



Lower Colorado River Multi-Species Conservation Program

Balancing Resource Use and Conservation

Fiscal Year 2015 Outreach Activities



July 2015

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

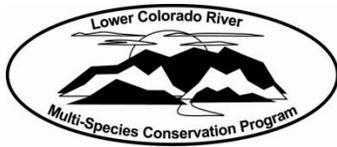
Colorado River Commission of Nevada
Nevada Department of Wildlife
Southern Nevada Water Authority
Colorado River Commission Power Users
Basic Water Company

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



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ACRONYMS AND ABBREVIATIONS

LCR MSCP	Lower Colorado River Multi-Species Conservation Program
Reclamation	Bureau of Reclamation
RRAS	Red Rock Audubon Society
WEF	Water Education Foundation

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INTRODUCTION

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) is a multi-Federal and non-Federal partnership program that seeks to balance the use of Colorado River water resources with the conservation of native species and their habitats in compliance with the Endangered Species Act. This comprehensive program impacts many different groups, including the partner agencies and organizations represented on the LCR MSCP Steering Committee, the scientific community, local communities, Native American Tribes, farmers, recreationists, and the general public. A public outreach strategy was developed to communicate and inform audiences on LCR MSCP implementation. As part of these efforts, the LCR MSCP reports annual outreach accomplishments.

A major highlight of this year was the dedication ceremony of the Laguna Division Conservation Area and a 3-day bus tour of LCR MSCP conservation areas to commemorate the 10-year anniversary of the signing of the Record of Decision marking the start of LCR MSCP implementation. We supported several non-LCR MSCP groups conducting public education tours, including the Water Education Foundation, the Red Rock Audubon Society, and the Yuma Audubon Society. We continue to coordinate with Arizona State University Colleges at Lake Havasu City to identify student volunteer opportunities for field projects, including razorback sucker surveys at Lake Havasu, bird banding at Beal Lake, and occasional bat surveys. Our involvement at Clark County Wetlands Park and the Las Vegas Wash expanded to three events in fiscal year 2015, including the first BioBlitz event at Clark County Wetlands Park.

TOURS AND GROUP PRESENTATIONS

The LCR MSCP conducts research, monitoring, fish stocking, habitat creation, and management projects over 400 miles of the lower Colorado River from Lake Mead to the U.S.-Mexico border. This requires the LCR MSCP to engage partners who are spread out geographically throughout Arizona, California, and Nevada. One of the most effective ways to create an understanding of the work taking place at LCR MSCP conservation areas, as well as the program area at large, is through occasional tours of the projects. Tours and special group presentations provided during the year are discussed below.

Yuma Audubon Society Tour

Partners: Yuma Audubon Society and Arizona Game and Fish Department

Date: February 10–11, 2015

Location: Laguna Division Conservation Area

Biologist, Beth Sabin, provided an overview of the LCR MSCP and bird conservation efforts for approximately 25 attendees during an evening meeting of the Yuma Audubon Society at the Arizona Fish and Game Department Office in Yuma, Arizona. The following morning, approximately 15 members of the group were led on a birding tour at the Laguna Division Conservation Area.

10-Year Program Anniversary Tour and Laguna Division Conservation Area Dedication

Date: April 7–9, 2015

Location: Throughout the LCR MSCP planning area

The year 2015 marked 10 years of implementing the LCR MSCP. In order to highlight the occasion and provide the LCR MSCP partners with an overview of the program's accomplishments and current status, we hosted a 3-day tour of the program area.

A morning ceremony at the Pivot Point Conference Center (Yuma, Arizona) kicked off the tour, featuring speakers from the Bureau of Reclamation (Reclamation) (Esteban Lopez – Commissioner and John Swett – LCR MSCP Program Manager), the Colorado River Board of California (Gerald Zimmerman – Executive Director), the Central Arizona Groundwater Replenishment District (Perri Benemelis – Senior Analyst), and the Colorado River Commission of Nevada (Jayne Harkins – Executive Director).

The speakers highlighted the long journey from the original concept to creation of the program, through its planning, early implementation, and recent accomplishments.

Following the welcome reception, approximately 100 attendees were bused to the Laguna Division Conservation Area to participate in a dedication ceremony, tour, and final tree planting ceremony at the site. The river tour left from there with approximately 50 participants for 3 full days of visits, tours, and field presentations at conservation areas located from near Yuma, Arizona, to as far north as Laughlin, Nevada.



Figure 1.—An extensive range of exhibits, posters, summary reports, and fact sheets were prepared and displayed at the tour kick-off reception at Pivot Point Conference Center, Yuma, Arizona.

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Figure 2.—Highlights of the Pivot Point ceremony and Laguna Division Conservation Area dedication and tour.



Figure 3.—Additional tour highlights from Mayflower Park (near Blythe, California) and Park Moabi, California.

Water Education Foundation

Date: March 11–13, 2015

Location: Palo Verde Ecological Reserve and Big Bend Conservation Area

The Water Education Foundation (WEF) is a non-profit organization that produces tours, events, and publications to provide an education about water issues in California and the West. The WEF hosts an annual 3-day tour of the lower Colorado River from the Yuma Desalting Plant (Yuma, Arizona) to Hoover Dam (Boulder City, Nevada). At tour stops, a variety of topics are addressed, such as water storage, water delivery, border issues, tribal water rights, drought management, and endangered species. The LCR MSCP typically hosts one or more stops on this tour at LCR MSCP conservation areas to discuss endangered species conservation efforts.

This year, Darrin Miller (landscape architect) hosted stops on the WEF tour at the Palo Verde Ecological Reserve and Big Bend Conservation Area for 38 participants. More information about the lower Colorado River tours can be found on the Water Education Foundation's Web site at: <http://www.watereducation.org/tour/lower-colorado-river-tour-2015>.

Red Rock Audubon Society

Date: February 9, February 23, and April 11, 2015

Location: Las Vegas and Pahrump, Nevada, and the Havasu National Wildlife Refuge, Needles, California

The Red Rock Audubon Society (RRAS) is a chapter of the National Audubon Society dedicated to conservation of birds and other wildlife in southern Nevada. RRAS meetings and activities are open to the general public and incorporate a mixture of educational workshops, guest speakers, and conservation-based volunteer service. We visited with the RRAS on three occasions during the year, providing two presentations and one field trip. The presentations involved discussions about the program, with an emphasis on the types of birds that are included in the program, and the monitoring, research, and habitat conservation efforts being conducted. The dates, locations, and attendance figures are summarized below.

Date	Location	Program type	Number of participants
2/09/2015	Las Vegas, Nevada	Presentation	40
2/23/2015	Pahrump, Nevada	Presentation	10
4/11/2015	Havasu National Wildlife Refuge (Beal Lake)	Birding tour	5

CONFERENCES AND MEETINGS

Conferences and scientific meetings provide forums to discuss the technical details and issues related to conservation area development, fish and wildlife monitoring, fish augmentation, and species research with program partners, subject matter experts, and other interested parties. These gatherings allow resource managers and scientists to compare best practices and stay informed about important research findings and issues of regional importance. Conferences and meetings that involved substantial program involvement are discussed below.

Colorado River Water Users Association Annual Conference

Date: December 10–12, 2014

Location: Las Vegas, Nevada

The Colorado River Water Users Association “*is a non-profit, non-partisan group, formed to study, formulate, and advise on ways to protect and safeguard the interests of all who use the Colorado River.*” Their annual meeting in Las Vegas draws hundreds of interested parties to discuss issues related to water accounting, ongoing and new issues in water law, municipal reuse and conservation programs, and many other issues related to water use along the Colorado River. The LCR MSCP continues to host an exhibit booth at this conference.

Colorado River Aquatic Biologists Annual Meeting

Date: January 7–8, 2015

Location: Laughlin, Nevada

Colorado River Aquatic Biologists (CRAB) is an informal group of mainly fisheries biologists, representing Federal, State, tribal, and private entities, working in the Colorado River basin. The group meets each January to share fisheries status updates, research findings, and to discuss topics of current importance pertaining to Colorado River fisheries. Presentations are generally focused on the Colorado River basin from the Mexican border to Lake Powell.

CRAB meetings are considered to be the main local venue for information sharing between fisheries workers involved with both native and sport fishes. LCR MSCP projects are a major part of the native fish component of each annual CRAB meeting. In 2015, 77 individuals attended the CRAB meeting, with a total of 38 presentations made by attendees that included both LCR SCP and non-LCR MSCP related topics.

A Web page dedicated to CRAB is hosted within the LCR MSCP Web site. Presentations from 2011 to the present are posted as well as details about upcoming meetings. The Web page can be found at: <http://www.lcrmscp.gov/crab/crab.html>.

Colorado River Terrestrial and Riparian Annual Meeting

Date: January 27-29, 2015

Location: Laughlin, Nevada

The Colorado River Terrestrial and Riparian (CRTR) Group helps facilitate communication and information sharing for individuals or groups working on terrestrial, riparian, and marsh habitat issues, including habitat restoration, natural resource monitoring, and research related to the lower Colorado River watershed. Organized under the LCR MSCP, an annual meeting is hosted for any and all groups working on Colorado River issues. In 2015, at least 125 individuals attended the CRTR meeting, with 27 presentations made by attendees that included both MSCP and non-MSCP related topics.

A Web page dedicated to CRTR meeting information is hosted within the LCR MSCP Web site. Presentations from 2007 to the present are posted as well as details about upcoming meetings. The Web page can be found at: <http://www.lcrmscp.gov/crtr/crtr.html>.

Universities Council on Water Resources Annual Conference

Water is Not for Gambling: Utilizing Science to Reduce Uncertainty

Date: June 16–18, 2015

Location: Henderson, Nevada

Universities Council on Water Resources is an organization comprised of universities, academic institutions, and international affiliates, with a focus on water resources education, research, and public service.

John Swett, LCR MSCP Program Manager, spoke as part of a panel discussion titled, “All in” Together: The role and influence of environmental programs in Colorado River water management and resource conservation.” The other panelists included Jason Thiriot (Colorado River Commission of Nevada), Sharon Whitmore (San Juan River Recovery Implementation Program), Thomas Czapla (Upper Colorado River Endangered Fish Recovery Program), and Beverly Heffeman (Adaptive Management Group, Reclamation, Upper Colorado Region).

EDUCATIONAL OUTREACH

Educational outreach is an effective way to establish long-term support for program objectives. School groups often request guest speakers or someone to provide field trips. Educational outreach efforts made under the program during the year are discussed below.

Mirage Educators Appreciation Day

Partners: Mirage Casino, Clark County School District, and numerous other organizations

Date: August 13, 2015

Location: Mirage Casino, Las Vegas, Nevada

This annual event helps provide K–12 teachers with donated school supplies and the opportunity to visit and network with numerous exhibit tables hosted by non-profit groups, agencies, museums, and other organizations with a potential educational value. This event provides an opportunity to distribute informational materials about the LCR MSCP and to make initial contact with teachers who may be interested in having classroom speakers or field trips to learn more about the program.

Summary of K–12 and University Outreach Efforts

We performed a wide variety of educational outreach events, including classroom presentations, career day events, and hosting college-student volunteers during several field surveys. The table below provides details on the schools/colleges, dates, locations, and presentation types for educational outreach events during fiscal year 2015.

School	Grades	Dates	Number of Students contacted	Program Type
College of the Atlantic (Bar Harbor, Maine)	University	10/20/2014	12	Conference room presentation (Boulder City, Nevada)
Ferron Elementary School (Las Vegas, Nevada)	3–5	3/27/2015	100	Career day – classroom presentation
William Beckley Elementary School (Las Vegas, Nevada)	4	4/28/2015	60	School library presentation and science demonstrations
James Gibson Elementary School (Henderson, Nevada)	Kindergarten	5/15/15, 5/21/15	69	Classroom presentations
Nate Mack Elementary School (Henderson, Nevada)	4	5/20/2015	35	Classroom presentations
Arizona State University, Colleges at Lake Havasu City	University	4/30/2015	10	Classroom presentations
Estimated total students			298	

FESTIVALS AND SPECIAL EVENTS

Festivals and special events attract the general public to come participate and learn about a variety of topics, including science and conservation. To be successful, these events often require the participation and support from large numbers of organizations, with one organization taking the lead to produce the event. By participating in large festivals and events, Reclamation is able to gain visibility for the LCR MSCP from a large number of people without having to be the organizer of the event. Some large events, such as the Las Vegas Science Expo, have attracted from several hundred to as many as 10,000+ attendees within a single day. During FY15, we participated in the following festivals and special events:

Las Vegas Wash “Green Up”

Date: October 4, 2014

Location: Las Vegas Wash, Nevada

The 2014 Las Vegas Wash “Green Up” took place on Saturday, October 4, along the wash, near Sam Boyd Stadium. The “Green Up” is a volunteer-based habitat restoration activity presented by the Las Vegas Wash Coordination Committee. This year, the event attracted over 400 volunteers to plant approximately 4,000 trees and shrubs. In addition to the planting, about a dozen or more environmentally minded organizations presented information to the public inside of a tented, “agency fair,” which the volunteers visited either before or after the planting.

The LCR MSCP hosted a table at the agency fair to discuss our conservation work with the volunteers. The event was a good fit for highlighting our program because, through helping plant an active restoration site, the volunteers could more easily relate to the type of work that we do.



Figure 4.—Gil Cristobal of the LCR MSCP talks with a volunteer about the program's conservation work.



Figure 5.—A U.S. Forest Service employee talks to several kids about wildfire prevention.

BioBlitz (at Clark County Wetlands Park)

Date: January 31, 2015

Location: Clark County Wetlands Park

A BioBlitz is an intense period of biological surveys in which an attempt is made to record all living species within a designated area. Clark County Wetlands Park and numerous local agency and non-profit groups partnered this spring to host this event, in an effort to energize and inspire the local community to discover the park and the dozens of species of native plants and wildlife in their local area.

We used the Web site and smartphone “app” known as iNaturalist. This platform allows users to collect and record species observations, which are then displayed on a map. Other users are able to view, discuss, and confirm the accuracy of each other’s observations through the Web site. During the planning for this event, we consulted directly with iNaturalist Co-Director, Scott Loarie, to guide our event planning.



Figure 6.—A volunteer naturalist helps young “BioBlitzers” identify aquatic invertebrates captured from a pond.

The events began with check-in; the participants were guided through the process of downloading the “app” to their smartphones. Observers without smartphones were given maps to record the locations of their observations in the field. At the conclusion of the event, observers recorded data in a conference room supplied with laptop computers. Once in the field, volunteers from groups like the Red Rock Audubon Society, the Southern Nevada Water Authority, and Clark County Wetlands Park assisted the observers in identifying species and recording their observations (including digital photographs). At the conclusion of the event, we all gathered for a “data watch” party, making final data entries and error checking the observations.

The BioBlitz attracted approximately 170 participants. A total of 55 people entered 778 observations, which included 110 species.



Figure 7.—Alison Brody (Clark County Wetlands Park) facilitates the “data watch,” displaying the incoming data on a projection screen.

International Migratory Bird Day

Partners: Clark County Parks and Recreation, Reclamation, Bureau of Land Management, Nevada Department of Wildlife, Southern Nevada Water Authority, U.S. Fish and Wildlife Service, and Red Rock Audubon Society

Date: April 1, 2015

Location: Clark County Wetlands Park

Clark County Wetlands Park partnered with six local agencies to create a community event celebrating “International Migratory Bird Day,” which introduces the public to the world of birds. The theme in 2015 was “Restore Habitat, Restore Birds.” This year’s event was held during spring break for the Clark County School District in an attempt to boost attendance.

Reclamation participated in the event planning, which included activity stations, such as a bird walk; a live kestrel with a wildlife rehabilitator; pine cone bird feeder construction; and other bird-related activities. Approximately 200 people participated in the 2015 event, which was very similar to the 2014 attendance.



Figure 8.—“Zippit,” the kestrel, was the star of the 2015 International Migratory Bird Day event. (Photo courtesy of Clark County Wetlands Park)

Junior Ranger Day

Date: April 25, 2015

Location: Boulder Beach, Lake Mead, Nevada

This half day event drew 419 participants to Boulder Beach at Lake Mead (Nevada) to come learn about a variety of topics related to native species, conservation, cultural resources, firefighters, Emergency Medical Services, and water safety. We co-hosted an activity table that included Reclamation and the LCR MSCP.

Las Vegas Science Expo

Partners: Las Vegas Science Festival

Date: May 2, 2015

Location: Cashman Expo Center, Las Vegas, Nevada

This full-day event attracted 7,200 attendees to Cashman Expo Center (Las Vegas, Nevada) to learn and participate in hands-on science demonstrations, view exhibits and animals, and to learn about local science programs. We have participated in every year of this annual event since it began in 2011. At this event, we distributed illustrated posters, covered species bookmarks, and program information while talking with participants about the program's conservation efforts along the lower Colorado River.

Nevada Free Fishing Day

Participants: LCR MSCP, Reclamation, National Park Service, Nevada Department of Wildlife, and Boulder City Parks & Recreation

Date: June 13, 2015

This free fishing event attracts hundreds of people of all ages to learn about fishing, while waiving state fishing license requirements for 1 day. All other fishing regulations remained in effect. We staffed a native fish information booth, which included acrylic fish models, a passive integrated transponder unit, and other native fish information.

National Public Lands Day

Partners: National Park Service, Academy of Building Industries, and Clark County

Date: September 26, 2015

Location: Pyramid Canyon Day Use Area, Laughlin, Nevada

National Public Lands Day is a day when Americans come together to celebrate their public lands through public service and education. We partnered with several agencies to host this community event near Laughlin, Nevada, which attracted 91 youths and their parents. This event has been steadily growing both in terms of agency and public participation.



Figure 9.—Images from the 2015 National Public Lands Day event near Laughlin, Nevada.

YOUTH CONSERVATION CORPS AND VOLUNTEER PROJECTS

We worked with two conservation corps and several volunteers during fiscal year 2015 on three different projects. These events engage young people and community organizations in learning about habitat and species conservation while supporting the U.S. Department of the Interior's "Youth Initiative." Youth corps projects involved a total of 13 youths who contributed 1,040 total hours of labor for the LCR MSCP.

Bubbling Ponds Fish Hatchery

Partners: Southwest Conservation Corps

Date: March 2–5 and March 9–12, 2015 (10-hour days)

Location: Bubbling Ponds Fish Hatchery

Number of youths employed for 80 hour duration: 6

The Southwest Conservation Corps members were tasked with harvesting and sorting razorback suckers from one rearing pond. To accomplish this task, the group had to weed the pond (once the water levels had been lowered to 1–2 feet deep), pull seine nets through the pond to capture fish, and transport the fish to a transport truck. Once the fish were transported to a concrete holding tank, the corps members measured and sorted the fish by size, returning the smaller ones to the pond and holding the larger fish to tag.

With the rest of their allotted 10 days, the corps performed a variety of maintenance tasks that the hatchery staff would not otherwise have the personnel to accomplish. These tasks included organizing and repairing hatchery equipment, constructing 1/4 mile of a new trail, clearing vegetation from a 1/16 of a mile corridor, removing 100 square feet of weeds from the grounds, and removing vegetation from around the ponds.

Cibola Valley Conservation Area

Partners: American Conservation Experience

Date: March 1–31, 2015

Location: Cibola Valley Conservation Area

Number of youths employed for 80 hour duration: 7

The conservation corps on this project was used to provide general site labor services in support of maintaining the Cibola Valley Conservation Area, one of the larger conservation areas managed under the LCR MSCP. The work was focused on tamarisk (salt cedar) removal and chipping, herbicide application, and habitat maintenance (testing equipment retaining devices). The conservation corps also performed general cleanup activities, including debris removal, invasive plant removal, and loading equipment and materials into trucks at the end of each day.

Other Volunteers

During fiscal year 2015, volunteers contributed 254 hours of labor for the LCR MSCP. These individuals included students from Arizona State University Colleges at Lake Havasu City, Arizona Western College (Yuma, Arizona), and unaffiliated individuals. Volunteers assisted with razorback sucker monitoring on Lake Havasu, Monitoring Avian Production and Survivorship bird banding at Beal Lake (Havasu National Wildlife Refuge), and bat mist netting surveys.