Executive Committee Meeting December 22, 2022

Meeting Materials:

Agenda

Minutes

Revised Public Outreach & Messaging on Drying Ad Hoc Group Charge [read-ahead]

Revised MRGESCP Biennial Schedule [read-ahead]

<u>Climate Change Scenario Planning Exercise Proposal [read-ahead]</u>

2022 MRGESCP Work Plan Accomplishments [read-ahead]

Draft 2023 MRGESCP Work Plan [read-ahead, draft, spreadsheet]

SAMC Memo to the EC on 2023 SAMC Membership [read-ahead]

FPC Roster [read-ahead]

Reclamation Hydrology Update [presentation]

Revised Climate Change Scenario Planning Exercise Proposal [follow-up]

Link to full Meeting Materials List Meeting Material: Agenda



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

Executive Committee (EC) Meeting Agenda

December 22, 2022 9:00 AM - 12:00 PM

Location: U.S. Bureau of Reclamation, Albuquerque Area Office 555 Broadway Blvd NE, Albuquerque, NM 87102; Rio Grande Conference Room

Zoom Log-In:

https://west-inc.zoom.us/j/8983593120?pwd=bU54V3NGeG93bXVlSlJFcEIzcE9wZz09

Call-In: +1-669-900-6833 Meeting ID: 898-359-3120; Passcode: 1251

Meeting Objectives:

- Hear an update of the initial outcomes of the 2022 Collaboratory and discuss next steps, including the Science Evaluation.
- Hear updates on Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) administrative and science activities.
- Approve the revised Biennial Schedule.
- Discuss and approve the proposed 2023 MRGESCP Work Plan.
- Discuss 2023 Science and Adaptive Management Committee (SAMC) membership and proposed subject matter areas of expertise for new members.
- Hear an update from the Fiscal Planning Committee (FPC) on the funding matrix and Program Portal funding options.
- Announce the winner of the 2022 Rick Billings Award.
- Hear an update of hydrology 2022.
- Hear species updates for 2022.

9:00 – 9:10 **Welcome, Introductions, Agenda Review**

EC Co-chairs

- Meeting ground rules
- ✓ **Decision**: Approval of December 22, 2022 EC meeting agenda

9:10 – 9:15 **September 2022 Meeting Summary**

EC Co-chairs

- Action items review
- ✓ Decision: Approval of September 8, 2022 EC meeting minutes

Read-ahead:

☐ Draft September 8, 2022 EC Meeting Minutes

9:15 - 9:35 **Collaboratory Update and Feedback**

- Review the Collaboratory
- Share findings and lessons learned
- Next steps

Catherine Murphy & Debbie Lee, PST

9:35 - 9:50Program Support Team (PST) Update Debbie Lee & Science and Adaptive Management Information System Catherine Murphy, **PST** (SAMIS) training **Program Portal** Upcoming administrative deadlines: o 2022 Annual Report – Signatory Forms o 2022 Signatory Contributions and Cost Share o 2022 Program Evaluation Habitat Restoration (HR) Coordination meetings o January field trip to Pueblo of Sandia Management of Vegetated Islands and Bank-Attached Workshop Revised charge for the Public Outreach and Messaging on Drying Administrative Ad Hoc Group Revised Biennial Schedule **Decision**: Approve the revised Biennial Schedule **Decision**: Approve the revised charge for the Public Outreach and Messaging on Drying Administrative Ad Hoc **Action Item**: EC representatives provide trainee names for SAMIS training if they have not done so **Action Item**: EC representatives fill out the Signatory Highlights Form and Signatory Activity Input Form **Action Item:** EC representatives fill out survey for the Program Evaluation once available Read-aheads: ☐ Revised Public Outreach & Messaging on Drying Ad Hoc Charge ☐ Revised MRGESCP Biennial Schedule 9:50 - 10:05 SAMC Summary of 2022 Activities and Accomplishments Catherine Murphy, PST Summarize activities and accomplishments **S&T Ad Hoc Groups** Climate change/scenario planning exercise Testing the Project Evaluation Criteria **Decision**: Approve development of exercise for climate scenario planning Read-ahead: ☐ Climate Change Scenario Planning Exercise Proposal 10:05 - 10:15 2022 MRGESCP Work Plan Accomplishments Debbie Lee, PST Summarize accomplishments

Proposed 2023 activities

✓ **Decision**: Approve 2023 Work Plan

2023 MRGESCP Work Plan

□ 2022 MRGESCP Work Plan Accomplishments

Debbie Lee, PST

10:15 - 10:30

Read-ahead:

Read-ahead: ☐ Draft 2023 MRGESCP Work Plan 10:30 - 10:45 **Break** 10:45 - 11:05 2023 SAMC Membership Catherine Murphy, PST SAMC membership update Collaborative Program focus areas Proposed subject matter areas of expertise for new SAMC members **Decision**: Desired subject matter areas of expertise for new SAMC members **Action Item**: PST will coordinate the application process for SAMC membership, including drafting a call for applications and collecting applications **Action Item:** PST will convene an EC small group to review applicants **Action Item**: The EC small group will present recommendations for new SAMC members at the March EC meeting Read-ahead: ☐ SAMC Memo to the EC on 2023 SAMC Membership 11:05 - 11:15 Fiscal Planning Committee (FPC) Update FPC Co-chairs New membership Update on FPC activities Action Item: EC representatives confirm their point-ofcontact for the FPC if they have not done so Read-aheads: ☐ FPC Roster Carolyn Donnelly, 11:15 - 11:30 2022 Hydrology Review Review 2022 hydrology U.S. Bureau of Reclamation Share findings and lessons learned Forecast for 2023 11:30 - 11:45 **2022 Species Update** Debra Hill, U.S. Fish & Wildlife Service, Review 2022 species activities Joel Lusk, U.S. Share findings and lessons learned Bureau of 2023 activities Reclamation 2022 Rick Billings Award EC Co-chairs 11:45 - 11:50 Review nominations and announce winner 11:50 -11:55 **Public Comment and Announcements** 11:55 - 12:00 **Meeting Summary and Action Items Review** EC Co-chairs > Next EC Meeting: March 2023 12:00 **Adjourn**

Meeting Material: Minutes



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

Executive Committee (EC) Meeting Minutes

December 22, 2022; 9:00 AM-12:00 PM Location: Zoom Meeting

Decisions:

- ✓ Approval of the December 22, 2022 EC meeting agenda with addendums
- ✓ Approval of the September 8, 2022 EC meeting minutes with corrected typo
- ✓ Approval of the revised Public Outreach and Messaging on Drying Administrative (Admin) Ad Hoc Group charge
- ✓ Approval of the revised Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) Biennial Schedule
- ✓ Approval of development of the proposed climate scenario planning exercise
- ✓ Approval of the 2023 Work Plan
- ✓ Approval of the following desired subject matter areas of expertise for new Science and Adaptive Management Committee (SAMC) members to be included in the SAMC application cover letter: aquatic ecology, engineering, economics, environmental planning, and climate change

Announcements:

- Grace Haggerty, New Mexico Interstate Stream Commission (NMSIC), is the winner of the 2022 Rick Billings Award.
- Katrina Grantz, U.S. Bureau of Reclamation (Reclamation) has taken on new duties and will be stepping down as the Federal Co-Chair following the EC meeting. Her replacement as the Federal Co-Chair is to be determined.
- ❖ The 2023 Rio Grande Compact Commission meeting will be in New Mexico. More details will be shared once they are known.
- New Mexico's 50 Year Water Plan should be released by the end of December 2022.
- ❖ The U.S. Army Corps of Engineers' (USACE) MRGESCP budget was included in the Omnibus Bill at a level consistent with past budgets.
- ❖ The WEST Albuquerque office will be closed the week of December 26th.

Action Items:

WHO	ACTION ITEM	BY WHEN
Program Support Team (PST)	Send out a link for the Collaboratory evaluation	12/23/2022
EC representatives	Provide trainee names for Science and Adaptive Management Information System (SAMIS) training if they have not done so	December 2022

EC representatives	Confirm a point-of-contact for the Fiscal Planning Committee (FPC) if they have not done so	1/6/2023
PST	Revise the climate scenario planning exercise proposal to clarify that the exercise will use existing information so as not to repeat efforts	1/6/2023
EC representatives	Send suggestions for participants in the climate scenario planning exercise	1/6/2023
EC representatives	Submit 2022 Signatory activities via the SAMIS (if they've received SAMIS training) or the Signatory Activity Input Google Form	1/13/2023
EC representatives	Submit signatory highlights (short summaries of your Signatory's work in 2022) to be included as quotes in the 2022 Annual Report	1/13/2023
PST	Prepare a webinar on the Collaboratory outcomes	February 2023
PST	Schedule the Habitat Restoration (HR) Coordination Group field trip to Pueblo of Sandia	January-February 2023
MRGESCP members	Contact the PST to be included on the doodle for scheduling the field trip to the Pueblo of Sandia	January 2023
PST	Schedule EC meetings for 1:00 PM – 4:00 PM MT on the fourth Thursday of the month	January 2023
PST	Coordinate the application process for SAMC membership, including drafting a call for applications and collecting applications	2/17/2023
EC Small Group (Jim Wilber, Mark Kelly, Anne Marken, Deb Hill, and Grace Haggerty)	Convene to review SAMC applicants and provide recommendations to the EC	3/17/2023
EC representatives	Fill out the Survey of Manager Confidence in Science Support	3/9/2023
EC representatives	Fill out survey for the Program Evaluation once available	March 2023

Next Meeting: March 30, 2023; 1:00 PM – 4:00 PM

Meeting Minutes

Welcome, Introductions, Agenda Review

The Non-Federal Co-Chair, Mark Kelly, Albuquerque Bernalillo County Water Utility Authority (ABCWUA) and Federal Co-Chair, Katrina Grantz, Reclamation, opened the meeting, led introductions, and reviewed the December 22, 2022 meeting agenda. The PST added a decision point to approve the revised Public Outreach and Messaging on Drying Admin Ad Hoc Charge. One EC member requested a litigation update be added to the agenda. The EC approved the December 22, 2022 agenda with the addition of a decision point on the revised charge and a litigation update.

Ashleigh Morris, Office of the Solicitor, U.S. Department of the Interior, gave a litigation update.

✓ Decision: Approval of the December 22, 2022 EC meeting agenda with addendums

September 2022 Meeting Summary

Debbie Lee, the Program Manager, PST, reviewed the September 8, 2022 meeting minutes and action items (see September 8, 2022 Draft EC Minutes). Summary updates for action items are below:

- There were two responses to the Survey of Managers' Perception of Science Support. EC members were asked to continue filling out the survey.
- Membership for the Strategic Plan for Potential Drying in the Angostura Reach Science & Technical (S&T) Ad Hoc Group was finalized and the group began meeting.
- A Portal Stakeholder meeting was held on September 22, 2023.
- The PST began holding SAMIS training sessions and posted the SAMIS User Guide to the Program Portal (https://webapps.usgs.gov/MRGESCP/documents/samis-user-guide-1-1-1) and SAMIS applications.
- The 2022 Rick Billings Award winner was unanimously nominated and no administrative ad hoc group was needed to select a winner.
- Membership for the Information and Data Quality Standards Hybrid Ad Hoc Group is still being finalized. The first meeting will be convened in 2023.
- Ondrea Hummel presented a Collaborative Seminar on December 14, 2023. The seminar is available at https://webapps.usgs.gov/MRGESCP/documents/collaborative-seminar-hummel-bosque-assessment-and-update-prioritization. The PST will continue setting up potential seminars.

A small typo was identified in the summer 2022 hydrology debrief section of the minutes. The EC approved the September 8, 2022 meeting minutes with the corrected typo.

Decision: Approval of the September 8, 2022 EC meeting minutes with corrected typo

Collaboratory Update and Feedback

Debbie L. and Catherine Murphy, the Science Coordinator, PST, opened discussion on the Collaboratory held on December 6-7, 2022 at the University of New Mexico (UNM) Continuing Education Conference Center. There was high attendance and engagement over the two-day event. The Collaboratory will occur on alternating years with the Science Symposium, and is intended to align the MRGESCP's science with management needs.

EC members who attended the Collaboratory provided feedback about the event. Remarks were generally positive, and EC attendees noted they were very pleased with the event. The following individual comments were made:

- The Collaboratory was a good transition point for the MRGESCP, explicitly marking the shift from development of an adaptive management process to implementation.
- It may be more convenient to have the Collaboratory earlier in the calendar year.
- The last breakout session was the most challenging for participants, but the agenda led into it very well.
- The Collaboratory allowed for a safe space for hard conversations to be held.
- There were a lot of new participants, including young professionals and students. The MRGESCP should make sure to continue bringing in younger people across the different signatories.
- It was good to be reminded of all the MRGESCP has accomplished over the last few years.
- The continued reminders to drop assumptions and open your mind were helpful, and led to some really good conversations.

Catherine M. noted that one of the main themes that arose from the Collaboratory was one of internal and external communication and messaging. She made the case for improving communication both externally (MRGESCP to external management/research communities), and internally (among signatories and MRGESCP participants) in order to more effectively apply science to adaptive management. She stated that each of the signatories already adaptively manages its respective resources, and that the Collaboratory provides a forum for doing so collaboratively. She pointed out that collaboration is the hardest part of adaptive management, and that, with practice, it will become more routine.

An initial write-up on the Collaboratory will be in the December 2022 newsletter. The EC also requested a webinar to explain the Collaboratory outcomes and next steps. Output from the Collaboratory will inform multi-year planning in the Long-Term Plan for Science and Adaptive Management (Long-Term Plan). There will be an update on the Long-Term Plan at the March 2023 EC meeting.

- Action Item: PST will prepare a webinar on the Collaboratory outcomes
- > Action Item: PST will send out a link for the Collaboratory evaluation

Program Support Team Update

Debbie L. and Catherine M. presented updates on MRGESCP activities. Summary updates are below:

- SAMIS training sessions:
 - Participants from Reclamation, USACE, NMISC, ABCWUA, Middle Rio Grande Conservancy District (MRGCD), Pueblo of Sandia, and Bosque Ecosystem Monitoring Program have attended training sessions. The PST is scheduling sessions for the remaining signatories.
 - Trainees are able to enter 2022 project information into the SAMIS to be included in the 2022 Annual Report.
- Program Portal:
 - Florence Thompson, U.S. Geological Survey (USGS), gave a presentation on the Program Portal at the 2022 Collaboratory.
 - There was good input at the fall Portal Stakeholder meetings. The USGS Portal development team will continue to work with the PST and any participants from the MRGESCP to implement requested upgrades.

- The search function is much faster, which was a commonly requested fix.
- At the second Portal Stakeholder meeting, the group discussed the need for better visualization of data relationships on the Portal. The USGS team presented some options for updates. There will be a workshop in 2023 to discuss data visualization improvements further. Participants will also determine additional data collection needs.
- The Portal will include a Resources page for external links that are useful for the MRGESCP.
- Upcoming administrative deadlines:
 - o The PST is developing the 2022 Annual Report. A Signatory Highlight Form was sent out to collect short snapshots on what each signatory has done in 2022.
 - The Signatory Contributions and Cost Share Reports will be developed from the 2022 projects entered in the SAMIS. Signatories are asked to enter their 2022 projects into the SAMIS directly or through the 2022 Signatory Activity Input Form.
 - The PST will send out the Annual Program Evaluation in early 2023. Responses will help make the MRGESCP more effective and efficient.
- HR Coordination Group meetings:
 - o The group decided to host field trips every other meeting.
 - The first field trip will be co-hosted by Pueblo of Sandia and City of Albuquerque (CoA), Open Space Division. The group will meet at the Pueblo of Sandia Rail Runner Station parking lot, then head to the Romero Fire burn area. The group will then visit an old bank lowering project site and the AMAFCA Channel/North Diversion Channel, before visiting the Alameda Open Space. All are invited to take part in the field trip. The PST will schedule it in January or February 2023.
- Management of Vegetated Islands and Bank-Attached Workshop:
 - Outcomes from the workshop were taken to the SAMC to determine next steps. Two examples of next steps are below:
 - Define technical terms and specify relationships addressed at the workshop to improve communication during future discussions.
 - A modeling exercise and reports were suggested at the workshop. The SAMC recommends developing a conceptual model of island/bars first.
- Revised charge for the Public Outreach and Messaging on Drying Admin Ad Hoc Group (see charge):
 - The revised charge includes an additional task to develop a messaging and public outreach strategies for the recommendations provided by the Strategic Plan for Potential Drying in the Angostura Reach S&T Ad Hoc Group.
 - An EC representative suggested analyzing the effectiveness of the 2022 response to drying in the Angostura Reach.
 - One EC representative believes the drying mailer should have gone out sooner, but another spoke about the need to avoid spreading alarm unnecessarily. If the mailer is to be provided sooner in the future, the message could change to assure the public of the plan in the case of drying.
 - o One EC representative suggested holding a briefing for reporters a month or so before a potential drying event to make sure they understand the language and context.
 - The EC approved the revised Public Outreach and Messaging on Drying Administrative
 Ad Hoc Group charge.
- Revised Biennial Schedule (see schedule):

- The revision reorders the committee meetings so the SAMC meeting is held the month before the EC meeting and the FPC meeting is held the month after.
- o An EC representative requested the Biennial Schedule note when A or B years occur.
- An EC representative noted there was a lot of work to be done before March. There was a suggestion to potentially move approval of the revised Long-Term Plan to June if needed.
 - The Long-Term Plan update in March will include multi-year planning informed by the Collaboratory outcomes. The SAMC is working on the Project Evaluation Criteria, which may be applied to the projects in the Long-Term Plan. If signatories have any other needs that should be met by the Long-Term Plan, they should share those with the PST.
 - The Biennial Schedule is meant to be a living document and will be adjusted if needed.
- The EC approved the revised Biennial Schedule.
- ✓ **Decision**: Approval of the revised Public Outreach and Messaging on Drying Admin Ad Hoc Group charge
- ✓ **Decision**: Approval of the revised MRGESCP Biennial Schedule
- Action Item: EC representatives will provide trainee names for SAMIS training if they have not done so
- Action Item: EC representatives will submit 2022 Signatory activities via the SAMIS (if they've received SAMIS training) or the Signatory Activity Input Google Form
- Action Item: EC representatives will submit signatory highlights (short summaries of your Signatory's work in 2022) to be included as quotes in the 2022 Annual Report
- > Action Item: PST will schedule the HR Coordination Group field trip to Pueblo of Sandia
- Action Item: MRGESCP members will contact the PST to be included on the doodle for scheduling the field trip to the Pueblo of Sandia
- Action Item: EC representatives will fill out the Survey of Manager Confidence in Science Support
- > Action Item: EC representatives will fill out survey for the Program Evaluation once available

SAMC Summary of 2022 Activities and Accomplishments

Catherine M. summarized SAMC activities and accomplishments for 2022. Summary items are below:

- The SAMC helped coordinate the Management of Vegetated Islands and Bank-Attached Bars Workshop and Collaboratory.
- The SAMC helped coordinate seven Collaborative Seminars. Speakers were also asked to provide abstracts to help facilitate the sharing of scientific information.
- The SAMC developed the Project Evaluation Criteria for the Long-Term Plan. The criteria will be
 tested during a pilot run before being applied to all projects in the Long-Term Plan. The three
 aspects evaluated by the criteria are clarity and completeness, relevance and value to mission,
 and vision and utility for adaptive management.
- The SAMC helped review the work of admin ad hoc groups and hybrid ad hoc groups, with two examples being the Peer Review Admin Ad Hoc Group and Information and Data Quality Standards Hybrid Ad Hoc Group.
- The SAMC coordinated around these five S&T Ad Hoc Groups: the Rio Grande Silvery minnow (RGSM) CEM/Genetics Ad Hoc Group, RGSM Population Modeling Ad Hoc Group, RGSM

Hypotheses Development Ad Hoc Group, Strategic Plan for Potential Drying Ad Hoc Group, and MRG HR Monitoring Guidance Ad Hoc Group.

- Key takeaways for 2023:
 - o In 2023, the SAMC will focus on providing science and adaptive management recommendations to the EC.
 - There is a lot of good science happening and communication needs to be improved around it. In 2023, the SAMC will focus on connecting science to adaptive management.
 - Many studies addressing the Independent Science Panel recommendations are concluding. Findings need to be incorporated into the SAMIS.
 - Synthesis of the recently developed RGSM models is needed to increase their application.
- Climate scenario planning exercise (see Climate Scenario Planning Exercise Proposal):
 - Changes to the hydrograph underscore the need to plan for more effectively allocating resources. To address this, the MRGESCP will develop a climate scenario planning exercise for 2023 (see Climate Scenario Planning Exercise Proposal). The MRGESCP will plan for likely future scenarios. A small group will work with the PST and the SAMC to help develop the scenarios and plan the exercise.
 - An EC representative was concerned about whether the MRGESCP would use existing scenarios or develop its own. The planning group will rely on existing work, so as not to repeat work. The proposal was revised to clarify this.
 - An EC representative suggested use of the Upper Rio Grande Water Operations Model (URGWOM) model or a rules-based water management model as the natural hydrograph is no longer accurate.
 - Potential participants for the climate scenario planning exercise include Dave Moeser and collaborators, USGS; Dagmar Llewellyn, Reclamation; and Ariane Pinson, USACE.
 Reclamation is developing a basin study, which may connect to this exercise.
 - An EC representative was concerned about whether incorporating the hydrograph, informed by anthropogenic factors, will predispose the results of the exercise. It was acknowledged that management flexibility needs to be included in the exercise. The URGWOM model reflects operational rule sets for the agencies, which incorporates flexibility and aids in decision-making.
 - One EC representative advises that we not just focus on hydrology as climate change may bring other conditions. It may be useful to have a more open discussion on the effects of climate change before the exercise (e.g., changes in vegetation).
 - An EC representative suggested use of the term aridification, which avoids the stigma around climate change. Another representative stated that aridification could have different meanings. More discussion is needed on this topic.
 - The EC approved the proposal for the climate scenario planning exercise with revisions to clarify the use of existing information so as not to repeat efforts.
- ✓ **Decision**: Approval of development of the proposed climate scenario planning exercise
- Action Item: PST will revise the climate scenario planning exercise proposal to clarify that the exercise will use existing information so as not to repeat efforts
- Action Item: EC representatives will send suggestions for participants in the climate scenario planning exercise

2022 MRGESCP Work Plan Accomplishments

Debbie L. reviewed the accomplishments from the 2022 Work Plan (see 2022 MRGESCP Work Plan Accomplishments). See the read-ahead for the full list of accomplishments and updates. Noteworthy accomplishments are summarized below:

- Approved an updated Long-Term Plan
- Signed and executed a new Memorandum of Agreement
- Adopted a peer review process
- Developed strategies from the Science Objectives
- Developed an RGSM integrated population model
- Developed an informative mailer to include in September 2022 ABCWUA water bills about drying in the Rio Grande
- Hosted seven Collaborative seminars
- Hosted a Workshop on the Management of Vegetated Islands and Bank-Attached Bars
- Hosted the first biennial Collaboratory

2023 MRGESCP Work Plan

Debbie L. reviewed the proposed 2023 Work Plan (see 2023 MRGESCP Work Plan). The proposed activities are divided into the following categories:

- General Collaborative Program Administration
- Communication and Information Sharing
- Science Decision Support Planning and Tools Development
- Implementing Adaptive Management Activities
- Coordination of Signatory Activities

Debbie L. reminded EC members that the work plan is a living document, and will be evaluated and adjusted as needed at each EC meeting to reflect changing priorities and reassessments on the level of effort for each task. The EC approved the 2023 Work Plan.

✓ **Decision**: Approval of the 2023 Work Plan

2023 SAMC Membership

Catherine M discussed the SAMC memo on 2023 SAMC membership (see SAMC Memo to EC – 2023 SAMC Membership). Summary items are below:

- SAMC members serve two-year terms but the first group of members were invited to stay on an additional year if they chose to, in order to stagger the need to fill SAMC positions. It is also helpful to have older members share institution knowledge with new members.
- The four standing areas of expertise on the SAMC are aquatic ecology, terrestrial ecology, ecosystem function, and hydrology. The four remaining areas of expertise are determined by the EC with recommendations from the SAMC.
- The SAMC members that have stepped or will step down from the group are Alan Hatch (EC ex officio member), Thomas Archdeacon (aquatic ecology expert), and Mo Hobbs (aquatic ecology expert).
- S. Dave Moore (terrestrial ecology expert), Megan Friggens (climate science expert), and Ara Winter (statistics/modeling expert) are staying on for another year.
- Meghan Conway (ecosystem function expert), Ryan Gronewold (hydrology expert), and Ari Posner (geomorphology expert) are willing to stay on one additional year at the discretion of the EC. The EC has the flexibility to search for members with different areas of expertise, if desired.

- The SAMC recommends keeping two aquatic ecology expert positions on the SAMC. Other areas
 of expertise recommended by the SAMC are restoration ecology, climate science, and
 environmental planning.
 - o SAMC member, Ari P., offered that the SAMC often discusses what can or cannot be done, and believes expertise in the regulatory environment would be helpful.
- Generally, the science discussed during the Collaboratory indicate the need for experts on RGSM, climate change, HR, hydrology, and geomorphology.

EC representatives discussed the areas of expertise needed on the SAMC. Summary comments are below:

- The EC did not want to cut any existing positions.
- One EC representative was in support of the MRGESCP focusing on the ecosystem instead of the RGSM or endangered species.
- There was a suggestion to seek a natural resource economist.
- NMISC, USACE, and UNM may have suggestions for potential members with environmental planning or economics expertise.
- One EC representative suggested including an engineer, as they can explain how plans will work in actuality.
 - Reclamation will have the capacity to bring more outside folks into ad hoc groups. There
 is the possibility of bringing in an engineer to an ad hoc group instead of the SAMC.
- Ryan G. is willing to serve as the EC *ex officio* member in addition to his role as hydrology expert to free up one position.
- The following EC representatives volunteered to review SAMC applications: Jim Wilber, Reclamation; Debra Hill, U.S. Fish and Wildlife Service (USFWS); Mark Kelly, ABCWUA; Grace Haggerty, NMISC; and Anne Marken, MRGCD.

The EC approved seeking SAMC members with the following subject matter areas of expertise: aquatic ecology, engineering, economics, environmental planning, and climate change. This list will be included in the SAMC application cover letter. Final decisions on SAMC members will be determined at the March 2023 EC meeting.

- ✓ **Decision**: Approval of the following desired subject matter areas of expertise for new SAMC members to be included in the SAMC application cover letter: aquatic ecology, engineering, economics, environmental planning, and climate change
- Action Item: PST will coordinate the application process for SAMC membership, including drafting a call for applications and collecting applications
- Action Item: EC small group (Jim Wilber, Mark Kelly, Anne Marken, Deb Hill, and Grace Haggerty) convene to review SAMC applicants and provide recommendations to the EC

Fiscal Planning Committee (FPC) Update

Grace H. provided the FPC update. Summary updates are below:

- The group met in November and welcomed many new participants (see updated FPC Roster)
- The next meeting is in January 2023.
- A new FPC Non-Federal Co-Chair is needed to replace Grace H. as her term ended. The position is well supported by the PST.
 - o Anne M. is considering volunteering to be the new FPC Non-Federal Co-Chair.

- The FPC is working on compiling a matrix of funding opportunities to support funding efforts for collaborative projects and individual signatories.
- Funding for the Program Portal is currently provided by USACE through December 2023. Stable
 funding is needed past this date. The FPC is developing a list of Program Portal funding options
 for the EC.
- Action Item: EC representatives will confirm a point-of-contact for the FPC if they have not done so

2022 Hydrology Review

Carolyn Donnelly, Reclamation, provided an update on 2022 hydrology (see Hydrology Update Presentation). There were high winds and temperatures in April, which reduced the expected runoff. In addition to normal drying in the Isleta and San Acacia reaches, there was historic drying in the Angostura Reach. Maximum total extent of drying occurred in July at just under 60 river miles. Supplemental water (6,337 acre-feet [ac-ft]) was released from May 25 to September 21. Monsoon rains were crucial in 2022. A late-May modified water operations "jiggle" did not lead to increased egg spawning.

The following observations were made in regards to 2022 hydrology:

- High temperature and winds can rapidly take snowpack.
- Managers must be ready with alternative options, such as the jiggle.
- A successful jiggle may require low flows well before it occurs (ex. 200 cubic feet per second [cfs]), which can be drastically increased to 400 cfs.
- Close coordination between agencies is vital for managing drying and other water operations.

Heading into 2023, snowpack is low but it is too early to make predictions about 2023 runoff. It is possible we briefly exit Article VII of the Rio Grande Compact. Reclamation has approximately 5,000 ac-ft of supplemental water from 2022, and 5,000-12,000 ac-ft from 2023 leases. Agencies will focus on RGSM spawning efforts. Water managers will need to continue close coordination in 2023.

EC representatives discussed the 2022 hydrology update. Summary points are below:

- Agencies closely coordinated around historic drying in the Angostura Reach and learned lessons that will help prepare for future drying events.
- El Vado Reservoir is currently under construction, which limits water storage and flexibility. There have been grouting issues that have delayed completion of construction until 2024.
- Storage limitations contributed to drying in 2022. MRGCD releasing San Juan Chama water likely reduced the extent and duration of drying.
- The San Acacia gage got up to almost 6,000 cfs in 2022. There were big flows during the monsoon season.
- According to NMISC, delivery efficiency to Elephant Butte Reservoir was 73% in 2022. New
 Mexico will end 2022 with a debit of approximately 100,000 ac-ft, which restricts storage even if
 we are out of Article VII. New Mexico reduced the debit with the help of monsoon rains.

2022 Species Update

Debra H. shared species updates for the New Mexico meadow jumping mouse (NMMJM), Pecos sunflower (PESU), southwestern willow flycatcher (SWFL), and yellow-billed cuckoo (YBCU). Joel Lusk, Reclamation, shared a species update for the RGSM. Summary updates are below:

PESU:

- o Contact Sarah Yates, PESU lead at USFWS, (sarah d yates@fws.gov) with any questions.
- In 2023, there will be a five-year review for the PESU. In west central New Mexico, the core population is located at La Joya. One additional stand was recently found in the Bernardo Waterfowl Area.
- o There is a better chance of downlisting or delisting the PESU than other listed species.
- EC representatives are asked to provide any relevant information for the five-year review to USFWS.

NMMJM:

- o Contact Mark Brennan, NMMJM lead at USFWS, (<u>mark_brennan@fws.gov</u>) with any questions.
- o The final NMMJM recovery plan is due in January 2023.
- o Instead of eight geographical units, there will be six in the final plan; this change is based on new genomic information.
- o In 2022, track plate surveys were conducted for the SunZia power line, and there were no detections of NMMJM. Another year of surveys will occur in 2023.
- o A population of NMMJM was discovered at the Rio Mora National Wildlife Refuge.

SWFL:

- Contact Jenny Davis, SWFL lead at USFWS, (jennifer | davis@fws.gov) with any questions.
- During 2022 surveys, 504 resident SWFLs were documented in the Middle Rio Grande (MRG). Overall, territory numbers in the MRG increased in 2022 compared to all previous years.
- In 2022, 679 nests were located and nest fates were determined for 541 nests with 47% of those nests fledging young.
- o There was no observed range-wide population increase for the species.
- o The next five-year review for the SWFL will occur in the next couple of years.

YBCU:

- Contact Jenny Davis, YBCU lead at USFWS, (jennifer | davis@fws.gov) with any
 questions.
- During 2022 surveys, 480 YBCU detections were recorded during the breeding season and 122 territories were delineated. Overall, apparent detections and territory numbers in the MRG increased in 2022 compared to all previous years.
- o There was no observed range-wide population increase for the species.
- USFWS will continue to work on the Species Status Assessment (SSA) to inform the future YBCU recovery plan.

RGSM:

- o In 2023, USFWS will be conducting a five-year review for the RGSM. EC representatives are asked to provide any relevant information to inform the review to USFWS.
- Reclamation's RGSM population monitoring program recorded an October catch-perunit-effort density of 0.15 fish per 100 m², which is low compared to the threshold provided in the 2016 Biological Opinion. As a caveat, this value will change when zero catches are added into the model.
- As of December 5, 2022, 126,000 RGSM were released at four locations along the MRG.
 This is 142,000 RGSM short of reaching the goal of one fish per 100 m². 50,000 more
 RGSMs may be released in the MRG this season.

2022 Rick Billings Award

Mark Kelly presented the winner of the 2022 Rick Billings Award. Rick Billings was the former EC Non-Federal Co-Chair, an EC member, and a long-time supporter of the MRGESCP. In his memory, Reclamation's Albuquerque Area Office sponsors an annual award recognizing an individual's contributions to the success of the MRGESCP. The winner of the 2022 Rick Billings Award, who was unanimously nominated by multiple MRGESCP members, is Grace Haggerty, NMISC. Nominators called Grace H. a guiding force in the MRGESCP, and cited her high engagement in the MRGESCP and contracted work that benefits the MRGESCP as reasons for her nomination.

Announcement: Grace Haggerty, NMISC, was the winner of the 2022 Rick Billings Award.

Public Comment and Announcements

- Wally Murphy, member of the public, commented that conservation storage at Cochiti is important for RGSM recovery.
- Bill Grantham, New Mexico Office of the Attorney General (NMOAG), spoke about the transition
 at the NMOAG given the new attorney general coming in January 2023. Bill G. requests that the
 EC share any way the NMOAG can contribute to the MRGESCP moving forward. He believes the
 FPC may be a good place to get involved.
 - EC representatives voiced that they wanted to continue seeing participation from the NMOAG.
- Kyle Harwood, Buckman Direct Diversion, asked that MRGESCP emails indicate whether EC action is needed in the subject line.
- Announcement: Katrina Grantz, Reclamation has taken on new duties and will be stepping down as the Federal Co-Chair following the EC meeting. Her replacement as the Federal Co-Chair is to be determined.
- ❖ Announcement: The Rio Grande Compact Commission meeting in 2023 will be in New Mexico. More details will be shared once they are known.
- Announcement: New Mexico's 50 Year Water Plan should be released by the end of December 2022.
- Announcement: The USACE MRGESCP budget was included in the Omnibus Bill at a level consistent with past budgets.
- Announcement: The WEST Albuguergue office will be closed the week of December 26th.

Closing Items

- There has been interest in scheduling a set date and time for EC meetings to cut down on the need for scheduling emails. The EC meets every March, June, September, and December. The EC decided to meet at 1:00 PM to 4:00 PM MT on the fourth Thursday of the month.
- ➤ Action Item: PST will schedule EC meetings for 1:00 PM 4:00 PM MT on the fourth Thursday of the month

Meeting Participants

EC Representative	Organization
Katrina Grantz, Federal Co-Chair	U.S. Bureau of Reclamation
Mark Kelly, Non-Federal Co-Chair	Albuquerque Bernalillo County Water Utility Authority
Alan Hatch	Pueblo of Santa Ana
Anne Marken	Middle Rio Grande Conservancy District
Bill Grantham	New Mexico Office of the Attorney General
Blane Sanchez	Pueblo of Isleta
Debra Hill	U.S. Fish and Wildlife Service
Grace Haggerty	New Mexico Interstate Stream Commission
Jennifer Faler	U.S. Bureau of Reclamation
Kelsey Bicknell	Albuquerque Bernalillo County Water Utility
Kim Eichhorst	Bosque Ecosystem Monitoring Program
Kyle Faig	City of Albuquerque, Open Space Division
Kyle Harwood	Buckman Direct Diversion
Matthew Wunder	New Mexico Department of Game and Fish
Michael Scialdone	Pueblo of Sandia
Quantina Martine	Audubon Southwest
Ryan Gronewold	U.S. Army Corps of Engineers
Thomas Turner	University of New Mexico
Participant	Organization
Participant Andy Dean	Organization U.S. Fish and Wildlife Service
Andy Dean	U.S. Fish and Wildlife Service
Andy Dean Ari Posner	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation
Andy Dean Ari Posner Ashleigh Morris	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation
Andy Dean Ari Posner Ashleigh Morris	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly Joel Lusk	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation U.S. Bureau of Reclamation
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly Joel Lusk Joseph Lujan	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation U.S. Bureau of Reclamation Pueblo of Isleta
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly Joel Lusk Joseph Lujan Lynette Giesen	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation U.S. Bureau of Reclamation Pueblo of Isleta U.S. Bureau of Reclamation
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly Joel Lusk Joseph Lujan Lynette Giesen Shannon Weld	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation U.S. Bureau of Reclamation Pueblo of Isleta U.S. Bureau of Reclamation New Mexico Interstate Stream Commission
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly Joel Lusk Joseph Lujan Lynette Giesen Shannon Weld Trevor Stevens	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation U.S. Bureau of Reclamation Pueblo of Isleta U.S. Bureau of Reclamation New Mexico Interstate Stream Commission U.S. Army Corps of Engineers
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly Joel Lusk Joseph Lujan Lynette Giesen Shannon Weld Trevor Stevens Wally Murphy	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation U.S. Bureau of Reclamation Pueblo of Isleta U.S. Bureau of Reclamation New Mexico Interstate Stream Commission U.S. Army Corps of Engineers Member of public
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Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly Joel Lusk Joseph Lujan Lynette Giesen Shannon Weld Trevor Stevens Wally Murphy Support Angela Medina-Garcia	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation U.S. Bureau of Reclamation Pueblo of Isleta U.S. Bureau of Reclamation New Mexico Interstate Stream Commission U.S. Army Corps of Engineers Member of public Organization Program Support Team
Andy Dean Ari Posner Ashleigh Morris Brittney Erdmann Carolyn Donnelly Joel Lusk Joseph Lujan Lynette Giesen Shannon Weld Trevor Stevens Wally Murphy Support Angela Medina-Garcia Catherine Murphy	U.S. Fish and Wildlife Service U.S. Bureau of Reclamation Office of the Solicitor, U.S. Department of the Interior Middle Rio Grande Conservancy District U.S. Bureau of Reclamation U.S. Bureau of Reclamation Pueblo of Isleta U.S. Bureau of Reclamation New Mexico Interstate Stream Commission U.S. Army Corps of Engineers Member of public Organization Program Support Team Program Support Team

Link to full Meeting Materials List

Meeting Material:

Weeting Waterian
Revised Public Outreach & Messaging on Drying Ad Hoc Group Charge [read-ahead]

Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) Administrative (Admin) Ad Hoc Group Charge Public Outreach and Messaging on Drying Ad Hoc Group

Approved by the Executive Committee (EC) on July 15, 2022. Approved by the Public Outreach and Messaging on Drying Ad Hoc Group on July 27, 2022. Revision approved by the EC on December 22, 2022.

Parent Committee

The Public Outreach and Messaging on Drying Administrative Ad Hoc Group is formed by and reports to the EC.

Ad Hoc Group Charge

The Public Outreach and Messaging on Drying Administrative Ad Hoc Group is charged with developing a shared outreach and engagement strategy, including identifying the target audiences with high public interests in drying events within the Angostura (Albuquerque) Reach. The group is also charged with developing comprehensive messaging and talking points to address a wide spectrum of interests, including general public interests (e.g., recreation, aesthetics, etc.) and more specific public interests including agriculture, municipal water supply and quality, and ecosystem health. The messaging should also encompass recommendations identified in the Strategic Plan for Potential Drying in Angostura Reach (Science & Technical Ad Hoc Group; draft anticipated in January 2023).

Membership

A. Criteria for membership

- Organizational management responsibilities in the Angostura Reach
- Role interfacing with members of the public and stakeholders
- Experience and expertise with developing public outreach and education materials and messages
- An understanding of outreach needs related to drying in the Angostura Reach

B. Member List.

- Anne Marken, Middle Rio Grande Conservancy District
- Carolyn Donnelly, U.S. Bureau of Reclamation
- Colleen McRoberts, City of Albuquerque Open Space Division
- David Morris, Albuquerque Bernalillo County Water Utility Authority
- J. Michael Graff, U.S. Army Corps of Engineers
- Kim Eichhorst, Bosque Ecosystem Monitoring Program
- Maggie Fitzgerald, New Mexico Interstate Stream Commission
- Mary Beth King, University of New Mexico
- Mary Carlson, U.S. Bureau of Reclamation
- Paul Tashjian, Audubon Southwest
- Rachel Stone, Albuquerque Bernalillo County Water Utility Authority

Tasks and Deliverables

	Task	Objective	Deliverable	To Be Completed By
1.	Develop a set of talking points	Develop a set of agreed-upon talking points and messages for individual signatories to use when developing press releases and responding to questions about drying in the Angostura Reach. This allows for shared messaging across organizations, which minimizes public confusion.	Recommended talking points	February 15
2.	Develop recommended public engagement strategies	Signatories anticipate significant public concern when the Angostura Reach, particularly around Albuquerque, dries. Having a coordinated public engagement plan will help all the signatories be clear on roles, messaging responsibilities, audiences, and messaging timeframe. Drying is condition-dependent and a false warning should be avoided if possible.	Recommended public outreach strategies, and considerations for a public engagement plan	February 15
3.	Develop outreach and messaging strategies for recommendations for potential drying in 2023	The Strategic Plan for Potential Drying in Angostura Reach Science & Technical Ad Hoc Group is developing a strategic plan for potential drying in 2023. The recommendations from this plan will be sent to the EC for approval. Outreach and messaging strategies will be needed to support these recommendations and get them utilized.	Outreach and messaging strategies for recommendations for potential drying in 2023	February 15

Link to full Meeting Materials List

Meeting Material: Revised MRGESCP Biennial Schedule [read-ahead]

Middle Rio Grande Endangered Species Collaborative Program Administrative Biennial Schedule

Updated December 2022

	MEETINGS	EVERY YEAR (Y	EARS A & B)	YEAR A	YEAR B
JANUARY FEBRUARY ^N	SAMC HR coord	Annual Program Evaluation SAMC new member search SAMC Search Admin Ad Hoc	Draft Annual Report		Science Evaluation Develop proposed projects from Collaboratory
MARCH	EC	Signatory Contributions report Results of Program Evaluation • Updates to charter * • Form By-Laws Admin Ad Hoc*	Appoint new SAMC members Approve Annual Report Relate MAT/hydrology forecast to Collaborative Program		Approve updated Science Objectives Approve updated Long- Term Plan
APRIL ^N	FPC	Updates to CEMs	Ensure data on Portal is up-to-	S&T Ad Hoc to work with	
MAY	SAMC HR coord	By-Laws Admin Ad Hoc*	date	contractor to update RioRestore	
JUNE ^N	EC	Updates and recs from SAMC Work Plan update	Update By-Laws*		
JULY	FPC				Funding check: RioRestore, Program Portal, PASS
AUGUST ^N	SAMC HR coord				
SEPTEMBER	EC	Updates and recs from SAMC	Work Plan update		
OCTOBER ^N	FPC	Topical Workshop			
NOVEMBER	SAMC HR coord	S&T Ad Hoc progress reports and presentations to the SAMC			
DECEMBERN	EC	Hydrology and species summary SAMC summary presentation Next year's work plan Determine SAMC SME needs	Draft Annual Report	Collaboratory (Go to Year B)	Science Symposium (Go to Year A)

^{*} If needed; N Newsletter

HR coord = Habitat restoration coordination meeting; Long-Term Plan = Long-Term Plan for Science & Adaptive Management; MAT = Minnow Action Team; PASS = Program and Science Support contract; SAMC = Science and Adaptive Management Committee, SME = subject matter expert, S&T = Science & Technical, FPC = Fiscal Planning Committee, EC = Executive Committee

Link to full Meeting Materials List

Meeting Material:

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Climate Change Scenario Planning Exercise Proposal [read-ahead]

Middle Rio Grande Endangered Species Collaborative Program (Collaborative Program) Climate Scenario Planning Exercise Proposal

For Executive Committee (EC) Review and Approval December 22, 2022

At its November 8, 2022 meeting, the Science and Adaptive Management Committee (SAMC) discussed implementing a scenario planning exercise to help the Collaborative Program adapt and equip for changing climate conditions and likely future scenarios in the Middle Rio Grande. This exercise will help the Collaborative Program to address the signatories' management needs not only now and in the short-term, but also into the long-term. The Program Support Team (PST) is requesting the EC review this proposal outline for a 2022 Climate Scenario Planning Exercise and request the PST coordinate the planning and convening of the exercise with the SAMC.

Timing: Summer 2023

Location: In-person, TBD

Climate Scenario Planning Exercise Objectives:

- Using current climate models, develop a suite of likely future scenarios for the Middle Rio Grande (at a minimum: best case, worst case and most likely), and collaboratively determine the endangered species and ecosystem management responses associated with each scenario.
- Collaboratively identify management opportunities for the near-term to mitigate the likely negative impacts of the different potential future scenarios on the listed species and their habitats.
- Identify sources of uncertainty regarding the parameters of each scenario, in the short- and long-term, that the Collaborative Program can help address.

Participants:

- Collaborative Program signatories and their contractors and partners
- Any organization managing water or natural resources within the Middle Rio Grande
- Investigators conducting research with management relevance to the Middle Rio Grande and its listed species

Anticipated Outcomes:

- Inform the Collaborative Program's multi-year planning efforts
- Identify uncertainties that warrant further research
- Identify tasks to be considered by the Science and Adaptive Management Committee (e.g., for new Science & Technical Ad Hoc Groups)
- Prepare for future scenarios and coordinate adaptive management actions

Next Steps:

Once the EC approves this proposal, the PST will:

- Work with the SAMC to form a small planning group
- Schedule the Climate Scenario Planning Exercise
- Secure meeting space
- Draft agenda, guidelines and materials for the exercise

Link to full Meeting Materials List

Meeting Material:

2022 MRGESCP Work Plan Accomplishments [read-ahead]

MIDDLE RIO GRAND ENDANGERED SPECIES COLLABORATIVE PROGRAM 2022 WORK PLAN ACCOMPLISHMENTS

The following are status updates and notes for each of the 2022 Work Plan items, prepared for the December 22, 2022 Executive Committee (EC) meeting.

	ltem	Status	Notes
Adminis	trative Tasks		
✓	Update and Approve the Long-Term Plan for Science & Adaptive Management	COMPLETE	The updated Long-Term Plan was approved by the EC in March 2022.
✓	2022 Memorandum of Agreement (MOA)	COMPLETE	2022 MOA was signed by all signatories and executed by March 2022.
✓	2021 Annual Report	COMPLETE	2021 Annual Report was approved by the EC in March 2022. Hard copies were offered to all signatories and an electronic copy is posted on the Program Portal.
	Continue training for SAMIS	ONGOING	SAMIS trainings scheduled and completed December 2022.
	Funding Opportunities Matrix	ONGOING	The first iteration of the Funding Matrix was developed by the FPC and discussed at their November 2022 meeting. It is currently being revised/filled out.
	2023 Work Plan	ONGOING	To be reviewed and approved by the EC at the December 2022 meeting.
	2022 Signatory Contributions Report	ONGOING	Signatory Contributions forms were sent out and currently being collected. Final Signatory Contributions will be reported at the March 2023 EC meeting.
Science	& Technical (S&T) Ad Hoc Groups and Ac	dministrative Ad	Hoc Groups
√	Rio Grande Silvery Minnow (RGSM) Integrated Population Model S&T Ad Hoc Group	COMPLETE	This group completed its work February 2022. Charles Yackulic presented a seminar to the Collaborative Program February 24, 2022. Final manuscript published
			September 14, 2022.
√	Peer Review Administrative Ad Hoc Group	COMPLETE	This group completed its work and presented the final draft Peer Review Process to the EC in June 2022.

	ltem	Status	Notes
	Revisions to the RGSM Conceptual	ONGOING	Draft modified CEM schematic
	Ecological Model to incorporate		completed. Additional life stage
	genetics and augmentation		transition models completed.
			Pairwise variable relationships are
			being added to CEM table.
	RGSM Hypothesis Development S&T	ONGOING	Group met in August, September,
	Ad Hoc Group		November 2022, December 2022,
			reaching consensus on one
			recommended hypothesis as well as
			an approach for developing a
			second, more complex hypothesis.
	Habitat Restoration Guidance S&T	ON HOLD	SAMC is reframing this effort to
	Ad Hoc Group		better suit the science needs of the
			Collaborative Program.
	Information and Data Quality	ON HOLD	SAMC approved charge July 2022.
	Standards Hybrid Ad Hoc Group		EC approved charge September
			2022. Group will be convened
			January 2023 after membership is
			finalized.
	Drying in Angostura Reach S&T Ad	ONGOING	Preliminary recommendations
	Hoc Group		discussed during the Collaboratory
			Breakout Session #1. Ad hoc group
			met in December 2022. Initial
			findings and progress will be
			presented to the EC members in
			January 2023.
	2022 Drying in Angostura Reach	COMPLETE	Group developed and finalized an
\checkmark	Public Outreach and Education		informational mailer to include in
	Administrative Ad Hoc Group		September 2022 water bills.
	Future Drying in Angostura Reach	CHARGE	Draft charge up for review and
	Public Outreach and Administrative	DRAFTED	approval by the EC at the December
	Ad Hoc Group		2022 meeting.
Building	the Science and Adaptive Management	Information Sys	tem (SAMIS)
	Populate Project Bank with past,	ONGOING	Past projects (from 2019 on) are
	current, and potential projects		included in the Project Bank,
			current 2022 projects are being
			collected for inclusion, and
			potential projects are being
			developed and included on an
			ongoing basis.
	Develop strategies from the Science	COMPLETE	Science Strategies were developed
./	Objectives		by the SAMC and included in
•			SAMIS. They will be revised as
			needed, per the Science Evaluation.

	ltem	Status	Notes
	Identify uncertainties in the CEMs,	ONGOING	The uncertainties from the Avian
	assess their status, and link to the		CEMs were identified, assessed,
D	appropriate elements in SAMIS		and linked in SAMIS.
Decision	n-Support Tools to Facilitate Adaptive Le		Agrand by the FC in large 2022
√	Adopt a Peer Review Process	COMPLETE	Approved by the EC in June 2022.
	Survey of Manager Confidence in Science Support	ONGOING	Received too few responses to date, and will be carrying that into the early part of 2023. The responses will be incorporated into the Science Evaluation.
	Evaluate and refine Project Evaluation Criteria	ONGOING	The SAMC agreed to adopt and test the Project Evaluation Criteria in November 2022. They will be incorporated into the 2023 revision to the Long-Term Plan.
√	Plan for and host the Collaboratory	COMPLETE	Collaboratory was held December 5-6, 2022. Outcomes will be incorporated into the Science Evaluation and used to update the Long-Term Plan.
Informa	tion Sharing and Coordination		
√	MRGESCP Newsletters	COMPLETE	Bi-monthly newsletters were published in February, April, June, August, October, and the December newsletter will be published by next week.
✓	Habitat Restoration (HR) Coordination meetings	COMPLETE	Quarterly HR Coordination meetings were held in February, June, September, November
✓	Collaborative Seminars	COMPLETE	The Program hosted the following 2022 Collaborative Seminars: January 12: Habitat Restoration and Ecosystem Function, Katey Driscoll February 24: RGSM Integrated Population Model and Expert Elicitation, Charles Yackulic May 5, Jurisdictional Waters, Permits, Wetland Delineation, and Compensatory Mitigation, USACE Regulatory Division August 11: Fire in the Deep Dark Wood, Katia Chavez,

	Item	Status	Notes	
			Rayne McCollough, and Dan Shaw August 23: RGSM Population Monitoring, Rob Dudley October 19: Genetic Monitoring of the RGSM, Megan Osborne December 14: Bosque Assessment and Update Prioritization, Ondrea Hummel	
✓	Workshop on the Management of Vegetated Islands and Bank- Attached Bars	COMPLETE	The Workshop was held October 4- 5. Preliminary findings were discussed by the SAMC in November 2022, and at the Collaboratory during Breakout Session #1.	

Link to full Meeting Materials List

Meeting Material:
Draft 2023 MRGESCP Work Plan [read-ahead, draft, spreadsheet]

Middle Rio Grande Endangered Species Collaborative Program 2023 Work Plan

							Work														
	TASK	SUBTASK	EC	AAH	SAMO	S&T	FPC	Sigs	PST	Jan-23	Feb-23		Apr-23	May-23		Jul-23	Aug-23	3 Sep-23	Oct-23	Nov-23	Dec-23
		Executive Committee (EC) meeting	Х									X			Χ			X			Х
		Science and Adaptive Management Committee (SAMC) meeting			Χ						X			Х			Х			Χ	
		Fiscal Planning Committee (FPC) meeting					Х			Χ			X			X			X		
	1.1	Program Portal Administration	_							_											
	1.1a	Maintain and update documents and content on the Program							Х	Y	X	X	X	l _v	l x	X	l x	X	X	Χ	X
	1.1a	Poltai							^	^	^	^	^	^	^	^	^	^	^	^	^
	1.1b	Update the existing datasets on the Program Portal						Χ	Χ	Χ	Х	Х									1
	1.1c	Upload new datasets on the Program Portal identified at the						Х	Х	V	X	X	X	l x							1
	1.10	2022 Portal Stakeholder Meetings						^	^	^	^	^	_ ^	^							1
	1.1d	Develop a plan for continued Program Portal funding	Χ				Х			X	Х	Х									<u> </u>
	1.2	Science and Adaptive Management Information System (SAMIS)				,		,	•	_					•	•	•				
	1.2a	Maintain and update activities in SAMIS						Χ	Χ	Χ	Х	Х	Х	Х	Х	Х	Х	Х	Х	Χ	Х
	1.2b	Finish module one of signatory SAMIS trainings	Χ		Χ			Χ	Χ	Χ	Х	Х									
uc	1.3	SAMC Membership																			
a <u>ti</u>	1.3a	Collect applications for new SAMC members							Χ	Х	Х	Х									Ī
istı	1.3b	Appoint new SAMC members	Χ	Χ								Х									1
Ξ L	1.4	Science Evaluation								•			•	•	•	•	•	•	•		
Administration	4.4	Carry out the Science Evaluation based on the outcomes of the			V				\ \ \	V	V	V									
	1.4a	2022 Collaboratory			Х				Х	Х	X	X									1
Jra	1.4b	Complete and present results from the Science Evaluation	Χ		Χ				Χ			Х									
Program	1.5	Annual Program Evaluation																			
	1.5a		Χ		Χ		Х		Χ	Х	Х	Х									
Ęį		Complete and present results from the Annual Program																			
ora	1.5b	Evaluation	Х						Х			X									1
General Collaborative		If needed, draft and adopt updates to the Long-Term Plan for																			
00	1.5c			Х					Х	Х	X	Х									1
<u></u>		from the Science Evaluation and Program Evaluation																			1
ner		If needed, draft and adopt updates to committee charters and the																			
Ge	1.5d		Χ	Х					Х				X	l x	l x						I
_		Evaluation																			1
	1.6	Work Plan								<u> </u>					•	•			•		
	1.6a	Check in and revise the 2023 Work Plan if needed	Χ						Χ			Х			Х			Х			
	1.6b	Develop and approve the 2024 Work Plan	Χ						Χ										Х	Χ	Х
	1.7	Reporting				•		•		B		•	•		•	•		•			
	1.7a	Continue drafting and approve the 2022 Annual Report	Χ						Χ	Х	Х	Х									
	1.7b	Collect and finalize 2022 signatory contributions reports						Х	Χ	Х	Х	Х									
	1.7c	Develop and finalize the 2022 cost share report						Χ	Χ	Х	Х	Х									
	1.7d	Begin drafting the 2023 Annual Report							Х										Х	Х	Х
	1.7e	Develop the SAMC annual summary presentation to the EC			Х				Х											Х	Х
	2.1	Send out regular MRGESCP newsletters					<u> </u>		X	<u> </u>	Χ		Χ		Х		Х		Х		X
	2.2	Host regular collaborative seminars			Х				X			Х			X			Х			X
p g	2.3	Topical workshop				·		·							- 1					<u> </u>	
Communication and Information Sharing	2.3a	Approve the topic and proposal for the 2023 topical workshop	Х		Х										Х						
tion Sha	2.3b	Plan and coordinate the 2023 topical workshop			<u> </u>				Х			 		 	X	Х	Х	Х	Х		
cat on (2.3c	Host the 2023 topical workshop	Х		Х				X		1	 		 					X		
uni atic		2023 Science Symposium		ļ		ļ	<u> </u>	ļ		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u>!</u>	<u>. </u>				i
ĒĒ	2.4a	Approve the proposal for the 2023 Science Symposium	Х	1		1	1				l	I		Ι	Х		1				
ng Je	2.4a 2.4b	Collect abstracts for the 2023 Science Symposium							Х		1					Х	Х	Y	Х		
<u> </u>	2.4c				Х				X							٨	٨	^	^	Χ	
	2.40	I maile the agenua for the 2023 Science Symposium			_ ^				_ ^		ļ	ļ	ļ	ļ			<u> </u>	ļ	ļ	^	

	2.4d	Host the 2023 Science Symposium	Χ		Х				Х												Х
		Information and Data Quality Standard			<u> </u>										1						
	3.1a	Convene the hybrid ad hoc group to develop a data and information quality standard for the MRGESCP to ensure			Х	Х				X	Х	X	X	Х							
and Tools Development	3.1b	consistency with the Information Quality Act Review and approve the data and information quality standard for the MRGESCP	Х		Х									Х	Х						
<u> </u>	3.2	Survey of Manager Confidence in MRGESCP Science Support				•							•								
)ev	3.2a	Collate and present results of the 2022 survey	Χ						Χ			Х									
lools [3.2b	Administer the 2023 survey of manager confidence in MRGESCP science support	Χ						Χ										Х	Х	
Ā	3.2c	Collate and present results of the survey	Χ						Χ												X
		Evaluate and refine project evaluation criteria to align with management needs			Х					Х	Х	Х	Х	Х	Х						
lun	3.4	Conceptual Ecological Models																			
Science Decision Support Planning	3.4a	Complete the revisions to the Rio Grande Silvery Minnow (RGSM) Conceptual Ecological Model to incorporate genetics considerations and the augmentation program			X	Х				Х	Х										
ision Su	3.4b	Initiate an Internal Science Review of the draft revised Rio Grande Silvery Minnow (RGSM) Conceptual Ecological Model			Х	Х			Х			Х	Х	Х							
e Decl	3.4c	Draft a conceptual ecological model for the New Mexico meadow jumping mouse.			Х	Х			Х		Х	Х	Х	Х							
cienc	3.4d	Draft a conceptual ecological model for the Pecos sunflower.			Χ	Х			Х		Х	Х	Х	Х							
Ø	3.5	Scenario planning effort for the Middle Rio Grande in the context of listed species			Х	Х			Χ						Х	Х	Х	Х			
	3.6	Hold signatory workshop for input and feedback on data relationship visualization options for the Program Portal			Х			Х	Х					Х	Х	Х					
S	4.1	Reconvene the RGSM Hypothesis Development S&T Ad Hoc Group for Phase 2				Х						Х	Х	Х							
ΞĘ	4.2	Provide Recommendations for Drying in the Angostura Reach				,						•	•					•			
nent Acti	4.2a	Provide recommendations for management actions and data collection in response to potential drying in the Angostura reach in 2023.	Х		Х	Х			Х	Х											
nagen	4.2b	Develop public messaging strategies in concert with recommendations for drying in 2023	Х	Х					Х	Х	Х										
otive Mar	4.2c	Report back to MRGESCP on adopted plan for potential drying in Angostura Reach in 2023 given the Annual Operation Plan (AOP)	Х					Х				Х									
ı Adap	4.2d	Evaluate effective of the drying response plan, and refine recommendations for 2024.	Х		Χ	Х			Х									Х	Х	Х	Х
Implementing Adaptive Management Activitie	4.3	Convene Habitat Restoration (HR) Guidance S&T Ad Hoc Groups to develop species-specific restoration goals, monitoring considerations, and metrics to document success			X	x						Х	Х	Х	X	X	X	Х	Х	Х	
<u></u>	4.4	Climate change scenario planning exercise for the Middle Rio Grande in the context of listed species			Χ	Х			Х						Х	Х	Х	Х			
Sé	5.1	Host quarterly HR coordination meetings					Х		Χ		Χ			Х			Χ			Х	
Coordination of Signatory Activities	5.2	Identify coordination opportunities related to the spring/summer hydrology	Х					Х				Х									
ordina atory ⊬	5.3	Provide updates on coordination activities related to the spring/summer hydrology, and lessons learned	Х					Х													Х
Co Signa	5.4	Provide updates on the implementation of signatory activities from the Long-Term Plan					Х	Х		Х			Х			Х			Х		

Link to full Meeting Materials List

Meeting Material:
SAMC Memo to the EC on 2023 SAMC Membership [read-ahead]



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

DATE: December 22, 2022

TO: The Middle Rio Grande Endangered Species Collaborative Program (MRGESCP)

Executive Committee (EC)

FROM: The MRGESCP Science and Adaptive Management Committee (SAMC)

RE: Recommended membership tenure and representation of expertise on the SAMC in 2023

According to Article 7 of the MRGESCP By-Laws (2021), the SAMC "shall consist of no more than eight subject matter expert members appointed by the Executive Committee." Four positions on the SAMC are maintained with the following areas of expertise: aquatic ecology, terrestrial ecology, ecosystem function, hydrology. The EC also has discretion to select up to four flexible subject matter experts based on science-related needs. To inform these decisions, "the SAMC may provide input on which areas of expertise would benefit the group." The purpose of this memo is to communicate that input from the SAMC regarding upcoming membership and expertise needs.

The MRGESCP SAMC Charter (2021) defines the limits of a term of membership (section IV.b.) on the SAMC: "SAMC members shall be appointed by the EC for staggered two-year terms. Sitting SAMC members may apply for one-year term limit extensions. Individuals may serve on the SAMC for no more than four consecutive years, except as authorized by the EC." Accordingly, the current SAMC members were asked to indicate their preference regarding term extension in November 2022, as the end of their two-year term is imminent. A list of the current SAMC members, their respective areas of expertise and status after March 2023 is provided in Table 1 below.

Both of the aquatic ecology positions will be vacated in 2023. Given the volume of Rio Grande silvery minnow- (*Hybognathus amarus*; RGSM) specific tasks undertaken by the MRGESCP, **the SAMC recommends that the EC retain both positions for the aquatic ecology area of expertise**. The MRGESCP By-Laws also state that, "one EC member shall serve in an ex-officio advisory capacity to the SAMC, ...will not count towards the eight-count membership, and will not participate as a subject matter expert." Currently, Alan Hatch (Pueblo of Santa Ana) serves in the EC ex-officio position on the SAMC, and he has indicated his desire to step down at the end of the current term. Therefore, **the EC will need to appoint a new** ex-officio advisor to the SAMC in 2023.

Table 1. Current SAMC members with respective areas of expertise and status in 2023.

Current SAMC member	Expertise	Status in 2023	
Alan Hatch	EC ex-officio	Stepping down in 2023	
Thomas Archdeacon	Aquatic Ecology	Stepping down in 2023	
Mo Hobbs	Aquatic Ecology	Stepped down in 2022 due to work duties	
S. David Moore	Terrestrial Ecology	Staying on for one additional year	
Meaghan Conway, Ph.D.	Ecosystem Function	Willing to stay on, pending EC request	
Ryan Gronewold, P.E.	Hydrology	Willing to stay on, pending EC request	
Megan Friggens, Ph.D.	Climate Science	Staying on for one additional year	
Ari J. Posner, Ph.D.	Geomorphology	Willing to stay on, pending EC request	
Ara Winter, Ph.D.	Statistics/Modeling	Staying on for one additional year	

Three SAMC members, Meaghan Conway (ecosystem function), Ryan Gronewold (hydrology) and Ari Posner (geomorphology), indicated a willingness to extend their terms for one additional year at the discretion of the EC. Based on the current and projected science needs indicated by the MRGESCP Work Plan, the SAMC recommends that the EC consider representation in 2023 for the following areas of expertise: aquatic ecology (specific to RGSM), restoration ecology, climate science, and environmental planning. Additionally, the SAMC recognizes the challenge posed to all members of being able to evaluate scientific issues across disciplines.

Selections of areas of expertise by the EC will trigger a call for applications for new members on the SAMC in January 2023. Per the application process described in the MRGESCP By-Laws (section 7.1.1.), applications will be reviewed by the EC (or a subset of EC members) and new members will be appointed by the EC in March 2023.

References:

MRGESCP. 2021. Middle Rio Grande Endangered Species Collaborative Program: By-Laws. *Adopted by the Executive Committee on July 28, 2021.*

MRGESCP. 2021. Middle Rio Grande Endangered Species Collaborative Program: Science and Adaptive Management Committee Charter. *Approved by the Executive Committee on October 27, 2020. Revised to Align with the By-Laws, Adopted on July 28, 2021.*

Link to full Meeting Materials List



FPC Roster [read-ahead]

Middle Rio Grande Endangered Species Collaborative Program Fiscal Planning Committee Roster

Federal Co-Chair

Debra Hill, U.S. Fish & Wildlife Service

Non-Federal Co-Chair

Grace Haggerty, New Mexico Interstate Stream Commission

Albuquerque Bernalillo County Water Utility Authority

Mark Kelly

Bosque Ecosystem Monitoring Program

Kim Eichhorst

City of Albuquerque

Dustin Chavez-Davis

Middle Rio Grande Conservancy District

Anne Marken

NM Office of the Attorney General

Bill Grantham

Pueblo of Sandia

Michael Scialdone

U.S. Army Corps of Engineers

Ryan Gronewold

U.S. Bureau of Reclamation

Lynette Giesen

Link to full Meeting Materials List

Meeting Material:					
Reclamation Hydrology Update [presentation]					



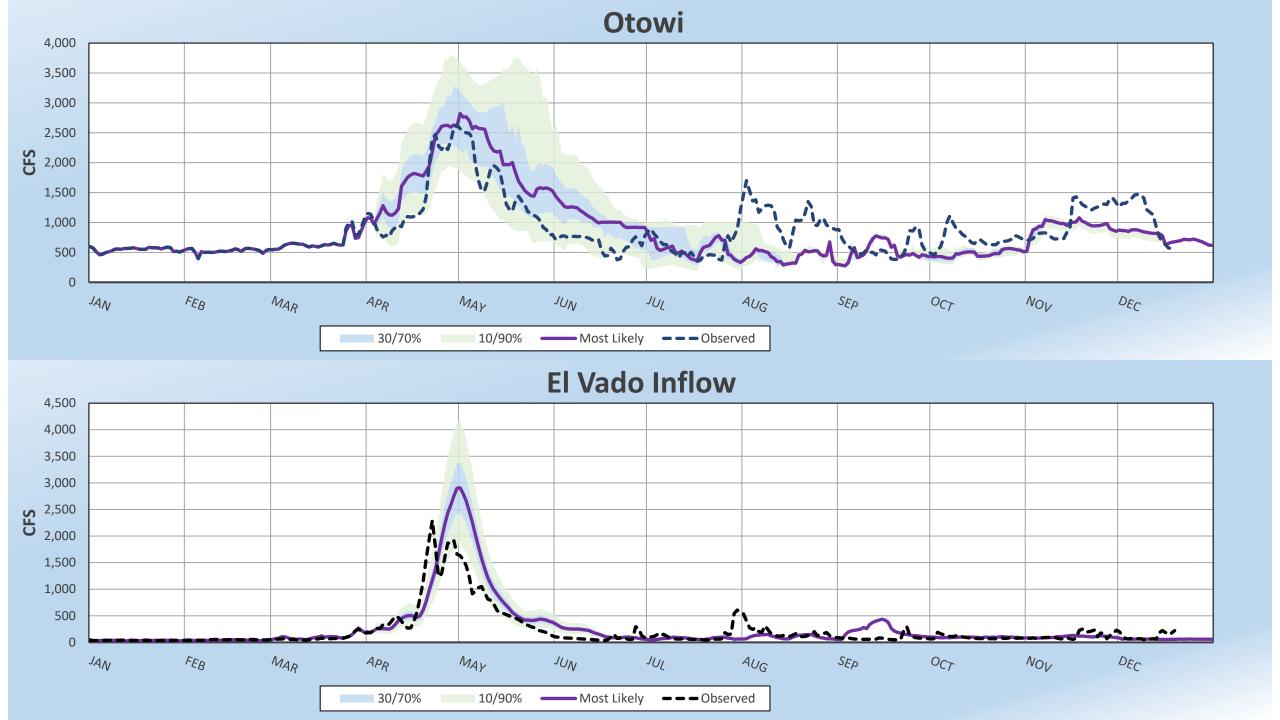
MRG ESA Collaborative Program Executive Committee

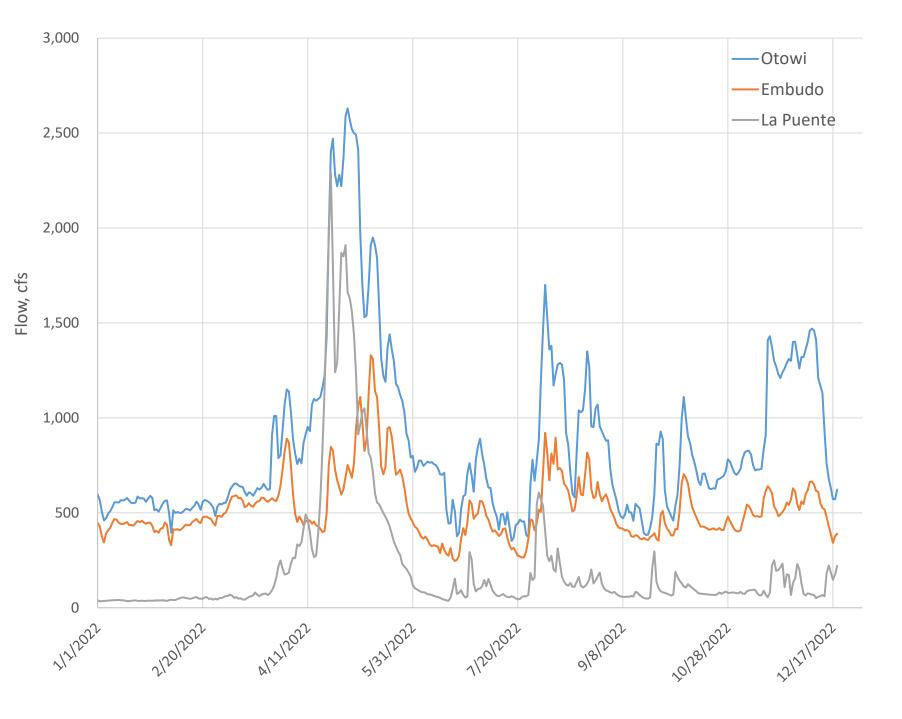
Hydrology update December 22, 2022

2022 Summary

- High winds and temperatures in April reduced expected runoff
- River drying
 - Angostura reach July 23 26, max 10.74 RM on July 26
 - Isleta reach June 16 Sept 23, max 13.95 RM on July 25
 - San Acacia reach June 5 Sept 23, max 35.61 RM on July 26
 - Maximum total extent July 26, 59.97 RM total (35.61 RM in San Acacia reach, 13.62 RM in Isleta reach, 10.74 RM in Angostura reach)
- Supplemental water use
 - Total released 6,337 ac-ft from May 25 Sept 21
- Saved by monsoon rains!

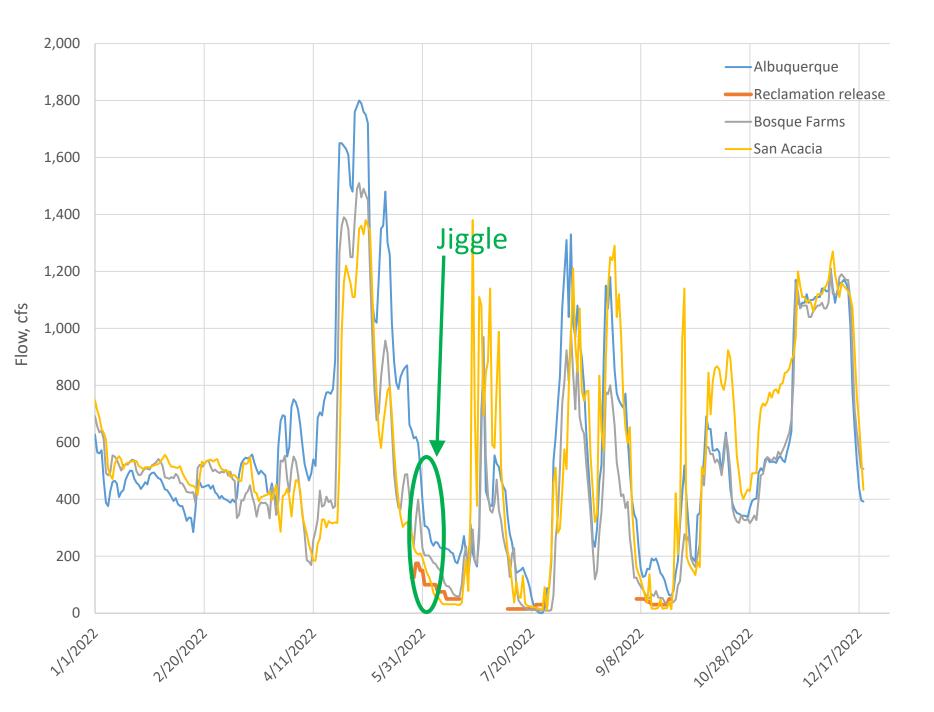






- Spring peak came from Rio Chama
- Mainstem flow began to drop in early May

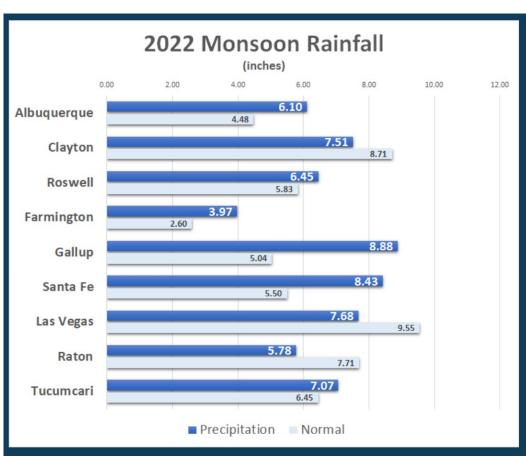




- Spring peak may have been too low and too early for minnow
- Conditions
 were not
 right for a
 'jiggle' at
 IDD



2022 Monsoon



June 15th - September 30th observed precipitation compared with climatological normal.

- 2022 was 10th wettest monsoon on record at Abq Airport
- Rain generally showed up when most needed

Monsoon Statitics for Albuquerque Airport (1892 - 2022)

Top 10 Wettest Monsoons		Top 10 Driest Monsoons		
1) 9.42" / 2006	6) 7.16" / 2013	1) 1.46" / 2003	6) 1.74" / 1892	
2) 9.10" / 1988	7) 6.84" / 1986	2) 1.53" / 1953	7) 1.81" / 1960	
3) 8.83" / 1933	8) 6.80" / 1996	3) 1.55" / 1905	8) 1.87" / 1922	
4) 7.29" / 1919	9) 6.58" / 1997	4) 1.59" / 1917	9) 1.88" / 1948	
5) 7.18" / 1940	10) 6.10" / 2022	5) 1.72" / 2011	10) 2.13" / 1898	

Rainfall by Month *Preliminary for Current Year*

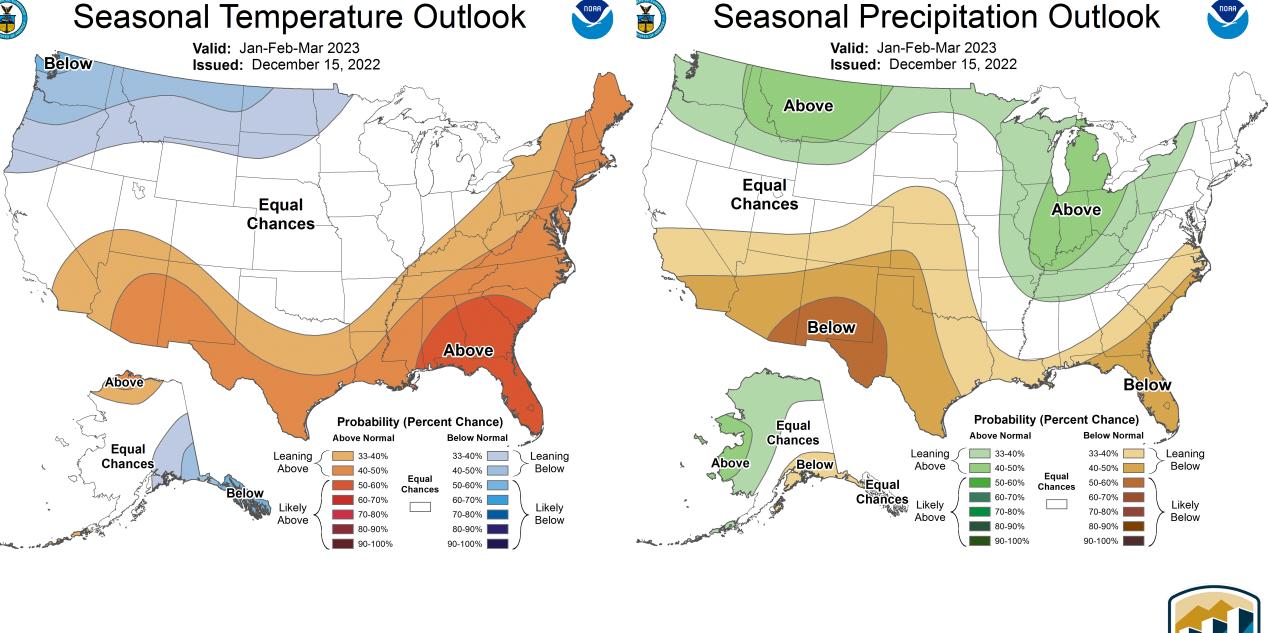
Year	Jun	Jul	Aug	Sep	Total
Normal	0.38"	1.64"	1.31"	1.15"	4.48"
2022	2.38"	1.01"	2.48"	0.23"	6.10"



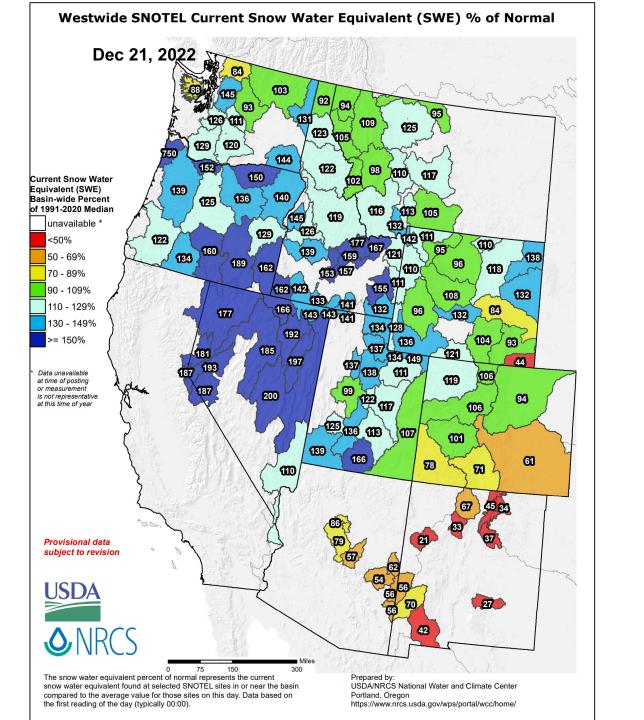
Observations

- High temperatures and winds can rapidly take snowpack
- Must be ready with other options such as a 'jiggle'
- Successful jiggle requires low flows well before it will occur
- Drying in Albuquerque area first since early 1980s
 - Began at WWTP outfall and moved upstream
- Close coordination between agencies required to successfully manage drying and all other water operations
- Coordination currently occurs and is ongoing
 - MRG coordination calls during irrigation season
 - USACE, Reclamation, MRGCD, NM, others talk often
 - Discussion with biologists is also frequent







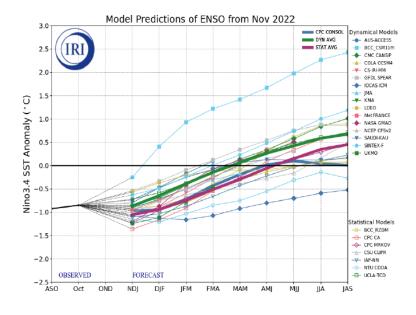




ENSO Models

NM Drought Monitor Working Group





La Niña conditions are favored to continue through winter before transitioning to ENSO Neutral in the Spring.

Early-December 2022 CPC Official Probabilistic ENSO Forecasts

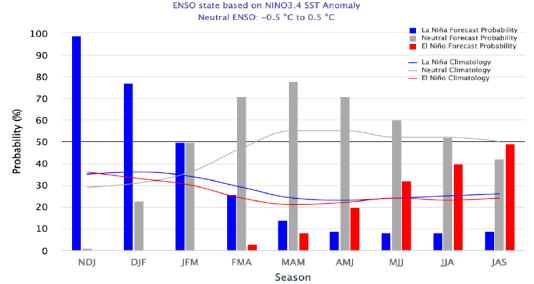


Figure provided by the International Research Institute (IRI) for Climate and Society).



December 21, 2022 www.weather.gov/abq

2023 Expectations

- Snowpack is low but too early to predict 2023 runoff conditions
- With ~average runoff, may briefly exit RG Compact Article VII restrictions
- Reclamation's supplemental water
 - ~5,000 ac-ft carried over from 2022
 - 5,000 to 12,000 ac-ft from 2023 leases, depending on SJCP allocation
- Agencies looking at all options for a spawn
- Water managers will closely coordinate operations



Carolyn Donnelly cdonnelly@usbr.gov





Link to full Meeting Materials List

Meeting Material:

Weeting Waterian
Revised Climate Change Scenario Planning Exercise Proposal [follow-up]

Middle Rio Grande Endangered Species Collaborative Program (Collaborative Program) Climate Scenario Planning Exercise Proposal

For Executive Committee (EC) Review and Approval December 22, 2022

At its November 8, 2022 meeting, the Science and Adaptive Management Committee (SAMC) discussed implementing a scenario planning exercise to help the Collaborative Program adapt and equip for changing climate conditions and likely future scenarios in the Middle Rio Grande. This exercise will help the Collaborative Program to address the signatories' management needs not only now and in the short-term, but also into the long-term. The Program Support Team (PST) is requesting the EC review this proposal outline for a 2022 Climate Scenario Planning Exercise and request the PST coordinate the planning and convening of the exercise with the SAMC.

Timing: Summer 2023

Location: In-person, TBD

Climate Scenario Planning Exercise Objectives:

- Using current climate models and the likely future scenarios for the Middle Rio Grande (at a minimum: best case, worst case and most likely), collaboratively determine the endangered species and ecosystem management responses associated with each scenario.
- Collaboratively identify management opportunities for the near-term to mitigate the likely negative impacts of the different potential future scenarios on the listed species and their habitats.
- Identify sources of uncertainty regarding the parameters of each scenario, in the short- and long-term, that the Collaborative Program can help address.

Participants:

- Collaborative Program signatories and their contractors and partners
- Any organization managing water or natural resources within the Middle Rio Grande
- Investigators conducting research with management relevance to the Middle Rio Grande and its listed species

Anticipated Outcomes:

- Inform the Collaborative Program's multi-year planning efforts
- Identify uncertainties that warrant further research
- Identify tasks to be considered by the Science and Adaptive Management Committee (e.g., for new Science & Technical Ad Hoc Groups)
- Prepare for future scenarios and coordinate adaptive management actions

Next Steps:

Once the EC approves this proposal, the PST will:

- Work with the SAMC to form a small planning group
- Schedule the Climate Scenario Planning Exercise
- Secure meeting space
- Draft agenda, guidelines and materials for the exercise