

## Species Conservation Habitat

The Salton Sea provides important fish and wildlife habitat, but increasing salinity is resulting in habitat impacts. Salinity is expected to increase in future years as reduced inflows and evaporation cause the Sea level to decline. Increasing salinity will eventually result in loss of habitat and dependent fish and bird species at the Sea.

The California Department of Fish and Game (DFG) and Department of Water Resources (DWR) are developing shallow saline ponds (Species Conservation Habitat (SCH)) to compensate for some of the habitat lost as salinity of the Sea increases. "Implementation of conservation measures necessary to protect the fish and wildlife species dependent on the Salton Sea" is being undertaken pursuant to Section 2932 of the California Fish and Game Code. Conservation measures will consist of a series of shallow saline ponds from 100 to 500 acres in size constructed by excavating material from exposed sea bed, and range from four to six feet in depth, depending on the slope of the sea bed. Salinity will vary from 20 parts per thousand (ppt) in the initial ponds to 60 ppt in other ponds. Habitat diversity will be created by excavating deeper areas, forming islands, placing artificial snags, and varying the bottom substrate to include gravel and rock to support a variety of fish and invertebrate species and provide foraging, nesting, loafing, and roosting opportunities for birds.

Reconnaissance work will be completed in 2008 that identifies alternative sites for SCH and potential designs. Preliminary design investigations will be completed in 2009 to refine the alternative site information, develop detailed designs and cost estimates, and initiate negotiations for land access. During this phase, environmental studies will be conducted for an environmental impact report to identify the preferred site for SCH. Final design work will be completed by mid-2010 at the preferred site, with construction to begin by late 2010.

SCH will be developed and monitored over a period of five years to evaluate the ability of the ponds to provide habitat for species dependent on the Salton Sea. About 2,400 acres of SCH are planned for this project, with sufficient sea bed becoming exposed by 2010 to allow the initial development of about 800 acres. Additional SCH will be constructed in future years as the Sea recedes. Monitoring performance of the ponds as they are

constructed will provide information to develop adaptive strategies for continued development of SCH. Creation of SCH in addition to the 2,400 acres planned for this project is dependent on the success of SCH and availability of fiscal resources in future years.

## Legislative Update

**SB 187** – The Governor approved Senate Bill 187, authored by Senator Denise Ducheny, on September 27, 2008. SB 187 adds Section 2932.3 to the Fish and Game Code, which requires that funds from Proposition 84 that are deposited in the Salton Sea Restoration Fund shall be used, upon appropriation by the Legislature, for a restoration project at the Salton Sea that is consistent with a preferred alternative that provides the maximum feasible attainment of 1) restoration of long-term stable aquatic and shoreline habitat for the historic levels and diversity of fish and wildlife that depend on the Salton Sea, 2) elimination of air quality impacts from the restoration projects, and 3) protection of water quality.

SB 187 limits expenditures to those activities identified in the Resources Agency's report "Salton Sea Ecosystem Restoration Program Preferred Alternative Report and Funding Plan" that would be completed in the first five years (Period I) of implementation, which include a demonstration project, early start habitat, and additional biological, inflow, sediment, water, and air quality investigations. The Resources Agency will continue to be the lead agency and work cooperatively with DWR, DFG, State Air Resources Board, and State Water Resources Control Board.

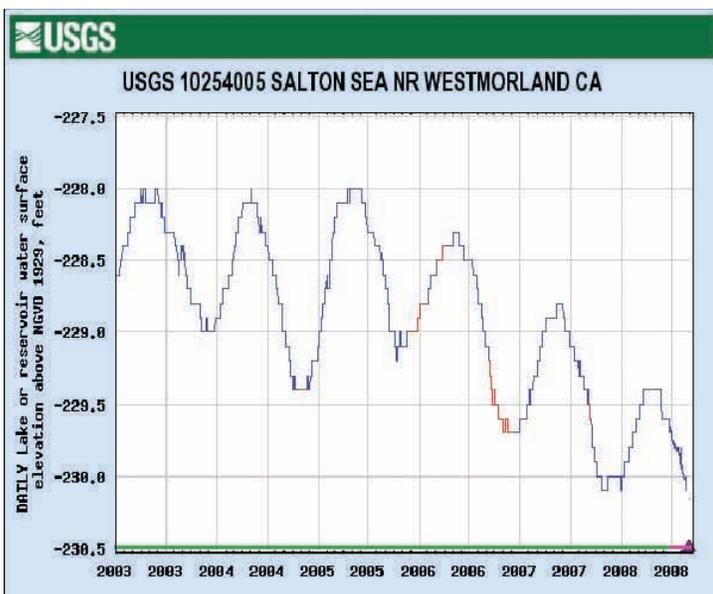
**SB 1256** – Senate Bill 1256, also authored by Senator Ducheny, was not approved by the Senate Appropriations Committee. SB 1256 would have created a Salton Sea Restoration Council with an Executive Committee, Science Committee, and Local Government and Stakeholder forums. As a State agency within the Resources Agency, the Council would have been responsible to implement activities related to the preferred alternative of the Salton Sea Ecosystem Restoration Program, including developing and implementing various pilot or demonstration projects to improve water quality, ecosystem restoration, and other actions. Senator Ducheny plans to re-introduce the legislation in January, 2009.

**Preferred Alternative Report** - In May 2007, the Secretary for Resources provided to the Legislature the Salton Sea Ecosystem Restoration Program Preferred Alternative Report and Funding Plan, and Ecosystem Restoration Study. The report describes eight alternatives that were considered for restoring the Salton Sea, and identifies the preferred alternative. The preferred alternative includes shallow saline habitat in the northern and southern areas, a northern marine sea that extends southward along the shorelines, air quality management facilities, a brine sink, sedimentation and distribution facilities, and provision for interim habitat prior to construction of habitat components. The Legislature accepted the report, but has not yet taken action to approve or deny any restoration alternative.

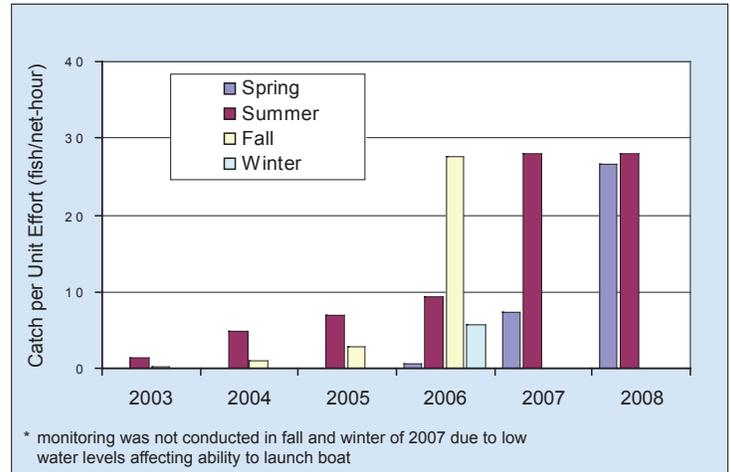
## State of the Sea

The Salton Sea is continuing to experience decreasing water levels (see graph) and increasing salinity, which on numerous occasions during the past year reached 50 ppt (ocean salinity is about 33 ppt). DFG is continuing long-term monitoring efforts at the Salton Sea, which allows the relative "health" of the ecosystem to be tracked.

Although marine fish species (orangemouth corvina, sargo, and gulf croaker) have not been found from monitoring in the past five years, the tilapia fishery in the Sea has rebounded (see graph). The last two years have been remarkable for the lack of huge summer fish kills, something which probably has contributed to the strength of the tilapia fishery.



**USGS water level measurements at the Salton Sea**



## Results of tilapia monitoring by DFG at the Sea

The improving tilapia fishery seems to have facilitated increased numbers of fish-eating birds in the last few years. This year DFG saw peak levels of about 17,100 American white pelicans, 10,600 brown pelicans, and 9,300 double-crested cormorants, which are the highest numbers recorded for these three species since 2001. In addition, there was a huge increase over recent years in nesting by hundreds of pairs of Caspian terns. This year also presented the first significant botulism event of the last six years; 300 bird mortalities were noted at the sea during late summer/early fall, along with 120 American white pelicans, brown pelicans, and gulls which were rehabilitated.

Recreational use of the Sea remains very low. Notable exceptions are anglers seeking tilapia from the shore, and speedboat races planned for this winter at the State Recreation Area.

## Monitoring and Assessment Plan

The Salton Sea Ecosystem Restoration Program Preferred Alternative Report and Funding Plan identified the need for additional environmental data to fill critical data gaps and provide information on the evolving status of the Salton Sea ecosystem. The report identified the need to conduct monitoring for biologic, hydrologic, sediment, and air quality resources. In addition, monitoring of the ecosystem is critical to provide information for management of restoration activities.

DFG and DWR, in coordination with the U.S. Geological Survey, are developing plans for long-term monitoring to assess the environmental conditions at the Salton Sea. The overarching goal of the Monitoring and Assessment Plan (MAP) is to implement a data collection, analysis,

management, and reporting system to inform and guide management actions. The objectives of the MAP are to:

- Determine the baseline conditions of the Salton Sea ecosystem;
- Establish baseline standards against which data gathered during long-term monitoring can be compared;
- Identify and prioritize existing data gaps and collect data to fill this void; and
- Store, manage, and make publicly available monitoring data in a timely manner.

Focused Technical Groups (FTGs), comprised of technical experts from governmental agencies, academia, and local agencies and districts, provided input into monitoring plan development. The FTGs determined goals and objectives, identified historic and current monitoring, and provided general guidance toward developing long-term monitoring plans.

The Biologic MAP includes comprehensive bird, fish, plankton, and invertebrate surveys, while the Hydrologic MAP includes stream and sea level gaging, groundwater level and quality monitoring, and surface water and sediment quality monitoring. Ambient air quality, meteorologic, and playa analyses are included in the Air Quality MAP. Documentation of environmental conditions associated with episodic and unpredictable events and their impacts on fish, birds and other resources is also included in the MAP. In addition to those resource areas identified in the Preferred Alternative Report, the MAP includes monitoring for Geologic and Geographic resources (land use, seismic/fault analyses, subsidence) and Socioeconomic characteristics (social, economic, and demographic characteristics of the human population affected by future changes of the Salton Sea). Completion of the monitoring plans is expected by early 2009.

## Air Quality Monitoring

A four-step mitigation and monitoring plan was developed by the Imperial Irrigation District (IID) for air quality impacts related to the transfer of water from IID to the San Diego County Water Authority under the Water Conservation and Transfer Project. The plan would implement meteorological, particulate matter, and toxic air contaminant monitoring near the shoreline as well as populated areas to begin under existing conditions and continue as the Transfer Project is implemented. The goal of monitoring is to identify particulate matter impacts or incremental increases in air contamination associated with increased exposure of the sea bed to provide a basis for mitigation.

DWR, IID, local air districts, and the Torres Martinez Indian Tribe are collaborating, as part of the Air Quality MAP and Transfer Project requirements, to install a meteorologic and ambient air quality monitoring network around the Salton Sea. The monitoring network will consist of six sites at or near the Sea to measure levels of fine particulates generated by existing conditions and future sea bed exposure and restoration activities. Additional instrumentation installed in the future will measure hydrogen sulfide, ammonia, ozone, and other pollutants. Data from the network will also support air quality modeling and assessments for mitigation of possible air emission sources.

The air quality monitoring network will be installed during spring 2009, with funding by the Joint Powers Authority established to administer the IID Transfer Project. Maintenance and data management will be conducted by the Imperial County Air Pollution Control District, Torres Martinez Indian Tribe, and California Air Resources Board.

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For more information, please visit our website at [www.saltonseawater.ca.gov](http://www.saltonseawater.ca.gov)

## Upcoming Public Meetings

DFG and DWR will be hosting public meetings to provide information on the status of Salton Sea restoration and other related activities. The agenda for the meetings is posted on the State's Salton Sea website (<http://www.saltonseawater.ca.gov>). Meeting schedules are:

### December 3, 2008

#### El Centro

1:00 to 3:00 p.m.

El Centro Community Center  
375 South First Street

### December 3, 2008

#### Bombay Beach

6:00 to 8:00 p.m.

Bombay Beach Community  
Services District  
9590 Avenue C

### December 4, 2008

#### Palm Desert

1:00 to 3:00 p.m.

U.C. Riverside Palm Desert  
Graduate Center  
75080 Frank Sinatra Drive

### December 4, 2008

#### Salton City

6:00 to 8:00 p.m.

West Shores Senior Center  
1375 Borrego Salton Seaway  
(S-22)

If you have questions, please contact us at (760) 200-9158

# Salton Sea

ECOSYSTEM RESTORATION PROGRAM

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