, in Riverside County near the unincorporated community of North Shore. In 2024, project design will begin, and project construction is anticipated to begin in 2025.

Concepts for additional projects will be advanced by the SSMP Team, including the development of project descriptions to seek land and water access and permits and exploratory geotechnical work and surveys. The following projects, all within the footprint of the opportunity area of the EA are proposed to be advanced with funding proposed by the Administration in the 2024-2025

budget: the North Lake Project (consisting of 1,000 – 1,600 acres of aquatic habitat); the San Felipe Fan Restoration Project (approximately 660 acres); the Wister Unit Marsh (approximately 150 acres); IID Clubhouse (382 acres); and the expansion of SCH (1,000 acres).

Finally on the project front, a collaborative project termed "Kane Spring" has been further scoped in recent months and will be prioritized in 2024. The project envisions a multiple-benefit project that provides dust control, as well as habitat for shorebirds and pupfish connectivity on an estimated 3,200 acres. The full project scope will be developed in 2024. The project would be a collaboration between the SSMP, IID, and Reclamation. Next steps would include developing a Project Management Plan (PMP) outlining roles and responsibilities. As funding allows, the Basis of Design report will identify data gaps and lead to a conceptual design. Further design work is envisioned to support a design-build contract to implement this project.

In 2024, the SSMP Team and USACE will complete the EA for the Phase 1: 10-Year Plan. This sets the stage for various types of project activities over the coming years as the lakebed becomes exposed. The EA will be finalized following completion and execution of the Programmatic Agreement between the USACE and the SHPO which will contain standardized review procedures for compliance with Section 106 of the National Historic Preservation Act.

The SSMP Team completed the draft LRP and submitted it to the State Water Resources Control Board in 2022. In 2023, the SSMP received and reviewed comments, updated air quality modeling to inform the plan, and worked to finalize and translate the LRP. The final LRP was released in March 2024. In December 2022, the USACE, DWR, and SSA signed a cost share agreement to launch the Imperial Streams and Salton Sea Ecosystem Restoration Feasibility Study (Feasibility Study), aimed at identifying potential ecosystem, flood-risk management, or other land and water-resource projects and actions for the long-term restoration of the Sea. The Feasibility Study progresses the restoration concepts identified in the LRP for further evaluation under the USACE's process. Coordination and planning with USACE and SSA began in 2023 and will continue in 2024. This planning process utilizes USACE's planning framework to develop a feasibility study.

Developing a pathway with specific projects to achieve the 29,800-acre target in State Water Resources Control Board Order WR 2017-0134 remains a primary goal of the SSMP. Insights gained from ongoing projects—especially related to efficient project delivery, permitting and field survey needs, water needs, timing of construction, and construction costs—will support the identification of additional projects that will help the State meet the acreage target.

Water quality monitoring will be performed at selected drains in the vicinity of projects, the SCH ponds, and the Salton Sea. Monitoring of bird, fish and wildlife habitat in the Salton Sea ecosystem will also take place in 2024. With a new boat ramp at SCH, the SSMP and partner agencies have resumed monitoring activities at the Sea, and this work will continue in 2024 and beyond. Additional monitoring associated with the MIP will be performed, including monitoring activities outlined in the MIP 2024 Annual Work Plan which supports Phase 1 project delivery and informs long-range planning. Implementing partners are encouraged to participate in an annual coordination meeting anticipated in October 2024 to develop the 2025 MIP Work Plan.

In January 2024, the SSMP released the draft Salton Sea Management Program and Community Needs Report for a 60-day public comment period. The SSMP will hold various in person and online meetings to gather input within the 60-day period. The SSMP aims to complete these reports in the second quarter of 2024. Public comments and feedback received in the comment period will be analyzed and incorporated where feasible into the final report later in 2024.

In 2024, the SSMP will continue to update the new Project Tracker with acreage totals in June/July and again at the end of the year to align with Annual Report acreage reporting. The Project Tracker will be consistently updated with project photos and important information, including when a project changes its status in development.

The Administration proposed General Fund monies in the Governor's January Budget for new staff to carry out planning, permitting, restoration implementation, and operation and monitoring of newly completed projects; the continuation of technical service contracts for long-term planning; and capital outlay funding for planning, permitting, or restoration implementation of upcoming restoration projects, including: the SCH Project Expansion, North Lake Project, Wister Unit Marsh Bird Habitat, San Felipe Fan, SCH Vegetation, and IID Clubhouse Vegetation Enhancement Project.

6.2 Key Program Activities in 2025-2026

The USACE Feasibility Study will continue development for long-term restoration at the Sea. The Feasibility Study builds on the SSMP's LRP.

East Pond 1, the first SCH expansion area, is planned to be completed in the first quarter of 2025. The SSMP Team will contemplate the further commissioning of portions of the original SCH footprint with completion of the expansion East Pond 1. SSMP will continue to pursue further expansion of SCH up to 5,000 acres, contingent upon additional federal funding.

Work will be completed at vegetation enhancement sites on IID parcels and at all three sites on Reclamation land. Construction will initiate at the Audubon Bombay Beach Wetland Enhancement Project, Desert Shores Channel Restoration Project, and the North Lake Pilot Demonstration Project. Completion of design and potential initiation of construction of vegetation enhancement for San Felipe Fan and the SCH Vegetation Projects is planned. Wister Unit Marsh Bird Habitat Project is also planned to be completed. The SSMP Team anticipates potentially completing design and initiating construction of the Kane Springs Project.

Water quality monitoring will be performed at selected drains in the vicinity of projects, the SCH ponds, and the Salton Sea. Monitoring of bird, fish and wildlife habitat in the Salton Sea ecosystem will continue to take place in 2025 and 2026. Additional monitoring associated with the MIP will be performed, including monitoring activities outlined in the MIP 2025 and 2026 Annual Work Plans, which supports Phase 1 project delivery and informs long-range planning. Implementing partners are encouraged to participate in an annual coordination meeting anticipated in October 2025 to develop the 2026 MIP Work Plan and in October 2026 to develop the 2027 MIP Work Plan.

The SSMP Team will develop permitting and field surveys for additional projects that will meet the State Board Water Order requirements for 29,800 acres of habitat and dust suppression projects.

In 2025 and 2026, the SSMP will continue to update the new Project Tracker with acreage totals in June/July and again at the end of the year to align with Annual Report acreage reporting. The Project Tracker will be consistently updated with project photos and important information, including when a project changes its status in development.

6.3 Meeting State Water Resources Control Board Order WR 2017-0134 Targets

The State Water Resources Control Board Order sets out annual targets that the SSMP Team has been actively working toward. Progress over the period 2018-2023 is presented in **Table 2**. While the completion of projects has been lower than the acreage targets, the Team anticipates a significant increase as some major projects are completed in the coming years, as shown in **Table 3**.

Table 2. SSMP Projects Summary

Year	SWRC 2017-0134 Year End Milestone	SWRC 2017-0134 Cumulative Year End Milestone	Land Access Secured	Total SSMP Acres Under Construction in Each Year	Habitat Acres Completed*	Dust Suppression Acres		SSMP Cumulative Reported Acres to SWRCB	Projects
						Interim Dust Suppression Acres**	Dust Suppression Acres Completed***		
2018	500	500	-	-	-	-	-	-	
2019	1,300	1,800	4,100	-	-	-	-	-	
2020	1,700	3,500	0	755	-	755	-	755	Three interim dust suppression projects completed within the SCH footprint (755 acres).
2021	3,500	7,000	1,709	5,809	22	500	-	1,277	Construction on the 4,100-acre Species Conservation Habitat project began in Jan 2021. 22 acres of desert pupfish habitat created at SCH. 500 acres of interim dust control implememted within the SCH footprint. Construction began on three vegetation restoration projects on Reclamation Lands (1,709 acres): • Clubhouse Vegetation Enhancement Project (399 acres); • Tule Wash Vegetation Enhancement Project (1,217 acres); • Bombay Beach West Vegetation Enhancement Project (93 acres).
2022	1,750	8,750	0	5,504	15	25	290	1,607	Approximately 290 acres were seeded/planted and irrigated within the existing rows of grass bales at Clubhouse and West Bombay Beach sites. Major progress on the SCH Project included completion of most pond berms, nesting islands, the causeway connecting the saline water source to the pump and habitat ponds, and the New River Diversion Structure.

Table 2. SSMP Projects Summary (Contd.)

Year	SWRC 2017-0134 Year End Milestone	SWRC 2017-0134 Cumulative Milestone	Land Access Secured	Total SSMP Acres Under Construction in Each Year	Habitat Acres Completed*	Dust Suppression Acres		SSMP Cumulative Reported Acres to SWRCB	Projects
						Interim Dust Suppression Acres**	Dust Suppression Acres Completed***		
2023	2,750	11,500	1,000	4,960	130	319	414	2,445	414 acres vegetation completed in 2023 (171 acres at Clubhouse and 243 acres at Tule Wash). Major construction completed on SCH. 130 habitat acres consist of: • 100 acres in the east and west sedimentation basins at SCH. • 30 acres submerged at the south end of the diversion structure on either side of the New River Diversion Channel within the SCH footprint.
Cumulative to date:			**6,809**	**5,809**	**167**	**1,599**	**704**	**2,445**	

*Aquatic habitat is complete when wetted.

**Immediate and ongoing dust suppression within the footprint of habitat or dust suppression projects under construction. These acres will become dust suppression acres completed or habitat acres completed and will not be double counted in cumulative reporting.

***Vegetation enhancement is complete when planted/seeded and site has irrigation.

Table 3. SSMP Projects Planned Over 2024-2028

Year	SWRCB 2017-0134 Year End Goal	SWRCB 2017-0134 Cumulative Year End Goal	Projects
2024	2,700	14,200	Complete construction at the SCH Project (4,100 acres). Complete construction at Tule Wash (1,217 acres) and West Bombay Beach Projects (93 acres). Initiate construction on the SCH Expansion East Pond I (1,000 acres). Initiate construction on IID parcels adjacent to Clubhouse and Tule Wash sites (382 acres). Initiate construction on Wister Unit Marsh Bird Habitat Project (150 acres).
2025	3,400	17,600	Initiate construction on the North Lake Pilot Demonstration Project (160 acres). Initiate construction on the Kane Springs Project (3,200 acres). Complete construction on the SCH Expansion East Pond I (1,000 acres). Initiate construction on the SCH Expansion (4,000 aces). Initiate construction at the Audubon Bombay Beach Wetland Project (564 acres). Initiate construction at the San Felipe Fan Project (660 acres). Initiate construction at the SCH Vegetation Project (537 acres).
2026	4,000	21,600	Complete construction on IID parcels adjacent to Clubhouse and Tule Wash sites (382 acres). Complete construction on Wister Unit Marsh Bird Habitat Project (150 acres). Initiate construction at Desert Shores Channel Restoration Project (30 acres). Ongoing construction work to continue. Initiate and complete high priority projects based on lessons learned from past project experience.
2027	4,000	25,600	Ongoing construction work to continue. Initiate and complete high priority projects based on lessons learned from past project experience.
2028	4,200	29,800	Ongoing construction work to continue. Initiate and complete high priority projects based on lessons learned from past project experience.



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Acronyms and Glossary

BLM	U.S. Bureau of Land Management
CARB	California Air Resources Board
CBO	Community-Based Organization
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CNRA	California Natural Resources Agency
CRBRWQCB	Colorado River Basin Regional Water Quality Control Board
CVSC	Coachella Valley Stormwater Channel
CVWD	Coachella Valley Water District
DSAP	Dust Suppression Action Plan
DWR	California Department of Water Resources
EA	Environmental Assessment, part of the National Environmental Policy Act (NEPA) compliance process
ICAPCD	Imperial County Air Pollution Control District
IID	Imperial Irrigation District
JPA	Joint Powers Authority, created to fund mitigation activities to address impacts of agricultural-to-urban water transfers from the Quantification Settlement Agreement (see QSA)
LOP	Letter of Permission
LRP	Long-Range Plan
LRPC	Long-Range Planning Committee
mg/l	milligrams/liter
MIP	Monitoring Implementation Plan
MOU	Memorandum of Understanding
NAVD88	North American Vertical Datum 1988
NDVI	Normalized Difference Vegetation Index
NEPA	National Environmental Policy Act

NGO	Nongovernmental organization
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRIP	New River Improvement Project
O&M	operations and maintenance
ppt	parts per thousand
QSA	Quantification Settlement Agreement, an agreement among state, federal, and local agencies allowing the transfer of irrigation water from IID to the San Diego County Water Authority, Coachella Valley Water District, and Metropolitan Water District of Southern California for urban use.
Reclamation	U.S. Bureau of Reclamation
SCAQMD	South Coast Air Quality Management District
SCH	Species Conservation Habitat
Sea	Salton Sea
SHPO	State Historic Preservation Officer
SSA	Salton Sea Authority
SSAM	Salton Sea Accounting Model
SSAQMP	Salton Sea Air Quality Mitigation Program
SSMP	Salton Sea Management Program
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAFY	thousand acre-feet per year
TDS	Total dissolved solids
TEP	temporary entry permit
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Appendix A. Existing Conditions

This appendix provides an update on current conditions in the Salton Sea region, including Salton Sea inflows, elevation, salinity, fish habitat, and bird habitat.

A.1 Inflows

Table 4 presents water inflow to the Salton Sea by year and region for the calendar years 2016 to 2023. The SSMP Team performed a detailed analysis of inflows to the Salton Sea through 2022 as part of the LRP preparation and refined the methodology for the inflow sources to the Sea, as summarized in the table. Recent annual flows for 2023 were compiled using the same methodology.

Each inflow term is further described in the following bullets. Detailed information and derivations for each of these inflow terms can be found in Appendix B (Hydrology and Climate Change) to the LRP (CNRA, 2022b).

- **Imperial Valley:** The Imperial Valley term consists of two components: gaged flow and ungaged flow. Gaged flows are recorded at USGS gages at the mouth of the Alamo and New Rivers in Imperial Valley (USGS Station ID: 10254730 and USGS Station ID: 10255550, respectively). To account for Mexico flows separately, the contribution from Mexico is subtracted from this term (see next bullet). For ungaged inflows into the Salton Sea from the Imperial Valley, IID previously estimated these as equal to approximately 9 percent of the total volume of gaged flows (IID, 2018).

Table 4. Water Inflow to the Sea by Year (in thousand acre-feet [TAFY])

Year	Imperial Valley	Mexico	Coachella Valley	Local Watershed	Ground-water	Total Inflow to Sea
2016	983	70	80	4.4	11.5	1,149
2017	942	69	77	4.7	11.8	1,104
2018	913	61	75	4.7	12.2	1,065
2019	883	64	80	5.0	12.3	1,044
2020	892	63	82	4.9	12.3	1,054
2021	934	62	81	4.7	12.3	1,094
2022	911	62	74	4.4	12.3	1,065 [(1)]
2023	840	53	78	4.6	12.3	988

Notes:
1. In the 2023 Annual Report, total inflow to the Sea for 2022 was presented as 1,043 TAFY. The number changed due to updating 2022 provisional USGS gage data for this report.

- **Mexico:** This term is USGS gage flow from the New River at the International Boundary station (USGS Station ID: 10254970).
- **Coachella Valley:** This term consists of two components: USGS gaged flow, which measures the Coachella Valley Stormwater Channel (CVSC), and drain flow from drains other than the CVSC. Gaged flow is measured at USGS gage station Whitewater River near Mecca (USGS Station ID: 10259540). Drain flow from other than CVSC was provided by the CVWD.
- **Local Watershed:** This inflow term is derived through a combination of gaged flow (Salt Creek watershed) and analytical methods (San Felipe Creek watershed and areas not tributary to Salt or San Felipe creeks).
- **Groundwater:** The groundwater term is derived from a combination of literature values for the Imperial Valley and San Felipe alluvium and recent modeling of the Coachella Valley performed for the Indio Subbasin Water Management Plan Update. The groundwater term is an area of uncertainty, and the SSMP Team plans to conduct updated modeling of groundwater flows in the future.

Despite the ending of mitigation water flows at the end of 2017, total estimated inflows to the Salton Sea remain stable through 2022. However, in 2023, total inflow dropped to 988 TAFY. This represents an approximately 7 percent decrease from the average of the prior five years of data (1,064 TAFY from 2018 to 2022).

A.2 Salton Sea Elevation and Salinity

The elevation of the Sea is measured daily, and lakebed exposure can be estimated from the elevation-area relationship of the Sea. For the SSMP, there is a need to develop future projections of lakebed exposure, on the timescale of 5-10 years, because a large fraction of the State Water Resources Control Board Order WR 2017-0134 project construction will likely occur on land that is currently underwater. The SSMP Team uses a computer program, the Salton Sea Accounting Model (SSAM), originally developed by Reclamation, to predict Sea elevation and salinity. The model makes predictions of the future state of the Sea via mass balance of water volume and salt mass on an annual timestep. Freshwater inflows add water and salt to the sea, direct precipitation and evaporation add/remove water but not salt, and salt precipitation removes salt but not water.

The water surface elevation measured on December 31, 2023, was 238.45 feet below mean sea level (msl). **Figure 23** illustrates the observed Salton Sea water surface elevation compared with SSAM model predictions. By using future estimated inflows, predicted Sea elevation can be used to bracket near-term expected elevations and lakebed exposure for planning purposes.

Salinity data are collected by Reclamation, represented by the observed data presented on **Figure 24**. For each date when data are collected, there are typically six data points representing surface and bottom samples taken at three separate locations at the Sea. Salinity at the Sea has continued to increase over the past two decades and appeared to show a more rapid increase over the most recent period. The last reported salinity levels by Reclamation in January 2020 averaged 74,000 milligrams/liter (mg/l), greater than twice the salinity of ocean water. The January 2020 average salinity of 74,000 mg/l is a large increase over the prior average salinity value of 69,000 mg/l, measured in June 2019. Salinity sampling at later dates in 2020, 2021, and 2022 was not conducted because of COVID-19 restrictions and because of challenges in boat ramp access due to declining Salton Sea elevations. Water quality monitoring was reinstated in November 2023. On November 1, 2023, CDFW was able to use the newly installed boat ramp at the SCH project to launch an airboat and access the southern portion of the lake to perform water quality sampling. Salinity, reported as total dissolved solids (TDS) ranged from 73,000 mg/l to 79,000 mg/l at the south end of the Sea. This is close to the past sampling results of 2020. As water quality monitoring continues in 2024, more survey locations will be sampled to provide a clearer understanding of the conditions across the Sea.

Figure 23. SSAM model-predicted water surface elevation and observed elevation (NAVD88 datum).

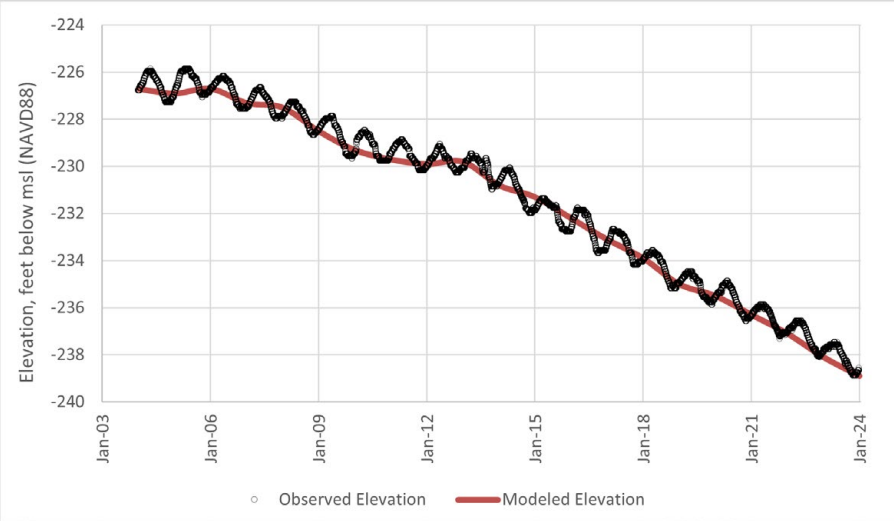
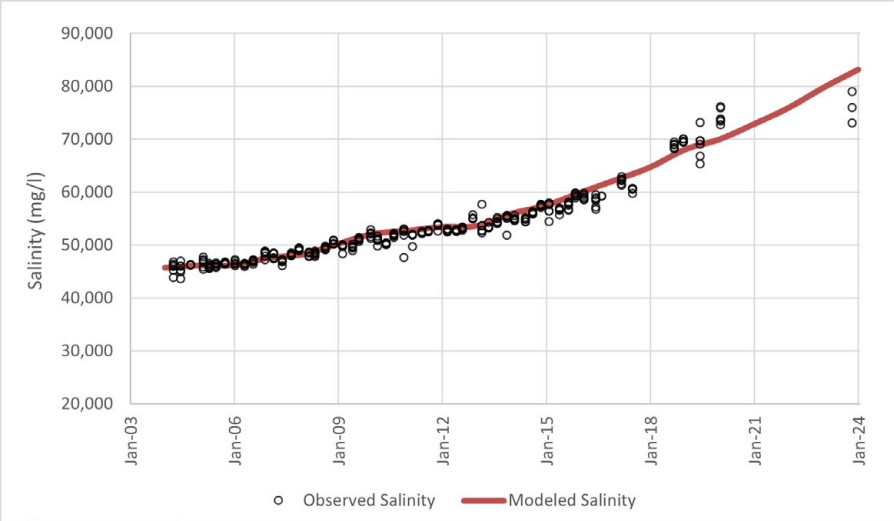


Figure 24. SSAM model-predicted salinity and observed salinity (mg/l).



A.3 Salton Sea Fish Surveys

CDFW staff and conservation partners conducted surveys for *C. macularius* (desert pupfish) in 2022 and 2023. Habitat surveyed included irrigation drains and associated shoreline pools, tributary streams, interception ditches, ponds (including North Shore Marina, Varner Harbor, USFWS Pupfish Pond), and refuges. Of particular importance this year were surveys conducted in the north end drains within the footprint of proposed development. Surveys found that desert pupfish were abundant at some sites, including most of these drains as well as San Felipe Creek. However, non-native species, particularly crayfish, continue to threaten desert pupfish populations in Salt Creek and other habitat. CDFW also conducted salvaging efforts in


Desert pupfish

tributaries during summer months of both years, with desert pupfish relocated to permanent water upstream of desiccated sites, or to a nearby refuge. Additionally, in 2023 CDFW and partners conducting desert pupfish salvaging efforts in irrigation drains that had been extended illegally. Storms during the summer of 2023 modified habitat in some areas, with some pools eliminated, but other habitat created due to removal of tamarisk and other invasive vegetation during these storms. CDFW and partners also continued to remove invasive species in some waters.

The drains in the north provide higher quality habitat. Southern drains and the interception ditches tend to have a higher velocity and may be more turbid than northern drains. Additionally, southern drains may have more invasive species such as crayfish, bullfrogs, turtles, and red shiners. However, tilapia do not appear to be as abundant in the southern drains.

Ross's geese.



Northern Shoveler.



A.4 Salton Sea Bird Surveys

Surveys of birds at the Salton Sea continued in 2023 including work performed by the CDFW, USFWS, Audubon California, Point Blue, and Oasis Bird Observatory.

Staff at the USFWS Sonny Bono National Wildlife refuge conducted the following avian surveys in 2023:

- Mid-winter Aerial Waterfowl Survey
- Secretive Marsh Bird Surveys
- Nesting Seabird Surveys
- Sandhill Crane Evening Roost Surveys
- Mid-Winter Pacific Flyway White Goose Surveys.

Refuge staff conducted aerial waterfowl surveys around the Salton Sea on Jan 27, 2023, after a 6-year hiatus. 95,239 individual birds were counted. The most prominent species was the Snow/Ross geese at 25,550 individuals, followed by Northern Shovelers at 22,507 individuals. Northern Shovelers were also the most prominent dabbler species, and the Ruddy Duck was the most prominent diver species at 4,857 individuals. Salt Creek was a place of interest for high bird use. Species seen were a mixture of waterfowl, grebes, and gulls. Sandhill Crane surveys were performed from September through February at the Refuge and Keystone Duck Club. Cranes were observed at 1,532 individuals in 2023, and 1,701 individuals for the 2022/2023 migratory period.

Coordinated Shorebird Surveys

Surveys of shorebirds increased through participation in the Intermountain West Shorebird Surveys coordinated by Point Blue which occurred in April, August, and December (Audubon California, 2023). Due to the newly installed boat ramp at the SCH project site, CDFW and USFWS were able to perform surveys from the water and therefore access more area. This historical survey last August at the Salton Sea was a significant undertaking, requiring the expertise and dedication of 14 professional biologists, supported by volunteers. Among these individuals were staff from the USFWS, CDFW, Audubon California, Point Blue Conservation Science, and Oasis Bird Observatory, who braved

extreme heat to gather invaluable population and distribution data. The survey, conducted on foot and by airboat, revealed preliminary results indicating that approximately 250,000 shorebirds were counted on a single day—more than twice the number compared to any previous August count. The only previous count surpassing 100,000 shorebirds in August dates back to Shuford et al. (2002). About two-thirds of the shorebirds were identified as Calidris sandpipers, with many assumed to be Western Sandpipers (*Calidris mauri*) as the survey was conducted at the peak of their migration period (Audubon California, 2023).

CDFW Marshbird Survey

Secretive marshbird surveys were performed in several locations around the Salton Sea by CDFW staff. These surveys were performed for the first time in the wetland habitat that occurs on the northern shoreline of the lake between the Whitewater delta and the Yacht Club. 210 acres of habitat was found to be suitable for marshbirds and was occupied by a diversity of species including shorebirds, songbirds, quail, and nighthawks. 162 acres were found to be occupied by the fully protected Yuma Ridgway's Rail. Two territories were confirmed including two breeding pairs and one individual. In addition, California Black Rail was also confirmed to be in one of the marsh patches. Marshbird surveys were also performed at the southern end of the lake at Poe Road where California Black Rails were confirmed. Additional surveys for secretive marshbird surveys were performed by partners along high-quality habitat at the south end of the Sea. The areas of marsh habitat north of Morton Bay have been confirmed to be occupied by Yuma Ridgeway's Rail and represent a large amount of habitat along the Salton Sea that has naturally developed and become highly functional. These areas also support protected California Black Rails and desert pupfish.

Monitoring for dead and sick birds by CDFW staff has continued to be performed along the lake. Though there have been abnormal mortalities within the Imperial County this summer, they were associated with the high temperatures of the region. No disease events have been identified in the local populations.

Audubon Habitat Assessments

Audubon California remains a continuing partner in its support of the Salton Sea program. To reassess and quantify current bird habitat at the Salton Sea, Audubon used the same methods and approaches used to assess habitat at the Salton Sea in 1999 and 2015 (Jones et al., 2016) and applied them to the most current conditions in 2023. Five habitats were assessed and quantified (playa, mudflats and shallow water, mid-depth water, deep water, permanent vegetated wetlands), and preferred habitat acreages were compared with previous assessments for 1999 and 2015. Audubon is processing the results and developing a comprehensive report to tell the story of how birds are responding to dynamic environmental changes at the Salton Sea. They plan to submit this report for publication in early 2024.

Audubon used January 2022 satellite imagery of the Salton Sea and a Normalized Difference Vegetation Index (NDVI) to identify vegetation and differentiate between algal and plant vegetation surrounding the Salton Sea. They derived total acreage of emerging vegetation and compared this to emerging vegetation calculated in 2020. These results will also be included in the comprehensive report detailing the status of birds and bird habitats at the Salton Sea.



Appendix B. Funding Status

Table 5. Funding Available for the Salton Sea Management Program (in millions)

Agency and Source	Authority	Authorized for Appropriation	Appropriated/ Committed	Expended as of 9/30/23	Available for Additional Commitment	Use
DWR - Prop 50[a]	WC - 79567	$19.3	$19.2	$19.2	$0.10	2003-2007 Programmatic EIR/EIS and related studies and planning activities (completed).
DWR via WCB - Prop 50	WC - 79568	$8.75	$8.75	$8.75	$0.0	Allocated/reserved specifically for the Salton Sea for Species Conservation Habitat (SCH) construction.
DWR & IID via WCB - Prop 50	WC - 79565	$4.8	$4.8	$4.8	$0.0	$1M to DWR 2008 Salton Sea planning. $3.3M allocated to IID for construction of power lines to SCH project (completed). $0.5M allocated to DWR and reserved for SCH construction.
DWR via WCB - Prop 12	5096(a)(7)	$4.75	$4.75	$4.75	$0.0	$4.75M allocated/reserved for SCH.
DWR via CDFW - Prop 84	PRC - 75050(b)(3)	$44.2	$39.9	$34.3	$2.0	Since 2008, SCH planning, design, and staffing ($14.5M), plus $21M allocated/reserved for SCH construction, $900K for construction management, and $3M for Financial Assistance Program projects including Red Hill Bay, Seawater Marine Habitat Pilot, and Torres-Martinez Wetlands.

Table 5. Funding Available for the Salton Sea Management Program (in millions) (Contd)

Agency and Source	Authority	Authorized for Appropriation	Appropriated/ Committed	Expended as of 9/30/23	Available for Additional Commitment	Use
DWR (State Operations) - Prop 1	WC - 79736(c)	$20.0	$20.0	$17.9	$0.0	Staffing and other design costs for SSMP projects. (Of the $20M appropriated, $5.5M is committed to existing Salton Sea Projects.)
DWR (Construction) - Prop 1	WC - 79736(c)	$60.0	$60.0	$49.7	$0.0	Construction of SCH projects.
CNRA - Prop 68	PRC - 80116	$165.7	$165.7	$118.64	$0.0	$135.7M for construction of SCH projects, $20M for Habitat Enhancement and Dust Suppression Projects. Approximately $10M for staffing and administration.
DWR - General Fund	Budget Act of 2021	$40.0	$40	$24.46	$0.0	Dust suppression and vegetation enhancement projects, staffing, and other design costs for SSMP projects.
DWR - General Fund	Budget Act of 2022	$11	$11	$7.08	$0	SCH construction, construction management, and staffing
DWR - General Fund	Budget Act of 2023	$50	$50	$10.6	$0.0	Funding committed to SCH and vegetation enhancement projects. Expenditures will occur when agreements are finalized.
Salton Sea Authority[b] - Prop 68	PRC-80110(a)	$19.25	$19.25	$0.8	$0.0	$19.25M to implement North Lake Pilot Demonstration Project.
Revive the Salton Sea Fund	R&T - 18736	$0.2	$0.0	$0.0	$0.2	Tax Checkoff Box - $191K balance per State Controller's Office 6/30/2021 Report.
General Fund/ Reimbursements	Budget Act	$0.425/$0.316 annually	$0.425/$0.316 annually	$0.425/$0.316 annually	N/A	CDFW receives $425K for positions supporting the Salton Sea annually. CNRA receives $166K General Fund and $150K reimbursement (via DWR) annually to support the Asst. Secretary for Salton Sea Policy position.

Table 5. Funding Available for the Salton Sea Management Program (in millions) (Contd)

Agency and Source	Authority	Authorized for Appropriation	Appropriated/ Committed	Expended as of 9/30/23	Available for Additional Commitment	Use
CDFW Water Agency Contribution (Salton Sea Restoration Fund)	2003 QSA Agreements	$68.5[c]	$23.3	$18.2	See footnote	Annual surveys to monitor bird and fish populations at the Sea, including state and federal endangered species, staff development of various implementation and monitoring plans, issuance of Section 1600 permits, CEQA review, QSA Implementation Team staffing, etc.
State Total		**$516.45**	**$466.15**	**$335.24**	**$2.3**	**Amount shown is available and is committed to projects in the near term.**
Federal						
	Bureau of Reclamation	$1.79	$1.79	$1.44	**$0.0**	Planning activities include preparing a Watershed Plan and implementation of dust suppression projects.
	Bureau of Reclamation	$70	$70	$0.0	$0.0	$70M total received in December 2023 for construction and project management of initial Species Conservation Habitat Expansion.
Federal Total		**$71.79**	**$71.79**	**$1.44**	**$0.0**	
Overall Total		**$588.24**	**$537.94**	**$336.68**	**$2.3**	

EIR/EIS = Environmental Impact Report/Environmental Impact Statement

M = million

NRCS = National Resources Conservation Service

K = thousand

QSA = Quantification Settlement Agreement

SSMP = Salton Sea Management Program

Footnotes:

a. Bond Funds provided reflect the bond allocations available after statewide bond costs and outyear amounts already committed to by the Legislature. Statewide bond costs are authorized "off the top" in each bond act for things like the State Treasurer's Cost of issuing the bonds, Department of Finance's Costs of auditing bond expenditures, etc. Exact amounts are published on the CNRA bond accountability website.

b. The Salton Sea Authority is a Joint Powers Authority (JPA) of local stakeholder groups including the Torres Martinez Desert Cahuilla Tribe, two water agencies, and two county governments.

c. While a total of $68.5 million will ultimately be available, $42 million in payments must be collected between now and 2047 to support any expenditures from the fund. Annual payments from water districts average approximately $1.58M annually, which CDFW uses to fund existing staff and recently approved positions in 2022-23 and currently being hired.

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