

## Influence of Habitat Objectives on Final Alternatives



Advisory Committee  
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### Overall Habitat Goals

- ◆ **Restoration of the Salton Sea ecosystem and permanent protection of the wildlife dependent on that ecosystem**
- ◆ **Restore long-term stable aquatic and shoreline habitat for the historic levels and diversity of fish and wildlife that depend on the Salton Sea**
- ◆ **Additional requirement to protect listed species**

## Habitat Objectives Define the Alternatives

- ◆ **Provide pupfish connectivity**
- ◆ **Maintain fish community to support fish-eating birds**
- ◆ **Retain historic diversity and levels of fish and wildlife**

## Accommodations for Pupfish Connectivity

- ◆ **Retain pupfish passage among drains**
  - Connect drains with channels or other water bodies
  - Separate conveyance canals from drains to avoid impacts to pupfish
- ◆ **Manage vegetation in connections**
  - Maintain higher salinities to restrict vegetation
  - Or, mechanically remove vegetation
- ◆ **Reduce potential for predation**
  - Maintain salinity above the threshold for freshwater predators (e.g., bass) by adding saline water

## Accommodations for Habitat to Support Fish-Eating Birds

### ◆ **Support adequate fish populations**

- Create deep water areas to provide refuge from extreme water temperature and predation
  - ❖ Construct marine sea with barriers
  - ❖ Construct saline habitat complex with deep areas

### ◆ **Provide habitat features for nesting and roosting**

- Islands
- Snags
- Berms

## Accommodations for Maintaining Historic Diversity and Levels

### ◆ **Retain and stabilize Salton Sea habitat – Marine Sea**

### ◆ **Construct functionally equivalent habitat – Saline Habitat Complex**

- Maintain salinity levels above 20,000 mg/L
  - ❖ To reduce vegetation
  - ❖ To reduce potential for disease
  - ❖ To encourage productive invertebrate communities
- Develop edge and habitat complexity
  - ❖ Include areas with brackish water

## Historic Diversity and Levels – How Much is Enough?

- ◆ **Start with historic use of the Salton Sea**
- ◆ **Address habitat quantity and quality**
  - Consider amount of habitat historically available at the Salton Sea (about 38,000 wetted acres)
  - Consider bird densities from similar habitats (S.F. Bay Salt Ponds) and project needed acreage
    - ❖ Comparison using SF Bay Salt Ponds densities may not be appropriate for all species
- ◆ **Evaluate relative differences among alternatives (modeling)**

## In Summary

- ◆ **Habitat objectives influence the design and complexity of alternatives**
- ◆ **To accommodate objectives, alternatives include:**
  - Infrastructure to facilitate pupfish connectivity
  - Marine sea and/or Saline Habitat Complex designed to support fish
  - Use of saline water in pupfish connections and constructed habitat
  - A range of habitat combinations