Lower Colorado River
Multi-Species Conservation Program

Balancing Resource Use and Conservation

LOWER COLORADO RIVER
MSCP PURPOSE

Multi-stakeholder Federal and non-Federal partnership responding to the need to balance the use of lower Colorado River (LCR) water resources and the conservation of native species and their habitats in compliance with the Endangered Species Act.
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LCR MSCP GOALS & OBJECTIVES

• 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
• 50-Years of ESA and CESA Compliance
  - Unique - Section 7 and 10
  - HCP

• Covered Actions
  - Delivery and Diversion of 9 MAF
  - Maintenance Activities
  - Movement of 1.574 MAF
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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
COST SHARING

• Total Program Cost
  $626 million (2003 dollars)
  Adjusted Annually for Inflation

• Federal / State Cost Share
  Split 50/50

• Cost Cap

Reclamation
50%

California
25%

Nevada
12.5%

Arizona
12.5%
LCR MSCP COVERED SPECIES

- 6 T&E species
  - 2 birds, 1 reptile, 3 fish

- 20 other species
  - 4 mammals, 10 birds, 2 reptile/amphibian, 1 fish, 1 insect, 2 plants

- 5 “evaluation species”*
  - 3 mammals, 2 amphibians

* Evaluation species are those which would qualify as covered species except sufficient information on their biology, habitat use, and occurrence within the project area are not sufficient at the time the HCP is completed.
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PROGRAM COMPONENTS

• Fish Augmentation
• Species Research
• System-wide Monitoring
• Existing Habitat Maintenance
• Conservation Area Development & Management
PROGRAMMATIC ACCOMPLISHMENTS

• Final Science Strategy
  – Strategy for implementing research and monitoring
  – Planning and Review processes
    • Annual work plan and accomplishment report
    • 5 Year research and monitoring priority report
• Five-Year Research & Monitoring Priorities (08-12)
• Site Selection Criteria
• Native Fish Augmentation Plan
• Annual Accomplishment / Work Plans

Habitat Creation Conservation Measure Accomplishment Process
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FISH AUGMENTATION
FISH AUGMENTATION GOALS

- 660,000 Razorback Suckers
- 620,000 Bonytail
### FISH AUGMENTATION ACCOMPLISHMENTS (FY05-11)

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>LAKE MOHAVE</th>
<th>DAVIS-PARKER</th>
<th>BELOW PARKER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAZORBACK SUCKER</td>
<td>54,986</td>
<td>46,459</td>
<td>57,553</td>
<td>158,998</td>
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<tr>
<td>BONYTAIL</td>
<td>6,998</td>
<td>26,304</td>
<td>14,770</td>
<td>48,072</td>
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<tr>
<td>TOTAL</td>
<td>61,984</td>
<td>72,763</td>
<td>72,323</td>
<td>207,070</td>
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</tbody>
</table>

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Monitoring & Research Elements

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

- Point counts (e.g., GBBO Nevada Bird Count),
- Summer and Winter Bird Banding Stations
- Marsh birds - Inter-agency multi-species
- Southwestern willow flycatcher and yellow-billed cuckoo presence/absence surveys and habitat monitoring
- Small Mammal distribution
- Bat presence/absence and distribution
- Covered fish species monitoring
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SPECIES RESEARCH
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
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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CONSERVATION AREA DEVELOPMENT & MANAGEMENT
CONSERVATION AREA DEVELOPMENT AND MANAGEMENT GOALS

- Cottonwood-Willow - 5,940 Ac
- Mesquite - 1,320 Ac
- Marsh – 512 Ac
- Backwaters – 360 Ac
Imperial Ponds Conservation Area
- 80 Acres Backwater
- 12 Acres Marsh
- 5 MSCP Species

Big Bend Conservation Area
- 15 Acres Backwater
- 5 MSCP Species

Beal Lake Conservation Area
- 107 acres Cottonwood/Willow/Mesquite
- 15 MSCP Species

Cibola NWR Unit #1/Hart Mine Marsh
- 232 Acres Cottonwood/Willow
- 255 Acres Marsh
- 12 MSCP Species
Cibola Valley Conservation Area

- 265 acres Cottonwood /Willow
- 218 acre Mesquite/Atriplex
- 10 confirmed MSCP Species

Palo Verde Ecological Reserve

- 719 acres Cottonwood/willow
- 50 acres Mesquite/atriplex
- 11 Covered Species
UPCOMING RESTORATION DEVELOPMENT PROJECTS

LAGUNA
- Project Area – 1050 Acres
- Existing Conditions
  - Extensive/dense tamarisk monoculture

HUNTERS HOLE
- Project Area – 50 Acres
- Existing conditions
  - Dense Tamarisk

YUMA EAST WETLANDS
- Project area – 350 Acres
- Existing Conditions
  - Restored cottonwood/willow and Marsh

PLANET RANCH
- Project Area – 500 Acres
- Existing Conditions
  - Native/Non-native Riparian
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HART MINE MARSH