

**Glen Canyon Dam Adaptive Management Work Group**  
**Agenda Item Information**  
**February 25-26, 2015**

---

---

Agenda Item

Lower Colorado River Multi-Species Conservation Program Update

---

---

Action Requested

✓ Information item only; we will answer questions but no action is requested.

---

---

Presenters

John Swett, Manager, Lower Colorado River Multi-Species Conservation Program, Bureau of Reclamation

---

---

Previous Action Taken

N/A

---

---

Relevant Science

N/A

---

---

Background Information

The LCR MSCP is a multi-stakeholder, federal and non-federal, partnership that seeks to balance the use of Colorado River water resources with conservation of native species and their habitats in compliance with the Endangered Species Act. This year marks the 10-year of LCR MSCP implementation.

In response to AMWG members' request to be apprised of the work of other programs upstream and downstream of the Grand Canyon reach of the Colorado River, the LCR MSCP manager will discuss the program and how it might influence and be influenced by the work of the GCDAMP.

# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## LOWER COLORADO RIVER MULTI-SPECIES CONSERVATION PROGRAM 10 YEAR ACCOMPLISHMENTS



John Swett  
Program Manager  
LCR MSCP  
Bureau Of Reclamation  
Boulder City, Nevada



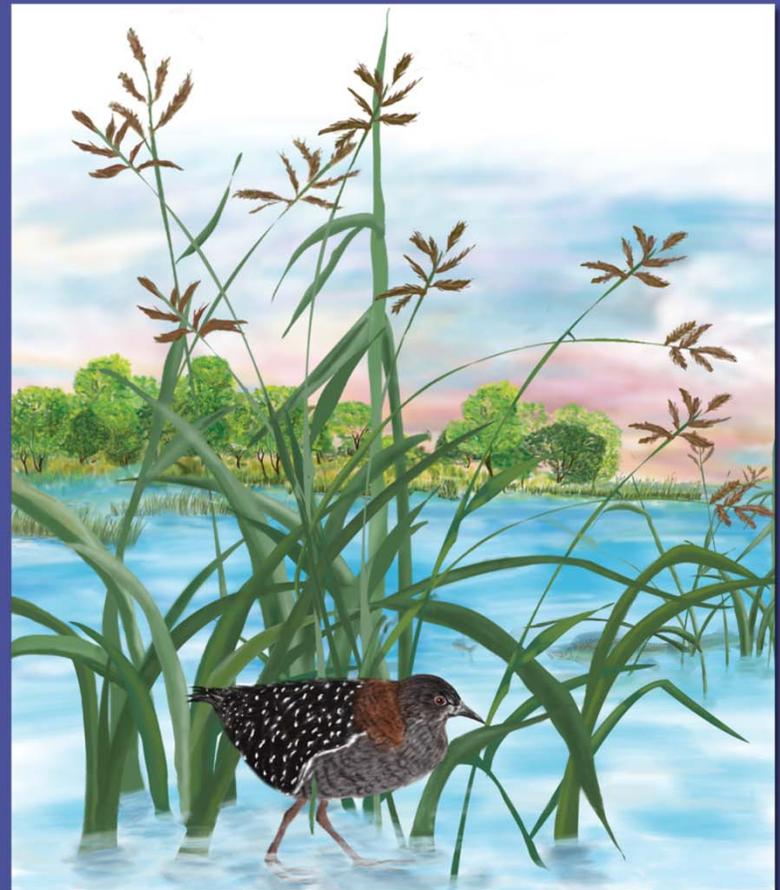
# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## LCR 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.



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## LCR MSCP DEVELOPMENT

- 1994: Critical Habitat listed for Razorback Sucker and Bonytail
- 1995: Southwestern Willow Flycatcher listed as Endangered
- 1995: U.S. Department of Interior agencies; water and power agencies from Arizona, California, and Nevada; and other interested parties began discussions on a long-term ESA compliance program
- 1996: Reclamation issued BA on operations & maintenance of LCR
- 1997: USFWS issued BO to cover Reclamation's activities for 5 years while LCR MSCP planning was underway
- 2002: 1997 BO was reinitiated and extended for 3 years
- 2005: LCR MSCP Program Documents signed; implementation begins



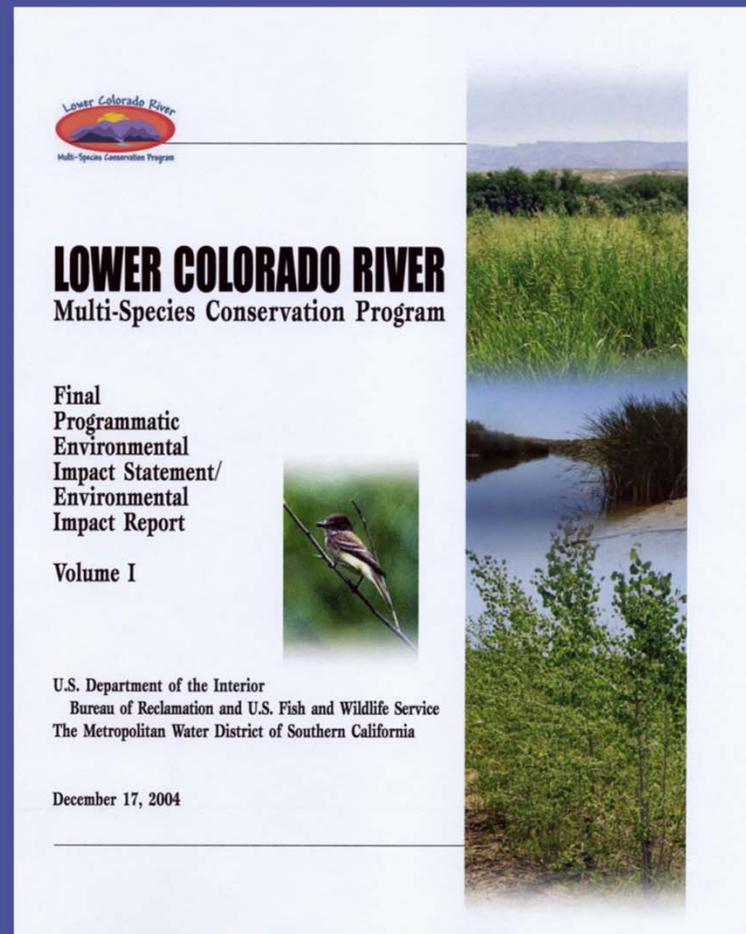
# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## LCR MSCP ESA COMPLIANCE

- 50-Years of ESA and CESA Compliance
  - Unique - Section 7 and 10
  - HCP
- Covered Actions
  - Delivery and Diversion of 9 MAF
  - Generation of Power
  - Maintenance Activities
  - Movement of 1.574 MAF



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## LCR MSCP PLANNING AREA

- Full pool elevation of Lake Mead to SIB
- Historic 100 year floodplain
- Full pool elevations of main stem reservoirs



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## 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



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## STEERING COMMITTEE MEMBERSHIP (57 MEMBERS)

- 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*



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## Program Implementation

- Authorized under P.L.111-11
- Program Documents (HCP, FMA, IA, ROD, BY-LAWS, BO, EIS)
- Decision making
  - *Consensus Based*
  - *Dispute Process*

## Steering Committee Responsibilities

- Provide input on LCR MSCP implementation
  - *Annual Work Plan, Budget, and Report*
  - *Approve Land & Water Acquisition*

## Reclamation Responsibilities

- Provide the Federal cost share
- Appoint a Program Manager whose is responsible for implementation of the LCR MSCP



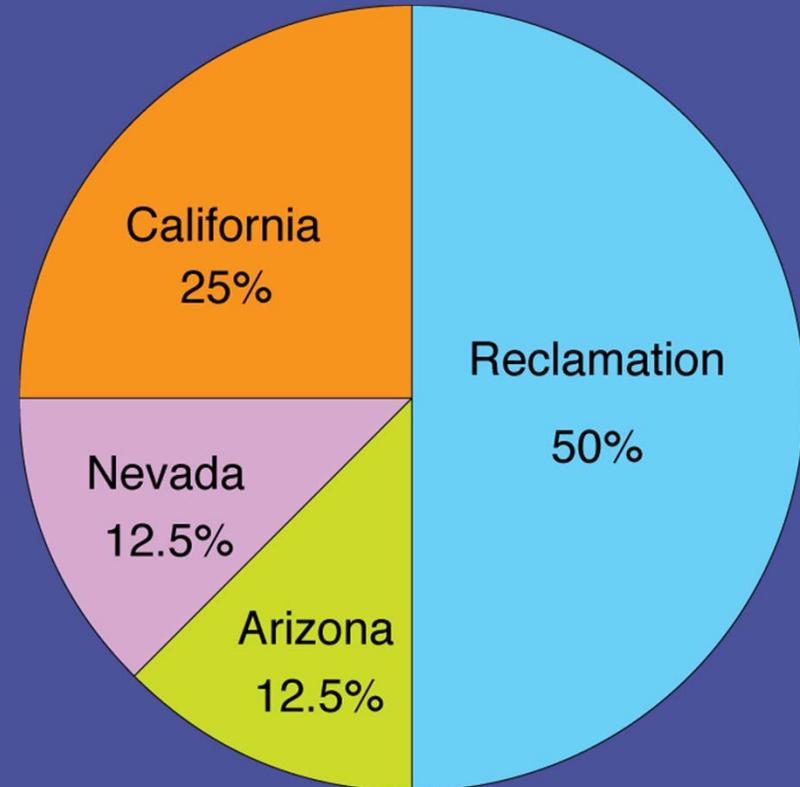
# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## COST SHARING

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



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## LCR MSCP COVERED SPECIES

- 7 T&E species
  - 3 birds, 1 reptile, 3 fish
- 19 other species
  - 4 mammals, 10 birds, 2 reptile/amphibian, 1 fish, 1 insect, 2 plants
- 5 “evaluation species”\*
  - 3 mammals, 2 amphibians



# Lower Colorado River Multi-Species Conservation Program



## *Balancing Resource Use and Conservation* Program Components

- Program Administration
- Fish Augmentation
- Species Research
- System-wide Monitoring
- Existing Habitat Maintenance
- Conservation Area Development & Management
- Adaptive Management



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## PROGRAMMATIC ACCOMPLISHMENTS

- Final Science Strategy
- Five- Year Research & Monitoring Priorities (2013-17)
- Site Selection Criteria
- Native Fish Augmentation Plan
- Habitat Maintenance Fund Process
- Habitat Creation Accomplishment Process
- Land and Water Fund
- Remedial Measures Fund
- Annual Accomplishment / Work Plans



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## CONSERVATION MEASURES COMPLETED (FY15)

- DETO1: Acquire and protect 230 acres of existing unprotected occupied desert tortoise habitat
- FTFL1: Acquire and protect 230 acres of existing unprotected occupied flat-tailed horned lizard habitat
- AMM2: Avoid impacts of flow-related covered activities on covered species habitats at Topock Marsh
- RLFR1: Provide funding to existing relict leopard frog conservation programs for 10 years



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## FISH AUGMENTATION GOALS

- 660,000 Razorback Suckers
- 620,000 Bonytail



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## NATIVE FISH AUGMENTATION GUIDELINES

- Razorback sucker and bonytail augmentation program based on effort (“level of funding”) needed to raise and stock 1.2 million subadults
- Stocking numbers are reach and species specific
- Increased stocking over a ten-year period for research counts towards augmentation goals
- Fish stocked in created backwater habitats count towards augmentation goals
- Razorback suckers stocked in Lake Mohave do not count towards augmentation goals



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## FISH AUGMENTATION ACCOMPLISHMENT THROUGH FY15\*

SPECIES	LAKE MOHAVE	DAVIS-PARKER	BELOW PARKER	TOTAL	AUGMENTATION TOTAL
RAZORBACK SUCKER	114,626**	72,865	79,736	267,227	152,601
BONYTAIL	0	55,403	20,733	76,136	76,136
TOTAL	114,626**	128,268	100,469	343,363	228,737

\*Approximate

\*\*Don't count towards augmentation goals – separate conservation measure



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## CONSERVATION AREA DEVELOPMENT AND MANAGEMENT : TOTAL MINIMUM ACRES

- Cottonwood-Willow - 5,940 Ac
- Mesquite - 1,320 Ac
- Marsh – 512 Ac
- Backwaters – 360 Ac



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## CONSERVATION AREA DEVELOPMENT AND MANAGEMENT GUIDELINES

- LCR MSCP is habitat based
- HCP conservation measures are species specific
- Total habitat creation acre goals are based on creating habitat mosaics (i.e. each acre should provide habitat for multiple species)
- Total habitat creation acre goals are a minimum which allows flexibility in meeting species specific conservation measures



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## LAND COVER TYPE BY STATE THROUGH FY15\*

STATE	COTTONWOOD- WILLOW	HONEY MESQUITE	MARSH	BACKWATERS	TOTAL
ARIZONA	1,465	575	628	80	<b>2,748</b>
CALIFORNIA	980	578	40	0	<b>1,598</b>
NEVADA	0	0	0	15	<b>15</b>
<b>TOTAL</b>	<b>2,445</b>	<b>1,153</b>	<b>668</b>	<b>95</b>	<b>4,361</b>

\* APPROXIMATE



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## HABITAT CREATION PROGRESS

LAND COVER TYPE	ESTABLISHED THROUGH FY15	ANTICIPATED SCHEDULE FROM HCP (PERCENT COMPLETED)	PERCENT OF MINIMUM TOTAL ACRES
COTTONWOOD-WILLOW	2,445	1,000 (244%)	5,940 (41%)
HONEY MESQUITE	1,153	300 (384%)	1,320 (87%)
MARSH	668	150 (445%)	512 (130%)
BACKWATERS	95	120 (79%)	360 (26%)
<b>TOTAL</b>	<b>4,361</b>	<b>1,570 (284%)</b>	<b>8,132 (54%)</b>



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## CESA HABITAT CREATION PROGRESS

LAND COVER TYPE	ESTABLISHED THROUGH FY15	PERCENT OF MINIMUM TOTAL ACRES REQUIRED IN CALIFORNIA
COTTONWOOD-WILLOW	980	1,566 (62%)
HONEY MESQUITE	578	1,048 (55%)
MARSH	40	240 (17%)
BACKWATERS	0	194 (0%)
<b>TOTAL</b>	<b>1,598</b>	<b>3,048 (52%)</b>



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## ACCOMPLISHMENTS

- “Build it and they will come” - Most riparian and marsh species are responding to the created habitat
- Razorback suckers are being observed in greater numbers in some reaches, especially Reach 3 (Davis Dam to Parker Dam)
- The flexibility in the program documents and the adaptive management approach have allowed us to meet challenges



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## CHALLENGES

- Securing land & water in California to meet CESA requirements
- Increasing native fish survivorship within the constraints of the program
- Developing long-term management guidelines for created habitats
- The “Unknown” (i.e. Drought, Climate Change, Invasive Species, etc.)



# Lower Colorado River Multi-Species Conservation Program



*Balancing Resource Use and Conservation*

## WHY DOES THE LCR MSCP WORK?

- The Program has a well defined purpose, goals, and objectives
- The HCP has attainable conservation measures
- The flexibility in the program documents and the adaptive management approach allowed us to meet challenges
- The Steering Committee has been an active participant throughout implementation and is willing to compromise to move the program forward (consensus) because a majority have a stake in its success



- [www.lcrmscp.gov](http://www.lcrmscp.gov)