

MIDDLE RIO GRANDE ENDANGERED SPECIES COLLABORATIVE PROGRAM April 2023 Newsletter

CLIMATE ADAPTATION IN THE MRG: PRESERVING ECOSYSTEM FUNCTION FOR LISTED SPECIES

Provided by Catherine Murphy, Program Support Team (PST)

In pursuit of its mission to protect both listed species and water uses, the Collaborative Program has adopted the approach of collaborative adaptive management (AM). Individually, each of our signatories has demonstrated a commitment to AM already through their implementation of restoration projects and a multitude of other conservation measures. For AM to be truly collaborative,

however, it must be motivated around a common problem and mutual interests. Within the Middle Rio Grande (MRG), as elsewhere, climate change poses the most consequential challenge for natural resource and water management. Planning strategically for climate change means facing uncertainties in both climate projections and ecological responses, as well as trying to identify and avoid costly negative outcomes. The objective

<u>Climate future</u>: a description of the physical attributes of climate that could plausibly occur at a specific place and time in the future (Lawrence et al. 2021).

is often to minimize failure, rather than to maximize success. However, confronting the uncertainty of a shared <u>climate future</u> together offers an unparalleled opportunity for collaboration among our signatory organizations, despite their diverse missions and authorities.

Although sharing results and lessons learned is a valuable first step toward collaborative AM, current management actions are still largely conducted outside the collaborative forum. In order to find shared solutions to shared problems, we

Ecosystem approach: a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way (Secretariat of the Convention on Biological Diversity 2004). must also be able to view our management targets from a shared vantage point. This could mean modifying the way we see listed species in the environment – looking beyond their critical habitats to the ways in which they interact with structural and functional aspects of the ecosystem. Indeed, the current MRGESCP focus on five listed species provides rationale for scaling our perspective up to the ecosystem level in order to address multiple

management targets simultaneously. Importantly, the Convention on Biological Diversity's <u>ecosystem approach</u> "does not preclude other management and

Continued on pg 2

FEATURED THIS ISSUE:

- Climate Adaptation in the MRG
- ♦ 2023 MAT Update
- Recent MRG Event
 Write-Ups
- MRG Announcements
- Recent Publications
- Funding and Job Announcements
- Program Updates
- Upcoming Dates



CLIMATE ADAPTATION IN THE MRG CONT.

conservation approaches, such as...single-species conservation programmes..., but could, rather, integrate all these approaches and other methodologies to deal with complex situations." Adding ecosystem-level considerations to management strategies will enable not only more productive collaborations, but also new opportunities for improving climate resilience within the MRG.

<u>**Climate resilience</u>**: the capacity of social, economic and ecosystems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure (as well as biodiversity in case of ecosystems) while also maintaining the capacity for adaptation, learning and transformation (IPCC 2022).</u>

From this perspective, preserving the listed species and their habitats starts with targeting the ecosystem functions generally fall into three main categories: hydrology and

hydrology and sediment dynamics, biogeochemistry and nutrient cycling, or

Ecosystem functions: the biotic and abiotic processes, and their interactions, within an ecosystem (Leuzinger and Rewald 2021).

habitat and food web maintenance. Indicators of

ecosystem functions that are important for listed species in the MRG include (but are not limited to) sediment transport, floodplain inundation, groundwater connectivity, soil organic content, soil moisture. and streamside vegetation.



Some monitoring programs for species-specific habitat restoration in the MRG already measure many of these metrics – suggesting that preservation of ecosystem function is both intuitive and intrinsically valuable for species management. Planning for our climate future by targeting ecosystem functions is likely to yield positive outcomes for not only the listed species but also the Collaborative Program.



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WHAT'S HAPPENING IN THE MRG

- 2023 MAT Update
- Restoring Whitfield Workshop
- MRG AOP Meeting
- Rio Grande Compact Commission Meeting
- Planting for the Future Workshop
- MRG Announcements
- Recent Publications
- Funding Announcements
- Job Announcement

2023 MAT UPDATE

Provided by Shannon Weld, New Mexico Interstate Stream Commission

The Minnow Action Team (MAT), an ad hoc multidisciplinary work group established in 2012, is tasked with providing an adaptive management focus to annual Middle Rio Grande (MRG) water and species activities. The MAT conducts several meetings early in the year, generally February to May, with any interested stakeholders to provide projections on water operations and current data on Rio Grande Silvery Minnow (RGSM) status. The purpose of the MAT is to recommend ways to improve conditions for spawning, recruitment, and survival of the species. The MAT assists with technical coordination and evaluation of actions available to resource managers and provides recommendations to help guide water operations and species management during the year. The MAT also assists with coordination of field activities such as RGSM egg collections for captive propagation, floodplain and channel data collection, and summer flow measurements.

Projections by federal and state water management agencies indicate that 2023 will result in a good runoff in the MRG due to above average snowpack. However, continued maintenance work of El Vado dam and Rio Grande Compact restrictions means there is limited upstream reservoir storage of native Rio Grande water again in 2023, which is critical for improving summer flows. Regardless, flows through the MRG are expected to be continuous for most of the irrigation season except for potential drying in the southern reaches.

Because there is not a need to create good spawning and recruitment conditions for the fish this year, the MAT focused on coordination of spring runoff monitoring and egg collections as well as encouraging reduced channel drying as much as possible. Recommendations are to increase the effort to collect eggs for captive propagation facilities, map inundated floodplain during peak flow to assist in habitat restoration activities, begin managed river recession no earlier than mid-June, and encourage the Bureau of Reclamation's supplemental water to be used to keep the Albuquerque (Angostura) Reach wet as well as to be used to maintain RGSM refugia past diversion dams and at Middle Rio Grande Conservancy District (MRGCD) outfalls. Monitoring efforts are being organized with multiple agencies, which include egg, larval fish, and juvenile fish collections. Please contact Michelle Tuineau (mtuineau@west-inc.com) to receive a copy of the 2023 MAT Recommendations or be added to the MAT contact list.

RECENT EVENTS

Restoring Whitfield Workshop — April 6-7, 2023

On **April 6-7, 2023**, the Valencia Soil and Water Conservation District (VSWCD) and the U.S. Department of Agriculture Southwest Climate Hub hosted the "**Restoring Whitfield: A Workshop to Develop a Climate Adapted Revegetation Design for the Whitfield Complex Lands Along the Middle Rio Grande**" to solicit input on how to restore the Whitfield Wildlife Conservation Area Complex (Whitfield Complex) after the April 11, 2022 Big Hole Fire. The fire burned more than 900 acres of the bosque, including 105 acres at Whitfield.

The workshop was led by Andrew Hautzinger, VSWCD District Director, at the Whitfield Complex in Belen, NM. The first day began with some background presentations. Paul Tashjian, Audubon Southwest, gave a presentation on the historic landforms and physical processes of the site, how those can inform future restoration efforts. Anne Marken, Middle Rio Grande Conservancy District (MRGCD), then presented on MRGCD water management and operations around Whitfield. Andrew followed up with an overview of the Big Hole Fire's impact on the Whitfield Complex, including the loss of the hundred year-old cottonwood known as the Owl Tree. He also explained that Whitfield Complex staff were considering options to mitigate future fire risk, including fuel breaks and understory management, and incorporating native species beyond the typical cottonwood and willow into restoration work.

Workshop participants toured two areas of the Whitfield Complex: the Whitfield Wildlife Conservation Area and the Stacey Unit. Collectively, 75% of these areas burned during the Big Hole Fire. One year later, willows and native grasses were re-establishing, particularly salt grass. Participants provided feedback to Andrew and other Whitfield staff on options for restoration, maintenance, and management of the sites. Day 1 ended with a dinner and tour of the third part of the Whitfield Complex, the Rio Abajo Conservation Area, which allowed participants to see a site that was not burned by the Big Hole Fire. The restoration work at Rio Abajo was focused on non-native species removal, specifically tamarisk and understory vegetation, with an eye toward fire risk mitigation.



Figure: Map of Whitfield Wildlife Conservation Area

RECENT EVENTS

Restoring Whitfield Workshop cont.

On Day 2 of the workshop, participants broke into small groups and brainstormed additional restoration strategies. Overall, some of the ideas presented at the workshop included:

- A native seed bank
- Testing site for climate-adapted agricultural practices
- Flooding during the spring when fire risk is high
- Planting Pecos sunflower
- A pollinator garden
- Incorporating plants with cultural value to local and indigenous communities
- Assisted migration of native plants sourced from locations to the south

More information about Whitfield can be found <u>here</u>. For more information about the Restoring Whitfield Workshop and outcomes, contact Andrew at

AndrewHautzinger@valenciaswcd.org.



MRG Annual Operating Plan Meeting — April 18, 2023

On April 18, 2023, the U.S. Bureau of Reclamation Albuquerque Area Office presented on the 2023 Middle Rio Grande Annual Operating Plan (AOP). The AOP presentation will be archived <u>here</u>.



RECENT EVENTS

Rio Grande Compact Commission Meeting — April 21, 2023

On Friday, April 21, 2023, New Mexico hosted the annual Rio Grande Compact Commission meeting in Santa Fe State Capitol building, with a virtual attendance option. Representatives from Colorado, New Mexico, and Texas attended, and heard reports from the Engineer Advisors, Legal Advisors, each state's Commissioners, the U.S. Bureau of Reclamation, the U.S. Army Corps of Engineers, the U.S. Bureau of Indian Affairs, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, and the International Boundary and Water Commission.

Relevant highlights from the meeting included:

- New Mexico begins 2023 with an accrued Compact debit of approximately 93,000 ac-ft.
- RGSM had a catch-per-unit-effort of 0.17 fish/100m² in 2022. Lower-than-normal numbers of RGSM were augmented in 2022 (129,497 out of the 269,000 requested).
- 2022 saw increased activity for southwestern willow flycatcher in the Isleta Reach.
- There were eight new detections of yellow-billed cuckoo in the MRG around Albuquerque in 2022.
- New Mexico meadow jumping mouse unique detections at Bosque del Apache National Wildlife Refuge increased from 23 in 2021 to 36 in 2022.
- Rolf Schmidt-Peterson, the director for the Interstate Stream Commission, is retiring at the end of April 2023.

The 2022 Report of the Engineer Advisors is available online <u>here</u>. More information about the Rio Grande Compact Commission meeting is available <u>here</u>.

Planting for the Future Workshop — April 24, 2023

On **April 14, 2023**, Debbie Lee, Program Manager, and Zoë Rossman, Assistant Science Coordinator, attended the "Planting for the Future workshop" at Santa Ana Pueblo's Tamaya Wellness Center. The workshop was part of RiversEdge West's 2023 workshop series across the Southwest, and aimed to connect those working in riparian lands along the MRG and to highlight local projects, all in the context of adapting restoration efforts in a changing climate.

As part of the workshop, participants were able to take part in two field trips. The first was to restoration sites on Santa Ana Pueblo, led by Nathan Schroeder. The second was to the San Antonio Oxbow, led by Kyle Faig, City of Albuquerque Open Space Division.

The workshop began with a welcome talk from Yasmeen Najmi, MRGCD, followed by an introduction to RiversEdge West partnerships and activities by Dr. Amanda Stahlke, RiversEdge West. Dr. Kim Eichhorst, Bosque Ecosystem Monitoring Program (BEMP) presented on changing ecosystem drivers in the MRG, and discussed how BEMP data can help our understanding of the responses of native vs. non-native understory vegetation to a variety of ecosystem drivers.

RECENT EVENTS

Planting for the Future Workshop cont.

After lunch, Melanie Gisler, Institute for Applied Ecology Southwest Branch, gave the keynote presentation on the importance of seeds in planting for the future, emphasizing the advantages of seeds in terms of their ability to provide genetic diversity. Melanie discussed the <u>Southwest Seed Partnership</u>, which is an effort to increase native seed sources in the Southwest. She also introduced the River for Monarch Project, which is creating habitat for migrating monarchs at 16 sites along 200 miles of the Rio Grande. Afternoon presentations also included a talk from <u>New Mexico Forest and Watershed Restoration Institute (NMWFRI)</u> staff Joe Zebrowski, Alex Makowicki, and Corey Beinhart, who discussed the Greater Rio Grande Watershed alliance projects and monitoring methods. Corey gave an overview of a custom project database that aims to establish NMWFRI as a primary data source for restoration in the MRG. The final talk of the day was by Andrew Hautzinger, VSWCD, who discussed the outcomes of the Restoring Whitfield Workshop on April 6-7, 2023 (see page 4 for write-up).



MRG ANNOUNCEMENTS

2023 BEMP Crawford Symposium

The 2023 BEMP Crawford Symposium: Community Science, Education, and Stewardship will be held on April 28, 2023 from 5:30-7:30 PM at the Mountain View Community Center. Participants gather each year to celebrate and showcase environmental research by both students and professionals along the MRG. This is a great opportunity for students to gain experience presenting scientific data or environmental art! Visit BEMP's website for more details.

2023 EJ Community Days Events

As part of the **2023 Environmental Justice (EJ) Community Days**, the entire month of April was filled with events. The following events are coming up:

Birding w/ the Valle de Oro Bio Team on **April 29th @ 8 AM**—Participants can join the Biological Technicians of Valle de Oro NWR on a walk and/or tram trip around the refuge to bird and learn more about the refuge's restoration activities. Registration is not required.

South Valley EJ Paddle Day on April 30th @ 9 AM - 4 PM—Meet at the Valle de Oro NWR early for set-up and make sure to pre-register for full details. Registration is required. Find out more about registration <u>here</u>.

ASPIREational Talk from Dr. Lindsay Lowe Worthington

Dr. Lindsay Lowe Worthington will give an ASPIREational Talk on inaugural Earth Science Computing and Programming Experience (ESCAPE) for undergraduates on May 2, 2023 at 4 PM at Draft & Table, UNM Student Union Building, Main Level.

National Conference on Ecosystem Restoration

The <u>National Conference on Ecosystem Restoration (NCER)</u> is coming to Albuquerque April 14-19, 2024! In addition to bringing NCER to the Southwest for the first time in 15 years, the conference is prioritizing an almost entirely new suite of session topics (<u>listed here</u>). The oral program will be primarily built from contributed session proposals, which are due May 19, 2023 Please reach out to Matt Grabau (<u>matthew_grabau@fws.gov</u>) with your questions. There is interest in the Collaborative Program presenting at the event. Please contact Debbie Lee (<u>dlee@west-inc.com</u>) with any ideas.

Colorado Cuckoo Week 2023

The events below will be offered for Colorado Cuckoo Week 2023. Reach out to Adam Petry (petry@westernbiology.com) with any questions.

Protocol Training Workshop—Registration is open for the 2023 Western Yellow-billed Cuckoo (YBCU) Survey Protocol Training Workshop in western Colorado on June 13-14, 2023. <u>Click here</u> for more information. This year's workshop leader will be Dr. Murrelet Halterman, avian ecologist and lead author of the current YBCU survey protocol.

Advanced Field Workshop—Western Biology is offering a limited-capacity Advanced Field Workshop (aka "Cuckoo Camp") in Hotchkiss or Grand Junction on June 15-16, 2023. Details and registration are <u>here</u>.

Habitat Float—Western Biology will hold the 5th Annual Cuckoo Habitat Float on June 14, 2023 following the protocol training workshop field session. Explore the wilds of the North Fork Valley on an exclusive 10-mile whitewater journey through the heart of Colorado's cuckoo habitat. Details and registration are <u>here</u>.

MRG ANNOUNCEMENTS

Water Ops Power BI Dashboard

The U.S. Bureau of Reclamation, Albuquerque Area Office, Water Management Division has developed a Water Ops Power BI Dashboard for public use. Click <u>here</u> to access it. The dashboard graphically represents current conditions in the Rio Grande, current conditions in the Pecos River, reservoir conditions, and MRG conditions. Tabular data is available by right-clicking a graph. Data from the dashboard is updated once an hour, so you may need to refresh to get the latest data. Email any comments and questions to Lucas Barrett (Lbarrett@usbr.gov).



RECENT PUBLICATIONS

2022 RiverEyes Monitoring Report

McKenna, C. (2023). Prepared for U.S. Bureau of Reclamation. Prepared by GeoSystems Analysis, Inc. https://rb.gy/u3znp

Effects of seining effort on estimates of fish diversity in a sand-bed river

Archdeacon, T.P., Gonzales, E.J., Reale, J.K., Henry, E.B., Grant, J.D. *Environ Monit Assess* **195**, 538 (2023). https://doi.org/10.1007/s10661-023-11166-0

ABSTRACT

Changes in species diversity can be an indicator of ecosystem disturbance, impairment, or recovery. Estimating sampling effort needed to adequately represent stream fish assemblages is necessary for informing conservation actions. Increased sampling intensity can increase species detection, affecting the accuracy and precision of biodiversity indices. Seining is commonly used in fish surveys in sand-bottomed streams of the western USA. Here, we sampled 20, 200-m long stream sites each with 40 consecutive seine hauls to determine how increased within-site effort affected measures of species diversity. An average of 10 seine hauls were required to collect 75% of species present at sites in 40 seine hauls, while 18 seine hauls were required to collect 100% of species observed at a site sampled with 40 hauls. Simpson's diversity index was highly variable when fewer than 7 seine hauls were performed at each site but stabilized when effort was > 15 seine hauls per site. Total dissimilarity and β -diversity components were variable under low sampling effort and also stabilized when effort reached 15 seine hauls per site. However, sampling with more than 18–20 seine hauls per site yielded few additional species. In shallow, sand-bed streams, we suggest sampling with < 5 seine hauls per site 200 m of stream can result in unreliable estimates of α -diversity and variation in β -diversity. Increased effort of 15–20 seine hauls per 200 m of stream captured nearly all species present in 40 hauls per 200 m and stabilized species evenness and β -diversity indices.

Genetic Monitoring of the Rio Grande Silvery Minnow: Genetic Status of Wild and Captive Stocks in 2022

Osborne, M.J., Caiero-Dias, G., Turner, T.F. (2022). Prepared for U.S. Bureau of Reclamation. https://rb.gy/ qqapy

Rio Grande Silvery Minnow Population Monitoring During October 2022 Dudley R.K., Platania S.P., White G.C. (2022). Prepared for U.S. Bureau of Reclamation. https://rb.gy/db2s3

Side Channel Evolution and Design: Achieving Sustainable Habitat for Aquatic Species Recovery Holste, N., Hurst, A., Byrne, C. (2023). Prepared by Bureau of Reclamation, Technical Service Center, Sedimentation and River Hydraulics Group. *Will be uploaded to the Program Portal*.

ABSTRACT

Side channels increase the hydraulic and geomorphic complexity of river systems, which provides aquatic habitat by reducing velocity and increasing shoreline length and cover. Constructed side channels are a common habitat restoration technique to improve ecological value, but design guidance is limited. This study analyzes naturally formed side channels to improve the efficacy of constructed projects. We used historical aerial imagery of the Middle Rio Grande, the Sacramento River, and the Trinity River to better understand how side channels form, how they evolve, and how long they persist. We identified and classified side channels between 1935 and 2012 with a time series of at least five different years for each river. Classification types consider if the side channel was likely created by erosion or deposition through processes such as lateral channel migration or channel avulsion. Evaluating spatial and temporal trends for each river highlights relationships between geomorphic processes and side channel abundance and longevity.

FUNDING ANNOUNCEMENTS

NMDA Healthy Soil Program Grants

Every year, the New Mexico Department of Agriculture (NMDA) awards grants to implement on-the-ground projects that implement soil health principles. This cycle of grants will fund projects that occur between August 1, 2023 and May 31, 2024. For eligible entities, the grant application period will open April 11, 2023 and close May 17, 2023. For more information on the program, <u>click here</u>.

EPA 2023 Environmental Justice Thriving Communities Grantmaking Program

The Environmental Protection Agency (EPA) announced the availability of \$550 million through EPA's new Environmental Justice Thriving Communities Grantmaking (EJ TCGM) program. This program will fund up to 11 entities to serve as grantmakers to community-based projects that reduce pollution. Selected grantmakers will develop an efficient, simplified process so that organizations that historically have faced barriers to receiving funding can more seamlessly apply for grants that address environmental harms and risks. Applications are due by May 31, 2023. <u>Click here</u> to learn more.

WaterSMART Aquatic Ecosystem Restoration Projects

The U.S. Bureau of Reclamation has a new WaterSMART funding program for aquatic ecosystem restoration. A Notice of Funding Opportunity (NOFO) has been posted <u>here</u>. The deadline for applications is June 1, 2023. The expected award date is January 2, 2024. There is \$30 million set aside for this NOFO under the Bipartisan Infrastructure Law for this first year.

EPA Pollution Prevention (P2) Grant: Environmental Justice in Communities

The purpose of the **Pollution Prevention Grant: Environmental Justice in Communities** is to provide technical assistance to businesses (e.g., information, training, expert advice) on source reduction, also known as pollution prevention (P2). Grantees must demonstrate that the project will improve human health and the environment in disadvantaged communities by implementing P2 approaches. Applications are due **June 6**, 2023. To learn more, <u>click here</u>.

EPA Pollution Prevention (P2) Grant: Environmental Justice Through Safer and More Sustainable Products

The purpose of the **Pollution Prevention Grant: Environmental Justice Through Safer/Sustainable Products** is to provide P2 technical assistance to businesses (e.g., information, training, expert advice) in order to improve human health and the environment in disadvantaged communities by increasing the supply, demand and use of safer and more sustainable products, such as those that are certified by EPA's Safer Choice program, or those that conform to EPA's Recommendations for Specifications, Standards and Ecolabels for Federal Purchasing. Applications are due June 20, 2023. To learn more, <u>click here</u>.

JOB ANNOUNCEMENT

Water Resources Professional for the ISC Rio Grande Bureau

The Interstate Stream Commission Rio Grande Bureau is recruiting to hire a Water Resources Professional III (OSE/ISC #64593). Please visit the State Personnel Office Careers site <u>here</u> to review the job posting and complete your application. Applications will be accepted through May 3, 2023.

PROGRAM UPDATES

ANNOUNCEMENTS

2022 ANNUAL REPORT

The draft **2022 Annual Report** was presented to the Executive Committee (EC) for approval at the March 30th EC meeting. The group approved the draft with the addition of activity photos and/or testimonials to be provided by signatory members. The updated report will be posted to the Program Portal (https://webapps.usgs.gov/MRGESCP/) in early May 2023.

CLIMATE MODELING COLLABORATIVE SEMINAR

The next virtual Collaborative Seminar on May 10, 2023 from 2-3 PM MT, will feature Adrienne Wootten, South Central Climate Adaptation Science Center (CASC), presenting on climate projections, modeling, and the impact beyond climate science. For more information on the seminar and to get a link to join, contact Michelle Tuineau (mtuineau@west-inc.com).

MULTI-YEAR PLAN

At the March 30th EC meeting, the EC approved a Multi-Year Plan in principle, and moved it along to the Science and Adaptive Management Committee (SAMC) for review. Once finalized, it will be added to the Long-Term Plan for Science and Adaptive Management (Long-Term Plan). The Multi-Year Plan lays out the Collaborative Program's focus areas for the next five years and beyond, and includes end goals as well as immediate, short-term, and long-term priorities. The six focus areas laid out in the Multi-Year Plan are 1) climate futures planning, 2) habitat restoration planning and assessment, 3) management of vegetated Islands and bank-attached bars, 4) RGSM management and science, 5) water operations and flexibility, and 6) strategic planning for river drying in the MRG.

NEW SAMC MEMBERS

In early 2023, the Collaboratory Program conducted a search for **new SAMC members** to replace those stepping down. The EC approved new members at the March 30th EC meeting. Below is the list of current SAMC members with their areas of expertise:

- Alison Hutson, Aquatic Ecology Expert [selected in 2023]
- Ara Winter, Statistics/Modeling Expert
- Ari Posner, Geomorphology Expert
- Aubrey Harris, Hydrology Expert [selected in 2023]
- Meaghan Conway, Ecosystem Function Expert
- Megan Friggens, Climate Science Expert
- Mick Porter, Aquatic Ecology Expert [selected in 2023]
- Ondrea Hummel, Watershed Resource Planning/Regulatory Expert [selected in 2023]
- S. Dave Moore, Terrestrial Ecology Expert
- Ryan Gronewold, EC ex-offico

PROGRAM UPDATES

CALLS FOR ACTION

SUBMIT 2022 SIGNATORY ACTIVITIES!

Collaborative Program signatories are asked to provide their 2022 activities via the Science and Adaptive Management Information System (SAMIS; https://samis.west-inc.com/middleriogrande/login) or Survey Planet form (https://s.surveyplanet.com/dp2rytrj) as soon as possible. These activities are vital for Collaborative Program efforts, including the cost share report, signatory contributions report, and Long-Term Plan. Please contact Michelle Tuineau (mtuineau@west-inc.com) with any questions.

TAKE PART IN THE CLIMATE SCENARIOS POLL!

In preparation for the Climate Futures Planning Workshop in October 2023, the Collaborative Program will be sending out a **poll** to compile your ideas and opinions on the topic of climate futures. Look for the poll in **early May 2023**.

JOIN THE CLIMATE FUTURES SMALL GROUP!

The Collaborative Program will host a **Climate Futures Planning Workshop** in **October 2023** to help participants adapt and equip for changing climate conditions and likely future scenarios in the MRG. The Collaborative Program is calling on interested parties to join a **small group tasked with planning the event**. The first meeting of the group will be scheduled in **May 2023**. Please contact Debbie Lee (**dlee@west-inc.com**) if you are interested in joining the group.

JOIN THE PHOTO CONTEST!

The Collaborative Program is holding a **photo contest** for the June 2023 newsletter! The theme is **"Water, Water, Everywhere."** 2023 is shaping up to have plenty of high flows, and we want to see your best water photos. While you're outdoors, be on the lookout for good photo opportunities! To enter your photo in the contest, please send it to **mtuineau@west-inc.com** with a photo credit and caption by **June 22, 2023**. Below are two photos showing snowpack runoff at Chimayo, which may inspire you to snap your own images.





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

UPCOMING DATES

PROGRAM DATES

Collaborative Seminar (Wootten): Climate Modeling (pg 12) May 10, 2023 2:00 PM—3:00 PM MT

Science and Adaptive Management Committee Meeting May 30, 2023 9:00 AM—1:00 PM MT

> Water Photo Contest Closes June 22, 2023 (pg 13)

Executive Committee Meeting June 29, 2023 1:00 PM—4:00 PM MT



MRG DATES

BEMP Crawford Symposium (pg 8) April 28, 2023

> Birding w/ the Valle de Oro Bio Team (pg 8) April 29, 2023

South Valley EJ Paddle Day (pg 8) April 30, 2023

ASPIREational Talks: Dr. Lindsay Lowe Worthington (pg 8) April 30, 2023

Proposals for 2024 NCER Due (pg 8) May 19, 2023

Colorado Cuckoo Week 2023 (pg 8) June 13-16, 2023

Proposals for NMDA Healthy Soil Program Grants (pg 11) May 17, 2023

Proposals for WaterSMART Aquatic Ecosystem Restoration Projects (pg 11) June 1, 2023

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