Lower Colorado River
Multi-Species Conservation Program

Balancing Resource Use and Conservation

Fiscal Year 2018 Outreach Activities

January 2019

Work conducted under LCR MSCP Work Task I01
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

**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

**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

**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

**Other Interested Parties Participant Group**

QuadState Local Governments Authority
Desert Wildlife Unlimited
Lower Colorado River
Multi-Species Conservation Program

Fiscal Year 2018 Outreach Activities

Prepared by:
Nathan Lenon, Program Management Group
# ACRONYMS AND ABBREVIATIONS

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<td>Arizona Game and Fish Department</td>
</tr>
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<td>CRAB</td>
<td>Colorado River Aquatic Biologists</td>
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<tr>
<td>CRTR</td>
<td>Colorado River Terrestrial and Riparian</td>
</tr>
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<td>IJNR</td>
<td>Institute for Journalism &amp; Natural Resources</td>
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<td>LCR MSCP</td>
<td>Lower Colorado River Multi-Species Conservation Program</td>
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<tr>
<td>Reclamation</td>
<td>Bureau of Reclamation</td>
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INTRODUCTION

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) is a multi-stakeholder, Federal and non-Federal partnership 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 public. Public outreach efforts are carried out to communicate and inform audiences on LCR MSCP implementation. As part of these efforts, the LCR MSCP reports annual outreach accomplishments. This report follows a fiscal year format. Fiscal Year 2018 occurred from October 1, 2017, to September 29, 2018.

TOURS AND GROUP PRESENTATIONS

The LCR MSCP conducts research, monitoring, fish stocking, and habitat creation and management projects on 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 and the surrounding communities. Tours and special group presentations provided during the year are discussed below.

Water Education Foundation Lower Colorado River Tour

Partner: Water Education Foundation
Date: April 11, 2018
Location: Mohave Valley Conservation Area

The mission of the Water Education Foundation (WEF), “an impartial, nonprofit organization, is to create a better understanding of water resources and foster public understanding and resolution of water resource issues through facilitation, education, and outreach.” Each year, WEF organizes a series of water tours to provide participants with an up-close perspective on a variety of topics related to water resource management, water quality, environmental restoration, and other related topics. In 2018, we provided a brief tour of the Mohave Valley
Conservation Area, for 40 participants, while the site was under construction. This was a unique opportunity for water stakeholders to see how a habitat conservation area is constructed.

**Project WET and Discover a Watershed Workshops**

Project WET (Water Education for Teachers) is a non-profit organization that delivers continuing education courses to teachers, focusing on water resources and local water resource issues. In Clark County, Nevada, the Colorado River provides most of the urban and residential water use, so it is the main watershed that receives focus in this area. The Bureau of Reclamation (Reclamation) provided an overview of the LCR MSCP at two workshops during the fiscal year, along with guest speakers from multiple agencies. Participants in the workshops receive credit through their school district’s professional development program, and in some cases, college credit is available.

**September 30 – October 1, 2017: Discover a Watershed (Clark County Wetlands Park, Las Vegas, Nevada)**

This 2-day workshop focused completely on the Colorado River watershed. Approximately 24 teachers from the Clark County School District attended.

**July 24, 2018: Project WET (Boulder Beach, Lake Mead)**

This 1-day workshop provided teachers with an overview of the water cycle and watershed, with a focus on the Las Vegas Valley and the Colorado River. Approximately 21 teachers from the Clark County School District attended.

**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 Meeting

Date: December 13-15, 2017
Location: Laughlin, 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, Nevada, 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 hosts an exhibit booth at this conference. In 2017, the conference theme was “Many Instruments, One Orchestra: The Music of the Basin.” The association represents approximately 1,000 members.

Colorado River Aquatic Biologists Annual Meeting

Date: January 10–11, 2018
Location: Laughlin, Nevada

The 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 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 2018, 30 presentations were given, and the total attendance was approximately 80.

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
International Visitor Leadership Program (Department of State)

The International Visitor Leadership Program is a professional exchange program, which seeks to build mutual understanding between the United States and other nations through short-term visits to the States for current and emerging foreign leaders. The program was established in 1940 and has over 4,500 participants per year. Over 350 of the program’s alumni include current or former Heads of State.

Water Resources Management, A Project for Bolivia

Dates: October 26, 2017
Location: Las Vegas, Nevada

Jimmy Knowles, Adaptive Management Group Manager, and Chris Dodge, Wildlife Biologist, addressed 10 environmental leaders from Bolivia. This group was invited to the United States through the Department of State’s International Visitor Leadership Program. While in the United States, the group examined water resources management in urban and rural areas and the impact it has on food security and healthy ecosystem maintenance; water legislation and regulation, and their significance in industry and agriculture; explored how local, State, and Federal Government, non-governmental organizations, industry, academia, and private citizen groups influence water resource management; and discussed legal rights, cross-border water challenges, and conflict resolution strategies employed to resolve water allocation and conservation issues. The LCR MSCP presentation highlighted the need to operate and maintain water and wastewater systems in a manner that minimizes impacts to sensitive habitats and species and complies with national, State, and local regulatory requirements.

Institute for Journalism & Natural Resources

Date: February 18, 2018
Location: Las Vegas, Nevada

The Institute for Journalism & Natural Resources (IJNR) conducts an annual tour for local and national journalists to discuss a natural resources topic of national interest. In 2018, the IJNR focused on lower Colorado River water issues. Approximately 25 journalists from around the country were on the tour. John Swett, LCR MSCP Program Manager, met with the tour group at the Southern Nevada Water Authority’s Springs Preserve to give an overview on the program. This talk generated multiple inquiries from journalists. Because of the IJNR meeting in February 2018, Mr. Swett was interviewed on Nevada Public Radio. The interview was aired on March 20, 2018.
Environmental Protection and Biodiversity Conservation, a Multi-Regional Project

Dates: April 13, 2018
Location: Las Vegas and Boulder City, Nevada

Carrie Ronning, Wildlife Group Manager, addressed a group of international environmental leaders from 11 countries, including Bahrain, Eritrea, Iraq, Kuwait, Malaysia, Mexico, Nigeria, Romania, Solomon Islands, Thailand, and Uzbekistan. This group was invited to the United States through the Department of State’s International Visitor Leadership Program. While in the United States, the group examined management of biological diversity, tourism, infrastructure and community planning for natural attractions, and collaboration between public and private sector stakeholders for management of natural resources. The LCR MSCP presentation highlighted ways to build partnerships around a common goal of providing water and power to communities while minimizing impacts to sensitive habitats and species and complying with national, State, and local regulatory requirements.

EDUCATIONAL OUTREACH

Educational outreach is an effective way to establish long-term support for program objectives. School groups often request guest speakers or field trips. We have performed a variety of education outreach events, including classroom presentations, career day events, and hosting college student volunteers during several field surveys (figure 1). Table 1 provides details on the educational outreach efforts during fiscal year 2018.

Table 1.—Summary of K–12 and university outreach efforts made during fiscal year 2018

<table>
<thead>
<tr>
<th>School/organization</th>
<th>Grades</th>
<th>Dates</th>
<th>Number of students contacted</th>
<th>Program type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elise Wolf Elementary School</td>
<td>K–2</td>
<td>February 2, 2018</td>
<td>450</td>
<td>Career on wheels</td>
</tr>
<tr>
<td>(Henderson, Nevada)</td>
<td></td>
<td></td>
<td></td>
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FESTIVALS AND SPECIAL EVENTS

Festivals and special events provide opportunities for the public to 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 can gain visibility for the LCR MSCP from many people without having to be the organizer. Some large events, such as the Las Vegas Science Expo, have attracted from several hundred to tens of thousands of attendees within a single day. During fiscal year 2018, the LCR MSCP participated in the festivals and special events listed below. Table 2 summarizes the attendance at these festivals and special events.
Table 2.—Festival and special event attendance, fiscal year 2018

<table>
<thead>
<tr>
<th>Event dates</th>
<th>Event name</th>
<th>Total attendance</th>
</tr>
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<tbody>
<tr>
<td>November 20, 2018</td>
<td>International Migratory Bird Day at Sunset Lake</td>
<td>200</td>
</tr>
<tr>
<td>March 24–25, 2018</td>
<td>Arizona Game and Fish Department Outdoor Expo</td>
<td>44,300</td>
</tr>
<tr>
<td>March 28, 2018</td>
<td>International Migratory Bird Day (Year of the Bird and Clark County Wetlands Park, Las Vegas, Nevada)</td>
<td>478</td>
</tr>
<tr>
<td>May 8, 2018</td>
<td>Las Vegas Science &amp; Technology Festival, “Giant Expo”</td>
<td>14,000</td>
</tr>
<tr>
<td>September 29, 2018</td>
<td>National Public Lands Day (Pyramid Canyon Day Use Area, Laughlin, Nevada)</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>Estimated total attendance</td>
<td>59,113</td>
</tr>
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</table>

International Migratory Bird Day at Sunset Lake

Partners: Clark County Parks and Recreation Department
Date: November 20, 2018
Location: Sunset Park, Las Vegas, Nevada

Sunset Park, in Las Vegas, Nevada, features an urban fishing lake, which attracts a large number of waterfowl, both seasonal migrants and year-round residents. Clark County and partnering agencies held an event to educate the public about resident and migratory bird species found at the lake (figure 2). Local news media covered the event, which included one newspaper article (https://www.reviewjournal.com/videos/international-migratory-bird-day-in-las-vegas/) and one television news piece (http://news3lv.com/news/local/thousands-of-birds-take-a-pit-stop-in-southern-nevada-as-they-migrate-south-for-the-winter).

Figure 2.—Photo collage from International Migratory Bird Day at Sunset Lake.
The Arizona Game and Fish Department (AGFD) hosts their annual “outdoor expo” at the Ben Avery Shooting Complex, near Phoenix, Arizona. This huge event attracted 44,300 people in 2018 during the 2-day (Saturday and Sunday) period that we participated. This event does allow commercial exhibitors, as well as agency and non-profit exhibitors. The major focus of this event is hunting, fishing, shooting, off-road vehicles, and other outdoor activities. The entire event is run by the AGFD, with traffic and parking safety provided by the Maricopa County Sheriff’s Department. The event has an atmosphere, like a county fair, where vendors can interact with potential customers, and wildlife and conservation agencies can interact with the public to inform and educate.

We attended the outdoor expo for the second time in 2018 and partnered with the AGFD to host a live native fishes display at our booth (figure 3). Our exhibit incorporated three-dimensional models of LCR MSCP covered species: elf owl (*Micrathene whitneyi*), yellow billed cuckoo (*occyzus americanus occidentalis*), summer tananger (*Piranga rubra*), southwestern willow flycatcher (*Empidonax traillii extimus*), western red bat (*Lasiurus blossevillii*), razorback sucker (*Xyrauchen texanus*), and bonytail (*Gila elegans*).
International Migratory Bird Day – Year of the Bird

Date: March 28, 2018

International Migratory Bird Day was created in 1993 by the Smithsonian Migratory Bird Center. The year 2018 marked the 25th anniversary of this event, which focused on Western Hemisphere bird conservation through community-driven educational events. This year, 40 countries celebrated this day with 1,200 different events. We participated in two different events in southern Nevada, which were coordinated by the Clark County Parks and Recreation Department.

International Migratory Bird Day

Partners: Clark County Wetlands Park
Date: March 28, 2017
Location: Clark County Wetlands Park, Las Vegas, Nevada

Our fifth annual event combined a mixture of outdoor bird walks, bird identification by sight and sound, bird-related crafts and games, agency educational exhibits, and live raptor demonstrations to educate, inspire, and educate local families about conserving migratory birds (figure 4). The event was held at Clark County Wetlands Park (Las Vegas, Nevada) during spring break for the local schools. This year’s event attracted 478 participants and was well-supported by local agencies involved in resource management, as well as non-government organizations such as the Red Rock Audubon Society.

Figure 4.—Photo collage from International Migratory Bird Day at Clark County Wetlands Park.
Las Vegas Science & Technology Festival, “Giant Expo”

Partners: Las Vegas Science Festival and over 135 community partners
Date: May 8, 2018
Location: Cashman Expo Center, Las Vegas, Nevada

The “giant expo” is the final event of a week-long, community-wide, “Las Vegas Science & Technology Festival.” In 2018, over 14,000 people attended the 1-day expo. This was the 8th year of this event, and the LCR MSCP has been a participant in it (figure 5) every year since it began.

Figure 5.—Photo collage from the Las Vegas Science & Technology Expo.
National Public Lands Day

Partners: Laughlin Township and community partners  
Date: September 29, 2018  
Location: Pyramid Canyon Day Use Area

We participated in one of the many “National Public Lands Day” events (figure 6) that take place around the country in fall, in Laughlin, Nevada. This event occurs along the Colorado River Greenway Park and Trail, on the Nevada side of the Colorado River, just below Davis Dam. Approximately 135 people attended the event, which provided guided hikes, nature-themed learning games, and agency displays on a variety of topics.

Figure 6.—Photo collage from the National Public Lands Day event.
VOLUNTEER PROJECTS

Volunteers contributed approximately 41 hours of labor during 2018 (table 3). This work included wildlife monitoring (bats and small mammals) and fisheries monitoring.

<table>
<thead>
<tr>
<th>Organizational unit</th>
<th>Quarter 1 (October – December)</th>
<th>Quarter 2 (January – March)</th>
<th>Quarter 3 (April – June)</th>
<th>Quarter 4 (July – September)</th>
<th>2018 fiscal year total</th>
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<tr>
<td>Wildlife Group</td>
<td>12</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>17</td>
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<tr>
<td>Fisheries Group</td>
<td>4</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>LCR MSCP total</td>
<td>16</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>41</td>
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</table>

SPECIES MODELS

We worked with Brian Wignal, a local artist (http://www.biodynamicsinc.net/index.html), to create a set of four 3-dimensional models of several LCR MSCP covered species, including the relic leopard frog (*Rana onca*) (lifecycle model), southwestern willow flycatcher, summer tanager (breeding pair), and an elf owl on a saguaro cactus (*Carnegiea gigantea*). We are using these models at different festivals and special events to provide a “hands-on” look for some of the species that the program works with (figure 7).
Figure 7.—Realistic models of LCR MSCP covered species provide an exciting complement to our exhibit materials.