

Review of Draft PEIR



Advisory Committee
October 24, 2006
Sacramento, California

Review of Draft PEIR

- ◆ **Overview of PEIR organization**
- ◆ **Review of the assumptions used in the final range of alternatives**
- ◆ **Impact assessment results**

Overview of Draft PEIR Organization

◆ Main PEIR

- Objectives of Program
- Methods and information used to develop alternatives
- Description of Alternatives
- Results of impact assessments
- Summary of public involvement and support information

◆ Appendices

- Legislation and Fish & Game and Water codes
- Scoping Report
- Detailed descriptions of impact assessments for biology, water quality, air quality, and risk assessment
- Ecosystem Restoration Study
- Summary of information for Alternatives 4 and 7

Main PEIR - Chapters 1 and 2

◆ Chapter 1 - Introduction

- Ecosystem Restoration Program
- Importance of Salton Sea Ecosystem
- Summary of the legislation, Fish and Game Code, and Water Code - *See Appendix A*
- Summary of public involvement - *See Appendix B*

◆ Chapter 2 - Development of Alternatives

- Project objectives and identified issues
- Three-tiered program to define alternatives
 - ❖ Whole Sea Concepts - with required water & acres
 - ❖ Partial Sea Concepts
 - ❖ Shallow Saline Habitat Concepts

Main PEIR - Chapters 3 and 4

- ◆ **Chapter 3 - Description of Alternatives**
 - ***See Appendix H - Ecosystem Restoration Study and Appendix I***
 - **No Action Alternative-CEQA Conditions**
 - **No Action Alternative-Variability Conditions**
 - **Alternatives 1 through 8**
 - **Evaluation of Transfers allowed under QSA**
 - **Environmentally Superior Alternative**
- ◆ **Chapter 4 - Summary of Previous Studies**
 - **Previous Salton Sea Restoration Studies**
 - **Projects considered in No Action Alternative**

Main PEIR - Chapters 5 through 29

- ◆ **Chapters 5 through 22 - Impact assessments per CEQA Guidelines - *See Appendices C - G***
- ◆ **Chapter 23 - Cumulative impacts**
- ◆ **Chapter 24 - Growth inducing impacts**
- ◆ **Chapter 25 - Permits and approvals**
- ◆ **Chapter 26 - Public review**
- ◆ **Chapter 27 - List of preparers**
- ◆ **Chapter 28 - Bibliography**
- ◆ **Chapter 29 - Acronyms and glossary**

Basis of Programmatic Alternatives

◆ Alternatives compiled from components

- Saline Habitat Complex
- Moderately deep (less than 10 feet) Marine Seas
- Deep (up to 55 feet) Marine Seas
- Air Quality Management
- Brine Sink

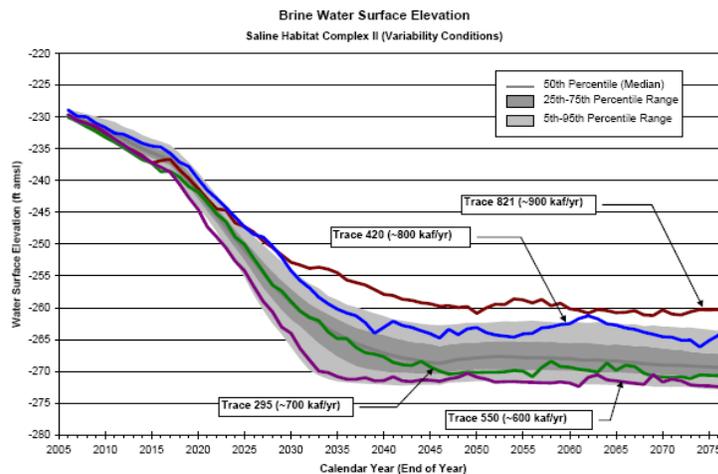
◆ A conservative inflow assumed to size habitat facilities

(ave. 650,000 acre-feet/year over 2018-2078)

◆ A moderately conservative inflow assumed to compare operations

(ave. 717,000 acre-feet/year over 2018-2078)

Operations were Evaluated for a Range of Inflows (See Appendix H2)



Construction Assumptions

◆ Pre-construction activities

- Late 2007 - Preferred alternative approved by legislature
- 2010 - Project-level analyses and field work
- 2011 - Early Start Habitat (-228 to -230 feet msl)
- 2012 - Final design
- 2013 - Permits, approvals, and land acquisition
- 2013 - Bidding period for construction
- 2014 - Start construction

◆ Construction activities

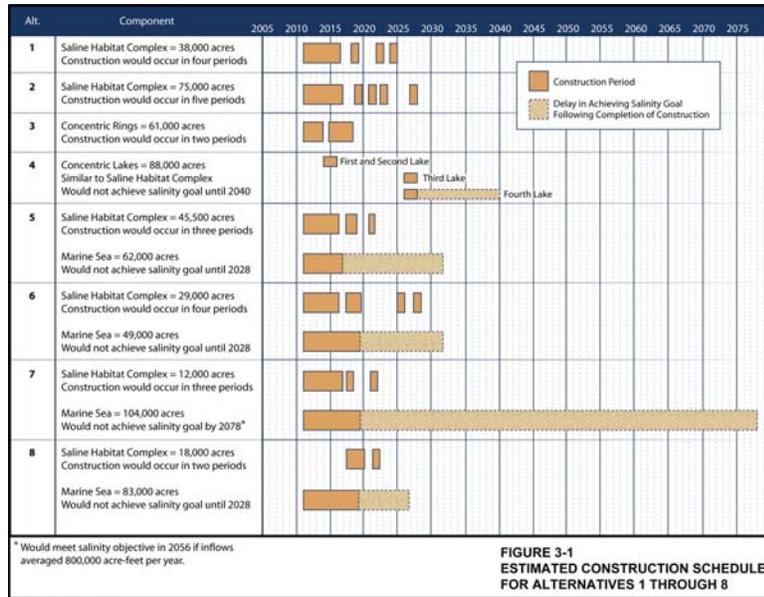
- Geotube Berms, Barriers, and Perimeter Dikes in deep water from barges
- Other Berms, canals, and Air Quality Management after water recedes

Example of Construction Staging - Berms constructed as water recedes

Phase (Year) to be Implemented	Sea Bed Elevation	Saline Habitat Complex (acres)				
		North	West	East	South	Total
Phase I (2018)	-230 to -236 feet msl	-	-	-	-	10,000*
Phase II (2021)	-236 to -242 feet msl	2,000	1,600	-	13,000	16,600
Phase II (2024)	-242 to -248 feet msl	2,400	2,000	-	16,000	20,400
Phase II (2027)	-248 to -254 feet msl	2,100	2,200	-	10,000	14,300
Phase III (2031)	-254 to -260 feet msl	2,300	2,400	-	9,000	13,700
Total		-	-	-	-	75,000

Note:
* Includes 10,000 acres of Shoreline Waterway, only.

Overall Construction Schedule



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FIGURE 3-1
ESTIMATED CONSTRUCTION SCHEDULE
FOR ALTERNATIVES 1 THROUGH 8

Example of Costs Developed for Each Phase

Items	Phase I (Present - 2020)	Phase II (2020 - 2030)	Phase III (2030 - 2040)	Phase IV (2040 - 2078)	Total
Barrier and Perimeter Dikes	-	-	-	-	-
Constructed Habitat	\$257.8	\$1,322.3	\$353.1	-	\$1,993.2
Water Conveyance	\$150	\$73			\$223
Air Quality Management	\$388.1	\$51.7	\$375.2	\$362.2	\$1,177.2
Total Construction	\$795.9	\$1,447.6	\$728.3	\$362.2	\$3,333.4
Annual Operations and Maintenance	\$35	\$51	\$81	\$107	

Programmatic Alternatives were developed to Compare Concepts

- ◆ **Represent a range of alternatives**
- ◆ **Components can be modified at project-level**
 - **Example: increase or decrease Saline Habitat Complex areas**
 - **Example: modify southern habitat areas to accommodate geothermal units**
- ◆ **Components will be modified based on surveys**
 - **Example: modify Air Quality Management methods depending upon monitoring & pilot programs**
- ◆ **Components may be constructed in phases by various groups**

Results of Impact Assessment -
Primary Differentiators

- ◆ **Surface Water**
 - **Water surface elevations (Ch. 5 & App. H2)**
 - **Water quality - salinity, nutrients, dissolved oxygen, and associated thermal stratification (Ch. 6 & App. D)**
- ◆ **Groundwater (Ch. 7)**
 - **Impacts on Coachella Valley Groundwater due to water receding from northern shoreline**
- ◆ **Biological Resources (Ch. 8 and App. C & F)**
 - **Benefits of each habitat component**
 - **Provisions to protect pupfish populations**

Results of Impact Assessment - Primary Differentiators - cont.

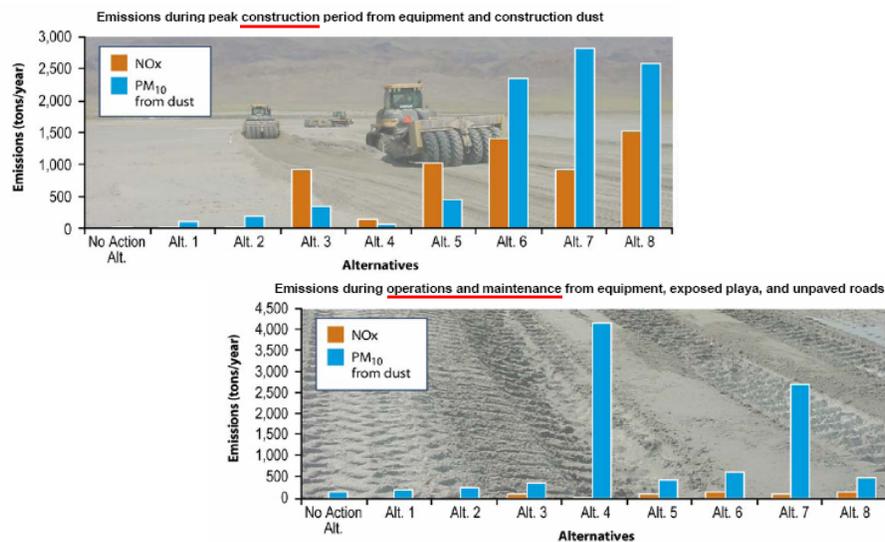
◆ Soils and Loss of Mineral Sources (Ch. 9)

- Disturbance to the Sea Bed
- Importation of rock and gravel

◆ Air Quality (Ch. 10 & App. E)

- Construction: PM₁₀ and NO_x from vehicles and PM₁₀ from disturbed soils
- Operations: PM₁₀ and NO_x from vehicles and PM₁₀ from exposed playa

Air Quality Impacts based on Descriptions of Alternatives



Results of Impact Assessment - Primary Differentiators - cont.

◆ Land Use (Ch. 11)

- Based upon compatibility with Imperial County General Plan and Torres Martinez Land Use Zoning, and Development Plan

◆ Recreation (Ch. 13)

- Identified recreational opportunities for each component

◆ Hazards (Ch. 14 and App G)

- Selenium in food chain
- Mosquitoes
- Air-borne diseases and hazards
- Unexploded ordnances and chemicals in Sea Bed

Recreational Opportunities from Survey by Components

Portion of Table 13-4
Recreational Opportunities By Components

Component	Fishing	Motor Boating	Water Skiing	Non-motor boats (Kayaks, canoes)	Hiking	Hunting
Saline Habitat Complex	Yes	No	No	Yes	Yes	Yes
Pupfish Channel	No	No	No	No	Yes	Yes
Marine Sea	Yes	Yes	Yes	Yes	Yes	Yes
Shoreline Waterway	Yes	No	No	Yes	Yes	Yes
Air Quality Management	No	No	No	No	No	No
Conveyance	No	No	No	No	No	No
Sedimentation/ Distribution Basins	Yes	No	No	Yes	Yes	No

Results of Impact Assessment -
Primary Differentiators - cont.

- ◆ **Cultural and Paleontological Resources (Ch. 15 and 16)**
 - Disturbance to the Sea Bed due to excavation and dredging
- ◆ **Noise (Ch. 17)**
 - Disturbance due to construction activities related to excavation and dredging and trucks for rock and gravel
- ◆ **Visual (Ch. 18)**
 - Distance from current shoreline to water and extent of water bodies

Results of Impact Assessment -
Primary Differentiators - cont.

- ◆ **Public Services (Ch. 19)**
 - Based on construction activities related to excavation and dredging and trucks for rock and gravel
- ◆ **Transportation and Traffic (Ch. 20)**
 - Based on trucks for rock and gravel and employee vehicles
- ◆ **Power Demands (Ch. 21)**
 - Operations power demands only
- ◆ **Economic and Social Effects (Ch. 22)**

Comparison of Alternatives

- ◆ **See Table ES-1 (and Tables 3-2 and 3-3)**
- ◆ **Environmentally Superior Alternative**
 - **Alternative 3 has the least amount of adverse impacts**
- ◆ **Range of alternatives can be used to identify benefits and impacts of individual components and the extent of habitat**
- ◆ **Alternatives could be modified by mitigation measures (Next Steps) to reduce adverse impacts**

Transfers under Quantification Settlement Agreement

- ◆ **Transfer of (c)(1) or (c)(2) water would change Salton Sea conditions by 2020**
 - **Reduce Brine Sink elevation by 2 to 4 feet**
 - **Increase salinity sooner and by 7 to 18 percent**
- ◆ **Adverse impacts under Alternatives 3 through 8 because lower water elevations would reduce ability to use barges**
- ◆ **Could be accommodated under Alternatives 1 or 2 - May not be advantageous because of need to mitigate biological and air quality impacts caused by transfer**