

# SALTON SEA RESTORATION ALTERNATIVES

BUREAU OF RECLAMATION & SALTON SEA AUTHORITY

May 7, 1999

PHASE	DESCRIPTION	
<b>PHASE ONE ALTERNATIVES</b> <i>Projects with a design life of at least 14 years and which address potential inflows of 1.3 MAF to 1 MAF per year.</i>	No Action	
	Concentration Pond(s) SW Shore	
	Concentration Pond(s) & Enhanced Evaporation System (EES)	
	Enhanced Evaporation System E of Bombay Beach	
	Enhanced Evaporation System @ Test Base Vicinity	
<b>PHASE ONE COMMON ACTIONS</b> <i>Common actions will be a component of each phase one alternative (above).</i>	Fish Harvesting	Designed to withdraw phosphates/nutrients from the Sea.
	Improved Recreational Facilities	Improve existing boat launches.
	Flood Flows via Existing or New Facilities	Will only be useful in flood year(s) and if capacity is available in the Sea and existing canal(s) or new facilities. <i>~ 370 KAF approx. 7 year event</i>
	Construct Dike or Moat Around Mullet Island	Designed to ensure roosting habitat does not "connect" to mainland.
	Shoreline Clean-Up	Clean up of dead fish and other debris around the shores of the Sea.
	Integrated Wildlife Disease Program	On-site methodical monitoring of the Sea for wildlife mortality events, assistance in responding to events, methodical collection of biological samples, and compiling scientific information.
<b>PHASE ONE CONDITIONAL ACTIONS</b> <i>Conditional actions have been developed to respond to new information and changing ecological conditions.</i>	<b>Trigger Mechanism</b>	
	Perimeter Pupfish Channel	May be necessary w/ construction of ponds to facilitate breeding (pending scientific study).
	Nesting/Roosting Structures	If elevation reductions expose existing nesting/roosting areas.
	Sustain Fishery via Dike System and, possibly, Hatchery Program	If the fishery cannot be maintained due to salinity/water quality degradation, a series of dikes are constructed near the refuge and, possibly, a hatchery program is initiated.
<b>PHASE TWO ALTERNATIVES</b> <i>Project components with a design life of greater than 100 years and which address potential inflows of 1.3 MAF to .8 MAF per year.</i>	No Action	
	Export to Large Enhanced Evaporation System (EES)	
	Export to Gulf of California	
	Export to Pacific (San Diego)	
	Export to Danby?	
	Import through Yuma	
Import from San Diego w/ Water Treatment Plant		
<b>PHASE TWO CONDITIONAL ACTIONS</b> <i>Conditional actions have been developed to respond to new information and changing ecological conditions.</i>	<b>Trigger Mechanism</b>	
	Wetlands, Sediment Traps	If the New River Wetlands Demonstration Project proves fruitful, expanded sediment traps/wetlands are installed along the rivers.
	Halophytes/Soil Stabilization	If the Sea's elevation drops considerably and airborne particulates become an issue.