Salton Sea Authority
Key Messages

Who is the Salton Sea Authority (the Authority)?

- The Salton Sea Authority (the Authority) serves as the table where critical conversations about restoring the health and vitality of the Salton Sea happen.

- Collaboration is at the core of everything the Authority does. The Authority unites state, federal and local government restoration efforts to ensure the Salton Sea and its surrounding communities support the residents and wildlife that call it home.

- As a local government, the Authority reflects the most pressing priorities of the communities impacted by the Salton Sea's gradual decline and mitigation efforts.

- The Authority is a Joint Powers Authority (JPA), an entity that brings multiple public agencies together to work toward a specific goal. The Authority is comprised of five member agencies, including:

    - Imperial Irrigation District
    - Coachella Valley Water District
    - Riverside County Board of Supervisors
    - Imperial County Board of Supervisors
    - Torres Martinez Desert Cahuilla Indians

- The Authority Board of Directors includes two elected representatives from each member agency who have long represented community stakeholders on issues relating to the Salton Sea.

- Our mission is to protect human health and revitalize the environment and economy of the Sea. The Authority recognizes this requires an integrated approach to recognizing old problems and potential new solutions to deliver multiple benefits with thoughtful strategies that integrate economic opportunity and environmental stability. The AUTHORITY is pursuing funding and partnerships for projects.

- The Authority's service area includes the communities surrounding the Salton Sea in Riverside and Imperial counties, but its work has far-reaching impacts across Southern California and beyond.

- Together, our member agencies work closely with state and federal governments to achieve consensus on much-needed solutions for the Salton Sea.

The Salton Sea Authority's Key Priorities — Health, Habitat & Opportunities (H_2O)

- The Authority follows the H_2O core priorities as the guiding principle for its work. The Salton Sea's recovery can be broken down into three core goals:
    - Health
    - Habitat
    - Opportunities

- The Authority is equally committed to ensuring vibrant, healthy communities, revitalizing a dynamic, revitalized ecosystem, and fostering a prosperous, thriving regional economy at the Sea.

- The Authority envisions the Salton Sea as more than a body of water — it is a cultural anchor. The Salton Basin has served thriving communities for 10,000 years, and the Authority believes in the power of partnerships and progress to ensure the vitality of the Salton Sea today.

- Through key projects, including dust suppression and vegetation enhancement, the Authority is working to safeguard the health of residents across the region. The well-being of residents is paramount.

- The response to health concerns caused by the Salton Sea is complex. The gradual erosion of the exposed lakebed, or playa, is contributing fine particulate matter to the air in surrounding communities. However, factors such as local farming, industry and traffic pollution contribute to air quality issues in the region.

- As a critical habitat for wildlife, including waterfowl and the endangered desert pupfish, the Salton Sea's restoration is vital. The Authority is working closely with state and federal partners to restore, enhance and support habitat across the Sea.

- The Salton Sea was once a bustling resort area, and recreation opportunities are a priority for the Authority. Recreation provides the community with essential benefits such as physical activity, enhanced mental well-being and social connection.

Understanding the Salton Sea Conservancy

- In August 2024, the State Senate passed Senate Bill 583, authored by Senator Steve Padilla (D-San Diego) and co-authored by Coachella Valley Assemblymember Eduardo Garcia (D-Coachella). The Bill established the Salton Sea Conservancy with bipartisan support.

- The Conservancy aims to reverse the Salton Sea's ecological damage and promote sustainable development throughout the region.

- The Conservancy is a state organization, while the Authority is comprised of local governments and agencies. While both work together to ensure the restoration of the Salton Sea, the Authority gives voice to local needs and priorities.

- The Conservancy works with local public agencies — including the Authority — as well as tribal governments, environmental groups, and federal entities to create environmental restoration, community revitalization and public health improvements.

- The Conservancy is housed within the California Natural Resources Agency. It oversees many restoration projects, community benefits and local collaboration.

- The Conservancy is governed by a Board of Directors comprising 13 voting members and seven nonvoting ex officio members.

- Each year, the Conservancy submits an annual report to the Governor and Legislature detailing its progress, expenditures, and future work plans. This transparency supports collaboration and accountability on critical Salton Sea projects.

- The Conservancy is backed by the Salton Sea Conservancy Fund, allowing the Conservancy to award funding to public agencies, tribes and nonprofit organizations committed to restoring the Sea.

- The Authority works in close collaboration with the Conservancy to achieve progress toward a healthy and prosperous Salton Sea.

Restoration Progress: Imperial Streams Salton Sea and Tributaries Feasibility Study by the U.S. Army Corps of Engineers, Los Angeles District

- The Authority is proud to support a high-impact project by the U.S. Army Corps of Engineers, Los Angeles District to restore vital Salton Sea ecosystems. The project is currently in the Feasibility Study phase, which assesses and plans for the success of recovery projects at the Sea.

- The Feasibility Cost Sharing Agreement (FCSA) between the Department of the Army, Los Angeles District, the California Department of Water Resources and the Authority was signed in December 2022.

- While the Army Corps works to coordinate and prepare the study scope, it is building on the previous efforts of Salton Sea entities and stakeholders.

- The study area spans the Salton Sea, its tributaries, and the playa and surrounding areas that can be restored. The project's scope is far-reaching and has the potential to vastly improve the lives of residents and wildlife across the region.

- The study will build on the Salton Sea Management Program's (SSMP) Long-Range Plan document, which was drafted with support from Tribal leadership, community-based organizations, and local, state and federal agencies. The plan considers public input and lays the foundation for the Feasibility Study and associated environmental review process.

- This Feasibility Study will pave the way for long-term restoration at the Salton Sea. It aims to identify innovative projects to restore conditions at the Sea and opens a pathway for federal funding.

- The Authority is dedicated to ensuring this study progresses steadily and ultimately offers realistic solutions for the Salton Sea's recovery.

The Impact of the Colorado River Post 2026 Operations

- The Colorado River is a critical water resource in the West, and this remains true for the Salton Sea. The Colorado River formed the Salton Sea as we know it in 1905, and it continues to impact the vitality of the Sea today.

- At the end of 2026, several documents that govern the management of the Colorado River are set to expire. These include:

    - The 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead
    - The 2019 Drought Contingency Plans
    - International agreements between the United States and Mexico under the United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande

- Seven U.S. states — Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming —and Mexico are negotiating a set of alternative guidelines to determine the way forward for the Colorado River. These alternatives include:
    - Alternative 1: Federal authorities
    - Alternative 2: Federal authorities hybrid
    - Alternative 3: Cooperative conservation
    - Alternative 4: Basin hybrid
    - Alternative 5: No action

- The U.S. Department of the Interior has expressed hope that the seven basin states and Mexico can come to a consensus to protect water security for 40 million people dependent on the Colorado River.

- This negotiation impacts the Salton Sea, which is key to supporting a dwindling water supply in the Colorado River Basin.

- However, reduced flows to the Salton Sea have led to shrinkage, increasing salinity, heightened dust emissions, and health threats to the residents and wildlife in the region.

- As the alternatives for the Colorado River Post 2026 Operations are debated, stakeholders must consider impacts on the Salton Sea. There is potential to exacerbate air and water quality decline without significant mitigation.

- The Authority supports any plan that ensures a resilient water supply for the region and will not ignore the needs of the Authority's member agencies.

History of the Salton Sea

- The Salton Sea has played many roles in California's water landscape, but its ancient story precedes the state of California. The Salton Basin, where the Salton Sea is formed today, dates back 10,000 years.

- Native Americans, including the ancestors of the present-day Torres Martinez Desert Cahuilla Indians, first occupied the Salton Basin around 10,000 B.C.

- In 700 A.D., the Ancient Lake Cahuilla first arose in the Salton Sink when the Colorado River silted up its normal egress to the Gulf of California and swung northward through two overflow channels.

- Riverine tribes practiced farming across what is now eastern Imperial County. The lake was an attractive addition to their annual round of domestic economics.

- Historical evidence reveals that the Colorado River has spilled into the Salton Basin multiple times over the last thousand years, creating intermittent lakes. The Salton Basin, like the Salton Sea today, has been subjected to nature's whims throughout its existence.

- In 1905, the Salton Sea was formed by a breach in a temporary diversion of the Colorado River. It was constructed to replace water from the blocked canal. The river changed course and flowed into the Salton Sink.

- By the 1960s, the Salton Sea became a booming recreation destination for movie stars and tourists alike. Resort towns were built up around the Sea. At one point, the Sea attracted more visitors than Yosemite Park.

- In the 1970s, a series of tropical storms raised water levels and inundated the communities along Bombay Beach and Salton Sea Beach.

- In the 1980s, increasing salinity levels due to agricultural runoff began to cause fish to die off, hampering tourism. By the 1990s, the die-offs had expanded to birds and other wildlife.

- In 1993, the Salton Sea Authority (THE AUTHORITY) was formed in response to the increasing decline at the Salton Sea. It has remained committed to the Sea's recovery and restoration ever since.

- In 2003, the Quantification Settlement Agreement (QSA) was signed by the San Diego County Water Authority, Coachella Valley Water District, Imperial Irrigation District and the Metropolitan Water District of Southern California. This transferred 300,000 acre-feet of water from the Imperial Irrigation District to the San Diego County Water Authority and Coachella Valley Water District. The result was reduced freshwater that runs off fields into the Sea, accelerating the Sea's shrinkage and increasing its salinity. The Imperial Irrigation District committed $133 million for mitigation projects at the Salton Sea.

- In 2014, a Pacific Institute report projected that inaction at the Sea could cost the area $70 billion over 30 years due to increased health issues and falling property values.

- Over the next decade, numerous mitigation projects make high-impact progress on restoring the Sea. This includes:

- The proposed Perimeter Lake Concept in 2016
- Restoration of 420 acres of wetlands at Red Hill Bay in 2018
- Salton Sea Management Program's (SSMP) Dust Suppression Action Plan projects in 2020
- Species Conservation Habitat Project in 2021
- The Imperial Streams Salton Sea and Tributaries Feasibility Study by the U.S. Army Corps of Engineers, Los Angeles District in 2022
- The North Lake Project in 2022
- Desert Shores Channel Restoration Project in 2023
- Expansion of the Species Conservation Habitat Project in 2023
- Salton Sea North Lake Pilot Demonstration Project in 2024

- In 2024, the Salton Sea Conservancy was formed. This ushers in a new era of collaboration and partnership between the Salton Sea Authority (THE AUTHORITY) and its state partners for Salton Sea recovery.

Enduring Change: Salton Sea Projects

Species Conservation Habitat Project

- Nearing completion, the Species Conservation Habitat (SCH) Project is the first large-scale project that restores approximately 4,100 acres of shallow water habitat.

- The project was first initiated in 2021 in response to the Salton Sea's increasing salinity and receding shoreline.

- The Species Conservation Habitat project has created a network of ponds and wetlands to provide critically important fish and bird habitat. It works to suppress dust emissions and improve regional air quality as the Salton Sea recedes.

- Implemented as part of the Salton Sea Management Program's (SSMP) Phase 1: 10-Year Plan, the Species Conservation Habitat project was chosen because water-balance models reveal the southern end of the sea to experience the earliest lakebed exposure as the lake recedes.

- The Species Conservation Habitat project will develop deep-water habitat to support the fish-eating birds of the Pacific Flyway — a route the Salton Sea can no longer support. The marine environment is created by mixing brackish water from the New River and hypersaline water from the Sea.

- With the targeted salinity, the marine environment will not only support fish for the birds to forage on but also the endangered desert pupfish.

Vegetation Enhancement Projects as Part of the Dust Suppression Action Plan

- In July 2022, the SSMP released its Dust Suppression Action Plan (DSAP) to accelerate projects that minimize dust emissions and recover habitat at the Sea. The DSAP identifies up to 9,800 acres of exposed or soon-to-be-exposed lakebed and provides the roadmap for dust suppression implementation.

- Through vegetation enhancement, these projects can suppress dust from the exposed lakebed around the Salton Sea. Vegetation enhancement includes:

    - Native vegetation establishment
    - Enhancement of existing vegetation stands
    - Stabilization of the lakebed to allow seed germination and plant growth

- These projects are prioritized for areas around the lake where developing aquatic habitats, such as ponds or wetlands, are not possible. They require 1/10th of the water needed for aquatic habitat creation.

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

- Three sites — Clubhouse, Tule Wash, and West Bombay Beach — have been prioritized for dust suppression due to their emissivity potential and proximity to the communities of Salton City and Bombay Beach.

- Collectively, the three sites total 1,709 acres of high-priority land for dust suppression. The U.S. Bureau of Reclamation granted site access for these projects in 2020.

- Vegetation enhancement was identified as the best approach for restoring the three sites due to the plants stabilizing the ground surface and creating the conditions for additional plant germination and growth.

- As native species, the plants are expected to grow without additional watering. Once mature, they can mitigate dust conditions with limited human intervention.

- Growing vegetation on the exposed lakebed of the Salton Sea requires careful planning and specialized plants due to several factors:

    - Exceptionally limited rainfall, totaling approximately three inches per year

    - Extremely high temperatures, with a high of more than 100°F for much of the year
    - High salt content in soil and presence of salt crusts
    - High wind speeds

- Currently, the focus for the three sites includes immediate dust suppression, using grass bales and furrows, and longer-term vegetation enhancement. The goal is to achieve 30 percent vegetative cover by installing drip irrigation and seeding and planting with native species.

San Felipe Fan

- The San Felipe Fan, an area of exposed lakebed where the San Felipe Creek flows into the Salton Sea, is undergoing dust suppression and vegetation enhancement.

- Around 90 to 95 percent of the site is unvegetated, meaning it has less than 15 percent plant cover.

- The project would spread inflowing water to support vegetation. Stormwater flooding will be used to support habitat for the endangered desert pupfish in San Felipe Creek.

- With complex environmental compliance issues, this project will be covered by the National Environmental Policy Act Environmental Assessment (NEPA EA) being developed for the SSMP's Phase 1: 10-Year Plan.

The Salton Sea North Lake Pilot Demonstration Project

- This $19.25 million demonstration pilot project will construct an approximately 156-acre lake at the North end of the Salton Sea. It creates shallow and deep-water habitats for fish and birds.

- The AUTHORITY will work with the SSMP and Riverside County to restore and manage habitat for fish and birds, control dust, and provide recreational opportunities.

- Project design commenced in 2024 and construction is anticipated to start in 2025.

- This project could potentially be linked to the adjacent, larger North Lake Project down the line.

Desert Shores Channel Restoration Project

- Led by the AUTHORITY and in partnership with Imperial County and the State, this project supports habitat restoration and dust suppression by refilling the five southernmost boat channels in the Desert Shores Marina.

- The U.S. Bureau of Reclamation has committed $1.25 million to the AUTHORITY in support of this effort.

- In addition to providing water channels for fish and birds, this project will revegetate the area and improve habitat overall.

- The project would construct a berm across the former boat channel connection to the Salton Sea, pumping water from wells into the channels until refilled, offsetting losses from evaporation and seepage, and circulating water.

- This project is a testament to the power of partnerships between local, state, and federal agencies when it comes to revitalizing the Salton Sea. Collaboration is critical.

North Lake Project

- In 2022, the SSMP completed the Project Description for the North Lake Project. This project restores approximately 1,600 acres of aquatic habitat.

- In 2023, biological surveys and reports revealed that much of the site has yet to be exposed and is currently inundated with water and wetland habitat.

- The next steps include refining the footprint and aquatic features of the North Lake Project. The project will be covered by the NEPA EA being developed for the SSMP's Phase 1: 10-Year Plan.

Species Conservation Habitat Expansion Project

- The Species Conservation Habitat Expansion Project aims to create aquatic habitat downstream and near the Species Conservation Habitat project. Currently, portions of this area are underwater but are expected to grow exposed as the Salton Sea recedes.

- By constructing additional berms, the project would provide additional aquatic pool habitat for local wildlife. It would rely on existing water conveyance, pumping facilities, and diversion infrastructure constructed for the Species Conservation Habitat project.

- In 2023, the U.S. Bureau of Reclamation granted the State $70 million to expand the Species Conservation Habitat project to speed up dust suppression and habitat restoration efforts. The funding is part of $250 million in federal funding commitments

from the 2022 Commitment to Support Salton Sea Management Related to Water Conservation in the Lower Colorado River Basin Agreement. The $70 million was released after IID's actions to conserve water in 2023.

- Berm construction is expected to be completed in 2025. A pond will create up to 1,000 acres of additional aquatic habitat, while the SSMP is working to expand the western area of the current Species Conservation Habitat project by an additional 4,000 acres.

Audubon Bombay Beach Wetland Enhancement Project

- This project aims to stabilize, preserve, and enhance an existing 564-acre emergent wetland near the Bombay Beach community.

- The SSMP is coordinating with Audubon California to integrate public access components into Phase I of the project, using existing maintenance and monitoring roads for pedestrian access.

- Audubon, the State, IID, and the U.S. Bureau of Reclamation have conducted outreach with the local community to understand their needs as the project progresses.

- In 2024, progress goals on the project included:

    - Finalizing land access agreements between Audubon, the State, the U.S. Bureau of Reclamation, and IID
    - Complete 100 percent design
    - Complete geotechnical exploration
    - Complete NEPA EA coverage
    - Develop a schedule for the start of construction

Imperial Wildlife Area Wister Unit Marsh Bird Habitat Restoration Project

- This project restores bird habitat at 150 acres of the Wister Unit of the Imperial Wildlife Area. Historically, the area has served waterfowl and other wildlife with a series of reservoirs and ponds that gravity flow from east to west. The Unit is managed by the California Department of Fish and Wildlife.

- Wetland species such as Ridgway's rail, black rail, secretive marsh birds and other avian species may benefit from the ponds under development. The SSMP is also exploring opportunities to include a desert pupfish pond.

- Three main components define the project:

- Wetland Restoration – Unit Y16 – This is an effort to restore waterfowl ponds that have been fallowed due to an overgrowth of invasive vegetation. Increased habitat quality would support waterfowl and marsh birds, while a walkway would provide additional opportunities for public engagement and recreation.

- Wister Unit - Invasive Vegetation Removal – Invasive species line this area and consume excessive water, reducing the water available downstream to enter the Salton Sea and for future projects. This project will remove invasive tamarisk and phragmites to improve habitat quality.

- Greenhouse Facilities – The SSMP will construct a greenhouse with an associated outdoor hardening off the growing ground, seed collection, and seed storage facilities to support restoration work.

Species Conservation Habitat Vegetation Project

- Covering 537 acres south of the current Species Conservation Habitat project, this vegetation project would serve as a buffer between aquatic habitat and the agricultural lands and duck clubs south of the Species Conservation Habitat project.

- The project includes wetland and upland vegetated habitat restoration, with vegetation type varying by elevation of individual parcels, water source and quantity available.

- In 2024, the SSMA worked toward formalizing water and land use agreements with IID and implementing design-build contracts for the wetland mitigation parcel construction.

Quantification Settlement Agreement (QSA) Mitigation Implemented by IID

- As part of the Quantification Settlement Agreement (QSA) water transfer, IID continues to conduct ongoing environmental mitigation.

- IID's important mitigation projects include:

    - Managed Marsh – This marsh habitat creation restored 959 acres of aquatic habitat, including 341 acres of non-emergent vegetation and 618 acres of open water/emergent vegetation. IID considers this project completed.

    - Burrowing Owl Conservation – Near completion, this project requires periodic population studies and pre-inspection surveys to mark potential burrows before operation, as well as maintenance activities within IID's irrigation and drainage system.

- Desert Pupfish Refugium and Monitoring – Built in 2010 and stocked in 2015, the desert pupfish refugium includes ongoing monitoring of pupfish. Use of direct-to-sea drains occurs annually. IID drafted a pupfish connectivity plan in 2023 for review by the Habitat Conservation Program Implementation Team. The review and finalization of this plan occurred in 2024.

- Salton Sea Air Quality Mitigation Program (SSAQMP) – This comprehensive approach to addressing air quality mitigation requirements associated with the QSA water transfer includes mapping playa exposure, modeling wind conditions, and estimating annual emissions. Data from this program informs proactive dust control projects on areas that have the potential to become emissive.

Torres Martinez Wetland and Vegetation Restoration Projects

- Through a series of projects, the Torres Martinez Desert Cahuilla Indians aim to preserve and enhance desert habitat around the Sea. These projects also contribute to re-developing, expanding, and upgrading Tribal lands to enrich Tribal members and area residents.

- The Torres Martinez Desert Cahuilla Indians work closely with the AUTHORITY to revitalize the Salton Sea.

- A project near the mouth of the Whitewater River aims to restore and rehabilitate wetlands on Tribal land after a major flood in 2012 destroyed the existing site.

- The Torres Martinez Desert Cahuilla Indians are developing additional revegetation projects along the Sea to reduce dust emissions on barren lands and to provide habitat for fish and birds. This will support several endangered, threatened and sensitive species, such as desert pupfish, eared grebe and black skimmer.

New River Improvement Project

- A project is in development to encase the New River's polluted water in the Calexico area, minimizing direct or indirect human contact. Approximately $28 million in state funding supports the New River Improvement Project (NRIP).

- The New River, which flows through Calexico, CA to the Salton Sea, contains untreated wastewater and pollutants from Mexico. This contaminated waterway impacts human health and local ecosystems and hampers economic development in Imperial Valley.

- In addition to encasing the New River, the project includes an automated trash screen for the river downstream from the United States-Mexico International Boundary to remove solid waste.

- To restore flow in the river, the project will also reroute treated wastewater from the Calexico treatment plant. This will maintain floodplain wetlands and improve water quality.

Restoring Sea Access via North Shore Beach and Yacht Club

xx

Perimeter Lake Plan

- The Perimeter Lake Concept takes the minimal flow of water into the Salton Sea and creates a permanent lake around much of the current shoreline.

- This plan builds artificial wetlands along the southern shore, suppresses some of the dust from playa erosion, and provides opportunities for recreation and economic development.

- The Perimeter Lake Concept offers the benefit of accommodating proposed and current projects. It can be built in sections to make progress within project constraints.

- The Perimeter Lake Concept is a high-impact solution to the Salton Sea's needs. It takes into consideration:

    - The immediate need for action
    - Limited water supply
    - Incremental funding