

RECLAMATION

Managing Water in the West

Restoration of the Salton Sea

Volume 1: Evaluation of the Alternatives



U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Boulder City, Nevada

December 2007

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

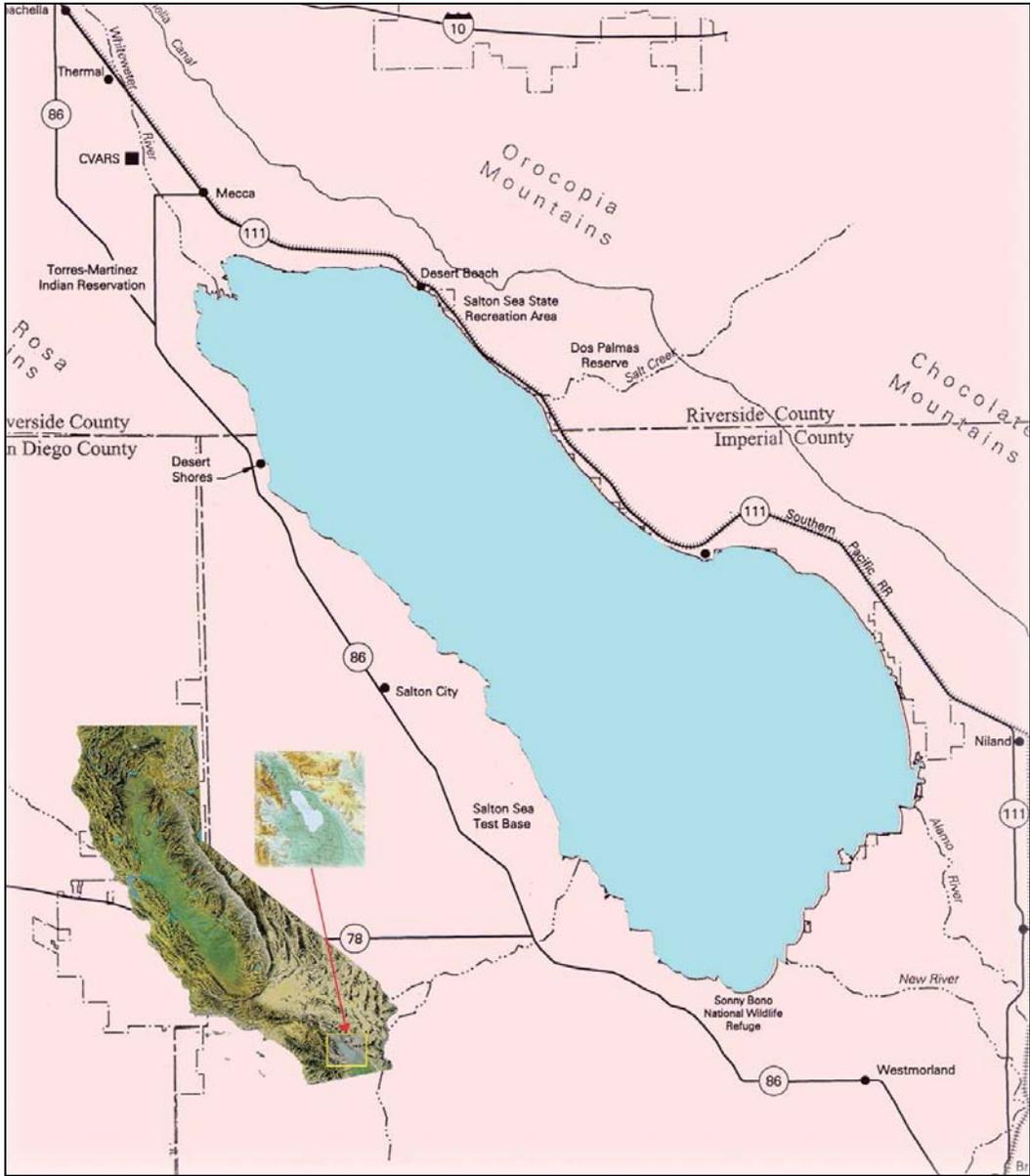
Restoration of the Salton Sea

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Bureau of Reclamation
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Salton Sea location map.

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Abbreviations and Acronyms

| | |
|------------------|---|
| Ac/yr | acre-feet per year |
| ALL | Annualized Loss of Life |
| APF | Annualized Probability of Failure |
| AQM | air quality mitigation |
| BMPs | best management practices |
| CASI | Central Arizona Salinity Interceptor |
| CEQA | California Environmental Quality Act |
| CVWD | Coachella Valley Water District |
| DEIS | Draft Environmental Impact Statement |
| DO | dissolved oxygen |
| DWR | California Department of Water Resources |
| EES | Enhanced Evaporation System |
| EIR | Environmental Impact Report |
| EPA | Environmental Protection Agency |
| ERS | Ecosystem Restoration Studies |
| g/L | grams per liter |
| H ₂ S | hydrogen sulfide |
| IID | Imperial Irrigation District |
| IG | Imperial Group |
| IMPLAN | Impact Analysis for PLANning |
| IPCC | Intergovernmental Panel on Climate Change |
| kg/yr | kilograms per year |
| LOL | loss of life |

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| m | meters |
| maf/yr | million acre-feet per year |
| MGD | million gallons per day |
| mg/L | milligrams per liter |
| msl | mean sea level |
| NaCl | halite |
| $\text{Na}_2\text{Mg}(\text{SO}_4)_2 \cdot 4\text{H}_2\text{O}$ | bloedite |
| NED | national economic development |
| NEPA | National Environmental Policy Act |
| NH_3 | ammonia |
| NWR | National Wildlife Refuge |
| OME&R | operation, maintenance, energy, and replacement |
| OMER&R | operation, maintenance, energy, replacement, and risk |
| P | Phosphorus |
| P.L. | Public Law |
| PEIR | Programmatic Environmental Impact Report |
| P&Gs | Principles and Guidelines |
| PHDA | Progressive Habitat Development Alternative |
| ppb | parts per billion |
| PPG | Reclamation's Dam Safety Guidelines for Achieving Public Protection |
| ppm | parts per million |
| QSA | Quantification Settlement Agreement |
| Reclamation | Bureau of Reclamation |
| RED | regional economic development |
| Se | selenium |
| Sea | Salton Sea |
| SEC | salinity and elevation control |
| SHC | saline habitat complex |
| SSA | Salton Sea Authority |
| SSAM | Salton Sea Accounting Model |

| | |
|-----------------|-------------------------------------|
| SWRCB | State Water Resources Control Board |
| TMDL | total maximum daily load |
| TSI | trophic state index |
| USGS | U.S. Geological Survey |
| VTE | vertical tube evaporation |
| $\mu\text{g/g}$ | micrograms per gram |
| $\mu\text{g/L}$ | micrograms per liter |