

# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## Program Implementation

# Lower Colorado River Multi-Species Conservation Program



# Program Area



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# LCR MSCP Goals & Objectives

- A comprehensive 50-year species conservation and habitat management program that will:
  - ✦ Conserve habitat and work toward recovery of T&E species as well as reduce the likelihood of additional species being listed
  - ✦ Accommodate present water diversions and power production and optimize opportunities for future water and power development
  - ✦ Provide the basis for incidental take authorizations

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# Steering Committee Membership

- Federal Participant Group
- Arizona Participant Group (26 Permittees)\*
- California Participant Group (11 Permittees)\*
- Nevada Participant Group (5 Permittees)\*
- Native American Participant Group
- Conservation Participant Group
- Other Interested Parties Group

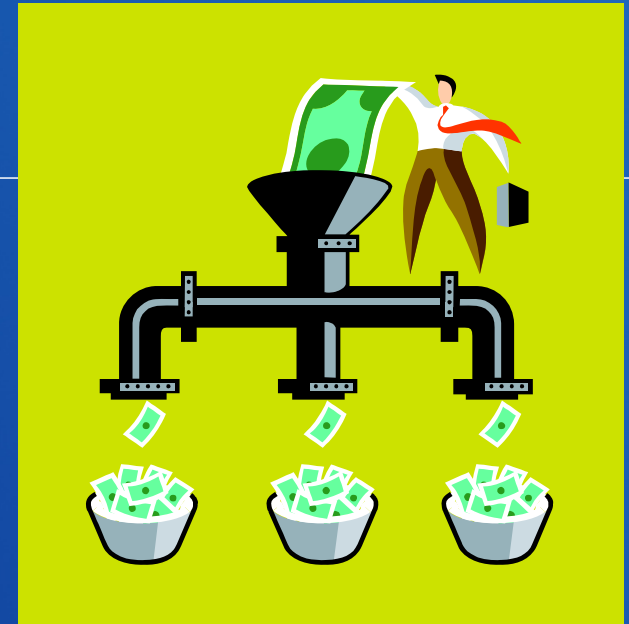
\*Participates as a funding agency

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# Cost Sharing

- Total Program Cost
  - \$626 million (2003 dollars)
  - Adjusted Annually for Inflation
- Federal / State Cost Share
  - Split 50/50
- Cost Cap



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# Partnerships

- Game and Fish Agencies (Arizona, Nevada, and California )
- Farmers Advisory Board
- Tribes
- National Wildlife Refuges



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# LCR MSCP Covered Species

**Total of 26 Species**

## ◆ 6 Threatened and Endangered Species

2 birds, 1 reptile, 3 fish

## ◆ 20 Other Covered Species

4 mammals, 10 birds, 2 reptiles,  
1 fish, 1 insect, 2 plants

## ◆ 5 “Evaluation Species”

3 mammals, 2 reptiles



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# Key Program Elements

- Creation and restoration of native riparian, marsh, and aquatic habitats
- Native fish populations augmentation
- Measures to maintain and enhance existing habitats
- Species-specific conservation measures
- Avoidance & minimization measures
- Long-term monitoring & research
- Adaptive management principles

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# Habitat Restoration

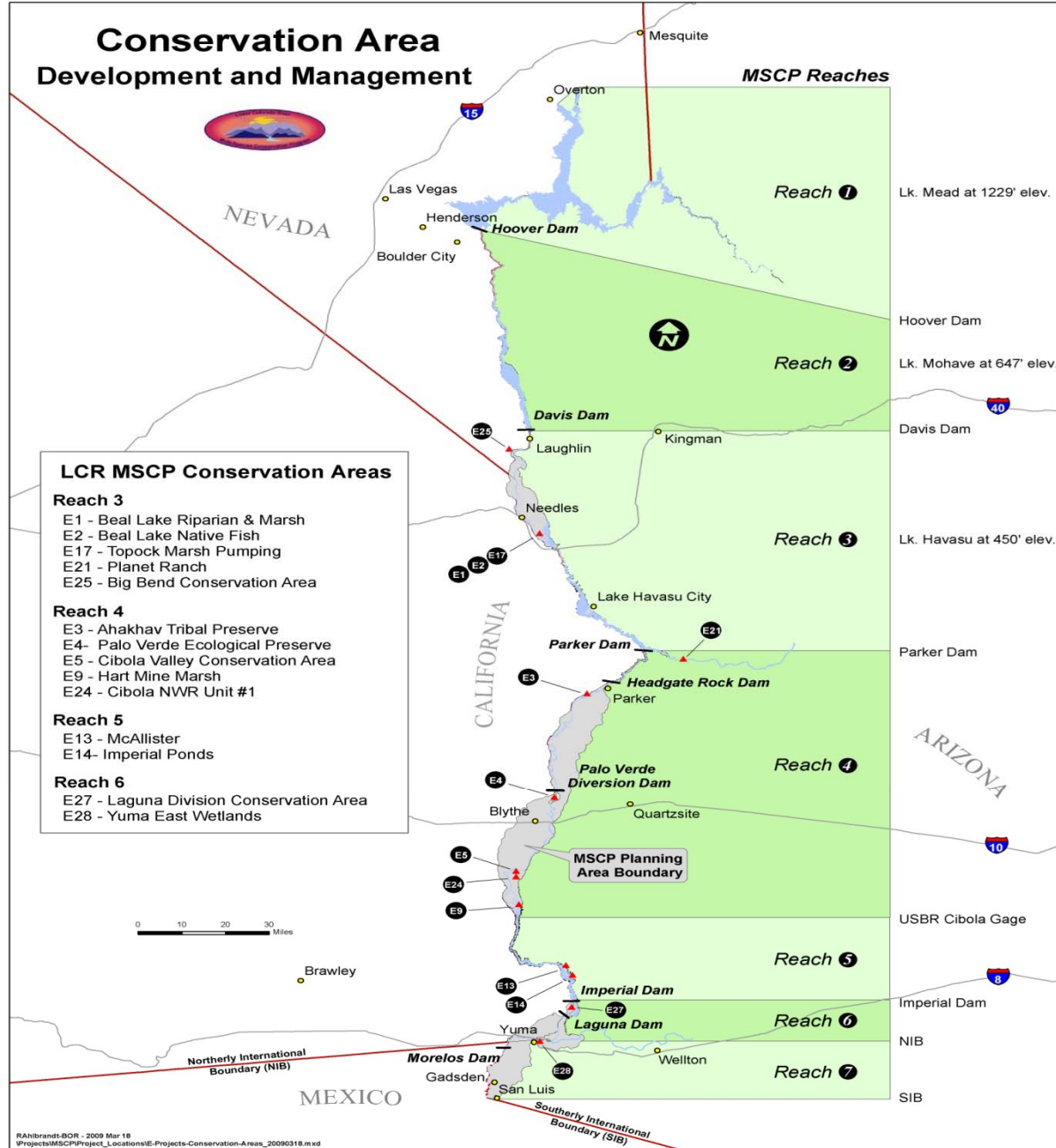
Total of 8,142 acres

➔ Cottonwood-Willow	5,940 acres
➔ Mesquite	1,320 acres
➔ Marsh	512 acres
➔ Backwaters	360 acres

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# Conservation Area Development and Management



# Riparian Restoration





# Marsh Restoration



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# Backwater Restoration



# Native Fish Augmentation

➤ **Razorback sucker**  
➤ 660,000 fish over 50 years

➤ **Bonytail**  
➤ 620,000 fish over 50 years

➤ **Humpback chub**  
➤ \$10,000/year to GCDAMP for 50 years

➤ **Flannelmouth sucker**  
➤ \$80,000 over 5 years + 85 acres of backwaters



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# Existing Habitat Maintenance

## \$25,000,000 Fund

-  Established within the first years of the program

-  Funds actions to avoid impacts to existing habitats within the planning area

-  Available to Land Managers with consent of Reclamation, USFWS, and State participants

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# Conservation Measures

- Maintenance of existing habitat
- Creation and long-term management of habitat specific to each species
- Avoidance & minimization of impacts on Covered Species and their habitats resulting from program implementation
- Population enhancement measures
- Monitoring & research to assess and improve program effectiveness through Adaptive Management

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# Adaptive Management Elements

- Measure effectiveness of Conservation Measures
- As need arises, propose revised or alternative Conservation Measures
- Address changed or unforeseen circumstances
- Provide consistency with relevant existing and future USFWS Recovery Plans

# Monitoring & Research Elements

- System Monitoring
- Species Monitoring & Research
- Post-development Monitoring
- Database Management
- Adaptive Management

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# Species Monitoring & Research

- ❖ Covered species life history studies
  - ❖ Southwestern willow flycatcher and yellow-billed cuckoo intensive studies
  - ❖ Small mammal genetics and habitat studies
  - ❖ Brown-headed cowbird and starling control
  - ❖ Bat roost and forage site identification
  - ❖ Insect population studies

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# SPECIES MONITORING AND RESEARCH



# Post-development Monitoring

## Evaluation of created and restored habitat

-  **Vegetation survival and growth**
-  **Avian use of restored sites**
-  **Small mammal colonization**
-  **Bat foraging use**
-  **Other Covered Species use**









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