



# Lower Colorado River Multi-Species Conservation Program

*Balancing Resource Use and Conservation*

## Fiscal Year 2013 Outreach Activities



July 2014

# 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**

CRAB	Colorado River Aquatic Biologists
CRTR	Colorado River Terrestrial and Riparian Group
LCR MSCP	Lower Colorado River Multi Species Conservation Program
Reclamation	Bureau of Reclamation
SNWA	Southern Nevada Water Authority
SWPARC	Southwest Partners in Amphibian and Reptile Conservation
USFWS	U.S. Fish and Wildlife Service

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# INTRODUCTION

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) is a multi-stakeholder 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.

Highlights of our outreach program during fiscal year 2013 included the dedication of Yuma East Wetlands as a conservation area within the LCR MSCP, completion of interpretive panels for a permanent display at the Yuma Quartermaster Depot, the involvement of volunteer groups like Arizona State University (Lake Havasu campus), and additional use of social media.

## **YUMA EAST WETLANDS CONSERVATION AREA DEDICATION**

Partners: Arizona Game and Fish Department, City of Yuma, Quechan Tribe, Yuma County National Heritage Area, and Central Arizona Water Conservation District

Date: August 6, 2013

Location: Yuma, Arizona

Yuma East Wetlands was dedicated as a LCR MSCP conservation area. Reclamation worked closely with Central Arizona Water Conservation District to plan and produce the event. We produced a video, which was posted to YouTube (<http://youtu.be/PzTfHY77SwA>); an updated fact sheet; event programs; and a display banner stand to publicize the partnerships that were formalized through the signing of a Land Use Agreement for this site. The event drew approximately 50 people, was televised on 3 local news channels, and was reported on in several newspapers throughout southwestern Arizona.

## TOURS

The LCR MSCP conducts research, monitoring, fish stocking, and 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.

During fiscal year 2013, we provided the following tours:

- Steering Committee members toured the Lake Mead State Fish Hatchery and Overton Wildlife Management Area (Center Pond) on April 23, 2013.
- The Water Education Foundation toured the Big Bend Conservation Area on March 20, 2013.
- The Yuma Audubon Society took a birding tour of the Cibola National Wildlife Refuge on January 12, 2013.



**Figure 1.—LCR MSCP Project Manager, Jed Blake, visits with Water Education Foundation tour participants at the Big Bend Conservation Area on March 20, 2013.**

## CONFERENCES AND MEETINGS

Conferences and scientific meetings provide an opportunity to disseminate new information across specific, technical audiences. Staff and contractors attend, present at, and assist with organizing a number of scientific meetings/conferences throughout the year. The following are some of examples of meetings that included either program-specific topics or an informational exhibit booth.

### **Southwest Partners in Amphibian and Reptile Conservation – 2012 Annual Meeting**

Date: October 23–25, 2012

Location: Las Vegas, Nevada

Southwest Partners in Amphibian and Reptile Conservation (SWPARC) is a regional working group of the Partners in Amphibian and Reptile Conservation, a partnership of individuals, conservation organizations, agency biologists, university researchers, zoos, pet trade industry professionals, and other parties with an interest in the conservation of amphibians and reptiles.

The LCR MSCP participated as a sponsor and contributed in the meeting planning efforts for this 3-day gathering. The theme of the meeting was “year of the lizard.” Information about this meeting is available through SWPARC’s Web site at: <http://www.swparc.org/meetings/>.

### **Colorado River Water Users Association Annual Conference**

Date: December 12–14, 2013

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 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 9–10, 2013

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 status and 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.

The 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 2013, 76 individuals attended the CRAB meeting, with a total of 31 presentations made by attendees, which included LCR MSCP 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 29–31, 2013

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 2013, 92 individuals attended the CRTR meeting, with a total of 32 presentations made by attendees, which included LCR MSCP and non-LCR 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>.

## **Air and Waste Management Association Monthly Meeting**

Date: June 10, 2013

Location: Las Vegas, Nevada

We provided a program overview during this monthly luncheon meeting of local environmental professionals representing Clark County, the city of Las Vegas, the Southern Nevada Water Authority (SNWA), and private companies. Approximately 20 people attended this event.

## EDUCATIONAL OUTREACH

We visited at least five schools in southern Nevada during fiscal year 2013. Information related to each visit is summarized below:

School	Grades	Dates	Number of students contacted	Program type	Location
M.P. King Elementary	3–5	4/24/2013	80	Career day presentation	Boulder City, Nevada
W.E. Ferron Elementary	K–5	3/22/2013	25	Career day presentation	Las Vegas, Nevada
Boulder City High School	9 <sup>th</sup>	11/07/2012	75	Career fair	Boulder City, Nevada
Moapa Valley High School	9 <sup>th</sup>	4/18/2013	75	Career fair	Overton, Nevada
Bob Miller Middle School	6 <sup>th</sup>	5/10/2013	600	Presentation	Henderson, Nevada
<b>Estimated total students</b>			<b>855</b>		

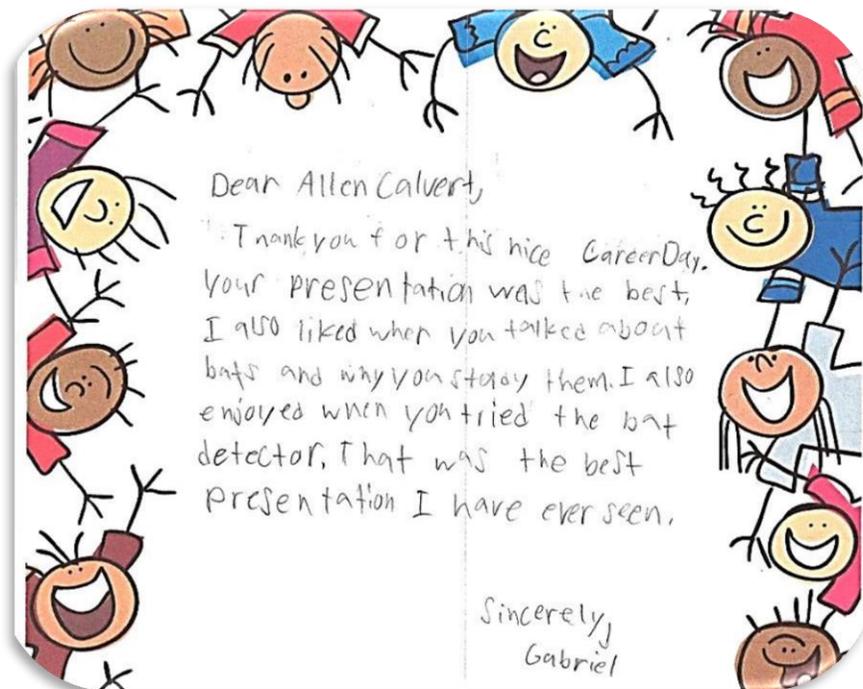


Figure 2.—Thank you note from M.P. King Elementary student.

## Festivals and Special Events

During fiscal year 2013, we participated in the following festivals and special events:

- Wings and Wildlife Festival, Colorado River Greenway Heritage Park and Trails, Laughlin, Nevada, March 23, 2013
- Nevada Regional Science Bowl, Las Vegas, Nevada, February 1–2, 2013
- “Party for the Planet,” Mandalay Bay Casino, Las Vegas, Nevada, April 13, 2013
- “Sustainable” (Earth Day Event), Town Square Shopping Mall, Las Vegas, Nevada, April 20, 2013
- Las Vegas Science Expo, Las Vegas, Nevada, May 4, 2013



**Figure 3.—Reclamation staff discusses the importance of the Colorado River to volunteers at the Wings and Wildlife Festival.**

## National Job Shadow Day and World Wetlands Day

Partners: Western High School (Las Vegas, Nevada), SNWA, and Clark County

Date: February 2, 2013

Location: Clark County Wetlands



**Figure 4.—Western High School students use binoculars to observe wildlife at the Clark County Wetlands Park.**

As part of National Job Shadow Day, we took nine 12<sup>th</sup> graders from Western High School to Clark County Wetlands Park to learn about wetland habitat restoration and wildlife identification. Nick Rice (SNWA) met the group at the new visitor center to discuss the Las Vegas Wash hydrology and ecosystem. While the Las Vegas Wash is not an LCR MSCP project, it provides a local example of habitat restoration and wildlife observation techniques.

We led the group on a walking tour around a series of ponds and trails vegetated with native mesquite and cottonwood, stopping at key locations to observe birds, nests, and trees, which had been chewed on by beavers. The students, using binoculars and spotting scopes on tripods to provide an up-close viewing experience, observed great blue herons, northern shovelers, common coots, seagulls, greater yellowlegs, northern harriers, ravens, sharp-shinned hawk, and a black phoebe. We used bird identification field guides to demonstrate how specific features and body shapes are used to identify birds.

This year's tour was the most successful yet, as all of the students were actively engaged in the activities. We attributed the success to having more staff involvement and a larger group to generate more enthusiasm as well as additional equipment to ensure continuous participation by all.

## Boy Scouts of America – Mammal Studies Merit Badge

Partner: Boy Scouts of America

Date: June 12, 2013

Location: Boulder City and Las Vegas Wash

Biologist, Allen Calvert, taught the “Mammal Studies” merit badge program to a group of Boy Scout troops from Boulder City and Henderson, Nevada. The program took place over four sessions, combining classroom learning, a field trip, and a project.

During Session 1, the scouts were introduced to biological concepts and definitions, including the “animal kingdom,” “invertebrates,” “vertebrates,” and “mammals,” and given homework assignments. Session 2 included a field trip in which students were able to see mammals (bats) up close and take photographs and notes on their characteristics. In Session 3, the scouts reviewed the concepts from the classroom and field trip and turned in their assignments. Session 4 concluded with the scouts’ participation in a small mammal survey in Boulder City, Nevada, to learn about how biologists monitor wildlife species. The requirements for the merit badge followed the requirements established by the Boy Scouts of America.



**Figure 5.—Biologist, Allen Calvert, discusses bat survey methods with local Boy Scouts.**

## Nevada Free Fishing Day

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

Date: June 8, 2013

Location: Veteran's Memorial Park, Boulder City, Nevada

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, and we occasionally repaired a fishing pole for an inexperienced angler.



**Figure 6.—Biologist, Nathan Lenon, demonstrates how native fish are monitored using passive integrated transponder (PIT) tags.**

## Wildlife Education Academy

Partners: Arizona Game and Fish Department

Date: June 14, 2013

Location: Hoover Dam Bypass Bridge

We provided an informal presentation for a group of 8–12 teachers from Arizona, during a wildlife education-based multi-day tour, at the Pat-Tillman Bridge, just downstream of Hoover Dam. The focus of the tour was human-based wildlife impacts in Arizona. We used this opportunity to discuss impacts to wildlife along the Colorado River and corresponding conservation efforts. Following the discussion, the group visited Hoover Dam.

## **YOUTH CONSERVATION CORPS AND VOLUNTEER PROJECTS**

We worked with a variety of volunteer groups and conservation corps during fiscal year 2013 on five 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."

### **Achii Hanyo Fish Rearing Station**

Partners: American Conservation Experience and U.S. Fish and Wildlife Service (USFWS)

Date: November 5–9 and November 12–16, 2012

Location: Colorado River Indian Tribe Reservation (near Parker, Arizona)

Number of youths employed for 80-hour duration: 10

Achii Hanyo is located approximately 5 miles south of Parker, Arizona, on the Colorado River Indian Tribe Reservation. The facility is on tribally owned lands leased to and operated by the USFWS, which is a long-term partner of Reclamation and the Lower Colorado River Multi-Species Conservation Program. The 18-acre facility is leased and operated by the USFWS for production of endangered fish species. Achii Hanyo utilizes 8 ponds, 4 flow-through raceways, and 15 circular tanks to raise razorback suckers and bonytail for the lower Colorado River. Water is supplied to the facility via a canal from the Colorado River. The site produces a large number of endangered razorback suckers and bonytail toward the LCR MSCP's total approximate annual production goal of 30,000 native fishes (both razorback suckers and bonytail).

We worked with the American Conservation Experience, a youth conservation corps out of Flagstaff, Arizona, to remove overgrown, invasive salt cedar from the perimeter of the facility and to clear a 1-acre (dried) 1.5-acre pond from vegetation overgrowth. During an 80-hour period, the group cleared two levees of vegetation growth, cleared an old road of vegetation (approximately 800 feet long), and placed the cuttings into a burn pile.

## Big Bend Conservation Area

Partners: American Conservation Experience and Southwest Conservation Corps

Date: March 4–11, 2013

Number of youths (ages 15–25) employed for 80-hour duration: 5

The Big Bend Conservation area is a 15-acre mesquite woodland and associated 15-acre backwater located along the Nevada shoreline of the Colorado River, south of Laughlin, Nevada. Corps members used chainsaws to remove invasive salt cedar, transport the material, grind it into wood chips, and then spread the material over walking trails throughout the site. They also reshaped trails and berms, and they removed trash and weeds from the site.

Corps members camped at the adjacent Big Bend of the Colorado State Park (on the river), which extended their nature experience beyond the working hours. After hours, corps members were able to experience swimming in the river, hiking, and bird watching, just steps from their campsite. As an educational component of the experience, Reclamation and the SNWA spent time with the crew at the end of each day, debriefing and discussing how the project is related to water management and endangered species issues at the larger, watershed scale.

## National Public Lands Day

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

Date: September 28, 2013

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. The event included a trail building project, vegetation maintenance, wildlife education, ranger-led hikes, a youth fishing clinic, and other forms of low-impact outdoor recreation. We worked closely with students from the Academy of Building Technologies (Fort Mohave, Arizona) who provided the volunteer labor as part of their curriculum.



Figure 7.—An assortment of images from the National Public Lands Day event.

## Lake Havasu Razorback Roundup

Partners: Arizona State University

Date: February 13–14, 2013

Location: Lake Havasu

Five students from Arizona State University Colleges at Lake Havasu City got up close and personal with endangered fish conservation efforts during this year’s “razorback roundup” on

Lake Havasu. The “roundups” are annual, lake-wide sampling events that allow biologists to collect information on the abundance of federally endangered razorback suckers relative to the many species of introduced sport fishes that dominate the lake. Participating agencies this year included Reclamation, the USFWS, the California Department of Fish and Wildlife, the Bureau of Land Management, and the Arizona Game and Fish Department.



**Figure 8.—Briana, a student from Arizona State University at Lake Havasu City, holds a razorback sucker captured near Topock Gorge.**

The Arizona State University Colleges at Lake Havasu City opened in the fall of 2012 and has already participated in several LCR MSCP wildlife monitoring projects. We have been working with the new campus to involve their life sciences students with ongoing monitoring projects in their local area. The students have participated in small mammal trapping, bat monitoring, and native fish monitoring.

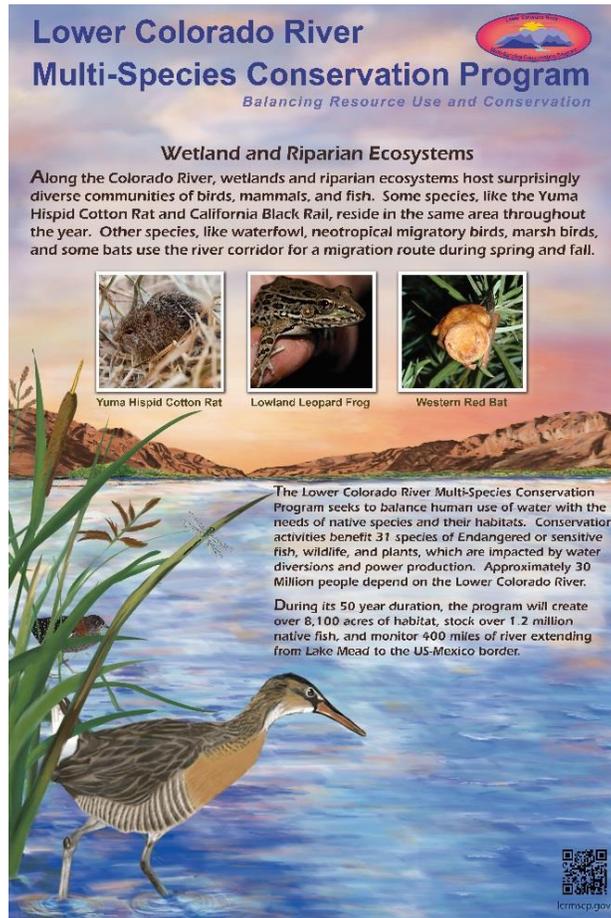
“Experiential learning opportunities like this are invaluable to our life science students,” said instructor Dr. Kerrie Anne Lloyd, “...meeting agency biologists and learning about volunteer opportunities helps students determine career paths by finding out more about each field.”

## OUTREACH MATERIALS

During fiscal year 2013, we produced a variety of new, printed materials to distribute at conferences, tours, and educational events. These items incorporated illustrations, photos, and graphics with program- and/or species-specific information. Each item included a link to the program Web site.

Some examples of new materials included:

- “Wetland and Riparian Ecosystems” interpretive panels for a Yuma Quartermaster Depot permanent display
- National Public Lands Day-themed outdoor banner display
- Elf owl poster and bookmarks



**Figure 9.—Interpretive panel on the Colorado River produced and installed at the Yuma Quartermaster Depot.**

## SOCIAL MEDIA

During fiscal year 2013, we continued to use social media as a platform to engage with the public at large about some of the work being conducted under the LCR MSCP. These platforms included Reclamation accounts on Facebook, Twitter, and Reclamation's home page (<http://www.usbr.gov>). Whenever possible, each social media posting used a brief activity description, a photo, and was linked back to the LCR MSCP Web site where users could view a full article about the activity and possibly learn more about the program.



**Figure 10.**—Photo collage about tracking bats, which appeared on Reclamation's Facebook page, August 22, 2013, with a link to the LCR MSCP home page.



**Figure 11.**—LCR MSCP biologist, Gregg Garnett, Cibola National Wildlife Refuge Manager Mike Oldham, and Reclamation's Rodney Winch receive the Partners in Conservation Award in Washington, D.C. for Hart Mine Marsh. This photo appeared on Reclamation's Facebook page on October 19, 2012.