

MIDDLE RIO GRANDE ENDANGERED SPECIES COLLABORATIVE PROGRAM



Newsletter— November 2018

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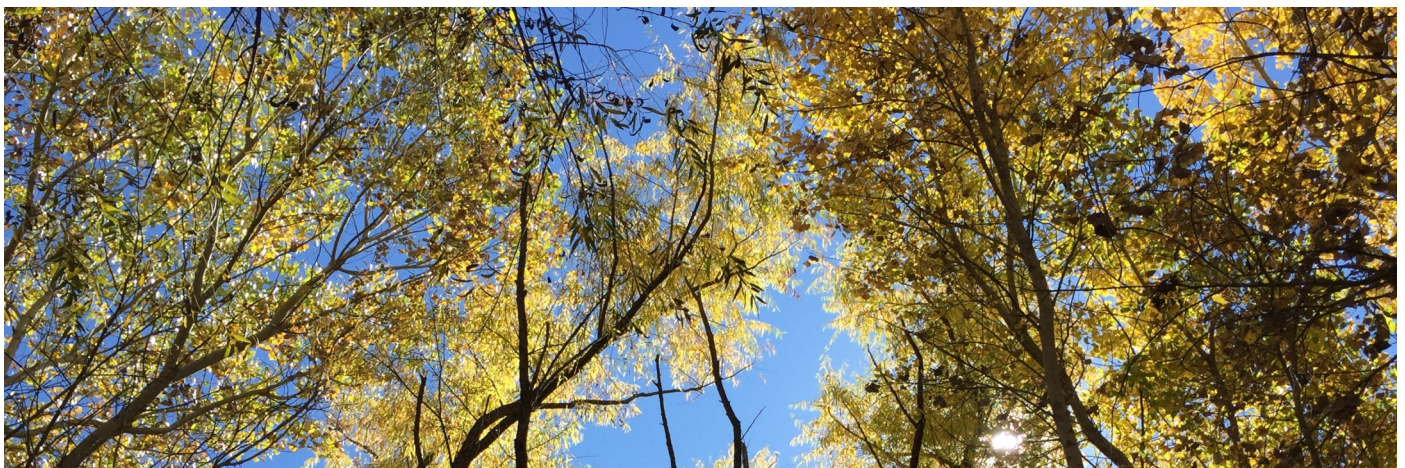
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Letter from BEMP

Learning is enticing. Attaining new pieces of information and finding out how they fit keeps us active and invested in our various interests. This is part of the lure of collaborative efforts; as we bring more voices to the table, we also bring new perspectives, insights, disagreements, dialogue, and expertise, which lead us to increased understanding, and to new questions.

The Bosque del Apache National (BdA) Wildlife Refuge Realignment Pilot Project provides the perfect stage for such collaboration and learning. Bosque Ecosystem Monitoring Program (BEMP) is currently working with U.S. Bureau of Reclamation (Reclamation), U.S. Army Corps of Engineers (USACE), BdA Wildlife Refuge, New Mexico Institute of Mining and Technology, and three departments at the University of New Mexico (Biology, Economics, and Law) to study the river realignment. In addition to our established datasets, we will be monitoring an experimental setup to address the potential role of mycorrhizal fungi inoculations in improving the recruitment of cottonwoods and willows in post-saltcedar removal areas. As the remnant cottonwood forest continues to decline, understanding the legacy impacts of saltcedar on soils is critical for successful restoration of native-dominated riparian forests. We are excited and grateful for this opportunity to learn. And, if the river doesn't cooperate, and we end up with a permanent marsh or barren sandbars instead of a riverside forest, then we will learn from that, too.

Kim Eichhorst, Co-Director BEMP



View of Bosque del Apache (Photo credit: Kim Eichhorst)

PROGRAM PORTAL

The Middle Rio Grande (MRG) Habitat Restoration (HR) GIS map is available on the current Program database management system (DBMS) site here: <https://webapps.usgs.gov/MRGESCP/Default.aspx>

Meanwhile, the U.S. Geological Survey (USGS) developers have been busy working on the new Program Portal. Their firewall team made sure the application had all necessary uniform resource locator (URL) endpoints open up, and the WEST team has been testing the system. The next sections to be completed will be Events and System Administration. As USGS moves forward with the Portal development, WEST will work closely with them on providing updates to the Program and assigning new user-roles.

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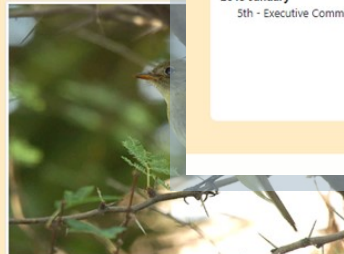
Signatories

In FY16 and FY17, the following signatories remained partners under the 2008 Memorandum of Agreement (MOA):

- Assessment Payers Association of the Middle Rio Grande Conservancy District (APA)
- Albuquerque Bernalillo County Water Utility Authority (ABCWUA)
- Bosque Ecosystem Monitoring Program (BEMP)
- City of Albuquerque (COA)
- Middle Rio Grande Conservancy District (MRGCD)
- New Mexico Attorney General's Office (NMAO)
- New Mexico Department of Game and Fish (NMDGF)
- New Mexico Interstate Stream Commission (NMISC)
- Pueblo of Isleta
- Pueblo of Sandia
- Pueblo of Santa Ana
- Santo Domingo Pueblo
- U.S. Army Corps of Engineers (USACE)
- U.S. Bureau of Reclamation (Reclamation)
- U.S. Fish and Wildlife Service (USFWS)
- University of New Mexico (UNM)



Silvery Minnow. Photo courtesy of Michael Porter, U.S. Army Corps of Engineers.



Southwestern Willow Flycatcher. Photo courtesy of the U.S. Fish and Wildlife Service.

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The Middle Rio Grande Endangered Species Collaborative Program

(Program or MRGESCP) is a diverse partnership bringing 16 federal, state, tribal, local, and university signatories together to address environmental concerns in the Middle Rio Grande (MRG) related to endangered species. The Program's collaborative efforts aim to protect and improve the status of endangered species and their habitats along the Middle Rio Grande (MRG), while also allowing existing and future regional water uses.

In fiscal years 2016 (FY16) and 2017 (FY17), the Program began to shift directions including moving away from MRG Recovery Implementation Plan (RIP) efforts, pursuing an Adaptive Management Program (AMP), developing a new Long-Term Plan (LTP), creating a new database management system (DBMS) and Program website, and supporting the implementation of a new multi-party MRG Biological Opinion (BO). With these changes, and in addition to continued collaboration and support for other MRG BOs and the Program's on-going activities geared toward species recovery, the MRGESCP signatories contracted a third-party Program Management Team (PMT) to support the Program moving forward.

Upcoming Events

2019 January
5th - Executive Committee Meeting ([More Details](#))

Recent Publications

Coming Soon


MRGESCP Background and Overview

The MRGESCP was formed when conflict arose from the federally endangered listing of the Rio Grande silvery minnow (RSGM) in 1994, the southwestern willow flycatcher (SWFL) in 1995, and drought conditions in 1996 that exacerbated already stressed conditions in the MRG. When conflict resulted in litigation in 1999, stakeholders began to formulate workgroups to collaborate on species recovery and protection of the existing and future water uses in the MRG. Historically, these stakeholders included federal, state, and local agencies; environmental organizations; tribes and pueblos; agricultural interests; and business associations affected by and interested in resolving conflict and alleviating issues through collaboration.

The Endangered Species Act (ESA) Workgroup was formed in 2000 with the intent of developing the MRGESCP. The MRGESCP aimed to use the best available science to create economically viable and practical approaches to prevent species extinction, preserve reproductive integrity, improve habitat, and promote the recovery of species. A Memorandum of Understanding (MOU) was signed in 2002 and affirmed the commitment of signatories to the Program.

Since 2002, signatories continue to provide a variety of support in collaborating on numerous projects and programs benefitting federally listed species within the MRG. Since the Program's inception, the species of principle interest have been the endangered RSGM and SWFL. However, after their federal status listings in 2014, the Program also began to concentrate efforts on the New Mexico meadow jumping mouse (NMMJM; endangered) and the yellow-billed cuckoo (YBCU; threatened).

The Program area stretches from the headwaters of the Rio Chama watershed and the Rio Grande, including tributaries, from the New Mexico/Colorado border downstream to the elevation of the spillway/crest of the Elephant Butte Reservoir at 4,450 feet above mean sea level, excluding the land area reserved for the full



LISTED SPECIES UPDATE

Rio Grande Silvery Minnow (RGSM)

**Update provided by Jennifer Bachus,
U.S. Bureau of Reclamation**



The Rio Grande Silvery Minnow Population Monitoring Program uses standardized seining techniques to catch RGSM along the Middle Rio Grande (MRG) during seven months of the year (Dudley et al. 2018). The preliminary data from October 2018 monitoring indicated an overall density at the 20 standard sites of 0.1 RGSM per 100 square meters (m^2). October sampling also incorporated peer review recommendations to add 10 additional sites, plus replacement sites, for any dry sites encountered. This resulted in 31 sites sampled during October, and an overall density of 0.11 RGSM per 100 m^2 . Three age classes were detected (Young-of-year, Age-1, Age-2+), similar to prior months in 2018. Mixture model estimates of density for October will be calculated for the annual report, which will be available in early 2019.



Southwestern Willow Flycatcher (SWFL) and Yellow-Billed Cuckoo (YBCU)

**Update provided by Lori Walton,
U.S. Bureau of Reclamation**

Nothing new to report since the last update. Reclamation is busy working to finalize survey and nest monitoring forms, determining nest numbers, and writing the annual report.

(Listed Species Update continued on page 7)

PROJECT UPDATES

Second Year of Implementation of the Final Biological and Conference Opinion for 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 Brian Hobbs (bhobbs@usbr.gov), U.S. Bureau of Reclamation

Reclamation, Bureau of Indian Affairs (BIA), Middle Rio Grande Conservancy District (MRGCD), and New Mexico Interstate Stream Commission (NMISC) are continuing to implement requirements under the 2016 Biological Opinion (2016 MRG BO), including a number of projects in the planning, design, and/or compliance phases, such as the San Acacia Pilot Study and San Acacia Fish Passage Pilot Long-Term Project, River Mile 60 Restoration Project, Rhodes Property Bankline Habitat (RM 94) project, the Tiffany Fire Watershed Restoration and Management Project, and the BdA North Boundary Infrastructure Project. Reclamation continues to work

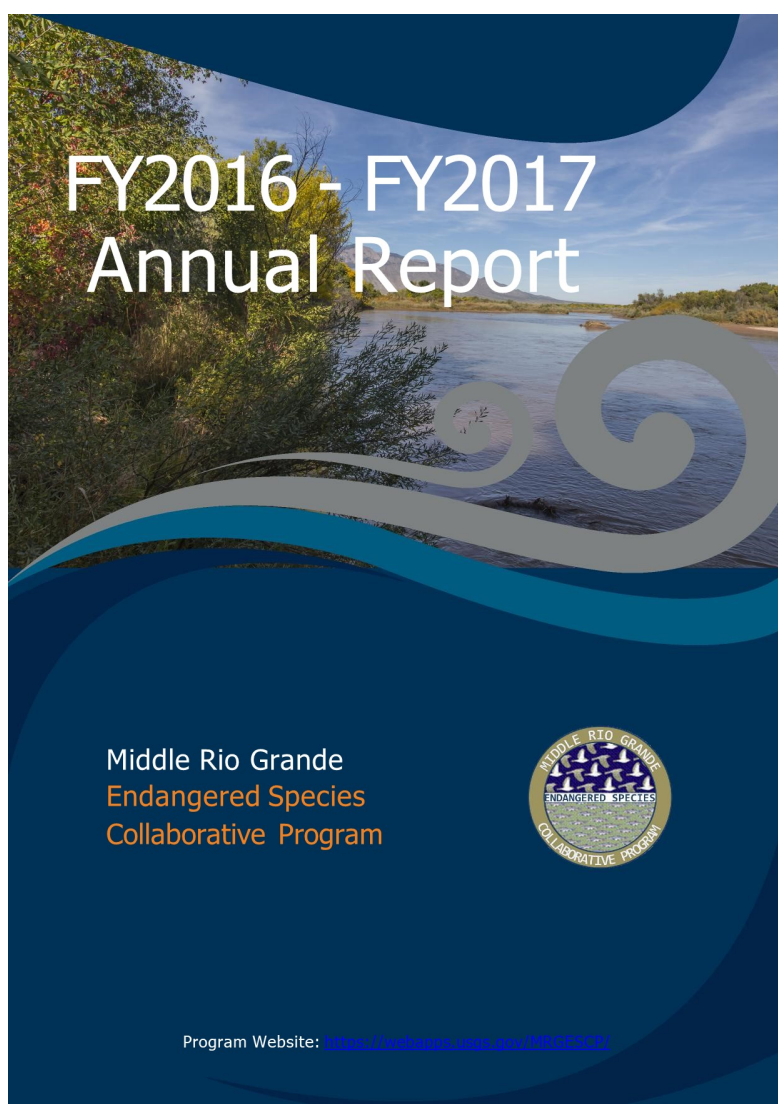
with BdA to remove vegetation along the proposed new channel for the BdA Pilot River Realignment Project. Reclamation recently completed the Escondida Fire Habitat Restoration Project (RM 104).

In support of the fish passage projects at San Acacia and Isleta Diversion Dams, a fish movement study has been initiated with the USGS Cooperative Fish and Wildlife Research Unit at Utah State University. Dr. Phaedra Budy and PhD student Ben Stout are heading up this effort, which will require stocking thousands of passive integrated transponder (PIT)-tagged RGSM over the next few years. In similar news, Dr. Budy and her post-doc, Dr. Timothy Walsworth, presented their draft review of the 2016 MRG BO's Hydrobiological Objectives (HBO) on November 13, 2018. The presentation of their final results will be scheduled for Program folks in January 2019. The draft report was released on October 23, 2018, and is available for comment through December 14, 2018.

ADMINISTRATIVE REQUESTS

2018 Non-Federal Cost Share Request

WEST, Inc. has distributed cost share spreadsheet templates to the non-federal signatories. If your organization has not submitted cost share, please do so as soon as possible. If you have questions or need assistance, please contact Julie Dickey, WEST, Inc. at jdickey@west-inc.com or (505) 382-2614.



FY2018 Annual Report Requests

Work has begun on the Fiscal Year (FY) 2018 Annual Report, and WEST, Inc. has been contacting signatories for content. Please send project updates and any new project content to Julie Dickey at jdickey@west-inc.com.

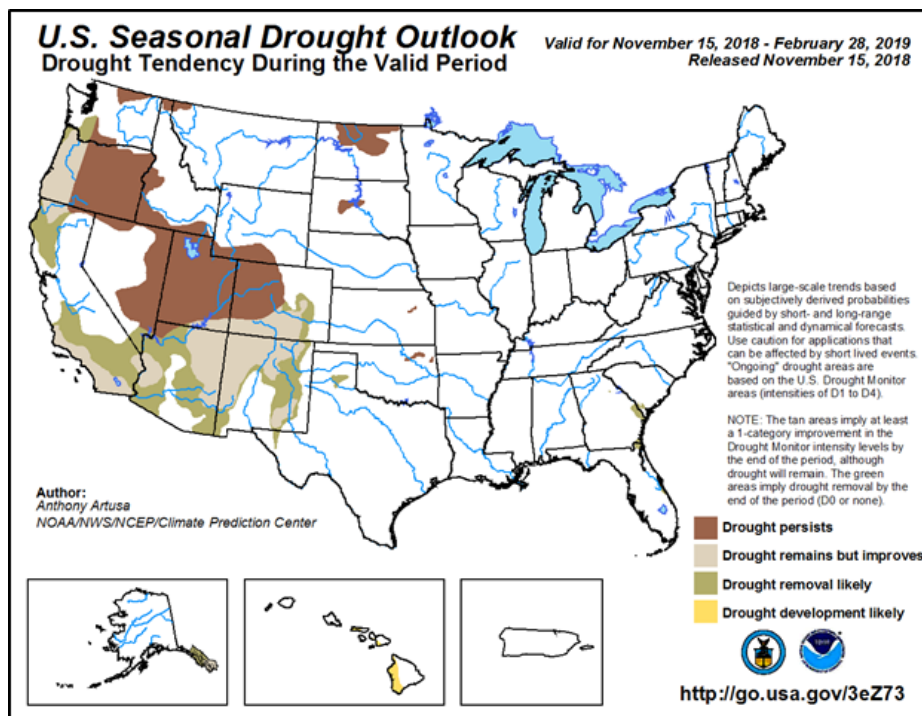
Also, we want to use your high resolution photos of the MRG or activities in the MRG! Please email them with the author's name and a photo description to jdickey@west-inc.com.

FY2016-FY2017 Annual Report

The FY2016-FY2017 Annual Report has been printed, and will be distributed to Program signatories at the November 29, 2018 Executive Committee (EC) meeting.

2018 WINTER HYDROLOGY UPDATE

In early November, the National Weather Service Forecast Office in Albuquerque released their 2018-2019 winter outlook for northern and central New Mexico. It is expected that the state will continue to experience weak to moderate El Niño events this winter. Climate forecast models indicated that precipitation during December, January, and February will likely range from near to above the 1981-2010 climatological averages. Snowfall data from five similar years of weak to moderate El Niño events suggest that we may expect near to slightly above average snowfall in central and northern New Mexico,



with the greatest chance for slightly above average snowfall across the southern half of the state. Climate model forecasts and recent temperature trends indicate that December, January, and February will range from slightly above to above average temperatures. While over 92% of the

state is experiencing at least abnormally dry conditions, only 22% of the state is now in an extreme drought, which is up from 0% of the state in mid-November, 2017 . The National Weather Service's Climate Prediction Center estimates that drought conditions will improve, or will likely be removed, for all affected areas of New Mexico this winter. This information and more can be found at:

- <https://www.weather.gov/media/abq/Briefings/201819WinterOutlook.pdf>
- <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM>
- <http://www.cpc.ncep.noaa.gov/index.php>

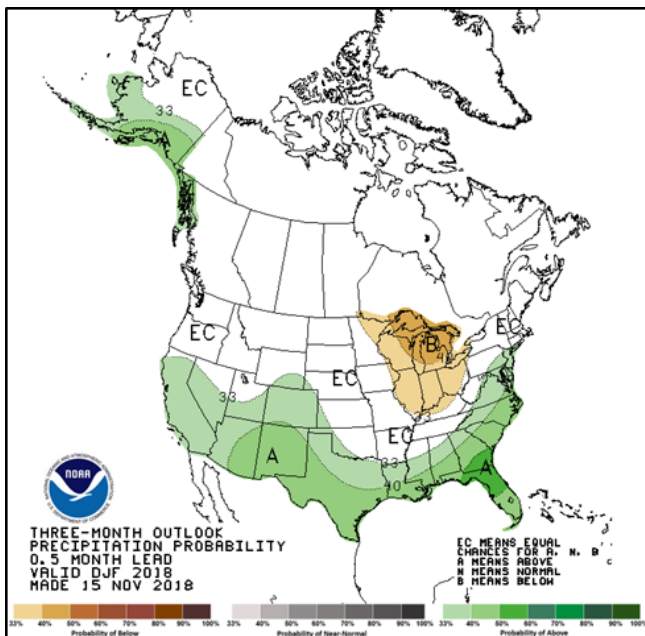
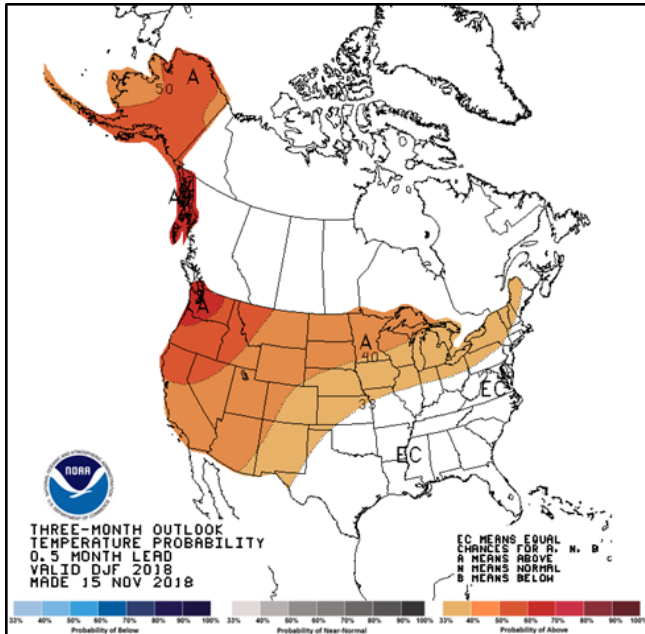
New Mexico Meadow Jumping Mouse (NMMJM)

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

During the mid-summer months, BdA Wildlife Refuge continued to have difficulty maintaining enough water within the its Riverside Canal to support quality NMMJM feeding and day nesting habitat. Localized rain events began in mid/late July, which assisted with maintaining only intermittent or moderate soil moistures needed for the NMMJM within these limited sites.

Camera trapping efforts within known jumping mouse localities began in late June and continued into mid-October. Jumping mice typically go into hibernation by November. During this year's active period, 22 observations were confirmed at 12 different camera sites. These observations occurred within five different units where vegetation/feeding habitat was considered good to acceptable for this species. These numbers were slightly lower than last year's 26 observations at 19 locations.

The Refuge began several habitat creation and habitat restoration efforts focused specifically on the NMMJM. This included creating four NMMJM swales adjacent to occupied habitat and implementing disking prescriptions within two Moist Soil Units, thus setting back the successional plant community to favor jumping mouse feeding habitat.



PROGRAM SPOTLIGHT

Dr. Megan Osborne

University of New Mexico

I hail from Melbourne (Australia) where I earned Bachelor of Science and later a PhD from La Trobe University. My PhD research involved using genetic data to investigate the evolutionary relationships among and within families of possums and gliders including species from Australia and Papua New Guinea. I moved to Albuquerque in 2002 to commence a post-doctoral position at the University of New Mexico (UNM) with Dr. Thomas Turner. My post-doctoral research involved examining how the interaction between river fragmentation and pelagic early life-history drives the trajectory of contemporary genetic effective size in Rio Grande silvery minnow. This research was both an introduction to fishes and the Rio Grande.

What I do at UNM

I am a research scientist in the Biology Department and Museum of Southwestern Biology (Division of Fishes) at UNM. My research uses empirical genetic data to examine evolutionary processes encompassing population and conservation genetics and phylogenetics of arid-land fishes and occasionally imperiled reptiles and amphibians. I also serve as a genetics expert/reviewer of endangered species recovery, reintroduction plans and species status assessments for state and federal agencies.

What I do outside of work

I have 8 year old twin boys (Finn and Liam) that keep me busy outside of work. I enjoy taking them hiking and exploring the rivers and mountains of the southwest and exploring my favorite places in Australia.



My post-doctoral research involved examining how the interaction between river fragmentation and pelagic early life-history drives the trajectory of contemporary genetic effective size in Rio Grande silvery minnow.

UPCOMING DATES

Executive Committee Meeting

Wednesday, November 28, 2018, 9AM - 3PM
Pueblo of Santa Ana Wellness Center

Science/Habitat Restoration Work Group

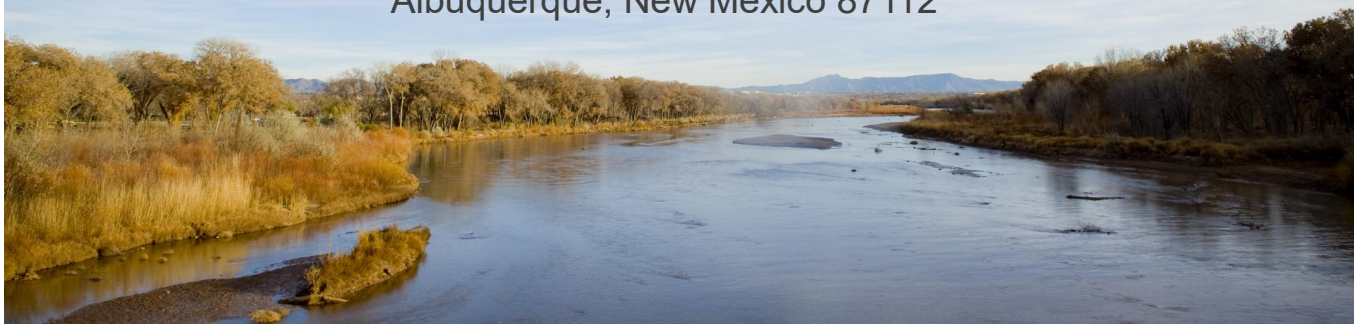
Thursday, December 6, 12:30AM - 4:30PM
WEST, 8500 Menaul Blvd. NE, Suite B-342

Population Monitoring Work Group

Wednesday, December 12, 8:30AM - 3:30PM
Reclamation, 555 Broadway Blvd. NE #100

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SHOULD NOT BE ATTRIBUTED
TO THE MRGESCP OR ITS EXECUTIVE COMMITTEE,
BUT TO THE ORGANIZATION AND PERSONS FROM WHICH
IT WAS SUBMITTED

FOR COMMENTS AND INQUIRIES, CONTACT:
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Scenic view of the Middle Rio Grande (Photo credit: U.S. Bureau of Reclamation)