Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Pretty Water Conservation Area

2017 Annual Report

June 2019

Work conducted under LCR MSCP Work Task E33

Lower Colorado River Multi-Species Conservation Program Steering Committee Members

Federal Participant Group

Bureau of Reclamation
U.S. Fish and Wildlife Service
National Park Service
Bureau of Land Management
Bureau of Indian Affairs
Western Area Power Administration

Arizona Participant Group

Arizona Department of Water Resources
Arizona Electric Power Cooperative, Inc.
Arizona Game and Fish Department
Arizona Power Authority
Central Arizona Water Conservation District
Cibola Valley Irrigation and Drainage District
City of Bullhead City
City of Lake Havasu City
City of Mesa
City of Somerton
City of Yuma
Electrical District No. 3, Pinal County, Arizona
Golden Shores Water Conservation District
Mohave County Water Authority
Mohave Valley Irrigation and Drainage District
Mohave Water Conservation District
North Gila Valley Irrigation and Drainage District
Town of Fredonia
Town of Thatcher
Town of Wickenburg
Salt River Project Agricultural Improvement and Power District
Unit "B" Irrigation and Drainage District
Wellton-Mohawk Irrigation and Drainage District
Yuma County Water Users' Association
Yuma Irrigation District
Yuma Mesa Irrigation and Drainage District

Other Interested Parties Participant Group

QuadState Local Governments Authority
Desert Wildlife Unlimited

California Participant Group

California Department of Fish and Wildlife
City of Needles
Coachella Valley Water District
Colorado River Board of California
Bard Water District
Imperial Irrigation District
Los Angeles Department of Water and Power
Palo Verde Irrigation District
San Diego County Water Authority
Southern California Edison Company
Southern California Public Power Authority
The Metropolitan Water District of Southern California

Nevada Participant Group

Colorado River Commission of Nevada
Nevada Department of Wildlife
Southern Nevada Water Authority
Colorado River Commission Power Users
Basic Water Company

Native American Participant Group

Hualapai Tribe
Colorado River Indian Tribes
Chemehuevi Indian Tribe

Conservation Participant Group

Ducks Unlimited
Lower Colorado River RC&D Area, Inc.
The Nature Conservancy

Lower Colorado River Multi-Species Conservation Program

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ACRONYMS AND ABBREVIATIONS

Cibola NWR	Cibola National Wildlife Refuge
FY	fiscal year
HCP	Habitat Conservation Plan
LCR MSCP	Lower Colorado River Multi-Species Conservation Program
lidar	light detection and ranging
PWCA	Pretty Water Conservation Area
Reclamation	Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service

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1.0 INTRODUCTION

The purpose of this annual report is to summarize all activities that have occurred at the Pretty Water Conservation Area (PWCA) from October 1, 2016, through September 30, 2017, which is Federal fiscal year (FY) 2017, and projected activities for FY18. Water usage is presented for the calendar year, January 1 through December 31, 2017, consistent with the Colorado River Accounting and Water Use Report: Arizona, California, and Nevada, Calendar Year 2017 (Bureau of Reclamation [Reclamation] 2018).

1.1 Background

The Cibola National Wildlife Refuge (Cibola NWR) consists of about 16,600 acres of land located along approximately 12 miles of the lower Colorado River in Arizona and California. It was established in 1964 as a refuge and breeding ground for migratory birds and other wildlife. The Cibola NWR is divided into six management units designated as Unit 1, Unit 2, Unit 3, Unit 4, Unit 5, and Unit 6.

On July 17, 2006, lightning ignited a fire on the Cibola NWR and burned acreage in both Arizona and California. Approximately 4,600 acres of primarily saltcedar (*Tamarix* spp.) with some intermixed honey mesquite (*Prosopis glandulosa*) were burned. Restoration with honey mesquite of approximately 550 acres of this burned area, located on the Cibola NWR in the State of California, is the focus of this habitat restoration project. The site is referred to as the Pretty Water Conservation Area, named after the old Colorado River channel which borders the southern end of the site.

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) is providing resources to establish and maintain the PWCA. Those resources include the use of Colorado River water through the LCR MSCP Water Accounting Agreement and funding to create and manage the native vegetation. The refuge does not maintain any water rights within the State of California.

2.0 CONSERVATION AREA INFORMATION

2.1 Purpose

The PWCA was developed for terrestrial wildlife species. The intent is to create honey mesquite habitat type III that will be managed for vermilion flycatchers (*Pyrocephalus rubinus*) and other species covered under the LCR MSCP Habitat Conservation Plan (HCP). The creation of habitat includes both the establishment of native plants and the management of the vegetation and its structural type to meet performance standards.

2.2 Location

The PWCA consists of approximately 566 acres on the Cibola NWR, and it is located in Reach 4 between River Miles 95 and 97, near Palo Verde, California (figure 1).

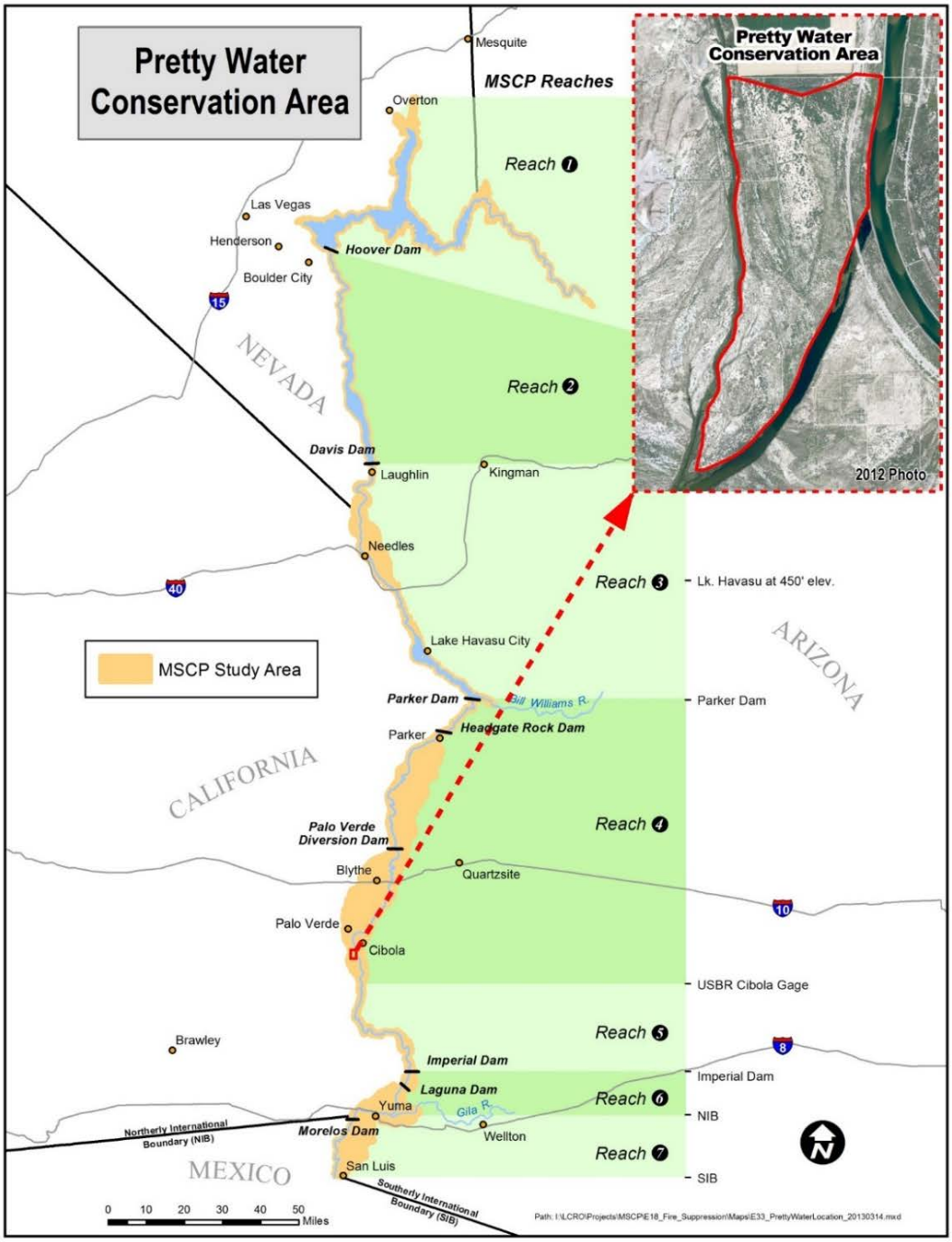


Figure 1.—General location of the PWCA.

2.3 Landownership

The PWCA is located on Cibola NWR Unit 6, which is owned and managed by the U.S. Fish and Wildlife Service (USFWS).

2.4 Water

The Cibola NWR does not hold an entitlement for the use of Colorado River water for use in California. However, temporary use of Colorado River water to establish honey mesquite trees was utilized through the LCR MSCP water agreement, which was signed in March 2010. The PWCA has not been irrigated since September 2015.

2.5 Agreements

A Land Use Agreement was signed in 2010 by Reclamation and the USFWS to secure land and water for the remainder of the 50-year LCR MSCP. In March 2013, Exhibit B was signed to include the PWCA in the partnership. The agreement outlines the rights and responsibilities of each partner in the project's development and maintenance.

2.6 Public Use

The PWCA has seasonal controlled public access for recreational activities, including hunting regulated by the USFWS and Cibola NWR.

2.7 Law Enforcement

Law enforcement activities are performed primarily by the USFWS's law enforcement officers, under the LCR MSCP's site-specific Fire Management & Law Enforcement Strategy (LCR MSCP 2010). Additional local law enforcement assistance is available through the Arizona Game and Fish Department's Kingmans Office, the Mohave County Sheriff's Office, and the Bureau of Land Management's Lake Havasu Field Office.

2.8 Wildfire Management

The USFWS will provide an appropriate management response to all wildfires that occur within the PWCA. The full range of suppression strategies is available

to managers provided that selected options do not compromise firefighter or public safety, are cost effective, consider the benefits of suppression and the values to be protected, and are consistent with resource objectives (LCR MSCP 2010).

3.0 HABITAT DEVELOPMENT

The honey mesquite land cover type is being managed for LCR MSCP covered species on the conservation area (figure 2).

3.1 Planting

No additional planting is planned for the PWCA, as it is considered fully developed.

3.2 Irrigation

No additional watering is necessary at this time.

3.3 Site Management

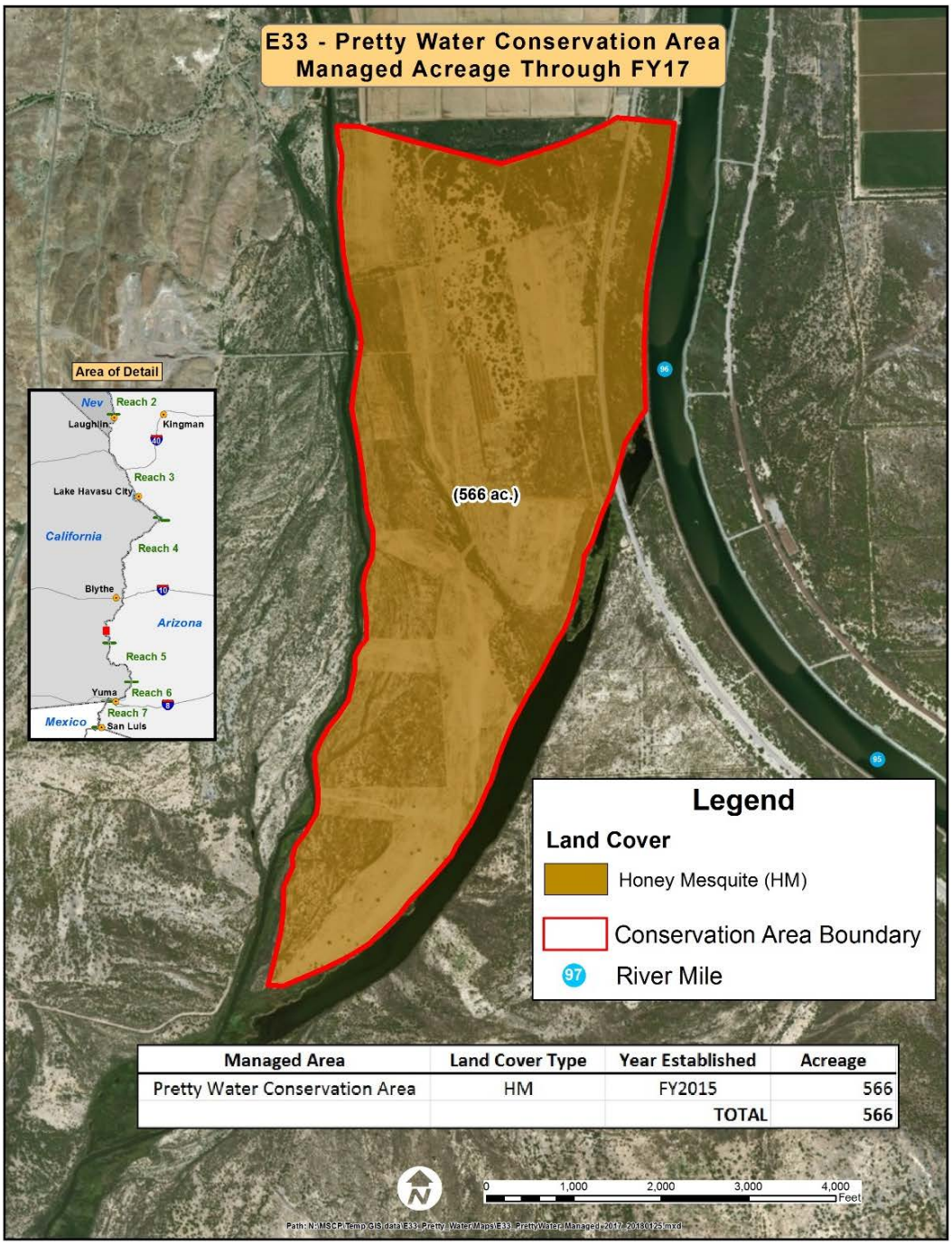
PWCA site management and maintenance is minimal. Any additional road maintenance will be completed by Reclamation as needed.

The majority of maintenance activities focus on the management of non-native invasive species like salt cedar. The vegetation maintenance contractor is responsible for the regular removal of non-native species, mainly saltcedar, in the cleared areas. The contractor completed a monthly evaluation of the areas needing chemical or manual treatment and monitors areas that have already received treatments. Followup treatments were completed, and the contractor provided monthly progress reports to the LCR MSCP restoration project manager to conclude the contract in December 2017.

4.0 MONITORING

4.1 Avian Monitoring

Avian monitoring in FY17 was conducted for riparian breeding birds.



Managed Area	Land Cover Type	Year Established	Acreage
Pretty Water Conservation Area	HM	FY2015	566
		TOTAL	566

Figure 2.—Managed acreage at the PWCA.

4.1.1 General Avian Surveys

Bird surveys were conducted to detect breeding LCR MSCP riparian bird species and other territorial riparian bird species. Surveys were conducted within areas of cottonwood-willow and mesquite land cover types that were of adequate growth to support breeding birds. General bird surveys resulted in the detection of 13 species (64 territories) of birds breeding within the surveyed plots. There were no LCR MSCP covered species detected at the PWCA in FY17 (SWCA Environmental Consultants 2018).

4.2 MacNeill's Sootywing Skipper Monitoring

Surveys for MacNeill's sootywing skippers (*Pholisora gracielae = Hesperopsis gracielae* [MacNeill]) were conducted in April 2017. MacNeill's sootywing skippers and their eggs were detected (Hill 2017).

5.0 HABITAT CREATION AND CONSERVATION MEASURE ACCOMPLISHMENT

5.1 Vegetation Monitoring

Vegetation data were collected in FY17 using light detection and ranging (lidar). Lidar measures the vegetation structure throughout the canopy and provides the ability to identify structural diversity and successional growth stages. Conservation area vegetation will be evaluated on a periodic basis using lidar to ensure the habitat is meeting species' requirements. A procedure to analyze and provide vegetation structure metrics will be developed, and the results will be presented in future reports.

5.2 Evaluation of the Pretty Water Conservation Area

The Final Habitat Creation Conservation Measure Accomplishment Tracking Process was finalized in October 2011 (LCR MSCP 2011). All areas within the PWCA were designed to benefit covered species at the landscape level.

To meet species habitat creation requirements, the HCP provides goals for habitat creation based on land cover types. These land cover types are described using the Anderson and Ohmart vegetation classification system (Anderson and Ohmart 1976, 1984a, 1984b).

6.0 ADAPTIVE MANAGEMENT RECOMMENDATIONS

Adaptive management relies on the initial receipt of new information, the analysis of that information, and the incorporation of the new information into the design and/or direction of future project work (LCR MSCP 2007). The Adaptive Management Program's role is to ensure habitat creation sites are biologically effective and fulfill the conservation measures outlined in the HCP for 27 covered species and if they potentially benefit 5 evaluation species. Post-development monitoring and species research results will be used to adaptively manage habitat creation sites after initial implementation. Once monitoring data are collected over a few years, and then analyzed for the PWCA, recommendations may be made through the adaptive management process for site improvements in the future.

There are no adaptive management recommendations for the PWCA at this time.

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