

MIDDLE RIO GRANDE ENDANGERED SPECIES COLLABORATIVE PROGRAM



Newsletter— April 2018

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Letter from the Science Coordinator

Adaptive management (AM) in the traditional sense is “learning by doing”. It is an evolving process of taking information, assessing it, and rolling it back into the decision-making process for both science and management. The AM Work Group is developing such an approach for the Middle Rio Grande Endangered Species Collaborative Program (MRGESCP).

To date, science for the Middle Rio Grande (MRG) has been largely driven by agency requirements associated with assessing water and habitat management actions on listed species, specifically the Rio Grande silvery minnow (RGSM), the Southwestern willow flycatcher (SWFL), and the yellow billed cuckoo (YBCU). Limited integrated efforts have occurred and the challenges associated with changing hydrology have not been addressed.

The key to developing a robust, integrated, and administratively supported science approach is through the development of science plans that are designed to address specific ecosystem and management drivers with quantitative metrics and indicators of change.

The AM Work Group is working on developing a set of criteria that will guide management direction predicated on the proposed development of a three-pronged science plan program: 1) a long-term ecosystem plan; 2) a triennial rolling-study plan; and 3) independent peer review. Getting the structure of an AM process defined for the MRG is challenging. The AM Work Group looks forward to presenting final recommendations to the MRGESCP Executive Committee within the next 6 to 12 months.

Sincerely, *Dave Wegner, WEST Science Coordinator*



View of the Middle Rio Grande (Photo credit: Mike Marcus)

Summary of the First Full-Year of Implementation of the *Final Biological and Conference Opinion of Bureau of Reclamation, Bureau of Indian Affairs, and Non-Federal Water Management and Maintenance Activities of the Middle Rio Grande, New Mexico*

Update provided by Ann Demint, Bureau of Reclamation

Since the issuance by U.S. Fish & Wildlife Service (USFWS) of a new biological opinion (BO) covering water management and maintenance actions in the MRG in December 2016, the U.S. Bureau of Reclamation (Reclamation), U.S. Bureau of Indian Affairs (BIA), Middle Rio Grande Conservancy District (MRGCD), and New Mexico Interstate Stream Commission (NMISC) have been actively engaging on a number of the 86 Conservation Measures, as well as eleven Reasonable and Prudent Measures, and 49 Terms and Conditions. Reclamation, MRGCD, and NMISC coordinated on a number of new projects, with planning, design and/or compliance phases in 2017. These include the following:

- Bosque del Apache Pilot River Realignment Project
- Low Flow Conveyance Channel Improvements Project
- River Mile 60 (RM 60) Restoration Project
- San Acacia Fish Passage Pilot and Long-Term Projects
- Escondida Fire Habitat Restoration Project (RM 104)
- San Acacia RM 99-114 Habitat Restoration Project

- Rhodes Property Bankline Habitat Project (RM 94)
- Bosque del Apache (BdA) North Boundary Infrastructure Project
- Sevilleta Unit A and Unit B Habitat Restoration Projects
- Tiffany Fire Watershed Restoration and Management Project

The draft Lower Reach Plan (LRP) is in development and includes a description of the projects above, and others. The LRP will be submitted to USFWS prior to June 2018.

A Cooperative Agreement was awarded to the National Fish and Wildlife Foundation in 2017 to develop a Native Water Leasing program in coordination with MRGCD. Year one of the agreement focused on developing the framework for a successful program, including agreement with the MRGCD on program direction and priorities.

The Los Lunas Silvery Minnow Refugium added 8 of the 14 planned new raceway tanks to increase its production capability in addition to the outdoor refugium and smaller tank systems with funding from the New Mexico State Legislature. The NMISC is continuing to work with USFWS and City of Albuquerque on captive propagation facilities for the RGSM that protect the species even

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The Albuquerque Bernalillo County Water Utility Authority Wins the 2018 Exemplary Water Protection Plan Award!

In March 2018, the American Water Works Association informed the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) that it would be the recipient of the 2018 Exemplary Source Water Protection Plan Award. The award recognizes organizations in North America that have developed and are implementing exemplary source water protection programs. ABCWUA is currently updating its source water protection plan and will have a draft available for public comment this summer. The plan update includes groundwater and surface water assessments which analyze the susceptibility of the ABCWUA drinking water system to potential sources of contamination near public supply wells and the San Juan-Chama diversion in Albuquerque.

Submitted by Kate Mendoza, ABCWUA

LISTED SPECIES UPDATE

Rio Grande Silvery Minnow

Update provided by Jennifer Bachus,
Bureau of Reclamation

The RGSM Population Monitoring (PopMon) Program staff uses standardized seining techniques to catch RGSM along the MRG for seven months of the year (Dudley et al. 2018). The PopMon Program reported an overall density of 23.2 RGSM per 100 m² during October 2017 at 19 of 20 sites. This was the third highest density recorded in 24 years of similar monitoring and reflected the elevated amount of spring runoff in the MRG. In wide channels,

elevated spring runoff (and high, base flow) generally creates slower velocity habitat that favors RGSM recruitment and survival. The next RGSM sampling date will be in April 2018.

New Mexico Meadow Jumping Mouse

Update provided by Jeff Sanchez, U.S.
Fish & Wildlife Service

The New Mexico meadow jumping mouse will typically come out of hibernation in May or June, at which time, monitoring will begin again.

during severe and long-term droughts and catastrophic events as well as to protect genetic diversity.

With good spring runoff conditions in 2017, Reclamation and the BO partners met the Incidental Take Statement (ITS) for the RGSM, with mixture-model estimates of $E(x) = 23.17$ in October 2017. The ITS for the SWFL and YBCU also complied with take of two SWFL territories and one YBCU territory. In 2017, 13,413 acre-feet of supplemental water was released for endangered species purposes, entirely composed of leased San Juan-Chama water.

MINNOW ACTION TEAM UPDATE

The Minnow Action Team (MAT) met on March 14, 2018 to review the latest snowmelt runoff forecast for the year. Precipitation was up slightly in February but not enough to make significant differences in management operations for the MRG. River recession in the San Acacia reach is planned to begin in early April. RGSM egg collections are a high priority for the USFWS, and volunteers are being gathered to respond to diversion dam flow modifications scheduled for May. The USFWS is also planning on RGSM collections prior to and after the river recession so that fish can be moved to parts of the river that have a higher chance of remaining wet.

CALL FOR VOLUNTEERS

The USFWS, New Mexico Fish and Wildlife Conservation Office (NMFWCO) is working near Socorro and Los Lunas, New Mexico conducting fish rescue of RGSM trapped in isolated pools during river intermittency. Volunteers may still be needed the week of April 9-15 to help sein fish from pools and transport them in tanks on UTVs to areas with perennial flow.

Albuquerque BioPark's Aquatic Conservation Facility (ACF) permitted staff will be sampling in the MRG for RGSM eggs in April, May, and possibly June. Those who have volunteered to assist them will be contacted if/when a large number of eggs are found, and it is decided that having additional collectors in the river would be beneficial. This could occur at any time of day or night.

To volunteer, contact Lana Mitchell at WEST: lmitchell@west-inc.com or 505-554-3708. WEST will work with Thomas Archdeacon (NMFWCO) and Kathy Lang (ACF) to schedule volunteers.

BROWN BAG SUMMARY

New Geospatial Data Sets Covering New Mexico's Rio Grande

A Presentation by John Peterson, USACE at the MRGESCP
Science/Habitat Restoration Work Group Brown Bag on March 27, 2018

The last several years have seen an exponential increase of GIS-ready, geospatial data being collected over the United States with New Mexico being no exception. Most notably, various new technology-derived terrain and ortho-photography collections have been the focus. Between project-level collections through the Albuquerque portion of the Angostura reach, to national programs, covering whole watersheds, a large portion of the Rio Grande has been included in this deluge of data.

For the MRGESCP Brown Bag presentation, John Peterson shared a current snapshot of activities covering the Rio Grande and discussed access mechanisms that will make these new data sets available to MRG scientists and researchers. Samples of repurposed historic photography and new intermediate and high-resolution data sets were also presented.



USGS Digital Scans



SfM Surface Mosaic



SfM Photo Mosaic

City of Albuquerque Parks & Recreation, Open Space Division Update

The City of Albuquerque Open Space Division has completed another successful planting season, ensuring the Rio Grande Cottonwood gallery exists for future generations along the Rio Grande Valley State Park. Bill Pentler, Open Space Division's Resource Management and Visitor Services Supervisor and Kyle Bality, Open Space Division's Environmental Education Coordinator led the charge through a collaborative effort with Melissa McLamb, Program Co-Director for Ciudad Soil and Water Conservation District, RiverXchange Program. Thirty-seven planting projects with fifth grade students from Albuquerque Public Schools, Rio Rancho Schools, and private and charter schools learned about riparian ecology, followed by planting native trees and shrubs in the MRG Bosque. Over 1,000 students and 345 adults installed a total of 1,309 Rio Grande Cottonwoods and 397 native Bosque shrubs.

Submitted by Matthew Peterson, City of Albuquerque Open Space Division



Matthew hails from Ohio; however, he grew up living all over the world as an “Army brat.” Matthew enjoys spending time in the mountains of northern New Mexico with his only brother, Eric, observing charismatic mega-fauna, climbing alpine peaks, fly-fishing, and hunting.

Matthew Peterson

Matthew Peterson began his career with City of Albuquerque Open Space Division as Forestry Supervisor on May 16, 2015. His initial years with the Open Space Division were spent engaged in project management for the ABCWUA San Juan-Chama Drinking Water Habitat Restoration Projects, where he received on-the-ground experience in restoration ecology and habitat restoration work in the MRG Valley.

As the City of Albuquerque’s *Bosque* Forester, Matthew leads a workforce to execute the mission of the Open Space Division, which is to protect, conserve, and sustain the scenic, cultural, biological, and ecological character of 29,000 acres of designated major public Open Space lands for the enjoyment of future generations. From day to day, the Open Space Division’s Forestry crew maintains 4,027 acres of Bosque, executing habitat restoration, revegetation, and fuel wood reduction projects throughout the Rio Grande Valley State Park.

Matthew earned a Bachelor of Science in Forestry from Ohio State University, and is also an International Society of Arboriculture Certified Arborist. After earning his degree, Matthew moved to New Mexico, living on and near the Navajo Reservation where he led wilderness expeditions on public lands throughout the Four Corners region. During this time, he was enamored by the diversity in landscapes and cultures, and instantly knew he wanted to reside in the Southwest.

UPCOMING DATES

Executive Committee Meeting

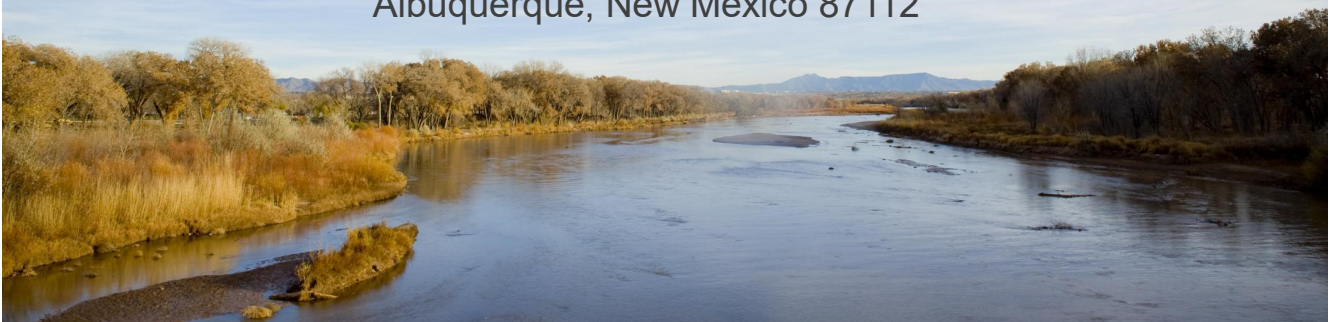
Thursday, April 12, 8:30 AM—12:30 PM
U.S. Fish & Wildlife
2105 Osuna Rd NE, Albuquerque, 87113

City of Albuquerque Open Space Division National River Cleanup

Saturday, May 19
Details TBD

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BUT TO THE ORGANIZATION FROM WHICH
IT WAS SUBMITTED

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Scenic view of the Middle Rio Grande (Photo credit: U.S. Bureau of Reclamation)