



SEA NOTES

A Quarterly Newsletter of the
Salton Sea Restoration Project

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Welcome to Sea Notes!

An introduction by Project Managers Tom Kirk, Salton Sea Authority, and Bill Steele, US Bureau of Reclamation.

Welcome to the inaugural issue of *Sea Notes*. Please join us in participating in one of the most comprehensive environmental reviews ever done on the Salton Sea. *Sea Notes* is one way to keep you informed as we evaluate alternatives to achieve the goals of the Salton Sea Restoration Project.

The local, state, and national interests will be best served by achieving a balance among all users



Bill Steele (left) and Tom Kirk

of the Sea—agricultural interests, recreationists, residents and seasonal visitors, and the plants and animals that live in and around the Sea.

To help assure that all views are heard, your participation in the process is crucial, and we welcome your comments and input. Please feel free to contact us at the following addresses:

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The Salton Sea: past, present, and future

Most readers of *Sea Notes* are probably already familiar with the background and history of the Salton Sea. Likewise, many of you have been following the recent efforts to save the Sea from further deterioration. But if you're new to the area or if you've never given much thought to the Sea, you may want to know more about its past—and its future.

The silt-rich Colorado River at one time was divided into several wide channels that flowed to the Gulf of California. Two channels, the New River and Alamo River, occasionally routed the Colorado's flow south across the present border with Mexico, then north to the Salton Basin. Water would accumulate in the basin until the enormous amount of silt carried by the river

would block its flow, and the Colorado would move back to its main channel. Without an outlet, water in the Salton Basin would remain until it evaporated.

The basin fluctuated between an arid, waterless plain and a shallow, saline lake for hundreds of years until 1905 when the flooding Colorado River broke through a dike and flooded

into the basin. It continued to overflow for nearly two years before it was halted; but by then, the Salton Sea had formed. In the 1930s, during the agricultural development boom in the Imperial and Coachella valleys, irrigation drainage found its way to the Salton Sea, thereby sustaining its water level. Today, irrigation drainage is the primary source of inflow.



Anglers find the fishing good for the Salton Sea's orange-mouth corvina, one of the introduced fish species.

It's easy to understand the lure of an "instant" body of water in what was once a desert, and before long both people and wildlife were attracted to the 35- by 15-mile Sea. Flocks of migratory birds began making the Sea a critical stopover

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The Salton Sea: past, present, and future (Continued from page 1)

on the Pacific Flyway, and today, almost half of all bird species in North America are represented in the Sea's avian population. The Salton Sea National Wildlife Refuge was established on the Sea's south end to provide forage and nesting alternatives and has since enhanced wildlife values.

In an attempt to spawn a new industry, fishing enthusiasts imported the orange-mouth corvina from the Gulf of California to the Sea, and California's Department of Fish and Game began a fish stocking program. The African tilapia was introduced into the Sea and flourished there, perhaps because of the fish's tolerance for extremely saline water. Thus, the Sea was developed into a major sport fishery.

After World War II, the Sea represented a potential resort destination to the real estate industry, and streets were laid out for future resorts to cater to the hordes of sightseers and vacationers who would surely flock to the area. During the forties and fifties, the Sea became a playground for Hollywood, but by the 1970s there was little at the Salton Sea to attract leisure seekers. Seasonal flooding threatened establishments built on its shores, and thousands of dead tilapia would wash up onto the beaches annually, followed by numerous bird die-offs.



Jet-ski races on the Sea (Courtesy of California State Parks, Salton Sea Sector)



Relaxing and having fun on Mecca Beach (Courtesy of California State Parks, Salton Sea Sector)

More recently, the Sea has attracted jet-ski enthusiasts—the buoyancy provided by the Sea's extreme salt content allows racers to push their watercraft to unprecedented speeds.

Today, increased salinity and nutrient overloading may be threatening some species. High nutrient loading creates high productivity but also causes periods of low oxygen and possibly blooms of algae. The New River, which flows from Mexico, carries with it untreated sewage and agricultural drainage, but through biological processes and dilution, the water quality improves before entering the Salton Sea.

The time is at hand to try to save the Salton Sea.

What's Happening Now?

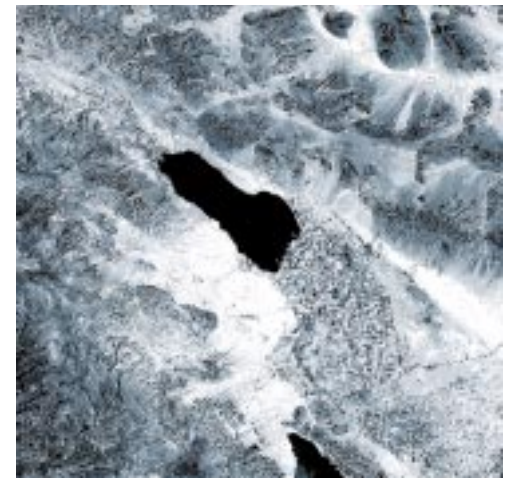
In June 1993, the Imperial Irrigation District, the Coachella Valley Water District, and Imperial and Riverside counties formed the Salton Sea Authority to develop plans to improve water quality, to stabilize water elevation, and to enhance the Sea's recreational and economic development potential. Working together as joint lead agencies, the Salton Sea Authority and the US Bureau of Reclamation have identified a number of possible solutions for controlling the Sea's salinity, which is seen as the most immediate need to ensure its survival. The basic alternatives identified include pumping out high saline water, impounding the water by a system of dikes to concentrate the salts, combining impoundment and pumpout strategies, removing salt through desalinization, and pumping in less saline seawater.

The joint lead agencies have evaluated numerous proposed alternatives and are in the process of screening the remaining alternatives to measure how well each alternative addresses project goals. (See article on facing page about the alternatives workshops.) A set of the most promising alternatives, along with a "no action" alternative, will be considered. This process will produce a combined environmental impact statement and report (EIS/EIR), in which the environmental impacts associated with each alternative will be evaluated and a preferred alternative to address salinity and elevation concerns will be identified. This process also will identify long-term management goals to maintain the Sea as a repository for agricultural drainage, to provide a safe environment for migratory and resident wildlife populations, to restore recreational use of the Sea, to maintain a viable sport fishery, and to provide opportunities for economic development along the shoreline.

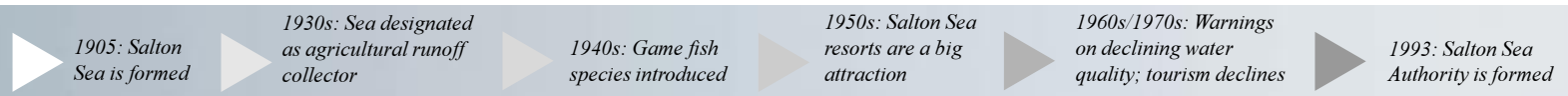


Children playing on the Jetty (Courtesy of California State Parks, Salton Sea Sector)

The Salton Sea Authority and the Bureau of Reclamation have contracted with an environmental and engineering firm to complete the technical and compliance work that must be done before the restoration project can get under way. A notice of preparation has been sent out, soliciting participation from state and federal agencies, and a notice of intent has been published in the Federal Register. The final EIR/EIS is expected to be completed by the end of December 1999.



Satellite image of the Salton Sink, September 20, 1984. **The Salton Sea is in the center of the image, with the Orocochia Mountains to the northeast and the Santa Rosa Mountains to the northwest. The body of water in the bottom center of the image is the Laguna Salada in Mexico; the US-Mexico border can be seen diagonally across the bottom of the image, just north of the Laguna Salada.**



Alternatives workshops help to focus the direction of the restoration project

The Salton Sea Authority and the Bureau of Reclamation sponsored three public workshops during the week of October 5, 1998. The forums were held in Desert Shores, El Centro, and San Diego and were designed to elicit discussion and comment on the Salton Sea alternatives and the screening process.

The process to evaluate the alternatives and to decide which of them should be examined further was developed in 1996 at a public workshop. Workshop attend-

ees came up with a list of evaluation criteria considered to be important to the success of the project. These criteria took into account such concerns as water quality, construction costs, recreation opportunities, and elevation control and considered the interests of agriculture and wildlife. The relative importance of each criterion was established, and weighted values were assigned to each.

to take into account comments received from the public. The Desert Shores workshop elicited nearly as many general comments on issues as questions about the alternatives. Speakers identified potentially adverse visual impacts of diking alternatives and aesthetic issues associated with fish and bird kills. Others spoke of the need to develop a strong relationship with Mexico and the need for good, easily available public information and dissemination.

Comments specific to goals and issues, listed by frequency of comment, were as follows:

- Water quality;
- Water quantity;
- Public health and contamination;
- Salinity;
- Long-term management;
- Aesthetics;
- Wildlife and recreation; and
- Economic development, agriculture, and elevation.

Other questions concerned the timeframe for the program and financing. Some participants offered suggestions for public involvement improvements.

Many comments centered on the alternatives under review. Desert Shores meeting participants unanimously agreed that they do not support any diking alternative, but they did agree that one diking alternative should be analyzed in the NEPA/CEQA process. Pump-in/pump-out alternatives were viewed as viable, if the off-site pump-out location provided protection from contaminants and if other potential impacts were fully explored. Desalinization, using various methods of on-site purification, is another alternative that was supported for further review.

People focused their comments about the criteria on the complexity and interrelated nature of the criteria and how some appear to conflict with one another. Some questioned the need to consider so many criteria and why air quality was not being explored. The relationship between wildlife and recreation criteria was discussed and clarified. In general, there was agreement that the criteria were weighted correctly, with one possible exception—the relative importance of elevation to agricultural, recreational, and wildlife interests might warrant moving it up on the scale of importance to number one.



Bill Steele (seated) listens as Tom Kirk answers questions from participants in one of the area's alternatives workshops held in October.

Since the criteria were developed, the joint lead agencies have presented them at public workshops for review and comment and have expanded and updated the criteria definitions to consider the current status of the Sea and

The meeting in El Centro focused primarily on the goals of salinity and elevation control. Several speakers asked questions about potential conflicts between criteria, such as wildlife and recreation. Modeling parameters were discussed, as well as the concept of project and ecosystem sustainability.

Participants at the San Diego meeting mostly discussed the criteria and screening process. Here, speakers questioned the potential for off-site contamination with pump-out alternatives, relative costs associated with individual alternatives, and the development of weighting for criteria.



It will take many agencies to help save the Salton Sea

To restore the Salton Sea to a satisfactory condition, it will take the participation of many public and private agencies. Below are listed a few of those agencies that are cooperating in the project:

Int'l Boundary Water Commission
US Army Corps of Engineers
US Bureau of Indian Affairs
US Bureau of Land Management
US Department of the Interior
US Environmental Protection Agency
US Fish and Wildlife Service
US Geological Survey
Calif. Dept. of Fish and Game
Calif. Dept. of Water Resources
Calif. Environmental Protection Agency
Calif. Regional Water Quality Control District
Calif. State Water Resources Control Board
Coachella Valley Water District
Imperial County
Imperial County Air Pollution Control District
Imperial Irrigation District
The Resources Agency
Riverside County
Salton Sea Science Subcommittee
Torres Martinez Desert Cahuilla Tribe

Some helpful definitions to know

If you decide to become more involved in the Salton Sea Restoration Project process or if you're simply following the project developments, you may encounter certain words and phrases that are new to you, a partial list of which follows.

Adaptive Management: An administration policy that allows for changes over time. Adaptively managing a situation allows for unanticipated changes that may arise.

Baseline Survey: Site activity in which scientists record existing conditions, such as the numbers and types of various fish and wildlife species, and in which they sample and test environmental conditions, such as water quality and recreational use. This information may be used later to compare to past site conditions.

CEQA: Modeled after NEPA, the California Environmental Quality Act requires an environmental review of projects deemed to have significant environmental impacts and that require state or local government approval or public funding.

CVWD: Acronym for the Coachella Valley Water District.

Environmental Impact Statement and Report: NEPA established a series of procedures to be followed in evaluating a change in the environment. The most important of these procedures is that every federal agency must prepare an environmental impact statement (EIS) for proposed legislation or other major federal actions significantly affecting the quality of the environment. The EIS is a detailed statement that describes the environmental impacts of a proposed action and its alternatives. The EIS and the procedures surrounding its preparation and review form the cornerstone of NEPA's system of environmental protection. CEQA's version of the EIS is the environmental impact report, or EIR.

IID: Acronym for the Imperial Irrigation District.

NEPA: The acronym for the National Environmental Policy Act of 1970, which established rules and guidelines for federal agencies to follow when carrying out their regulations, policies, and programs. One of NEPA's requirements is that federal agencies must use a systematic, interdisciplinary approach to decision-making, giving equal weight to issues concerning the natural and social sciences (see Environmental Impact Statement).

Scoping: The EIS process encourages agencies and the general public to determine the scope of issues to be addressed in the EIS. Scoping accomplishes this through public meetings and through opportunities for written and oral comments. Meetings provide a forum to discuss the proposed action, range of alternatives, and impacts to be considered. The NEPA scoping process for the Salton Sea Restoration Project began in July 1998.

Calendar of Meetings

Salton Sea Board of Directors meets the third Thursday of each month. Next meeting: November 19, 2 PM, Imperial Irrigation District offices, La Quinta. The December meeting is on the 10th at 2 PM at the Imperial Irrigation District boardroom.

Science Subcommittee meets the third Wednesday of each month. Next meeting: November 18, 8 AM, County Building, Indio. The December meeting is on the 16th, site and time to be announced.

Technical Advisory Committee meets the first Wednesday of each month. Next Meeting: December 2, site and time to be announced.

To confirm meeting times and locations, check the webpage, www.lc.usbr.gov or call the Salton Sea Authority at (760) 564-4888.

If you know of a meeting or conference related to activities at the Salton Sea and would like them included on this calendar, please give us a call.

How to Contact Us

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