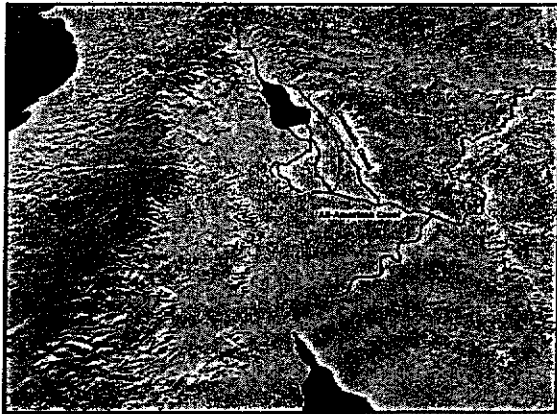
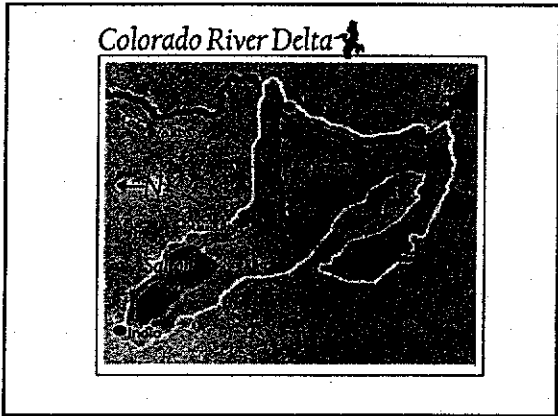
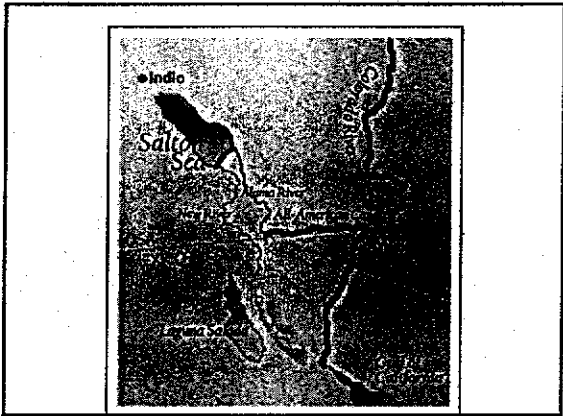


Natural History



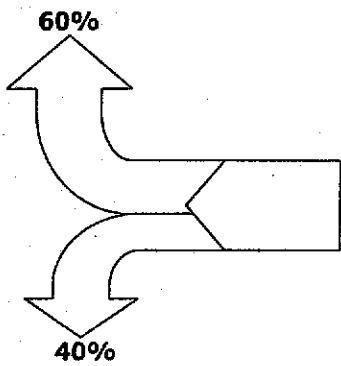
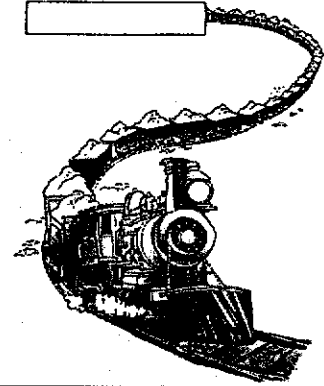
Yeah, But "Ancient History"...

Past 2000 Years,
Archaeological Records Show



Salinity

- Rate Slowed



What We've Accomplished

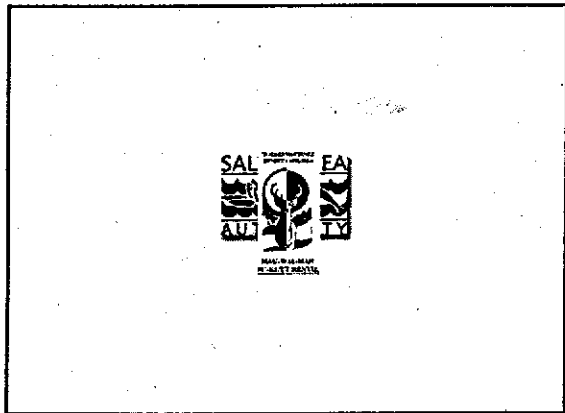
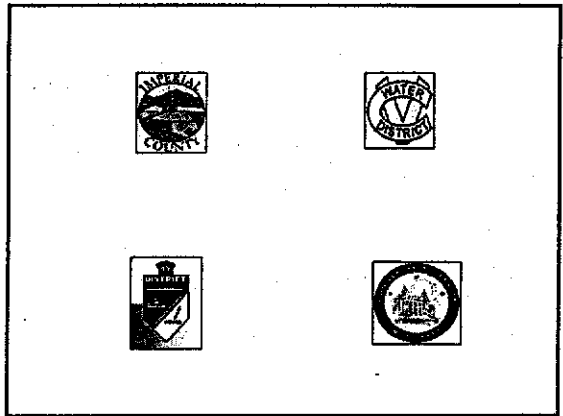
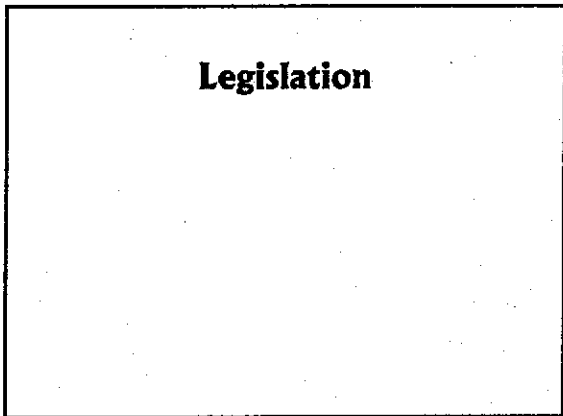
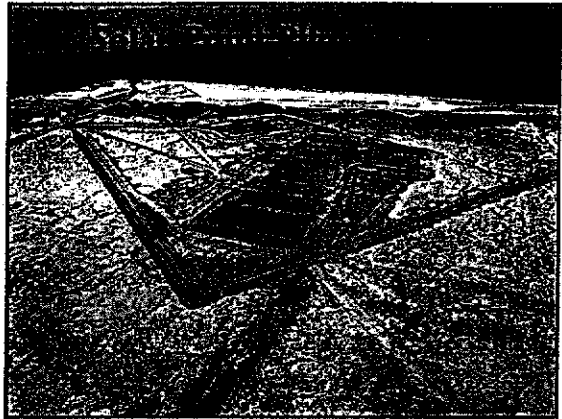
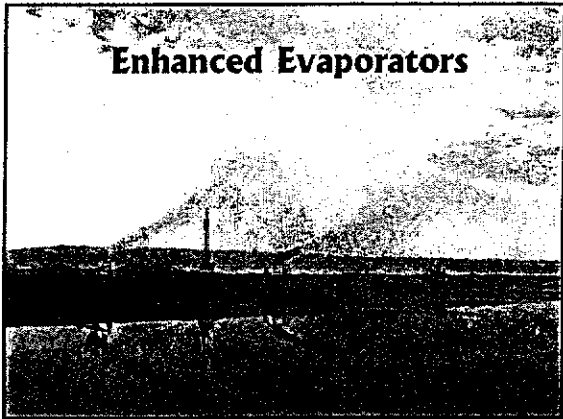


Wildlife Disease



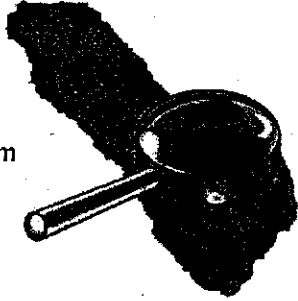
Shoreline Clean Up



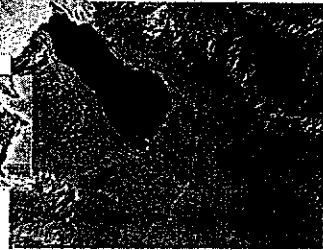


Lot of Science

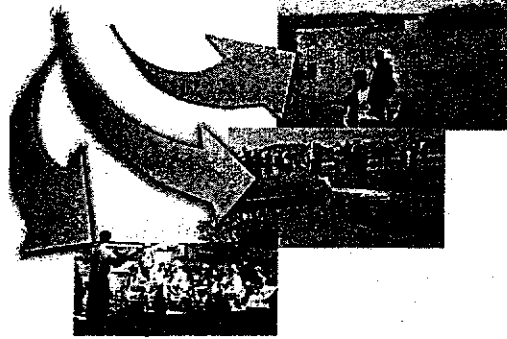
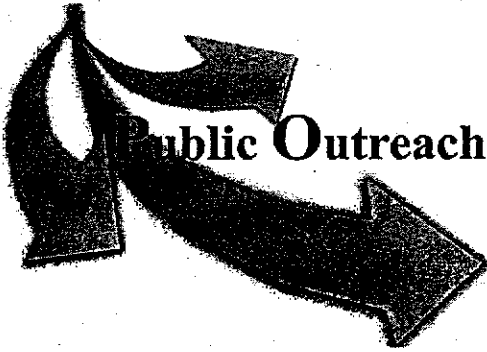
- Last Symposium



SALTON SEA
DATABASE
PROGRAM



Public Outreach



**DRIVEN
SAVE THE SEA!**

The Salton Sea

SALTON SEA
AUTHORITY
PUBLIC PROGRAM

SALTON SEA
AUTHORITY

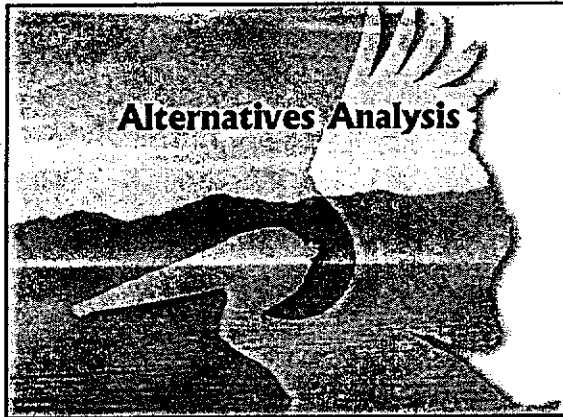
Web Site

Salton Sea Authority

...dedicated to restoring California's largest lake.

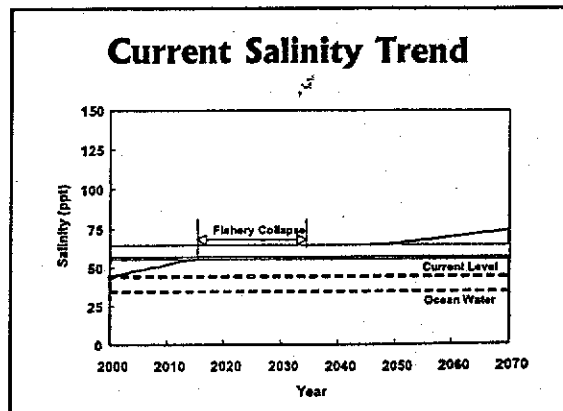
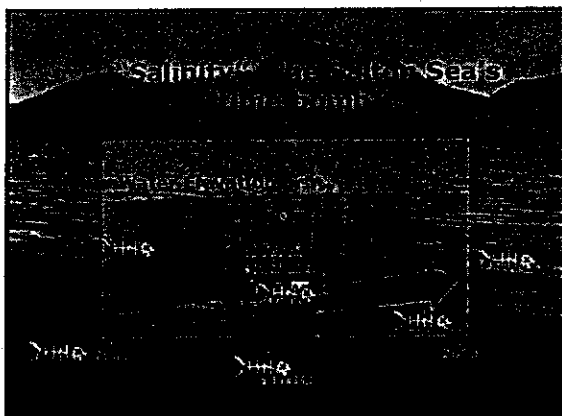
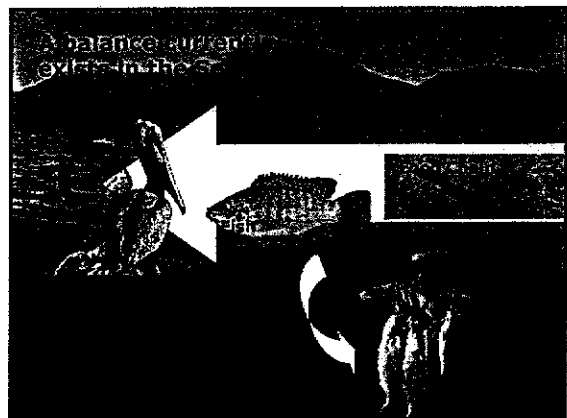


www.salttonsea.ca.gov



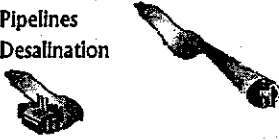
- ### Restoration Elements
- Wildlife Disease Control
 - Created Wetlands
 - Recreation & Public Information
 - Eutrophication Assessment
 - Shoreline Cleanup
 - Fishery Management/Fish Hatchery
 - Salinity Control

- ### Other Programs
- RWQCB TMDL Process
 - Wetlands Development
 - State Park Improvements



Alternative Narrowing

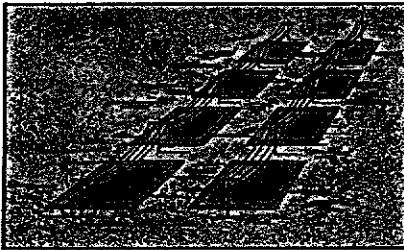
- Alternatives
 - 39 In Pre-appraisal Report (1998)
 - 5 In Draft EIS/EIR (2000)
 - Updated 6 In Alternatives Report (2001)
- Considered, but eliminated
 - Pipelines
 - Desalination



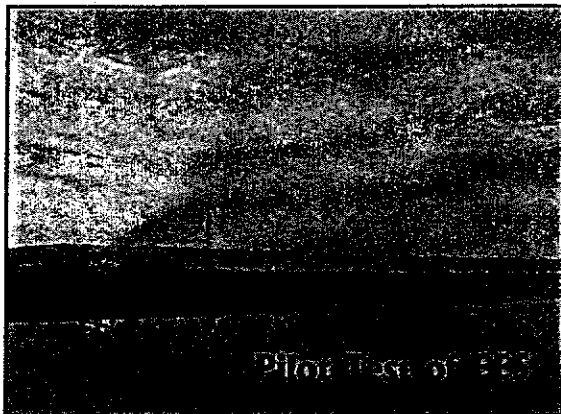
Salinity Control Alternatives

Alternatives	Salt Removal
1	In-Sea Solar Ponds
2	Ground Based EES
3	Tower Based EES
4	On-Land Solar Ponds

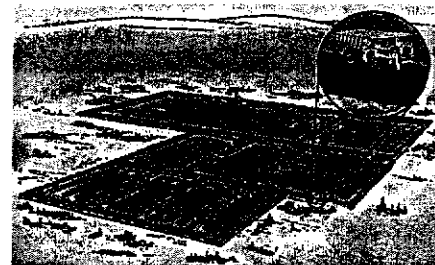
Tower EES



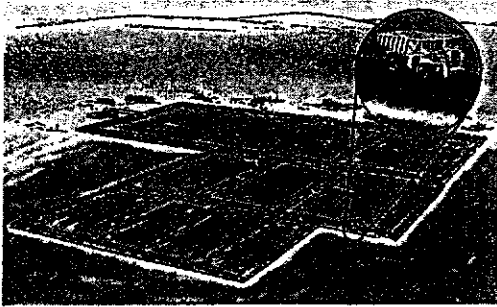
Ground-based EES



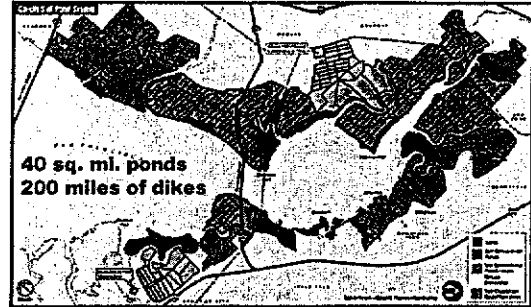
On-Land Solar Ponds



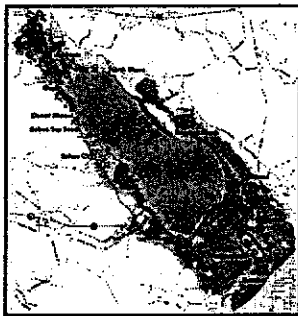
In-Sea Solar Ponds



Bay Area Solar Ponds



Possible Solar Pond Locations



LEGEND

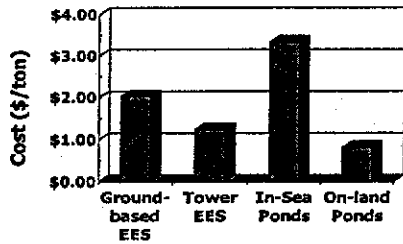
	Area	Acres
Most Suitable	26,418	41
Suitable	252,035	384
Least Suitable	59,664	88
Total	338,117	513

Where to Put the Salt?

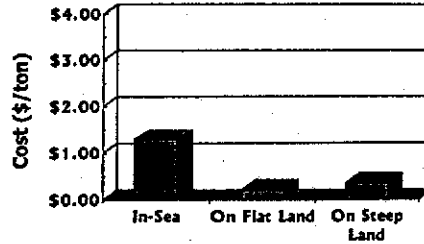


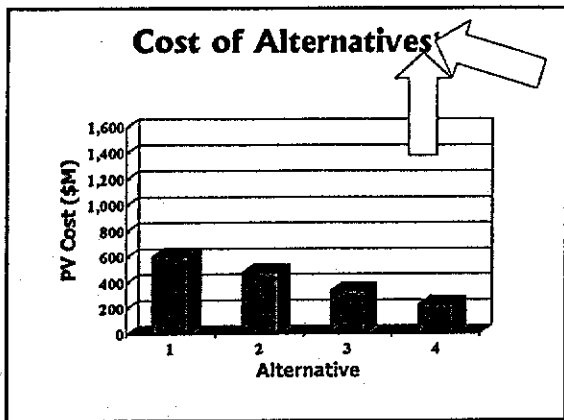
Simulation of Mesquite Mine overburden piles with 350 million tons
Salton Sea waste disposal area may look something like this after about 50 years

Salt Removal Costs



Salt Disposal Costs





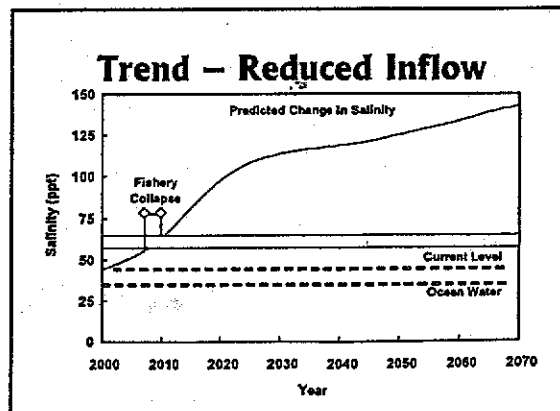
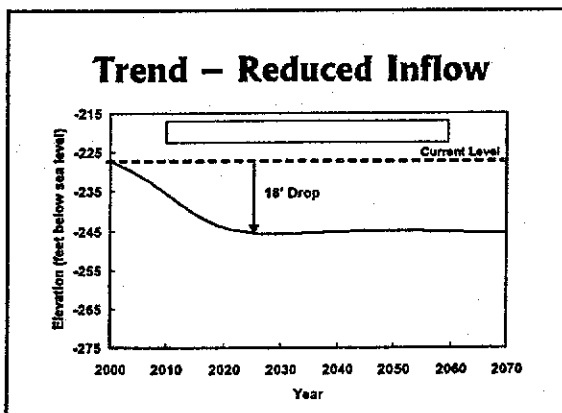
Footnote...

- But...
- Price Increases as Flows Decrease

Implications for Restoration

Trend – Reduced Inflow

- Pump-Back Transfer
– + Some Other Losses
- 1.0 maf/yr example...

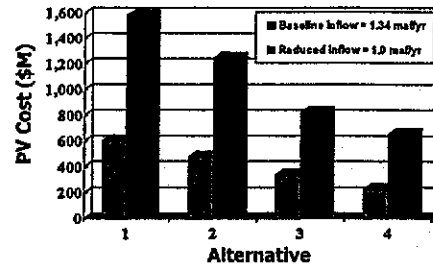


Trend – Reduced Inflows

(e.g. under Pump-Back Systems)

- Accelerated degradation
- Imminent fishery collapse
 - Much saltier than Mono Lake
- 18 foot drop
- 50,000+ exposed acres
- Air quality, ecological, property impacts?

Cost of Alternatives



Test On-Water Clean-Up

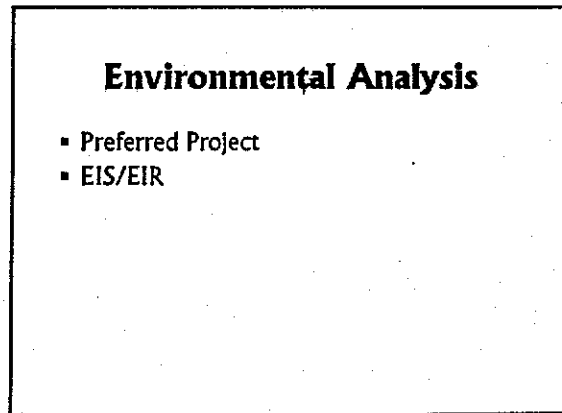
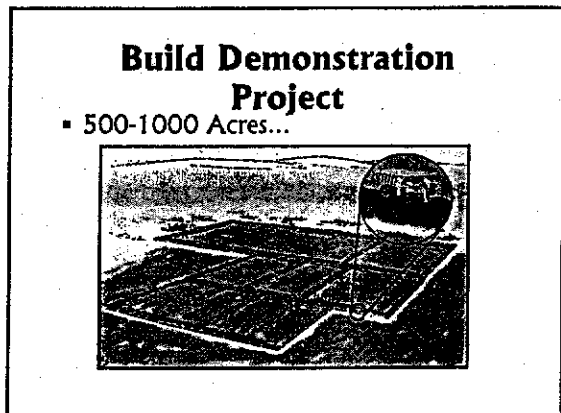
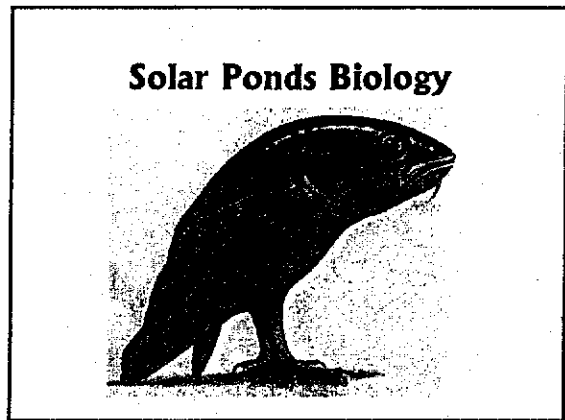


Test Alum - Control Phosphorous



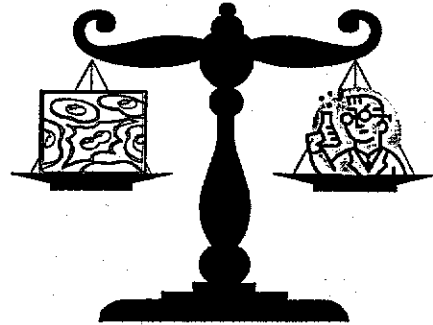
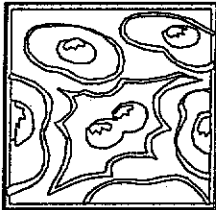
Run Solar Ponds





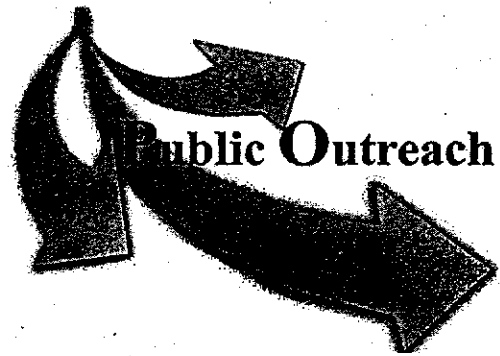
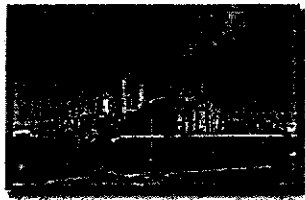
Consider Innovative Approaches

- Biological Processes



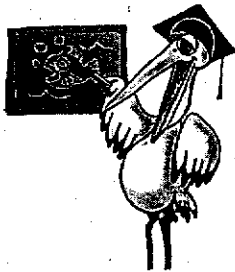
Consider Innovative Approaches

- Desalinization
- VTE
- Cal-Energy
- Pilot Project

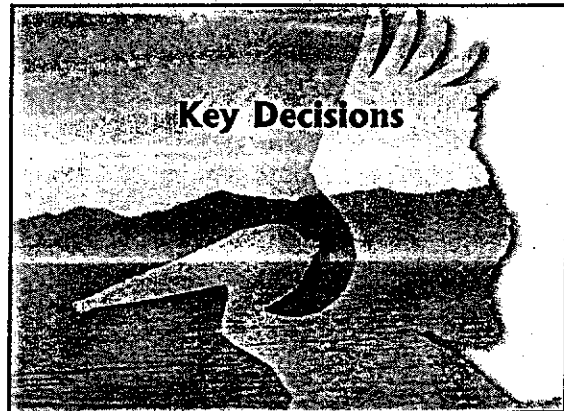


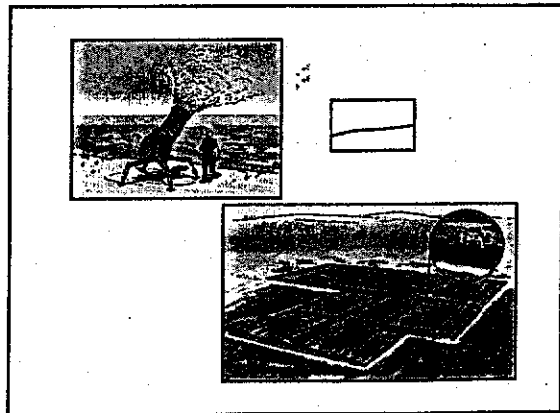
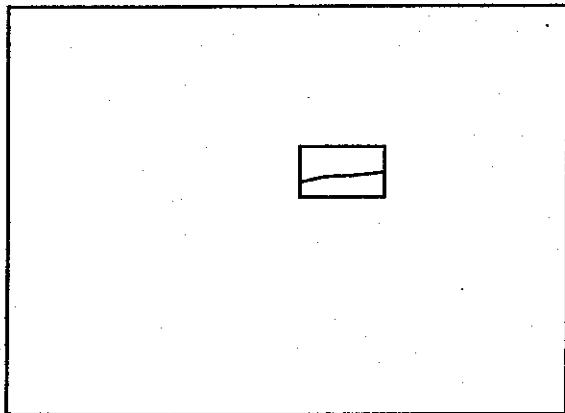
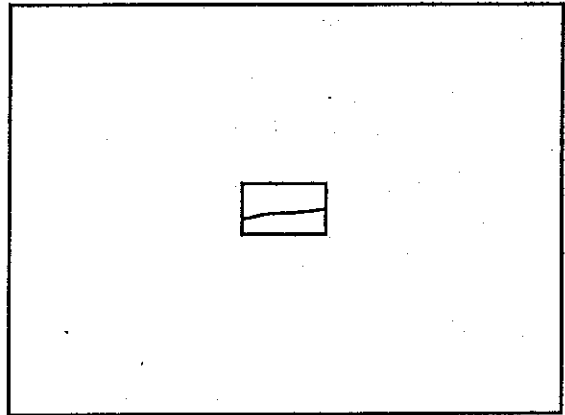
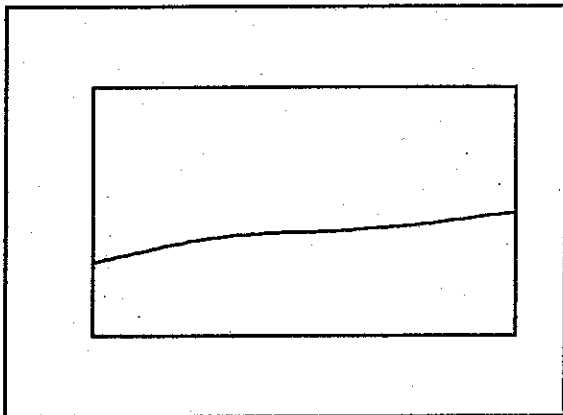
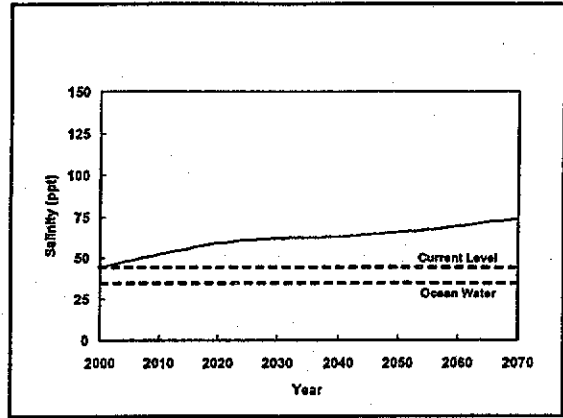
Public Outreach

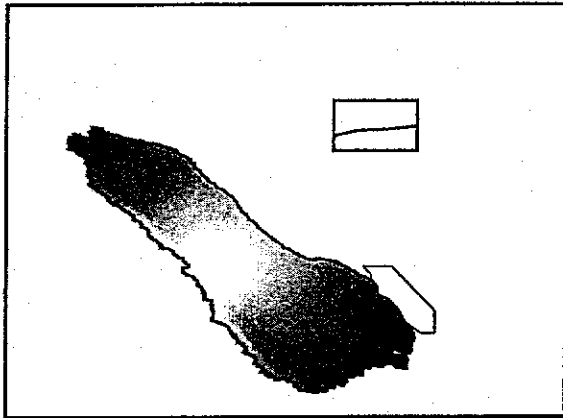
- Partnerships
 - Redlands
 - Local Districts



Key Decisions







Cannot Plan in Vacuum

- Inflow Reductions
 - Major & Most Immediate-Water Transfer
 - Others-Mexico

Transfer Options

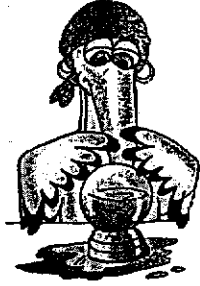
Transfer Options → **Salinity** **Restoration Options**

Transfer Options → **Restoration Options**

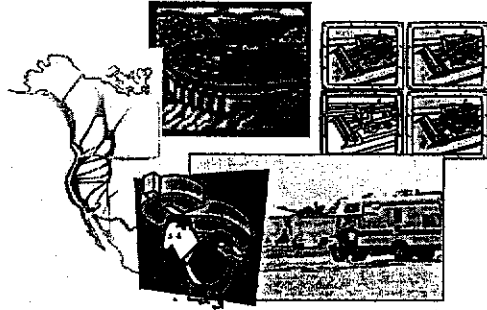
Scenarios

- Under Current Inflows
 - "Modest" Solutions
 - E.g. Solar Evap. Ponds
- Under Reduced Inflows (Unmitigated)
 - Expensive, Very Challenging, Solutions
 - E.g. Big, Deep Dikes
 - Save Small Part of Sea

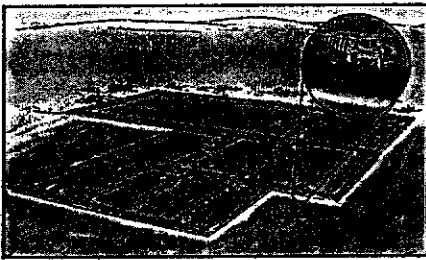
Wrap Up-Future of this Lake



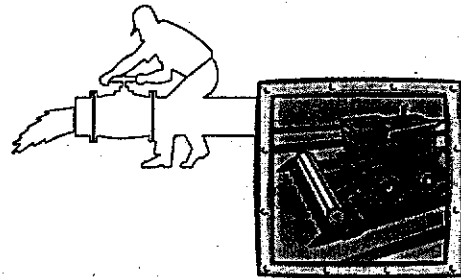
Wrap Up-Forces



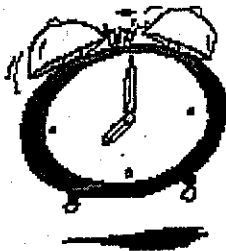
Wrap Up- Solutions



Wrap Up- Difficult Choices



Wrap Up- Difficult Choices



**The Salton
Sea**

AT THE CROSSROADS