Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Bureau of Reclamation
Boulder City, Nevada

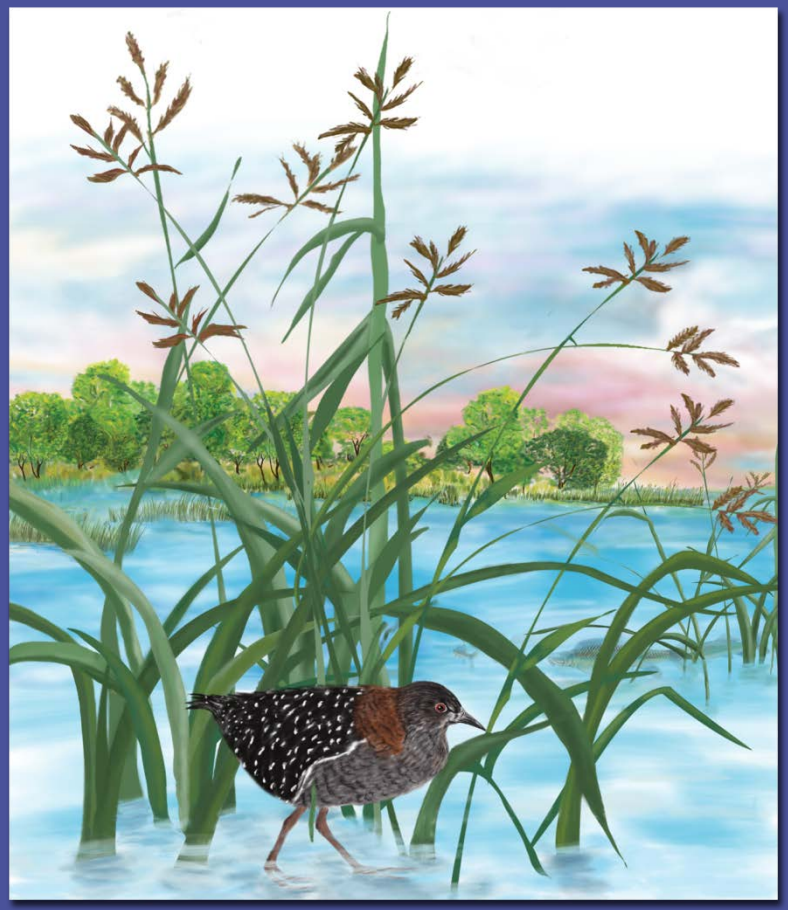
Lower Colorado River Multi-Species Conservation Program
2005 Celebrating 10 years 2015

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.



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

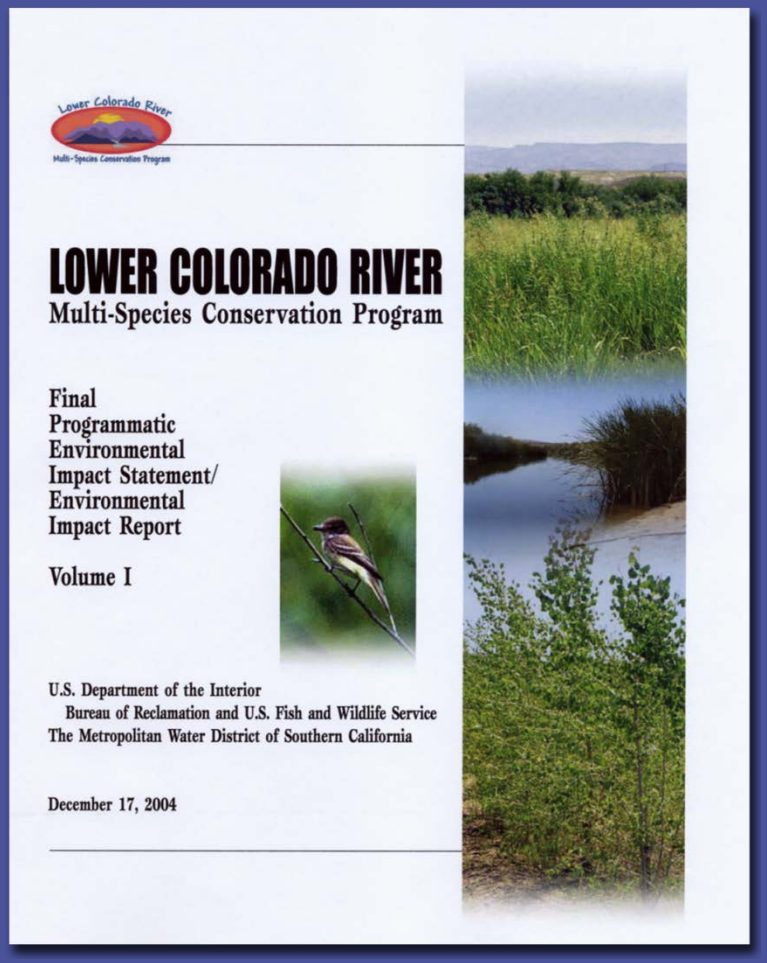
LCR MSCP GOALS & OBJECTIVES

- 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

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



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

STEERING COMMITTEE MEMBERSHIP

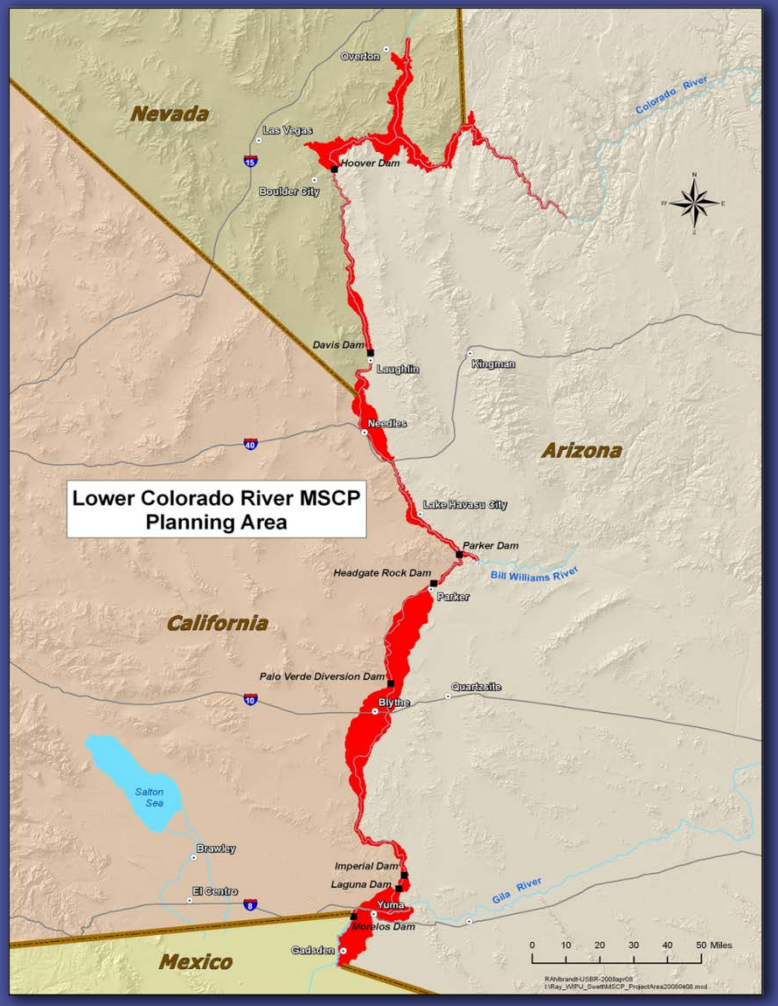
- Federal Participant Group
- Arizona Participant Group (26 Permittees)*
- California Participant Group (11 Permittees)*
- Nevada Participant Group (5 Permittees)*
- Native American Participant Group
- Conservation Participant Group
- Other Interested Parties Group

** Participates as a funding agency*

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

LOWER COLORADO RIVER MSCP PLANNING AREA



Lower Colorado River Multi-Species Conservation Program

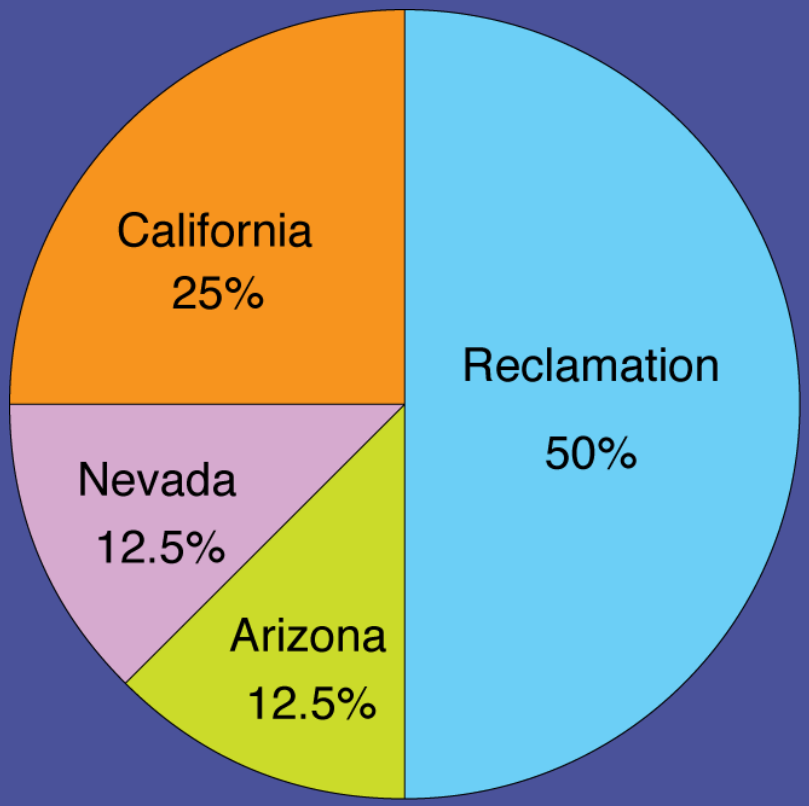
Balancing Resource Use and Conservation

COST SHARING

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

- Federal / State Cost Share
  Split 50/50

- 2015 = $37,399,320
  $18,699,660 / $18,699,660



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, 9 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*

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

PROGRAM COMPONENTS

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

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

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

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

PROGRAMMATIC ACCOMPLISHMENTS

- Conservation Measures Complete:
  - DETO1 – Acquire and protect 230 acres of Mojave desert tortoise habitat
  - FTHL1 – Acquire and protect 230 acres of flat-tailed horned lizard habitat
  - RLFG1 - $10,000/year for 10 years to a conservation program **(FY15)**

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

CONSERVATION AREA DEVELOPMENT & MANAGEMENT

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

CONSERVATION AREA DEVELOPMENT AND MANAGEMENT GOALS

- 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

Land Cover Type by State Through FY15*

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

*APPROXIMATE

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%)
TOTAL	1,598	3,048 (52%)

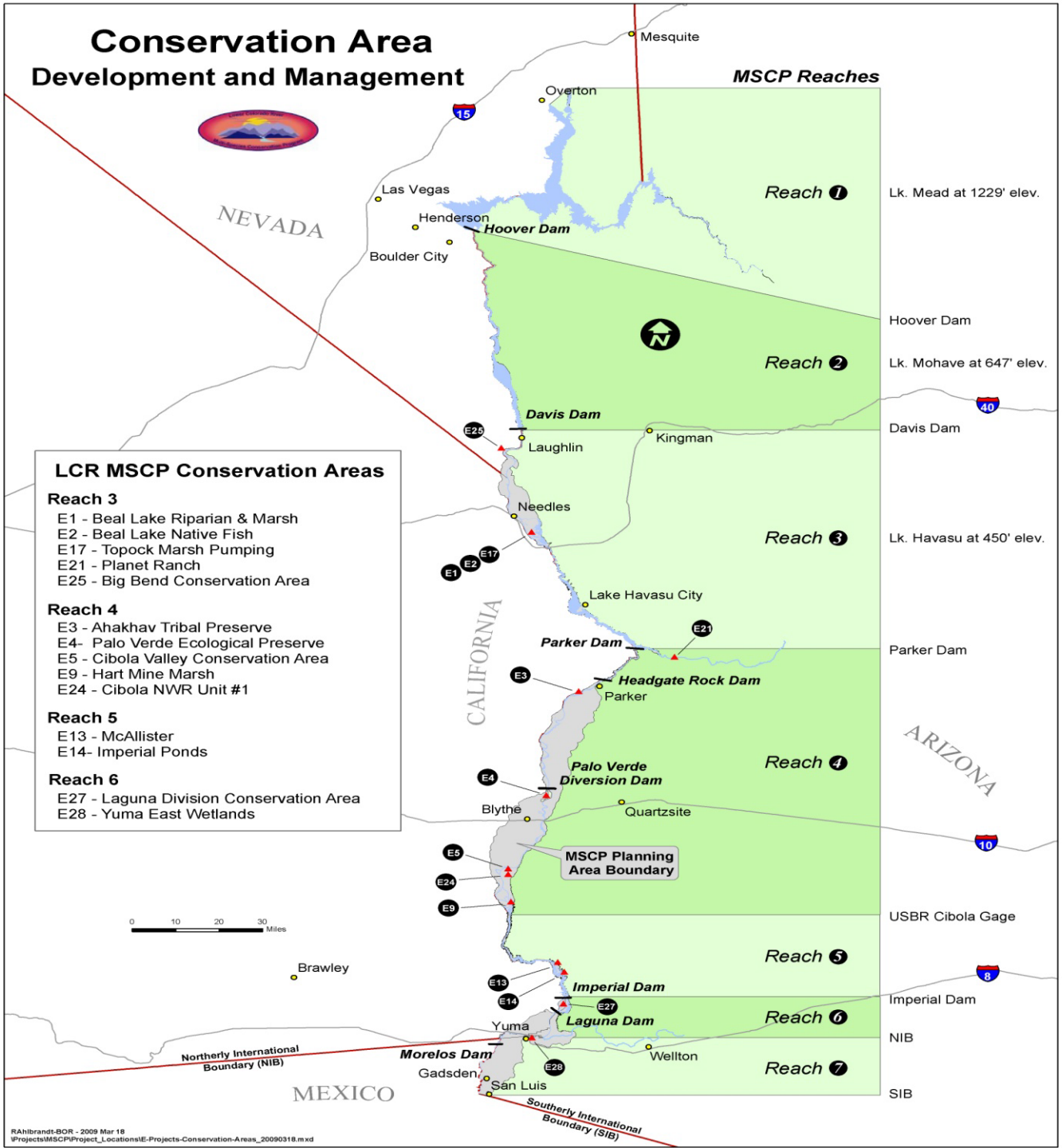
Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

CONSERVATION AREAS

- Beal Lake Conservation Area
- Big Bend Conservation Area
- Cibola NWR Unit #1
- Cibola Valley Conservation Area
- Hart Mine Marsh
- Hunters Hole
- Imperial Ponds Conservation Area
- Laguna Division Conservation Area
- Mohave Valley Conservation Area
- Palo Verde Ecological Reserve
- Planet Ranch Conservation Area
- Pretty Water Conservation Area
- Yuma East Wetlands

Conservation Area
Development and Management



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

BEAL LAKE CONSERVATION AREA

- **107 acres Cottonwood/Willow/Mesquite**
- **18 LCR MSCP species detected**

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

BIG BEND CONSERVATION AREA

- **15 Acres Backwater**
- **Managed for native fish**
- **5 LCR MSCP species detected**

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

CIBOLA NWR UNIT #1

- **232 Acres Cottonwood/Willow**
- **12 LCP MSCP species detected**

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

CIBOLA VALLEY CONSERVATION AREA

- 265 acres Cottonwood /Willow
- 218 acre Mesquite/Atriplex
- 13 LCR MSCP species detected

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

HART MINE MARSH

- **255 Acres Marsh**
- **4 LCR MSCP species detected**

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

HUNTERS HOLE

- **44 acres Cottonwood /Willow and Mesquite/Atriplex**
- **6 LCR MSCP species detected (mostly migrants)**

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

IMPERIAL PONDS CONSERVATION AREA

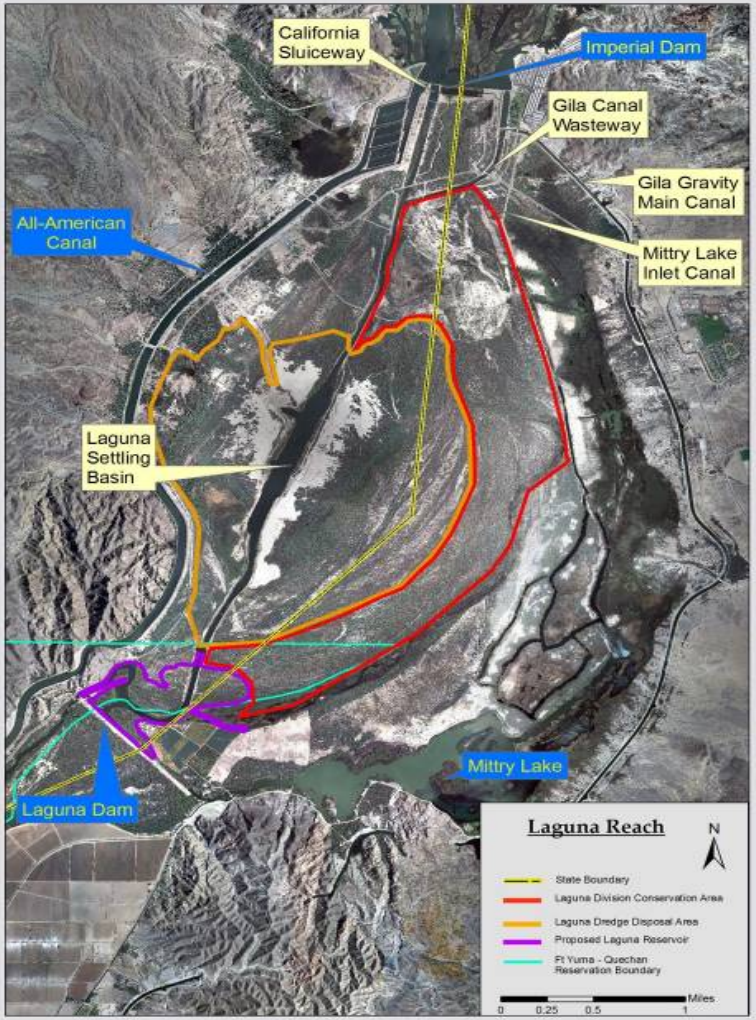
- 80 Acres Backwater
- 12 Acres Marsh
- 5 LCR MSCP species detected

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

LAGUNA DIVISION CONSERVATION AREA

- Project Area – 1050 Acres
- Was dense tamarisk monoculture
- 1 LCR MSCP species detected



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

MOHAVE VALLEY CONSERVATION AREA

- Lease acquired in 2015
- Develop a ~50 acre backwater for native fish
- Monitoring will begin after restoration

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

PALO VERDE ECOLOGICAL RESERVE

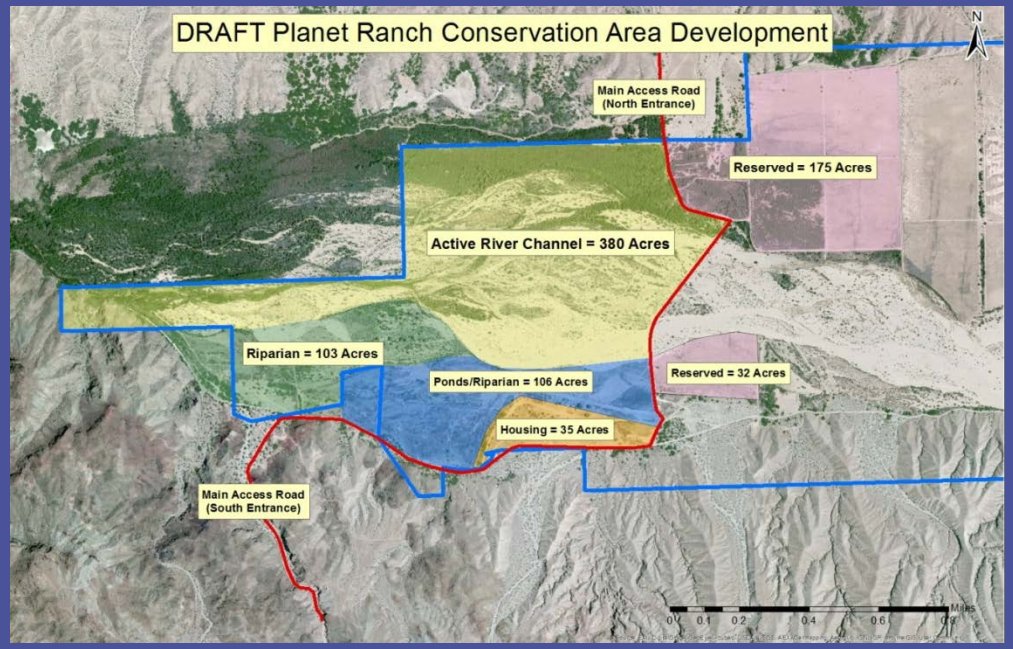
- **719 acres Cottonwood /Willow**
- **50 acres Mesquite/Atriplex**
- **13 LCR MSCP species detected**

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

PLANET RANCH CONSERVATION AREA

- Lease acquired in Dec 2015
- Backwater, Cottonwood /Willow, Marsh planned
- Native fish focus



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

PRETTY WATER CONSERVATION AREA

- **566 acres Mesquite/Atriplex**
- **Monitoring will begin after saplings mature**

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

YUMA EAST WETLANDS

- 183 acres Cottonwood /Willow
- 131 acre Mesquite/Atriplex
- 66 acres Marsh
- 15 LCR MSCP species detected (mostly migrants)

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

FISH AUGMENTATION

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

FISH AUGMENTATION ACCOMPLISHMENTS 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	18,233	73,636	73,636
TOTAL	114,626**	128,268	97,969	340,863	226,237

*Approximate

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

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

RESEARCH

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

RESEARCH

- Inventory method development – elf owl, gilded flicker, amphibians
- Habitat requirement studies – elf owl, gilded flicker, amphibians, marsh birds
- CA leaf-nosed bat genetics
- Bat foraging distance tracking
- Development of methods to monitor habitat characteristics
- Conservation funding for sticky buckwheat, threecorner milkvetch and relict leopard frog

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

MONITORING

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

SYSTEM-WIDE MONITORING

- Southwestern willow flycatcher and yellow-billed cuckoo nesting
- Marsh birds – Yuma clapper rail, California black rail, least bittern
- Riparian birds – Breeding bird surveys and MAPS
- Cotton rat and desert pocket mouse
- Bat roosting and foraging

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

POST-DEVELOPMENT MONITORING

- Southwestern willow flycatcher and yellow-billed cuckoo nesting
- Presence monitoring of covered and evaluations species including bats, marsh birds, riparian birds, MacNeill's sootywing, and rodents
- Habitat development and characteristics

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

10 YEARS OF DATA
WHAT'S NEXT?

- Organize data into a single database for analysis
- Identify knowledge gained and accomplishments
- Clarify remaining management needs
- Focus data collection to:
  - Measure conservation measure accomplishment
  - Inform management decisions
- Develop 5-10 year monitoring plans

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

- Colorado River Aquatic Biologists (CRAB) Meeting
  - Early January in Laughlin, NV (2 days) Regional natural resource groups to engage in general fisheries and aquatic-related discussions relative to the Lower Colorado River Watershed.
- Colorado River Terrestrial and Riparian (CRTR) meeting
  - Late January in Laughlin, NV (3 days) Information sharing for individuals or groups working with native restoration and natural resources monitoring and research related to the Lower Colorado River Watershed.

Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

www.lcrmscp.gov