

MIDDLE RIO GRANDE ENDANGERED SPECIES COLLABORATIVE PROGRAM November 2023 Newsletter

A TRIP TO WHITFIELD

Provided by Michelle Tuineau, Program Support Team (PST)



The Whitfield Wildlife Conservation Area (Whitfield or WWCA) and surrounding areas will be a focal point of the **Climate Futures Planning Workshop**. The area is representative of the larger Middle Rio Grande ecosystem given its vegetation types, access to water, and projected climate futures. Additionally, Whitfield is actively seeking input from the Collaborative Program on fire- and climate-adapted restoration strategies to recover from the 2022 Big Hole Fire. To help familiarize workshop participants with Whitfield, the Collaborative Program hosted a **field trip** to the area on **September 26, 2023**.

Twenty-seven (27) participants from thirteen (13) different organizations joined in on the pre-workshop field trip to Whitfield. Whitfield is run by Valencia Soil & Water Conservation District (VSWCD), and organizers from VSWCD were present to inform and guide visitors. The event opened with a presentation from Andrew Hautzinger, District Director for VSWCD, which covered the history of Whitfield, including the effects of the Big Hole Fire, and future plans.

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FEATURED THIS ISSUE:

- Whitfield Field Trip
- Identifying Riparian
 Conservation
 Opportunity Areas
- Collaborative Process for Environmental Flow Recs
- What's Happening in the MRG
- Program Updates
- New Member
- Upcoming Dates



Photo: Yerba mansa at Whitfield. Credit: Program Support Team

Whitfield Field Trip

Field trip participants were given a handout on ecosystem functions, which will be discussed at length at the Climate Futures Planning Workshop. Participants were asked to note indicators of ecosystem function at Whitfield, including groundwater/surface water exchange, riparian vegetation, and soil microbial and fungal communities. The group then gathered for a walkabout through the Whitfield and nearby Stacy Units. A map of the areas with highlights from the walkabout is below.

The group made their way from the Visitor Center and nearby excavated pond to Whitfield's moist soil units and southwest corner. Then the group followed along the San Juan Drain into the Stacy Unit to the north for some discussion, before heading back to Whitfield for a loop around the famous Owl Tree. Photos of sites seen on the walkabout are on the following page. Throughout the day, participants discussed opportunities for collaboration and data collection, and addressed ecosystem functions seen along the way.

With increased familiarity of Whitfield, including its commonalities with the larger MRG ecosystem and unique challenges, participants are better equipped to contribute to the Climate Futures Planning Workshop and make their own connections to Whitfield.

For more information on Whitfield and the VSWCD, please contact Andrew Hautzinger at andrewhautzinger@valenciaswcd.org.

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Figure 1: Map of the Whitfield Wildlife Conservation Area (WWCA) and Stacy Unit with Hink and Ohmart vegetation mapping and highlights from the field trip walkabout.

https://webapps.usgs.gov/MRGESCP/

WHITFIELD FIELD TRIP

Photo: Excavated pond, which provides a visible indicator of depth to groundwater. Credit: Program Support Team



Photo: Native scratch grass and yerba mansa. Credit: Program Support Team



Photo: Discussion at the Stacy Unit. Credit: Program Support Team



Photo: One of multiple monitoring wells that have provided 13 years of groundwater data. Credit: Program Support Team



Photo: Turkey restoration area. Credit: Program Support Team



Photo: 100-year old "Owl Tree" lost in the Big Hole Fire, named the "most visited tree in Valencia County." Credit: Program Support Team



Photo: Irrigation unit with lots of native milkweed. Credit: Program Support Team



Cottonwood gallery with fire damage along an irrigation canal. Credit: Program Support Team



Photo: Host plants and pollinator habitats. Credit: Program Support Team



Identifying Riparian Conservation Opportunity Areas in New Mexico

Provided by Virginia Seamster, New Mexico Department of Game and Fish (NMDGF)

Since 2017, the NMDGF has been partnering with Natural Heritage New Mexico (NHNM) on the development of a comprehensive New Mexico Riparian Habitat Map (NMRipMap) to help meet management needs for New Mexico's wildlife. The map was developed in collaboration with the U.S. Forest Service Region 3 (USFS) with the USFS developing portions of the map on USFS lands, and NHNM mapping all other areas of the state where perennial streams occur. The map has been produced in phases that were delimited by major river basins (i.e., Canadian/upper Pecos, Gila-lower Rio Grande-San Juan, lower Pecos-Tularosa, middle Rio Grande, upper Rio Grande) and, as of fall 2023, will provide full coverage across the state's riparian habitat. The phases of the map are provided for public use at a working scale of 1:6,000 and have a consistent, statewide legend that is user-friendly and designed to meet a variety of needs (https://nhnm.unm.edu/riparian/nmripmap). There are three levels of organization in the legend, going from general vegetation types (e.g., forests, shrublands, etc.) on down to fine-scale units that reflect species composition and site characteristics and are crosswalked to U.S. National Vegetation Classification system macrogroups and groups.

As the NMRipMap was being developed and finalized, NHNM started work on a pilot project to use the NMRipMap to identify Riparian Conservation Opportunity Areas (RCOAs) for the upper Rio Grande in partnership with National Wildlife Federation and others. These RCOAs identify larger blocks of native riparian vegetation, adjacent areas in need of restoration to enhance the size and connectivity of native



RIPARIAN CONSERVATION OPPORTUNITY AREAS



Figure 3: Riparian Conservation Opportunity near Espanola in Northern New Mexico.

riparian vegetation, and "pinchpoints" that need to be conserved and protected to ensure continued connectivity of high quality riparian habitats for wildlife. These RCOAs are then ranked according to the amount of native vegetation, restoration potential, and value for biodiversity. Data for the upper Rio Grande are available on the RCOA website (https://nhnm.unm.edu/RCOAs). In the process of delineating RCOAs for the upper Rio Grande, the need for identifying areas between RCOAs that would contribute to connectivity of riparian areas along stream and river corridors was recognized. NHNM is developing a workflow to identify these "connectivity zones" as an enhancement to the original RCOA data.

As of summer 2023, NMDGF is partnering with NHNM to expand the identification of RCOAs statewide. A statewide dataset of RCOAs and associated connectivity zones will be valuable in the context of informing where to do work to enhance the quality and connectivity of riparian habitats for the many animals, including over 100 Species of Greatest Conservation Need (SGCN), that utilize these habitats for at least part of their life cycles. They will also be useful in informing the 2025 comprehensive review and revision of the State Wildlife Action Plan for New Mexico (SWAP). The SWAP approved by USFWS in 2017 identified aquatic and riparian habitats as especially important for SGCN conservation. Some of the 16 COAs identified in the 2017 SWAP encompass aquatic and riparian habitats. However, inclusion of RCOAs would further highlight the importance of these habitats for SGCN and help to guide implementation of conservation actions relevant to these habitats and associated SGCN. For example, the RCOA data will provide information on whether a restoration project could better benefit wildlife habitat connectivity by being moved slightly to fall within an area adjacent to a large patch of intact native riparian vegetation or that enlarges a pinchpoint. Further, these data will assist in prioritizing areas across the landscape for habitat restoration efforts, especially through the ranking process that helps differentiate higher quality, more intact patches from lower quality sites in greater need of restoration efforts.

A Collaborative Process for Determining Environmental Flow Recommendations for the Rio Grande in New Mexico

Provided by Paul Tashjian, Audubon Southwest

A scientifically defensible framework for setting environmental flow targets in the Rio Grande of New Mexico is long overdue. Aridification is increasing across the American West, exacerbating existing water management challenges, and increasing conflict between competing water uses as water availability diminishes. The Rio Grande Basin Study in New Mexico (Basin Study) was initiated on January 24, 2023. The Basin Study is a WaterSMART-funded initiative led by the US Bureau of Reclamation and the Middle Rio Grande Conservancy District, with the participation of more than 36 signatories representing multiple sectors and areas of expertise. The Basin Study aims to develop management resiliency strategies for the Rio Grande in New Mexico under climate warming scenarios. As part of this effort, water-use "sectors" are quantifying water needs that will be placed into tradeoff models and tools. The Non-Governmental Organizations (NGO) Sectoral Committee of the Basin Study, comprised of 12 national, regional, and statewide environmental organizations as well as associated partners, is embracing this opportunity to quantify environmental flow needs and associated feasible targets for the Rio Grande Basin.

The NGO Sectoral Committee effort is a reach-scale quantification process largely focused on aquatic and aquatic-dependent species within the Basin. The six reaches examined include segments of the mainstem Rio Grande and the Rio Chama (a primary tributary) within central and northern New Mexico, all upstream of Elephant Butte Reservoir. Environmental flows are quantified based on the needs of targeted indicator species coupled with local hydrologic and geomorphic information. Examples of indicator species include the Southwestern Willow Flycatcher, which is found in all six reaches and utilizes riparian and wetland habitat, dependent on spring run-off 'pulses,'. Additional indicator species include cottonwood trees and the endangered Rio Grande Silvery Minow, which are both dependent on the timing and peak of spring pulses for regeneration as well as minimum flows for survival. Flow recommendations will focus specifically on the parts of the hydrograph critical to the long-term viability of the indicator species, including low flow, monsoon peak flows, and spring runoff peak-timing-duration. Additionally, the environmental flow quantification effort will put forward augmentation actions that will be required to realize reach-specific flow targets within modern flood control and water supply realities, as well as the most critical opportunities to prioritize for when these targets cannot realistically be met.



COLLABORATIVE PROCESS FOR ENV FLOW RECS



Parallel to this effort, the University of California-Davis and World Wildlife Fund recently completed a Rio Grande/Rio Bravo basin-wide assessment to quantify environmental flow needs and gaps in 44 locations (gauges) from the headwaters in Colorado to the Gulf of Mexico, 11 in the Rio Grande in New Mexico. By applying and adapting the Functional Flows approach to the Rio Grande hydrologic regimes. This hydrological and statistical assessment based on historic naturalized flows (1900-1910) and recent decades regulated flows (1975-2020) is being used as a complementary reference to inform the ongoing work of the NGO Sectoral Committee.

Quantifying reach-specific environmental water needs for the Rio Grande in New Mexico has multiple benefits including: 1) information for the Basin Study's trade off analysis that will identify management actions to improve environmental flows in the Rio Grande; 2) information for New Mexico's Strategic Water Reserve (a State-run water bank for endangered species and Rio Grande Compact water needs); and 3) information for many other projects that are trying to understand the environmental flow deficits in the Rio Grande of New Mexico and how these can be improved and protected. The initial recommendations by the Sectoral Committee are being compiled into a draft report that collects and summarizes all relevant citations alongside the initial flow hypotheses for each reach. These draft hypotheses will be vetted through a peer-review workshop-- scheduled for the late spring of 2024 – and will be memorialized into a final document that will both serve as a primary chapter in the Basin Study as well as a stand-alone directory that will serve multiple benefits. We will be seeking engagement with the peer review process, including ecologic, hydrologic, geomorphic, water quality, water management and cultural expertise. Please contact Paul Tashjian (Paul.Tashjian@audubon.org) or Tricia Snyder (Tricia@NMwild.org) for more information.

WHAT'S HAPPENING IN THE MRG

MRG Announcements

• Funding Announcements

• Recent Publications

MRG ANNOUNCEMENTS

Road to Recovery (R2R) Social Science Engagement Session – November 3, 2023

Road to Recovery and the bird conservation community know that the integration of social science into bird conservation efforts is essential for recovery. Join in on **November 3, 2023** from 2-4 PM EST for a session focused on targeted social science associated with critical threats facing tipping point bird species. The session will feature social scientists with expertise navigating these threats on a daily basis.

This engagement session is open to anyone with an interest in bird conservation. Click <u>here</u> to register via Zoom.

SERJ Summit – November 7-8, 2023

The EPA Region 6 Stronger Engagement for Results and Justice (SERJ) Summit will be held virtually November 7-8, 2023 at a time TBD. The Summit will be conducted in English, with translation services available in Spanish. The registration deadline is November 6, 2023. Please contact Kathryn Vogle [vogle.kathryn@epa.gov; 214-665-7162] or Chad Larsen [larsen.chad@epa.gov; 214-665-8058] with any questions.

ASPIRE Open House – November 9, 2023

The **Center for Advancement of Spatial Informatics Research & Education (ASPIRE)** is holding an **ASPIRE Open House** on **November 9, 2023** from 3:00 – 6:00 PM. There will be light refreshments, a student research poster competition and awards ceremony for competition winners, and an opportunity to interact with some of ASPIRE's equipment and facilities. It is also a great opportunity to connect with ASPIRE's students and faculty. Click <u>here</u> to RSVP. Click <u>here</u> to learn more about ASPIRE and the event.

When: November 9, 2023 from 3:00 – 6:00 PM Keynote by Dr. Xiaoyang Zhang (SDSU): 3:00–4:00 PM Reception: 4:00–6:00 PM Where: PAÍS 1140 and Lobby (210 Yale Blvd NE, Albuquerque, NM 87106) Who: Anyone interested in spatial data, modeling, and research at UNM

ASPIREational Talk and Social Hour with Dr. Su Zhang – November 14, 2023

There will be an **ASPIREational Talk and Social Hour** on **November 14, 2023** from 4 PM-5 PM at Draft and Table in the UNM Student Union Building (SUB), featuring a short research talk from **Dr. Su Zhang** (Associate Director at the Earth Data Analysis Center) titled "New Mexico's Major Initiative on **Digitizing, Archiving, and Accessing to Historical Aerial Photo Project**". Please contact Jenn Hann Chong at **chongjh11@unm.edu** for more information.

WHAT'S HAPPENING IN THE MRG

MRG ANNOUNCEMENTS CONT

2023 Fall Meeting of the Western YBCU Working Group – November 14, 2023

Event Information: <u>Western Yellow-billed Cuckoo Working Group Meeting — WESTERN YELLOW-BILLED</u> <u>CUCKOO WORKING GROUP (yellowbilledcuckoo.org)</u>

When: November 14, 2023 (9:00 AM to 2:30 PM Mountain Standard Time)
Where: Virtual, in partnership with <u>The Pajarito Environmental Education Center</u>
Language: English with Closed Captioning Spanish translation services available
Agenda: <u>Agenda in English</u>
Register: To register, please visit the website and fill out the form. Please register at least 24 hours in advance. Registration for this meeting is free.
Questions? Please contact the Working Group Coordinator, Hira Walker, at

coordinator@yellowbilledcuckoo.org

One Water Summit 2023 – November 14-16, 2023

The **US Water Alliance** will convene the **11th Annual One Water Summit** on **November 14-16**, **2023** in Tucson, Arizona. The summit is the premier national conference focused on sustainable, integrated, and inclusive approaches to managing water—our most precious natural resource.

The registration fee is based on your organization's type and size, with discounts for US Water Alliance members as well as those attending as part of a One Water Delegation. Click <u>here</u> to register.

2024 Land & Water Summit - Earlybird Registration – November 15, 2023

The **2024 Land & Water Summit** will take place on **March 7-8, 2024** at the Indian Pueblo Cultural Center (2401 12th St NW Albuquerque, NM 87104). For more information, click <u>here</u>. A pre-conference field trip will also take place on **March 6, 2024**.

Earlybird registration is now open! Click <u>here</u> and register by **November 15, 2023** to get \$50 off regular price.

SER Southwest 2023 Annual Conference – November 16-19, 2023

The Society for Ecological Restoration (SER) 2023 Annual Conference will be held on November 16-19, 2023 in Santa Fe, New Mexico. Click <u>here</u> for event information.

2023 Fall Wetlands Roundtables – November 29 and December 14, 2023

The Northern Wetlands Roundtable will be conducted on November 29, 2023 from 9 AM to 4 PM, and the Southern Wetlands Roundtable will be conducted on December 14, 2023 from 9 AM to 4 PM. Both meetings will be via WEBEX. Please contact organizers, Maryann McGraw (maryann.mcgraw@env.nm.gov), Dustin Nelson (dustin.nelson@env.nm.gov), and Tiffany Anders (tiffany.anders@env.nm.gov), with any questions.

New Mexico Water Dialogue – January 11, 2023

Registration is now open for the **New Mexico Water Dialogue 29th Annual Statewide Meeting** on **January 11, 2024** at 8:00 AM. For more information, click <u>here</u>. Register soon because in-person space is limited!

WHAT'S HAPPENING IN THE MRG

Photo: Scenic New Mexico view. Credit: Program Support Team

RECENT PUBLICATIONS

Rio Grande Silvery Minnow Population Monitoring During August 2023 Dudley, R.K., Platania, S.P., White, G.C. (2023) Prepared for U.S. Bureau of Reclamation, Albuquerque Area Office. <u>Link</u>

Rio Grande Silvery Minnow Population Monitoring During September 2023 Dudley, R.K., Platania, S.P., White, G.C. (2023) Prepared for U.S. Bureau of Reclamation, Albuquerque Area Office. <u>Link</u>

Rio Grande Silvery Minnow Reproductive Monitoring During 2023

Dudley, R.K., Platania, S.P., White, G.C. (2023) Prepared for U.S. Bureau of Reclamation, Albuquerque Area Office. Link

FUNDING ANNOUNCEMENTS

Innovative Water Infrastructure Workforce Development Grant Program – Applications due November 17, 2023

The **U.S. Environmental Protection Agency (EPA)** announced a new Request for Applications (RFA) for the **Innovative Water Infrastructure Workforce Development Grant Program**. Over \$20 million in grant funding will be available for eligible organizations interested in building a stronger pool of skilled and diverse workers in the water and wastewater utilities sector. For more information, click <u>here</u>. Eligible organizations interested in applying must submit their application to the EPA by **November 17, 2023**.

EPN Grant Support

The **Environmental Protection Network (EPN)** is offering capacity-building support to communities in navigating RFPs, reviewing funding applications, getting set up with <u>SAM.gov</u>, <u>Grants.gov</u>, and other needs related to funding opportunities (not just related to EPA/federal opportunities, but private foundation grant opportunities and others, too!). For more information, please contact EPN at

info@environmentalprotectionnetwork.org or call 646-361-6928 to set up a time to learn more about their program or to speak to an expert in their network.

PROGRAM UPDATES

• Collaborative Seminar

Announcements

COLLABORATIVE SEMINAR

INTRO TO THE NRCS PLANT MATERIALS PROGRAM

Richard Strait, Natural Resources Conservation Service (NRCS) – September 15, 2023

<u>Link</u>

ABSTRACT:

The NRCS Plant Materials Program develops vegetative solutions for natural resource concerns such as soil stabilization, soil health and productivity, and water quality. New Mexico's Plant Materials Program has developed 41 plant releases that were selected for rangeland conservation, erosion mitigation, and habitat improvement. Our technical work has included developing deep planting techniques for riparian restoration, improving pollinator habitat, and erosion abatement using herbaceous wind barriers.

ANNOUNCEMENTS

CLIMATE FUTURES PLANNING WORKSHOP POSTPONED

The **Climate Futures Planning Workshop** (scheduled for October 24-25, 2023) has been postponed. There has been a great amount of interest in the event, and a lot of work put into its development. We intend to capitalize on all that energy and excitement at a later time. We will be in contact with a new date. Thank you for your patience as we continue to plan this event!



PROGRAM UPDATES

ANNOUNCEMENTS CONT

2023 SCIENCE SYMPOSIUM CALL FOR ABSTRACTS & REGISTRATION

UPDATES:

The **Call for Abstracts** has been extended to **11:59 PM MT on November 14, 2023**. Visit the <u>2023 Call for</u> <u>Abstracts page</u> on the Program Portal for more information. Please submit your abstract as soon as possible and encourage others to submit abstracts as well. Click <u>here</u> to register for the event by **November 17, 2023**. Registration is free.

The 2023 Science Symposium will be held at the Southwestern Indian Polytechnic Institute, Science & Technology Building (9169 Coors Blvd NW, Albuquerque, NM 87120) on December 6 -7, 2023. The event will take place over two full days. This year's theme is "Scaling Up: Adaptive Species Management for a Changing Ecosystem."

The Collaborative Program invites the submission of abstracts for oral or poster presentations. This is an opportunity to share your research with colleagues who are actively working at the nexus of science, management, and policy. Participants from all disciplinary backgrounds are welcome to submit abstracts related to the MRG's federally-listed species (the Rio Grande silvery minnow, southwestern willow flycatcher, yellow-billed cuckoo, New Mexico meadow jumping mouse, and Pecos sunflower) and the MRG ecosystem. Investigators at all career stages (including high school through PhD students) are encouraged to submit abstracts.

We especially encourage abstract submissions in the areas of interest below, but all presentations related to the listed species, their habitats, and the greater MRG ecosystem are welcome!

- Fire risk mitigation / post-fire restoration
- Fluvial geomorphology of the MRG
- Habitat restoration and habitat connectivity
- Vegetated islands and bank-attached bars
- Climate-adapted management strategies

FIELD TRIP TO THE PLANT MATERIALS CENTER

After Rick Strait's seminar on the **Plant Materials Program** (check it out <u>here</u>), there was a lot of interest in organizing a field trip to the **Natural Resources Conservation Service Los Lunas Plant Materials Center**. On **November 9, 2023** from 1-3 PM MT, the **Habitat Restoration Coordination Group** is scheduling a tour of the Los Lunas Plant Materials Center.

Rick Strait and his team will be leading the tour. Rick has indicated high interest in discussing **seeding**, **seed sources**, **soil quality and weed management**, as these are the primary focus of the Plant Materials Center's activities.

Please contact Michelle Tuineau (mtuineau@west-inc.com) to join in on the field trip.

New Member and Upcoming Dates

PROGRAM DATES

Climate Futures Planning Workshop (pg 11) Postponed (early 2024)

Plant Materials Center Field Trip (pg 12) November 9, 2023

2023 Science Symposium Call for Abstracts (pg 12) November 14, 2023

> 2023 Science Symposium Registration (pg 12) November 17, 2023

Science and Adaptive Management Committee Meeting Late November

> 2023 Science Symposium December 6–7, 2023 9:00 AM—5:00 PM MT

Executive Committee Meeting January 18, 2024 1:00 PM—4:00 PM MT

The information in this newsletter should not be attributed to the Collaborative Program or its Executive Committee, but to the organization from which it was submitted.

For comments and inquiries, contact: Program Support Team | (505) 414-3507 | mtuineau@west-inc.com

WELCOME TUCKER DAVIDSON!



Tucker Davidson, Senior Water Resource Associate for Audubon Southwest, joined the Executive Committee as an alternate representative for Audubon Southwest.

MRG DATES

R2R Engagement Session (pg 8) November 3, 2023

> **SERJ Summit** (pg 8) **November 7-8, 2023**

ASPIRE Open House (pg 8) November 9, 2023

ASPIREational Talk: Dr. Su Zhang (pg 8) November 14, 2023

Western YBCU Working Group Meeting (pg 9) November 14, 2023

> One Water Summit 2023 (pg 9) November 14-16, 2023

SER Southwest 2023 Annual Conference (pg 9) November 16-19, 2023

2023 Northern Wetlands Roundtable (pg 9) November 29, 2023