Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

LOWER COLORADO RIVER
MULTI-SPECIES CONSERVATION PROGRAM

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Lower Colorado River Multi-Species Conservation Program

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LCR MSCP FY16 Overview
Funding Summary

FY16 Total Required Funding	FY16 Approved Estimate	FY16 Actual Obligations	Cumulative Program Accomplishment
$30,741,468	$34,980,018*	$29,715,407.62**	$250,682,367.19

*Approved Estimate more than Required due to Planet Ranch acquisition

**Doesn't include L&WF ($m)

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FY16 Program Element Accomplishment

Program Administration	$	1,188,765.48	(4%)
Fish Augmentation	$	2,381,947.95	(8%)
Species Research	$	2,761,547.19	(9%)
System Monitoring	$	3,258,703.47	(11%)
Conservation Area D&M	$	16,197,844.90	(55%)
Post Development Monitoring	$	1,158,678.01	(4%)
AMP	$	1,556,938.58	(5%)
Remedial Measure Fund	$	1,104,052.00	(4%)
Public Outreach	$	106,930.04	(*%)
TOTAL	**$**	**29,715,407.62**	

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FY16 Financial Accomplishments

- Obligations under approved Work Tasks by $5,264,610
  - MVCA, YEW, IPCA, BLCA work delayed or completed at reduced costs

- Status of Special Funds
  - HMF: Cumulative Total through FY16 = $? (we have not received AZ info)
  - RMF: $1,104,052.00 FY16 payment
    - Cumulative Total through FY16 = $? (we have not received AZ info)
  - LWF: $4,100,000 contributed in FY16
    - Cumulative Total through FY15 = $15,400,000

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FY16 Fisheries Accomplishments

Bonytail captured in A10 Backwater on 7/12/15
Photo by Chris Meachum
used with permission

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FY16 Fish Augmentation and Larvae Collection

Reach 2 (RASU 5): Stocked 7,898 RASU > 300 mm

Reach 3 (RASU 3): Stocked 6,105 RASU > 300 mm
Reaches 4/5 (RASU 3): Stocked 6,005 RASU > 305 mm
Total FY16 RASU for credit = 12,110

Reach 2 (BONY 3): Stocked 913 BONY > 300 mm
Reach 3 (BONY 3): Stocked 1,522 BONY > 300 mm
Reaches 4/5 (BONY 3): Stocked 1,289 BONY > 305 mm
Total FY16 BONY for credit = 3,724

FY16 Larvae collected from Lake Mohave = 18,050

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Fisheries Monitoring FY16 - D8 and F5

- Ongoing recruitment in Lake Mead continues to be documented; RASU larvae continue to be collected at 3 sites in Lake Mead.
- Current RASU population estimates in Reach 2 and 3 are 3,656 and 4,923, respectively. Estimates for both these reaches have increased.
- Razorback sucker continue to be contacted in Reaches 4 and 5 in small numbers. A small population persists in Reach 4, however, re-contact rates are too low to develop a population estimate.
- Razorback sucker, flannelmouth, and bonytail sucker were contacted in BBCA in FY16. The bonytail were the first contacted since monitoring began in FY13.

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Fisheries Research Highlights FY16

C64 - Both active and passive contacts suggested that post-stocking survival of bonytail was lower than the sonic-tagged razorback suckers and that movements of bonytail from the initial stocking location were much more restricted than those of razorback suckers. Razorback suckers moved more then 30 miles, sometimes within days.

C63 - Ongoing research suggests that bonytail will select cavities as concealment. In a hatchery setting, this occurred after approximately 30 days

G3 and C65 - Preliminary efforts made to document bird predation on native fishes using (PIT) tag scanners:

- PIT tags were detected on bird roosts within 24 hours of a stocking event
- Additional scanning under a known roost documented 31 “dead tags”

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FY16 Wildlife Accomplishments

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Species Research

7 research projects focused on 11 species to:

- develop effective survey methods,
- understand population size and habitat connectivity through genetic analyses, and
- measure characteristics of habitat to determine the components that are critical to support these species.

The following research projects were closed in FY16:

- C27: Small Mammal Population Studies
- C43: Population Demographics and Habitat Use of the California Leaf-Nosed Bat, a Genetic Evaluation

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System Monitoring

System-wide monitoring continued along the LCR and adjacent river systems for:

- southwestern willow flycatcher
- yellow-billed cuckoos (GPS tracking only)
- marsh birds
- riparian birds
- bats
- rodents
- amphibians

HIGHLIGHTS:

- 70 Yuma clapper rail detections during the second survey period
- 153 resident or breeding southwestern willow flycatchers were detected and 97 confirmed breeding territories
- 2 yellow-billed cuckoos with GPS tracking tags were captured. Data support a fall migration route for this population following the west coasts of Mexico and Central America down to Argentina and Bolivia.

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Post-Development Monitoring

Count of LCR MSCP Terrestrial Species Detected During Post-Development Monitoring in FY16	
Conservation Area	**Count of LCR MSCP Terrestrial Species Detected in FY16**
Beal Lake	9
Big Bend	2
Cibola NWR Unit #1	8
Cibola Valley Conservation Area	8
Hart Mine Marsh	3
Hunters Hole	5
Imperial Ponds Conservation Area	2
Laguna Division Conservation Area	4
Palo Verde Ecological Reserve	10
Pretty Water Conservation Area	Not surveyed in FY16. Habitat needs to mature.
Yuma East Wetlands	7

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Pre-Development Monitoring

Exploratory surveys were conducted at Planet Ranch. The following species were detected within the existing habitat:

- Arizona Bell's vireo
- California black rail
- Gila woodpecker
- Sonoran yellow warbler
- summer tanager
- vermilion flycatcher
- California leaf-nosed bat
- pale Townsend's big eared bat

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Listed Species Highlights:

- 56 yellow-billed cuckoo territories and 46 nests were confirmed at LCR MSCP conservation areas:
  - 50 territories and 41 nests at PVER (Phases 4–7)
  - 5 territories and 4 nests at Cibola NWR Unit #1 (Crane Roost)
  - 1 territory and 1 nest at CVCA
  - Detected and possibly breeding at YEW and at the new habitat in Cibola NWR Unit #1 Hippy Fire and LDCA.
- One resident willow flycatcher was observed at PVER on seven consecutive visits from May 31 to June 14. (Confirmed to be a different individual than the one observed at PVER in FY15.)
- Yuma clapper rails were detected at BLCA, Hart Mine Marsh, IPCA in Field 18, and Yuma East Wetlands.

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FY16 Restoration Accomplishments

- $ 16,197,844.90 (55%)
- Planet Ranch Acquisition
- Cibola Valley Conservation Area Planting
- Cibola NWR Unit #1 Planting
- MOU for Parker Dam Camp
- Lease for Mohave Valley Conservation Area

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Planet Ranch

$8,300,000
3,418 acres & 5,549 ac-ft
396 acres of cottonwood-willow downstream credit

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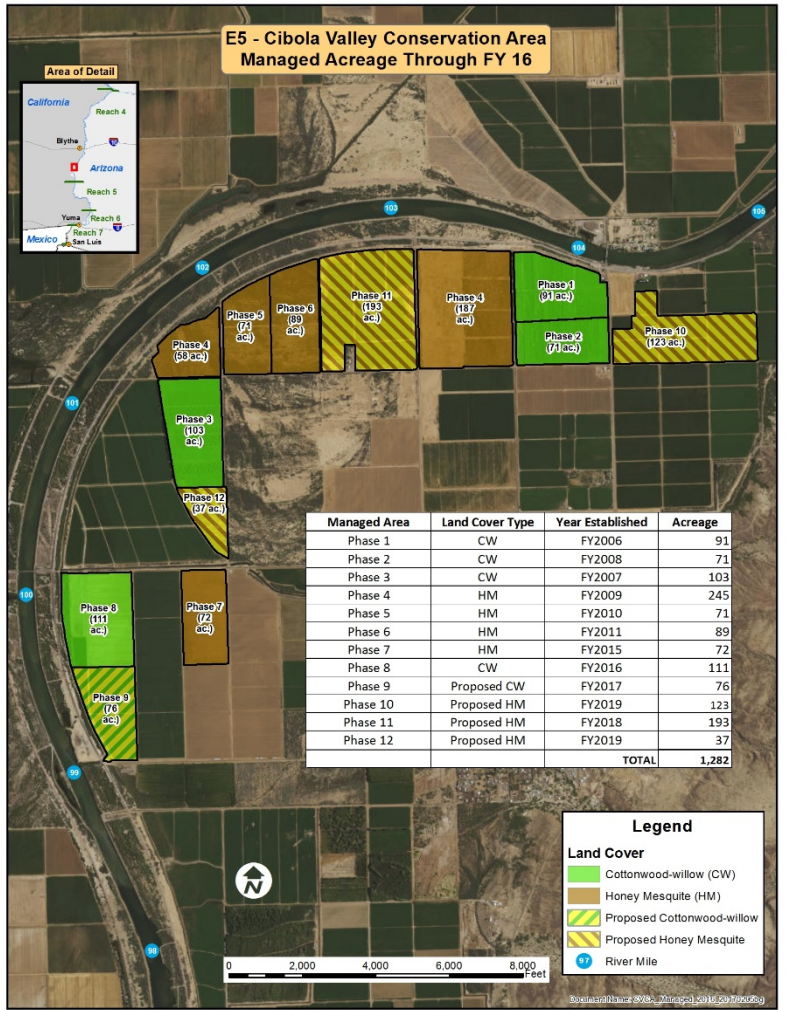
Cibola Valley Conservation Area

- Planting of Phase 8
- 111 acres of cottonwood-willow
- Last Planting in 2019



Managed Area	Land Cover Type	Year Established	Acreage
Phase 1	CW	FY2006	91
Phase 2	CW	FY2008	71
Phase 3	CW	FY2007	103
Phase 4	HM	FY2009	245
Phase 5	HM	FY2010	71
Phase 6	HM	FY2011	89
Phase 7	HM	FY2015	72
Phase 8	CW	FY2016	111
Phase 9	Proposed CW	FY2017	76
Phase 10	Proposed HM	FY2019	123
Phase 11	Proposed HM	FY2018	193
Phase 12	Proposed HM	FY2019	37
		TOTAL	1,282

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Cibola NWR Unit #1

- Planting of Lower Hippy Fire
- 98 acres of cottonwood-willow
- Last Planting in 2020

Managed Area	Land Cover Type	Year Established	Acres
Area #1	CW	1999-2009	117
Area #1	Proposed CW	2021	75
Crane Roost	CW	2008-2009	154
Upper Hippy Fire	CW	2013	94
Middle Hippy Fire	Proposed CW	2017	149
Lower Hippy Fire	CW	2016	96
North 160	Proposed CW	2018-2019	158
Baseline 90	Proposed CW	2020	107
		TOTAL	950

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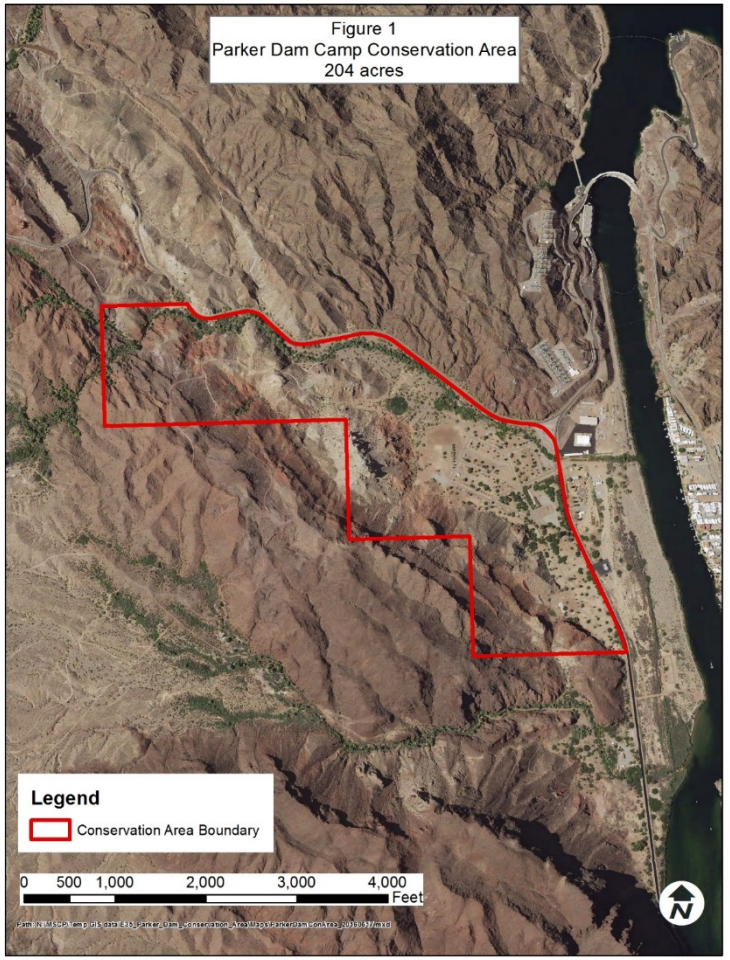
Parker Dam Camp

- MOU with Lower Colorado Dams Office signed in August 2016
- Within the Security Zone of Parker Dam
- Honey Mesquite is the Dominant Land Cover Type



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Mohave Valley Conservation Area

Lease signed with California State Lands (Sep 2016)
1,200,000 cubic yards of excavation
Combination of Land Based Excavation and Dredging
50 acres of backwater in California

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Yuma (Dredge)

Cottonwood (Tender)

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Table 1-12.—Managed Acres by Conservation Area Through FY16			
Conservation Area	Established Land Cover Types	Managed Acreage	**Available Lands**
Beal Lake Conservation Area (Arizona)	116	116	**116**
Big Bend Conservation Area (Nevada)	15	15	**15**
Cibola National Wildlife Refuge Unit #1 Conservation Area (Arizona)	461	950	**950**
Cibola Valley Conservation Area (Arizona)	853	966	**1,282**
Hart Mine Marsh (Arizona)	255	255	**255**
Hunters Hole (Arizona)	44	44	**44**
Imperial Ponds Conservation Area (Arizona)	92	126	**126**
Laguna Division Conservation Area (Arizona and California	1,171	1,171	**1,171**
Palo Verde Ecological Reserve (California)	1,023	1,023	**1,023**
Parker Dam Camp	80	204	**204**
Planet Ranch Conservation Area	396	3,814	**3814**
Pretty Water Conservation Area (California)	566	566	**566**
Yuma East Wetlands (Arizona)	380	380	**380**
Total	5,452	9,630	**9,946**

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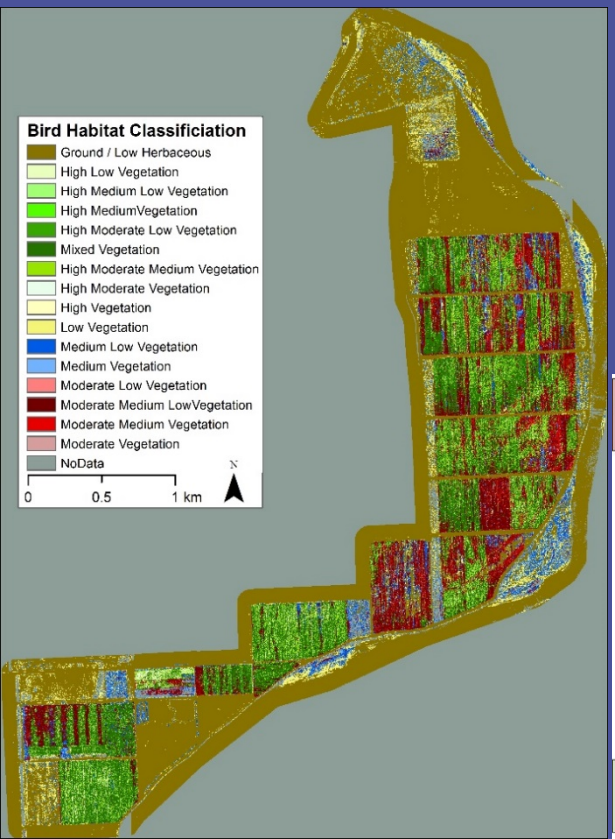
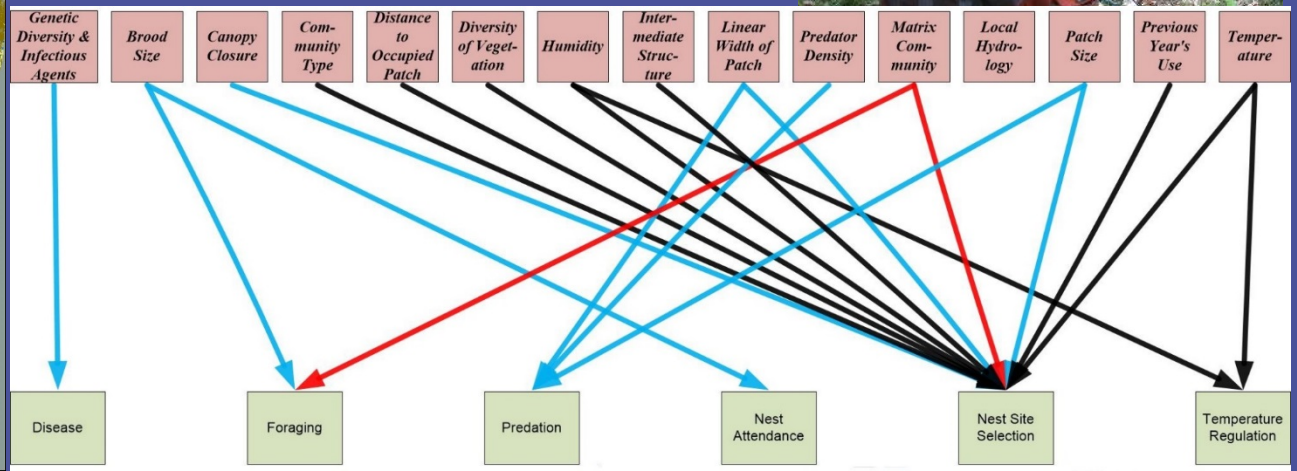
FY16 Adaptive Management Program Accomplishments





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Adaptive Management

General accomplishments

- Peer review of approximately 30 monitoring and research reports
- Improvements in quality of technical writing and formatting
- Provided support to staff on study plan designs and statistical analyses
- Performed habitat creation accomplishment analysis

Fish-related accomplishments

- Support of razorback sucker species status assessment
- Finalized review of razorback sucker genetic monitoring
- Provided funding for initial development of advanced genetic markers for razorback sucker
- Initial versions of CEMs published for 2 covered fish species

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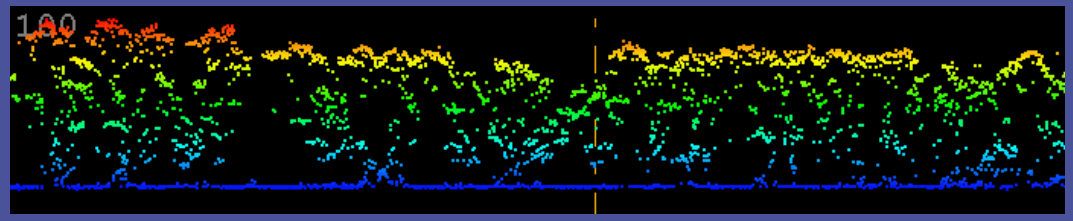
Adaptive Management (cont.)

Wildlife-related accomplishments

- Initial versions of Conceptual Ecological Models (CEMs) published for 17 covered terrestrial species
- Support review of monitoring and research projects
- Field data collection improvements
- SWFL habitat suitability
  - Soil moisture monitoring at occupied sites and PVER
  - LiDAR data acquisition and physiognomic vegetation structure evaluation



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Data Management

Data management accomplishments

- Continued website maintenance – reports, outreach info, meeting info
- Continued efforts to standardize all data collection protocols
- Improvements in field data collection techniques and data processing workflows
- Development of QA/QC tools for MSCP staff and contractors
- Initial efforts to develop tools to present and share monitoring/research results
- Supported maintenance of native fish augmentation database

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Proposed FY18 Program Work Plan and Budget

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FY18 Funding Requirements*

(Preliminary Inflation Rate = 1.410%)

Funding Entity	FY18 Contributions	FY18 Adjusted Contributions
Federal	**$15,625,620.00**	**$15,625,620.00**
Non-Federal	**$15,625,620.00**	**$15,625,620.00**
California	*$ 7,812,810.00*	*$ 7,441,643.36*
Arizona	*$ 3,906,405.00*	*$ 4,648,738.28*
Nevada	*$ 3,906,405.00*	*$ 3,535,238.36*
TOTAL	**$31,251,240.00**	**$31,251,240.00**

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FY18 Proposed Work Plans

Program Administration	$ 1,435,380
Fish Augmentation	$ 2,100,000
Species Research	$ 2,508,000
System Monitoring	$ 2,575,000
Conservation Area D&M	$ 19,241,000
Post Development Monitoring	$ 2,650,000
AMP	$ 1,740,000
Remedial Measures Fund	$ 1,122,360
Public Outreach	$ 125,000
TOTAL	**$ 33,496,740**