

Phasing and Construction Assumptions for Alternatives



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Phasing and Construction Assumptions

- ◆ **Construction phasing**
- ◆ **Salinity during construction**
- ◆ **Early-Start program**

Construction Phasing

◆ **Facilities constructed in first phase**

- Facilities located along the shoreline
- Major barriers
- Air Quality Management for exposed playa

◆ **Facilities constructed in second phase**

- Expansion of facilities as areas become exposed
- Expansion of Air Quality Management

First Phase Construction

◆ **All alternatives start with shoreline facilities**

- Perimeter dikes, canals, or berms - start construction under water
- Saline Habitat Complex - start construction as area is exposed (elevation will be at -235 feet msl in 2018)
- Diversion structures, including sedimentation basins, to redivert flows at rivers - constructed on shoreline
- Water treatment facilities - constructed on shoreline

◆ **Partial Sea Alternatives (Alts. 5-8) start with large barriers** - construction under water

◆ **Air Quality Management**

- May need to obtain water from other sources for dust control during construction

Rock Barriers - First Phase

- ◆ **Foundation and rock barrier construction started under water and finished in an area without water**
- ◆ **Significant harbors need to be constructed prior to barrier construction**
- ◆ **Critical factors will affect construction period (after permits)**
 - Poor barrier foundation conditions
 - ❖ Increased foundation dredging
 - ❖ Increased rock quantity
 - Availability of rock at permitted quarries, limited production rates, and available transport methods
 - Compliance with Air Quality SIP
- ◆ **Unlikely to be fully operational until after 2018**

Second Phase - Completed when Projected Inflows Stabilize

- ◆ **Expand facilities as water recedes**
 - Saline Habitat Complex
 - Concentric Lake
- ◆ **Expand Air Quality Management as playa becomes exposed**
- ◆ **Schedule dependant upon the rate that the water recedes**
 - Water elevation at -245 ft by mid-2020s
 - Water elevation at -255 ft by mid-2030s

Impact Assessment will be Conducted for Three Periods

◆ 2005 - 2017

- Represents period with initial construction and delivery of "mitigation water" to the Salton Sea

◆ 2018 - mid-2030s

- Represents initial operation and second phase of construction
- No delivery of "mitigation water"

◆ Mid-2030s - 2077

- Represents projected stabilized inflows and full operation

What Happens to the Salinity in the Salton Sea during Construction?

◆ Salinity will increase even with Mitigation Water

- 2010 - Salinity ~52,000 mg/L
- 2013 - Salinity ~55,000 mg/L
- 2018 - Salinity ~60,000 mg/L
- 2020 - Salinity ~75,000 mg/L

◆ Salton Sea salinity may be too high to support fisheries by the time significant facilities become operational

"Early-Start" Concept

- ◆ Can provide habitat during construction
- ◆ Can provide managed habitat as Salton Sea salinity becomes too high for fisheries
- ◆ Can serve as a pilot project to improve design criteria for Saline Habitat Complex
- ◆ Similar to Phase 1 of Alternative 1
- ◆ Easily modified to become part of all Alternatives
 - First phase of Alternative 1
 - Break-through side berms and use those features as habitat features on alternatives

Early-Start Program could be included in All Alternatives

