Executive Committee Meeting September 8, 2022

Meeting Materials:

<u>Agenda</u>

Minutes

SAMC Memo to the EC on MRGESCP Support for Long-Term Collections in the Middle Rio Grande [read-ahead]

Draft Revised MRGESCP 2022 Work Plan [read-ahead, draft]

Draft Annual Rick Billings Award Administrative Ad Hoc Group Charge [read-ahead, draft]

Draft Information and Data Quality Standards Hybrid Ad Hoc Group Charge [read-ahead, draft]

SAMC Memo to the EC on the Information and Data Quality Standards Hybrid Ad Hoc Group [read-ahead]

MRGESCP Portal [presentation]

MRGESCP Portal Analytics [follow-up]

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

Agenda



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

Executive Committee (EC) Meeting Agenda

September 8, 2022 9:00 AM - 12:00 PM

Location: U.S. Bureau of Reclamation, Albuquerque Area Office 555 Broadway Blvd NE, Albuquerque, NM 87102

Zoom Log-In:

https://west-inc.zoom.us/j/8983593120?pwd=bU54V3NGeG93bXVISIJFcEIzcE9wZz09

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

Meeting Objectives:

- Hear updates on Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) administrative and science activities, and the role of the EC
- Discuss and approve proposed revisions to the 2022 work plan, and how to manage changing priorities in the future.
- Approve an administrative ad hoc group to nominate a recipient for the 2022 Rick Billings Award, and determine a process for the EC decision on the recipient.
- Discuss and approve a charge for a proposed Data and Information Quality Standards Hybrid Administrative and Science & Technical (S&T) Ad Hoc Group.
- Hear from the Program Portal development team on existing Portal features and next steps to solicit development priorities under the new contract.
- Debrief the Summer 2022 hydrology-related activities.
- Learn about the San-Juan Chama Contractors Association.
- Share activities and opportunities for MRGESCP input and coordination.

9:00 - 9:10	 Welcome, Introductions, Agenda Review Meeting ground rules 	EC Co-chairs
	✓ Decision: Approval of September 8, 2022 EC meeting agenda	
9:10 - 9:20	June 2022 Meeting Summary Action items review 	EC Co-chairs
	✓ Decision : Approval of June 23, 2022 EC meeting minutes	
	Read-ahead: Draft June 23, 2022 EC Meeting Minutes	
9:20 - 9:40	 Program Support Team (PST) Update SAMIS update (including EULA status) Client Cloud Workspace for ad hoc groups Fiscal Planning Committee (FPC) membership Administrative activities updates Public Messaging Administrative Ad Hoc Group Workshop on the Management of Vegetated Islands and Bank-Attached Bars: October 4-5, 2022 	Debbie Lee & Catherine Murphy, PST

0	Collaboratory: December 6-7, 2022
---	-----------------------------------

- Science activities updates
 - Strategic Plan for Potential Drying in the Angostura Reach S&T Ad Hoc Group
 - Rio Grande Silvery Minnow Hypothesis Development S&T Ad Hoc Group
 - Value of Long-Term Data Collections
- Upcoming Survey of EC Members' Perception of Science Support
- Administrative schedule check-in
- > Action Item: EC members send FPC point of contact to PST
- Action Item: EC members fill out Survey of Managers' Perception of Science Support once available

Read-ahead:

□ Science and Adaptive Management Committee (SAMC) Memo to the EC on MRGESCP Support for Long-Term Collections in the Middle Rio Grande

9:40 – 9:50 **2022 Work Plan Update**

- Proposed revisions
- Managing changing work plan priorities with limited resources
- ✓ **Decision**: Approval of revised 2022 Work Plan

Read-ahead:

Draft Revised MRGESCP 2022 Work Plan

9:50 – 10:00 Annual Rick Billings Award Administrative Ad Hoc Group Debbie Lee, PST

- Approve processes for Annual Rick Billings Award recipient
 - ✓ Decision: Approval of Annual Rick Billings Award Administrative Ad Hoc Group charge
 - Action Item: PST will collection nominations for the 2022 Rick Billings Award
 - Action Item: the PST and the EC Co-Chairs will coordinate final membership of the Administrative Ad Hoc Group following the close of nominations

Read-ahead:

Draft Annual Rick Billings Award Administrative Ad Hoc Group Charge

10:00 - 10:15 Information and Data Quality Standards Hybrid Ad Hoc Group

• Potential membership

Debbie Lee & Catherine Murphy, PST

Debbie Lee, PST

- ✓ Decision: Approval of Information and Data Quality Standards Hybrid Ad Hoc Group charge
- Action Item: PST reach out to potential members and convene the Information and Data Quality Standards Hybrid Ad Hoc Group

Read-ahead:

Draft Information and Data Quality Standards Hybrid Ad Hoc Group Charge

	SAMC Memo to the EC on the Information and Data Quality Standards Hybrid Ad Hoc Group	
10:15 - 10:30	Break	
10:30 - 10:50	 Program Portal Updates Update on contract Demonstration of Portal features Next steps 	U.S. Geological Survey
	 Action Item: Send appropriate signatory representatives to the Program Portal Stakeholder Meeting September 22, 2022 	
10:50 - 11:15	 Summer 2022 Hydrology Debrief Update on activities regarding drying, Rio Grande silvery minnow, and science activities Share findings and lessons learned Discuss potential improvements 	Facilitated Discussion
	Action Item: The PST will relay a summary of the conversation to the Strategic Plan for Potential Drying in the Angostura Reach S&T Ad Hoc Group to inform their work	
11:15 - 11:20	 Signatory Engagement and Expectations Roles and opportunities for engagement in a science & adaptive management program Open forum at EC meetings for signatories to share projects and solicit input from the MRGESCP 	Mark Kelly, Non- Federal Co-Chair
11:20 - 11:30	 San Juan-Chama Project Contractors Association Overview of the San Juan-Chama Project Contractors Association 	Kyle Harwood, San Juan-Chama Project Contractors Association
11:30 - 11:50	Signatory Updates, Innovations, & Inquiries	Roundtable discussion
11:50 -11:55	Public Comment	
11:55 - 12:00	Meeting Summary and Action Items Review	EC Co-chairs
	Next EC Meeting: December 2022	
12:00	Adjourn	

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

Minutes



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

Executive Committee (EC) Meeting Minutes

September 8, 2022; 9:00 AM-12:00 PM Location: Zoom Meeting

Decisions:

- ✓ Approval of the September 8, 2022 EC meeting agenda
- ✓ Approval of the June 23, 2022 EC meeting minutes
- ✓ Approval of the revised Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) 2022 Work Plan
- ✓ Approval of the Annual Rick Billings Award Administrative (Admin) Ad Hoc Group charge
- ✓ Approval of the Information and Data Quality Standards Hybrid Ad Hoc Group charge

Action Items:

WHO	ACTION ITEM	BY WHEN
Ryan Gronewold	Coordinate with U.S. Army Corps of Engineers (USACE), City of Albuquerque Open Space, New Mexico Interstate Stream Commission (NMISC), and Middle Rio Grande Conservancy District (MRGCD) on funding for the Sandia to Isleta Ecosystem Restoration Project	ASAP
EC representatives	Fill out the Survey of Managers' Perception of Science Support	ASAP once available
Fiscal Planning Committee (FPC)	Explore funding options for stabilizing hands-on research projects for University of New Mexico students	Next FPC meeting
PST	Send the U.S. Geological Survey presentation on the Program Portal to the EC	9/12/2022
EC representatives	Send points of contact for the FPC	9/16/2022
PST	Post the End User License Agreement (EULA) to the Science and Adaptive Management Information System (SAMIS) applications	9/16/2022
PST	Follow up with potential members of the Strategic Plan for Potential Drying in the Angostura Reach Science & Technical (S&T) Ad Hoc Group to finalize membership	9/16/2022
PST	Relay a summary of the EC's hydrology conversation to the Strategic Plan for Potential Drying in the Angostura Reach S&T Ad Hoc Group to inform their work	One week prior to first meeting
EC representatives	Send appropriate signatory representatives to the Program Portal Stakeholder Meeting	9/22/2022

PST	Begin scheduling SAMIS trainings on <i>Module 1: Getting</i> Started in SAMIS	9/30/2022
PST	Post the SAMIS User Guide to the Program Portal and SAMIS applications	9/30/2022
All signatories	Send in nominations for the 2022 Rick Billings Award	10/14/2022
PST and EC Co-chairs	Coordinate final membership of the Annual Rick Billings Award Admin Ad Hoc Group following the close of nominations	10/31/2022
PST	Convene the Annual Rick Billings Award Admin Ad Hoc Group	11/16/2022
PST	Reach out to potential members and convene the Information and Data Quality Standards Hybrid Ad Hoc Group	January 2023
PST	Coordinate a presentation from Andrew Erdmann on the 50- Year Water Plan	TBD
PST	Coordinate a presentation from Stacey Timmons on the Water Data Act	TBD
PST	Coordinate a presentation from Ondrea Hummel on the Bosque Action Plan	TBD

Next Meeting: December22, 2022; 9:00 AM – 12:00 PM

Meeting Minutes

Welcome, Introductions, Agenda Review

The Non-Federal Co-Chair, Mark Kelly, Albuquerque Bernalillo County Water Utility Authority (ABCWUA), opened the meeting, led introductions, and reviewed the September 8, 2022 agenda. The EC approved the September 8, 2022 agenda.

✓ **Decision**: Approval of the September 8, 2022 EC meeting agenda

June 2022 Meeting Summary

Debbie Lee, the Program Manager, PST, reviewed the June 23, 2022 meeting minutes and action items (see June 23, 2022 Draft EC Minutes). The EC approved the June 23, 2022 meeting minutes. Summary updates for action items are below:

- The Long-Term Plan was updated to include the Peer Review Process and the new version is on the Program Portal.
- The FPC Charter was updated to reflect the new set membership and the new version is on the Program Portal.
- EC representatives did not provide many points of contact for the FPC and additional names are needed.
- EC representatives provided a list of trainees for the SAMIS.
- EC representatives provided Public Information Office (PIO)/Public Affairs Office (PAO) names for the Public Outreach and Messaging on Drying Admin Ad Hoc Group and they were contacted to join the group. The meeting was held on July 27, 2022.
- The Workshop Small Group met on August 11, 2022 to plan the Management of Vegetated Islands and Bank-Attached Bars Workshop, and will meet again next week.
- Collaboratory planning is underway with an update coming later.
- A draft funding opportunity matrix has been created. Kevin Shelley, PST, will work with the FPC Co-chairs to plan a meeting to discuss the matrix and Program Portal funding after December 2023.
- The SAMC was tasked with helping coordinate data around the jiggles.
- There will be more information on the ecosystem approach at the Collaboratory.
- The SAMC will form an S&T Ad Hoc Group to formulate options for strategic management and response to drying in the Angostura (Albuquerque) Reach for 2023.
- ✓ **Decision**: Approval of the June 23, 2022 EC meeting minutes

Program Support Team Update

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

- The End User License Agreement (EULA) was approved and will be posted to the SAMIS applications (Data Entry App and Data Viewer App). User trainings on *Module 1: Getting Started in SAMIS* will be scheduled. Catherine M. has also begun working on *Module 2: Linkages*. A SAMIS User Guide will be posted on the Program Portal and SAMIS applications.
- The MRGESCP can now use Client Cloud, a document storage site, to coordinate document reviews. Group members will only have access to their own group's folder and documents. Group members will be able to upload and download documents, allowing them to add new comments to a reviewed document. Introductory emails with log-in information will be sent out to groups as needed.

- If they have not done so, EC members should send the name of their organization's point of contact to sit on the FPC to the PST.
- The Public Outreach and Messaging on Drying Admin Ad Hoc Group developed a mailer included in the September ABCWUA water bill. The group is discussing creating a website for resources on drying.
- The Management of Vegetated Islands and Bank-Attached Bars Workshop is on October 4-5, 2022 at the Tamaya Wellness Center. The time is to be determined. The Workshop Small Group will meet next week to continue planning the event and work on the agenda.
- The Collaboratory is on December 6-7, 2022. The time is to be determined. The PST is working to secure the UNM Continuing Education Conference Center.
- The charge for the Strategic Plan for Potential Drying in the Angostura Reach S&T Ad Hoc Group has been through one round of review. The group will look into potential drying in the Angostura Reach and how to better prepare for collecting data and producing management recommendations. The EC will discuss lessons learned from the drying and the PST will share those insights with the group. The group has a deadline of January 2023 for a finalized product.
- The Rio Grande Silvery Minnow (RGSM) Hypotheses Development S&T Ad Hoc Group met for the first time on August 9, 2022 and had their orientation. The group will next meet on September 20, 2022 to prioritize recommendations for hypotheses development.
- The SAMC provided a Memo on the Value of Long-term Data Collections within the Middle Rio Grande (see memo). Examples include water quality monitoring, Bosque Ecosystem Monitoring Program (BEMP) monitoring, and population surveys. A gap in the data can be detrimental. All EC representatives are asked to consider the influence of these data sets on the validity and impact of MRGESCP recommendations and make every effort to promote their continuation.
- The PST is developing a Survey of Managers' Perception of Science Support to send to EC representatives in November 2022. The survey will assess the scientific information available and its accessibility. This will help the MRGESCP translate science into the right message for the right audience at the right time.
 - U.S. Bureau of Reclamation (Reclamation) commented that there is not always an unwillingness for managers to listen to scientists, but there have been communication issues and data gaps. The PST responded that the survey should help identify both.
- There will be a regular administrative schedule check-in at each EC meeting to help with PST contract administration. There are no changes to the Biennial Schedule at this time.
- Action Item: PST will post the EULA to the SAMIS applications
- Action Item: PST will begin scheduling SAMIS trainings on *Module 1: Getting Started in SAMIS*
- > Action Item: PST will post the SAMIS User Guide to the Program Portal and SAMIS applications
- Action Item: EC representatives will send points of contact for the FPC
- Action Item: EC representatives will fill out the Survey of Managers' Perception of Science Support

2022 Work Plan Update

Debbie L. reviewed updates to the 2022 Work Plan (see updated work plan). Summary updates are below:

- Task 1c: SAMIS trainings were delayed for finalization of the EULA. They will now commence.
- Task 1j: Task was added for development of a funding opportunity matrix. The FPC will discuss a draft matrix at the next meeting.

- Task for implementing changes from the Annual Evaluation was removed as there were no changes suggested.
- Tasks 2g, 2h, and 2i: Tasks were added for providing recommendations for management actions and data collection in response to potential drying in the Angostura Reach in 2023 (Task 2g), developing public outreach messages in response to public drying in 2022 (2h), and developing a public outreach and education strategy for potential future drying in Angostura Reach (2i).
- Tasks for convening a Scenario Planning S&T Ad Hoc Group and groups for developing New Mexico meadow jumping mouse and Pecos sunflower conceptual ecological models (CEMs) were delayed to 2023 to provide support for new tasks.
- Tasks 3d, 3e, and 4c: Tasks for identifying uncertainties in the CEMs and linking them in SAMIS (3d), assessing the status of identified critical uncertainties (3e), and conducting a survey of manager confidence in science support (4c) were shifted down the timeline to help balance work load.

The updated 2022 Work Plan was approved by the EC.

✓ **Decision**: Approval of the revised MRGESCP 2022 Work Plan

Annual Rick Billings Award Administrative Ad Hoc Group

Debbie L. opened discussion on the proposed Annual Rick Billings Award Admin Ad Hoc Group (see charge). The EC previously voiced a desire for the full MRGESCP to have more input in the process of selecting a winner of the Annual Rick Billings Award. To address this ask, the PST developed a charge for a group tasked with helping select a winner each year. The PST proposed the following process:

- 1. Open nomination period for the Annual Rick Billings Award, with nominations open from all MRGESCP participants
- 2. Call for volunteers from the EC to sit on the Annual Rick Billings Award Admin Ad Hoc Group
- 3. EC Co-chairs and the Program Manager finalize membership and ensure no members of the ad hoc group are nominees
- 4. Ad hoc group meets to review nominations and provide their recommendation to the EC prior to the December meeting
- 5. Announce winner at December meeting

The EC is in support of developing a formal process. The EC approved the Annual Rick Billings Award Admin Ad Hoc Group charge. The EC agreed that the award should be given to recipients who have contributed to the success and support of the MRGESCP either recently or in the past. The nomination poll will be sent out via Survey Planet. EC members were asked to volunteer for the ad hoc group. Jennifer Faler, Reclamation; Grace Haggery, NMISC; Kyle Harwood, Buckman Direct Diversion; and Mark Kelly, ABCWUA volunteered for the ad hoc group.

- ✓ **Decision**: Approval of the Annual Rick Billings Award Admin Ad Hoc Group charge
- Action Item: All signatories will send in nominations for the 2022 Rick Billings Award
- Action Item: PST and EC Co-chairs will coordinate final membership of the Annual Rick Billings Award Admin Ad Hoc Group following the close of nominations
- Action Item: PST will convene the Annual Rick Billings Award Admin Ad Hoc Group

Information and Data Quality Standards Hybrid Ad Hoc Group

Catherine M. opened discussion on the proposed Information and Data Quality Standards Hybrid Ad Hoc Group (see charge and memo from the SAMC). The charge was approved by the Science and Adaptive Management Committee (SAMC) on August 26, 2022. The SAMC provided a memo on the ad hoc group to the EC. The ad hoc group charge was developed to help ensure consistency of MRGESCP data with the Information Quality Act (IQA). The IQA requires federal agencies to ensure the quality, objectivity, utility, and integrity of the information and data it publicizes, publishes, and uses as a basis for decisions. The MRGESCP outputs science-based management recommendations, datasets posted to the public Portal website, and scientific publications/reports/briefings, but currently has no data quality standards in place. An ad hoc group will be tasked with developing MRGESCP data quality standards to ensure the data we use is reliable and the management recommendations developed from them are meaningful and implementable. This is needed for the MRGESCP to be successful and function as an adaptive management program.

There have been questions about the onerousness of the standards and if they will add to the work load of those collecting and providing data. The ad hoc group will set a baseline for data quality standards, which should not be onerous. The group will first assess the feasibility of meeting a set standard, then come up with those standards. EC representatives who have participated in an IQA process have not found it too onerous.

The EC asked how data quality standards connect to the peer review process. Art Coykendall, Reclamation, presented to the SAMC on Reclamation's IQA process. Reclamation has different levels of review for work products. For example, work products used for decisions related to the Endangered Species Act (ESA) require a higher level of review. The MRGESCP also has levels of peer review. Work products that require higher levels of peer review would also have a higher data quality standard minimum.

The MRGESCP cannot require that data providers follow its data quality standards, but can make it clear whether or not they met those standards. The EC asked about the process for indicating whether data has met the standards. The Science and Adaptive Management Information System (SAMIS) can be used to show this. The SAMIS is able to track multiple fields related to IQA and program administration. The following questions from the EC will be addressed once the ad hoc group completes its tasks:

- 1. How will data and information be screened for these standards?
- 2. What will be done with data and information provided to the MRGESCP that do not meet these standards?
- 3. Will the Program Portal and the SAMIS be restricted to house only data and information that meet these standards?

EC members proposed the following membership for the group, to be finalized by the PST:

- Ara Winter, BEMP
- Art Coykendall, Reclamation
- Kelsey Bicknell, ABCWUA
- Matt Wunder, New Mexico Department of Game and Fish
- Shannon Weld, NMISC
- A member from USACE (TBD)
- A member of Reclamation

- A member of the University of New Mexico
- ✓ **Decision**: Approval of the Information and Data Quality Standards Hybrid Ad Hoc Group charge
- Action Item: PST will reach out to potential members and convene the Information and Data Quality Standards Hybrid Ad Hoc Group

Program Portal Updates

Florence Thompson, U.S. Geological Survey (USGS), presented on the existing Program Portal features and plans for development (see presentation). Florence T. reviewed content, data discovery, Google Analytics, and next steps. The USGS has funding from USACE through December 2023 for basic maintenance as well as development. USGS is working on improving the document search, making the site mobile friendly, updating existing data sets with new data, and incorporating BugHerd (a feedback tool). There will be a Portal Stakeholder meeting on September 22, 2022 for attendees to evaluate the Program Portal and the USGS to refine its scope of work for the coming year. Multiple EC representatives expressed having a time-out issue when using the Document Search page. The issue is high priority for the USGS.

- Action Item: PST will send the U.S. Geological Survey presentation on the Program Portal to the EC
- Action Item: EC representatives will send appropriate signatory representatives to the Program Portal Stakeholder Meeting

Summer 2022 Hydrology Debrief

Debbie L. opened an EC discussion on hydrology during summer 2022, including lessons learned and how we can use them to improve in the future. The information will be passed to the Strategic Plan for Potential Drying in Angostura Reach S&T Ad Hoc Group as they develop recommendations for 2023. Potential members for the group include Nabil Shafike, USACE; Lucas Barrett, Reclamation; Carolyn Donnelly, Reclamation; Anne Marken, MRGCD; Eric Gonzales, Reclamation; Alison Hutson, NMISC; Justin Reale, USACE; and Diane Agnew, ABCWUA. The PST will confirm group membership.

Lucas Barrett, Reclamation, presented on river drying in the Angostura Reach in 2022 and related activities. Peak river discharge was 1,800 cubic feet per second (cfs) on May 2, 2022, and as that level waned, Reclamation released water. 100 cfs was released on May 25, 2022 for the jiggle. Monsoons added water to the system until early- to mid-July. In mid-July, Reclamation started adding water to the system to supplement flow until the river dried on July 23, 2022. Monsoons began soon after, adding water to the system until water levels dropped again in mid-August. Reclamation added 50 cfs to the system on September 6, 2022 to keep the river connected. It is currently anticipated that without storms, the San Acacia and Isleta reaches will dry again. The goals identified by Reclamation were to 1) gradually dry areas where drying is anticipated and 2) avoid a second drying event in the Angostura Reach if possible.

The reservoirs are all at low capacity, except Abiqui, which is storing water for Albuquerque and Santa Fe, and temporarily storing Prior and Paramount (P&P) water. Reclamation will release the remaining P&P water to Elephant Butte to help with Rio Grande Compact (Compact) delivery. The Compact debit increased by 38,000 acre-feet, but it is anticipated that November and December releases will make up for that. A good portion of the monsoon rain was above the Otowi Gage, so it counts towards the Compact. Above average temperatures and below average precipitation levels are anticipated for this fall and winter season, caused by our third year in La Nina.

The MRGCD gave an update on their activities. The MRGCD planned ahead to control drying in 2022. The MRGCD started diversions below San Acacia after the jiggle and successfully dried the area in a controlled manner in June. There was intermittent wetting and drying with the monsoons until July. MRGCD released San Juan Chama water in July. As native inflows would not be enough to connect the Angostura Reach when the San Juan Chama water finished, MRGCD slowly cut back bypasses to control drying. Daily cuts to San Acacia Reach bypasses are beginning the week of September 4th and cuts in Isleta Reach will begin the week of September 9th. Any future drying events will also be as controlled as possible. There will not be enough storage again in 2023 and it could be a similar year for water planning. The likelihood of being out of Article VII in 2023 is slim.

The EC discussed how many river miles dried and fish were rescued by U.S. Fish and Wildlife Service (USFWS). Drying and rescue only occurred between Montano and Paseo. Rescue efforts were not as successful as hoped due to access issues, fast drying, and inexperience conducting fish rescue in the Angostura Reach. The USFWS rescued about 130 RGSM and found many deceased Rescuing will be a challenge in the future. To help improve efforts, the USFWS needs to identify more river access points. City of Albuquerque, Open Space Division, New Mexico Interstate Stream Commission, and MRGCD offered to work with USFWS to brainstorm access points and prepare in advance of future drying events in the Angostura Reach. They will form a group to discuss needs for future drying evens. Members of the public made many calls about pools of dead fish and USFWS operators recorded pool locations to investigate. The speed of rescuing fish is important as the fish are already stressed by the time drying begins and die easily. A good amount of young fish were found, and there is a need to identify critical breakpoints in the Angostura Reach where large populations of RGSM are anticipated to prevent those areas from drying.

The EC discussed the timeliness and helpfulness of the Angostura Reach drying press release. The group would like to continue to time the release perfectly. Further discussion is needed to determine if the signatories should recycle the press release or start fresh for future drying events. As multiple signatories received calls on drying, there may need for a central repository for answering questions on the topic. USFWS has the most experience fielding these questions.

- Action Item: PST will follow up with potential members of the Strategic Plan for Potential Drying in the Angostura Reach S&T Ad Hoc Group to finalize membership
- Action Item: PST will relay a summary of the EC's hydrology conversation to the Strategic Plan for Potential Drying in the Angostura Reach Ad Hoc Group to inform their work

Signatory Engagement and Expectations

Mark K. opened discussion on signatory engagement and expectations given the transition of the MRGESCP into a science and adaptive management program. Whereas before, engagement was focused on discussing questions around development, members are now asked to share info on their activities, external efforts, management actions, and future needs. EC members will have a space during EC meetings to speak on their activities and needs. As an example of this type of engagement, Kyle Harwood will speak on the San-Juan Chama Contractors Association during the meeting. Reclamation also commented on engagement in the MRGESCP and stated that members have continued to show up over the years. Meetings in the past did not require as much engagement, but now, it is vital to share information in order for the MRGESCP to function.

San-Juan Chama Contractors Association

Kyle Harwood, Buckman Direct Diversion, presented on the San-Juan Chama (SJC) Contractors Association. It began an initiative from John Stomp to get the SJC contractors more organized. The group represents the interests of SJC contract holders. It is a diverse group with major diverters and entities that hold SJC water for accounting (e.g., groundwater pumping, replacement water for storage, folks off the hydrological path, etc.). The group is led by Mark Sanchez, ABCWUA; Jason Casuga, MRGCD; and William Schneider, Santa Fe Water Resource Coordinator. The group is open to everyone and meets monthly if needed. The group collects money to carry out projects. Next week is the annual workshop/field trip, and the group will visit the Santa Fe watershed project site. There are three big meetings a year between the SJC contractors and Reclamation.

The group acknowledges that the river system is in peril and SJC contractors need help to address this. SJC water has played a critical role for managing the RGSM. Collaboration across contractors is needed to coordinate SJC water to where it needs to go. Significant repair projects are expected on the SJC to keep it running.

Signatory Updates, Innovations, & Inquiries

Jennifer F. observed that engagement in the MRGESCP has always been good, in that all the Signatories show up. However, the MRGESCP can serve as a place for critical conversations, especially given the threat of litigation on the 2016 Middle Rio Grande Biological Opinion. This means that the MRGESCP Signatories must engage in a more meaningful way.

Debbie L. noted that there will be space at EC meetings for Signatories to share updates on their work and any questions they would like feedback on. Below is a summary of each signatory's updates and related conversations.

Albuquerque-Bernalillo County Water Utility Authority (ABCWUA)

Mark K. informed the EC that ABCWUA will soon be implementing the Southside Water Reclamation Plant (SWRP) habitat restoration project, which involves lowering the floodplain for RGSM habitat, removal of invasive plants, and installation of recreational trails. He asked for feedback on the kind of overbank flows ABCWUA should target.

- When it comes to floodplain restoration, the lower the better. Earlier first-inundation is very important.
- The Sandia site with a lowered floodplain is incising with serious sediment inputs. Initially, the habitat worked really well, but the backwater has since filled in. When you create floodplain habitat, plan for temporary benefits and dynamic habitat values.
- Consult Office of the State Engineer policy regarding offset of depletions resulting from habitat restoration projects.
- What will be done with the sediment?
- To justify disposition of sediment, it is beneficial to keep arguments focused on ecological benefits, rather than economic issues.

U.S. Army Corps of Engineers (USACE)

Ryan Gronewold informed the EC that the Sandia-to-Isleta Project is entering the design and construction phase, which needs cost-share partners. The cost share is 65/35% (Federal/Non-Federal) of approximately \$25M. USACE needs to secure non-federal cost-share as soon as possible in order to avoid return of funds. Cost-share may be cash, work-in-kind, and/or lands and easements. MRGCD

shared the costs for the study portion of the project, but for this more expensive phase, a group of costshare partners would help to distribute the cost burden. Ryan G. will coordinate cost-share partnerships.

Ryan G. reminded the EC that Mick Porter has taken a new position in the USACE Sacramento District, but still has limited availability for MRGESCP participation

New Mexico Interstate Stream Commission (NMISC)

Grace Haggerty noted that NMISC has a project funded by a Water Trust Board Grant. The cost-share for this project has been handled. The project involves building new tanks at the Los Lunas Silvery Minnow Refugium to increase propagation capacity for RGSM, and possible future propagation capacity for Rio Grande shiner (*Notropis jemezanus*; listing status currently under review).

Grace H. shared that NMISC also has maintenance projects in the works. NMISC received \$2M from state legislature to NMISC for habitat restoration. \$1.5M is for the Rio Grande, which is targeted for work with USACE. NMISC is receiving additional funds for a water control gate to control flows for the Isleta Reach.

Grace H. noted that now is a good time to talk to your state representatives to try and get multi-year funding to maintain projects that are currently being planned or implemented. This will require getting the "good story" out to maintain funding momentum and procure additional funds.

The State is still working on the 50-Year Water Plan. Currently, the release for review is waiting for questions from the Governor's office to be addressed. The MRGESCP will disseminate info about review once released. The State partnered with USACE on the 50-Year Water Plan.

Ryan G. added that the USACE has a three-phase approach under its authority of the Planning Assistance to States and Tribes (Water Resources Development Act of 1974, Public Law 93-251, as amended).

Grace H. suggested that the MRGESCP develop a better understanding of the science in the Leap Ahead Analysis, which informed the development of the 50-Year Water Plan. She suggested lining up presentations from Andrew Erdmann (re: 50-Year Water Plan) and Stacey Timmons (re: Water Data Act) to increase situational awareness.

Pueblo of Sandia

Michael Scialdone informed the EC that the Corrales Siphon has gotten close to the levee, and there is a need to protect infrastructure. He noted that an ecosystem approach is preferred. They are incorporating a novel approach of innovative experimental design with collecting baseline data. The project will include underwater check dams, side channel energy, and backwater for RGSM. Construction should start Fall 2023.

Middle Rio Grande Conservancy District (MRGCD)

Anne Marken informed the EC that MRGCD and NMISC are partnering on Instrumentation and Control on a new Belen Raceway. MRGCD did some voluntary environmental releases.

- Environmental Leasing Program
- Water Smart Grant increase efficiency

MRGCD is also working with Reclamation on the Rio Grande Basin Study. MRGCD also received funding to look at fire-related restoration at the Big Hole Fire site with NMISC. They finished a groundwater/surface water integrated model, and will be using that model at the Big Hole Fire site.

City of Albuquerque (COA)

Colleen McRoberts informed the EC of Open Space Division (OSD) projects. The COA OSD is designing a site plan for Alameda Open Space; this is related to the ABCWUA solar project. COA OSD also received funding from FEMA to do thinning treatments, in partnership with Ciudad Soil/Water Conservation; they are waiting for approval, and hoping to start implementation in fall 2022.

The COA OSD is also doing post-burn work at the bosque fire site, working with New Mexico Forestry and the Bosque School. They will be working doing prescriptive work (felling trees), restoration, and mitigation. The West Side is a bigger priority than the burn site east of the river.

The OSD is also working on an update to the Bosque Action Plan, and hoping to get that done by the end of 2022. Ondrea Hummel, Tetra Tech, Inc., will present on progress later this year. Colleen M. added that contractors are very difficult to find right now, so the timing for projects may shift.

Bosque Ecosystem Monitoring Program (BEMP)

Kim Eichhorst acknowledged Colleen M.'s help with course development at BEMP. With COA OSD's financial support to pay for part of the course and student stipends, some BEMP students worked on a project focused on the burn site, including monitoring. They are finishing up their report and will be presenting their findings to the BEMP partners.

BEMP is seeking MRGESCP input on research topics for student projects that would be appropriate for intensive, independent research. For example, there are some current BEMP students working on vegetated islands and bars, focusing on fire fuel loads. Kim noted that this is an important potential opportunity for the MRGESCP to further research relevant to the signatories, but more partnerships are needed to increase the program.

- Action Item: Ryan Gronewold will coordinate with USACE, CoA OSD, NMISC, and MRGCD on funding for the Sandia to Isleta Ecosystem Restoration Project
- Action Item: FPC will explore funding options for stabilizing hands-on research projects for UNM students
- Action Item: PST will coordinate a presentation from Andrew Erdmann on the 50-Year Water Plan
- > Action Item: PST will coordinate a presentation from Stacey Timmons on the Water Data Act
- Action Item: PST will coordinate a presentation from Ondrea Hummel on the Bosque Action Plan

Public Comment

There was no public comment.

Meeting Participants

EC Representative	Organization
Alan Hatch	Pueblo of Santa Ana
Anne Marken	Middle Rio Grande Conservancy District
Bill Grantham	New Mexico Office of the Attorney General
Colleen Langan-McRoberts	City of Albuquerque, Open Space Division
Debra Hill	U.S. Fish and Wildlife Service
Grace Haggerty	New Mexico Interstate Stream Commission
Greg Kaufman	Pueblo of Sandia
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
Mark Kelly	Albuquerque Bernalillo County Water Utility Authority
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
Ari Posner	U.S. Bureau of Reclamation
Ashleigh Morris	Office of the Solicitor, U.S. Department of the Interior
Dana Price	U.S. Army Corps of Engineers
Dustin Chavez-Davis	City of Albuquerque, Open Space Division
Florence Thompson	U.S. Geological Survey
Lucas Barrett	U.S. Bureau of Reclamation
Lynette Giesen	U.S. Bureau of Reclamation
Matt Leister	Bosque Ecosystem Monitoring Program
Shannon Weld	New Mexico Interstate Stream Commission
Toby Welborn	U.S. Geological Survey
Trevor Stevens	U.S. Army Corps of Engineers
Support	Organization
Catherine Murphy	Program Support Team
Debbie Lee	Program Support Team
Luana Sencio	Program Support Team
Michelle Tuineau	Program Support Team
Carab Andaraan	

Program Support Team

Sarah Anderson

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

SAMC Memo to the EC on MRGESCP Support for Long-Term Collections in the Middle Rio Grande [read-ahead]



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

DATE: September 30, 2022

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

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

RE: Value to the MRGESCP of long-term data collections within the Middle Rio Grande

This memorandum from the SAMC to the EC provides a summary of the value of long-term data collection efforts in the Middle Rio Grande, and requests EC representatives to continue supporting these efforts.

Uncertainty regarding the hydrology of the Middle Rio Grande Basin is increasing and leading to shifts in priorities within operational and planning environments (Llewellyn and Vaddey 2013; Moeser et al 2021). These changes are underscoring a need for accurate and reliable data on which to base natural resource and endangered species management decisions. As resources become more limited, so will the menu of available management strategies. This can lead to increased competition for both water and funding, triggering increased scrutiny of and demand for robust, evidence-driven adaptive management.

One of the most valuable sources of evidence under these evolving natural resource planning conditions is longterm (i.e., multidecadal) ecological and environmental data. The Middle Rio Grande has hosted several longterm efforts to collect both abiotic and biotic data. These include datasets pertaining to water quality and ecosystem health collected by the Bosque Ecosystem Monitoring Program (BEMP), population surveys of the listed southwestern willow flycatcher and yellow-billed cuckoo, fish community surveys that track fish assemblage population trends, and water quality and sediment data collected by river gages. Many of the sites for these data collection efforts were selected by natural resource managers to detect ecological responses to specific management actions, such as habitat restoration. Most of these data are freely available to the public, are updated regularly, and are used by government agencies to inform river and riparian management decisions (Eichhorst and Lindell 2022).

Collection of long-term data requires long-term financial support, which is becoming more uncertain (Hughes et al. 2017). The inherent value of any long-term dataset or study lies in the systematic and regular collection of observations from a particular site or set of sites over a period of time that captures multiple generations of target organisms (Lindenmayer et al 2012). While an occasional minor data gap usually does not impact the utility of the dataset, extended periods of missed observations or dropped sites can weaken the researcher's ability to draw robust inference (Hossie et al 2021). When funding for long-term data collections begins to decline or becomes unstable, critical data points (either temporal or spatial) are often sacrificed and valuable insights are lost.

The inherent values of long-term ecological and environmental studies are: "(1) quantifying ecological responses to drivers of ecosystem change; (2) understanding complex ecosystem processes that occur over prolonged periods; (3) providing core ecological data that may be used to develop theoretical ecological models and to

parameterize and validate simulation models; (4) acting as platforms for collaborative studies, thus promoting multidisciplinary research; and (5) providing data and understanding at scales relevant to management, and hence critically supporting evidence-based policy, decision making and the management of ecosystems" (Lindenmayer et al 2012). As the MRGESCP endeavors to supply scientific evidence for its recommendations on adaptive management, it will undoubtedly look to existing long-term data collections to provide one or more of these key insights.

Therefore, the SAMC encourages the EC to consider the influence of these long-term data collections on both the validity and impact of its management recommendations, and to make every effort to support their continuation into the future. The April 2022 letter of support for U.S. Army Corps of Engineers FY23 funding is an example of such support from the Collaborative Program. Currently, the SAMC is helping to develop tools to aid in the prioritization of each effort, describing the expected benefit and management relevance of each, with input from the FPC to identify where the support is most needed.

References cited

- Eichhorst, K. and A. Lindell. 2022. Bosque Ecosystem Monitoring Program (BEMP) 2021 Annual Technical Report. In partnership with the University of New Mexico Department of Biology, Bosque School, and the Sevilleta Long Term Ecological Research. Submitted to US Army Corps of Engineers and US Bureau of Reclamation.
- Hossie, T. J., J. Gobin, and D. L. Murray. 2021. Confronting Missing Ecological Data in the Age of Pandemic Lockdown. *Frontiers in Ecology and Evolution* 9. doi:10.3389/fevo.2021.669477
- Hughes, B. B., R. Beas-Luna, A. K. Barner, K. Brewitt, D. R. Brumbaugh, E. B. Cerny-Chipman, S. L. Close, K. E.
 Coblentz, K. L. de Nesnera, S. T. Drobnitch, J. D. Figurski, B. Focht, M. Friedman, J. Freiwald, K. K. Heady, W. N. Heady, A. Hettinger, A. Johnson, K. A. Karr, B. Mahoney, M. M. Moritsch, A.-M. K. Osterback, J. Reimer, J. Robinson, T. Rohrer, J. M. Rose, M. Sabal, L. M. Segui, C. Shen, J. Sullivan, R. Zuercher, P. T.
 Raimondi, B. A. Menge, K. Grorud-Colvert, M. Novak, M. H. Carr. 2017. Long-Term Studies Contribute Disproportionately to Ecology and Policy. *BioScience* 67(3): 271–281. doi:10.1093/biosci/biw185
- Lindenmayer, D. B., G.E. Likens, A. Anderson, D. Bowman, D., C. M. Bull, E. Burns, C. R. Dickman, A. A. Hoffmann, D. A. Keith, M. J. Liddell, A. J. Lowe, D. J. Metcalfe, S. R. Phinn, J. Russell-Smith, N. Thurgate, and G. M. Wardle. 2012. Value of Long-Term Ecological Studies. *Austral Ecology* 37: 745-757. doi:10.1111/j.1442-9993.2011.02351.x
- Llewellyn, D. and S. Vaddey. 2013. West-Wide Climate Risk Assessment: Upper Rio Grande Impact Assessment. US Department of the Interior, Bureau of Reclamation, Upper Colorado Region, Albuquerque Area Office. 138 pp. Available online at https://digitalrepository.unm.edu/uc_rio_chama/82
- Moeser, C.D., S. B. Chavarria, and A. M. Wootten. 2021. Streamflow Response to Potential Changes in Climate in the Upper Rio Grande Basin: U.S. Geological Survey Scientific Investigations Report 2021–5138. 41 pp. doi:10.3133/sir20215138

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

Draft Revised MRGESCP 2022 Work Plan [read-ahead, draft]



Ν	2022 Aiddle Rio Grande Endangered Species Collaborative Program (MRGESCP) Work Plan	Tasks 1 2 3 4 5	Task Scie Building Decision	linkages a tools to f	chnical (S&	nt for the daptive le	Science a earning	ative Ad Ho and Adaptiv		ment Infor	mation Sys	stem							
TASK	SUBTASK	EC	AAH	SAMC	S&T	FPC	PST	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
	Executive Committee (EC) meeting	Х								Х			Х			Х			X
	Science & Adaptive Management Committee (SAMC) meeting			Х				Х			Х			Х				Х	
	Fiscal Planning Committee (FPC) meeting					х			Х			Х			Х			Х	
1a	Maintain and update documents and content on the Program Portal						х	х	х	х	х	х	х	х	х	х	х	х	х
1b	Maintain and update activities in the Science and Adaptive Management Information System (SAMIS)	х		х		х	х	x	х	х	х	x	х	х	х	x	х	x	x
1c	Continue training for SAMIS	х		х			х									х	х	х	х
1d	Continue updating and approve the revised Science & Adaptive Management Plan	х		х			х	х	х	х									
1e	Complete and present results from the annual MRGESCP evaluation	х		х			х	x	х	х									
1g	Sign the new Memorandum of Agreement (MOA)	х						х	х	х									
1h	Continue drafting and approve the 2021 Annual Report	х					х	х	х	х									
1j	Develop and populate a matrix of potential funding opportunities signatories may pursue	х				х	х							х	x	x			
1k	Begin drafting 2022 Annual Report						х									х	х	х	x
11	Finalize 2022 signatory contributions reports						х											х	x
1m	Develop the SAMC annual summary report			х			х											х	х
1n	Develop and approve 2023 Annual Work Plan	х		х			х										х	х	х
	Implement agreed upon changes from the annual evaluation	х		х			х												
2a	Continue the RGSM Integrated Population Model S&T Ad Hoc Group			х	х			Х	Х										
2b	Complete the revisions to the Rio Grande Silvery Minnow (RGSM) Conceptual Ecological Model to incorporate genetics			х	х			х	х	Х	Х	х	х	Х	Х				
2c	Initiate an Internal Science Review of the draft revised Rio Grande Silvery Minnow (RGSM) Conceptual Ecological Model (CEM)			х	x		x									Х	х	Х	х
2d	Continue the Rio Grande Silvery Minnow Hypothesis Development S&T Ad Hoc Group			х	x										х	Х	х	х	х
2e	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	Х	Х
2f	Develop a data and information quality standard for the MRGESCP to ensure compliance with the Information Quality Act.		x	x	x										х	х	х	х	х
2g	Provide recommendations for management actions and data collection in response to potential drying in the Angostura reach in 2023.			х	х										x	x	х	х	х
2h	Develop public outreach messages in response to drying for 2022	х	х				х							Х	Х				
2i	Develop a public outreach and education strategy for potential future drying in the Angostura Reach.	х	х				х								Х	Х	Х	Х	х

	Organize and convene a Scenario Planning S&T Ad Hoc Group to																		
	identify ways to incorporate resiliency into the MRGESCP long-			х	x														
	term planning and decision support																		
	Organize and convene a New Mexico Meadow Jumping Mouse			х	х		х												
	CEM Development S&T Ad Hoc Group			^	^		^												
	Organize and convene a Pecos Sunflower CEM Development S&T			х	x		x												
	Ad Hoc Group			Λ	~		~												
3a	Populate the Project Bank with past and current projects. Specify research hypotheses, where appropriate	х		х		x	х	х	Х	Х	Х	х	х	Х	Х	Х	х	х	Х
3b	Populate the Project Bank with potential projects and hypotheses			х	х		х	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
3c	Develop strategies from the Science Objectives.			Х	Х		Х	Х	Х	х	х	х	х	х	Х	Х	Х	Х	Х
3d	Strategically identify uncertainties in the CEMs and link them to the appropriate elements in SAMIS			х	x		x	х	х	х	х	х	х	х	х	х	х	х	
3e	Assess status of identified critical uncertainties			х	x						х	х	х	х	х	х	х	х	
4a	Convene a Peer Review Administrative Ad Hoc Group to revise the draft MRGESCP peer review process		х					х	Х	Х	Х	Х							
4b	Review and approve the revised MRGESCP peer review process	х		х									Х						
4c	Conduct a survey of manager confidence in MRGESCP science support	х		х			х								х	х	х	х	
4d	Evaluate and refine project evaluation criteria to align with management needs			х			х				х	х	х	х	х	х	х		
4e	Plan for and host the Collaboratory	х		х			х							Х	х	х	х	х	х
5a	Send out regular MRGESCP newsletters						х		х		х		х		х		х		х
5b	Host quarterly HR coordination meetings					х	х		х			х			х			х	
5c	Coordinate on fulfilling project needs that were identified at the HR coordination meetings					х			х			х			x			х	
5d	Host regular collaborative seminars			х			х			х			х			х			х
5e	Plan, coordinate, and host a topical workshop (topic: Management of Vegetated Islands and Bank-Attached Bars)	х		х			Х				-			-	x	x	x		

I	2022 Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) Work Plan	Tasks 1 2 3 4 5	Adminis Task Scie Building Decisior	trative tas ence & Teo linkages a tools to f tion sharir	chnical (S& and conter acilitate a	nt for the daptive le	Science earning		ve Manage	ment Infor	rmation Sy	stem							
TASK	SUBTASK	EC	AAH	SAMC	S&T	FPC	PST	Jan-22	Feb-22		Apr-22	May-22		Jul-22	Aug-22		Oct-22	Nov-22	
	Executive Committee (EC) meeting	Х								Х			X			Х			Х
	Science & Adaptive Management Committee (SAMC) meeting			X				Х			Х			Х				X	
	Fiscal Planning Committee (FPC) meeting					Х			X			X			X			X	
1a	Maintain and update documents and content on the Program Portal						х	х	Х	х	Х	Х	Х	Х	х	х	Х	Х	Х
1b	Maintain and update activities in the Science and Adaptive Management Information System (SAMIS)	Х		х		х	Х	х	х	х	х	х	х	х	х	х	х	х	х
1c	Continue training for SAMIS	х		х			х	х	х										
1d	Continue updating and approve the revised Science & Adaptive Management Plan	х		х			х	х	х	х									
1e	Complete and present results from the annual MRGESCP evaluation	х		х			х	х	х	х									
1g	Sign the new Memorandum of Agreement (MOA)	х						х	х	х									
1h	Continue drafting and approve the 2021 Annual Report	х					х	х	х	х									
1i	Implement agreed upon changes from the annual evaluation	х		х			х				х	х							
1j	Begin drafting 2022 Annual Report						х									x	х	х	х
1k	Finalize 2022 signatory contributions reports						х											х	х
11	Develop the SAMC annual summary report			х			х											х	х
1m	Develop and approve 2023 Annual Work Plan	х		х			х										x	х	х
2a	Continue the RGSM Integrated Population Model S&T Ad Hoc Group				х			Х	Х										
2b	Initiate an Internal Science Review of the draft revised Rio Grande Silvery Minnow (RGSM) Conceptual Ecological Model (CEM)			x	x		x		Х	Х									
2c	Continue the Rio Grande Silvery Minnow Hypothesis Development S&T Ad Hoc Group				х			х	Х	Х	Х	Х							
2d	Convene Habitat Restoration (HR) Guidance S&T Ad Hoc Groups to develop species-specific restoration goals, monitoring considerations, and metrics to document success				x			Х	х	х	х	х	х	х					
	Organize and convene a Scenario Planning S&T Ad Hoc Group to identify ways to incorporate resiliency into the MRGESCP long- term planning and decision support Organize and convene a New Mexico Meadow Jumping Mouse				x			х	х	х	х	x	Х	х					
2f 2g	CEM Development S&T Ad Hoc Group Organize and convene a Pecos Sunflower CEM Development S&T Ad Hoc Group				x x									X X	X X	X X	X X	X X	X X
3a	Populate the Project Bank with past and current projects. Specify research hypotheses, where appropriate			х		х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
3b	Populate the Project Bank with potential projects and hypotheses			х	х		х	х	х	х	х	Х	Х	х	Х	Х	Х	х	х
3c	Develop strategies from the Science Objectives.			х	х		х	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х

3d	Strategically identify uncertainties in the CEMs and link them to the appropriate elements in SAMIS				х		х	х	х	х	х	х	х	х					
3e	Assess status of identified critical uncertainties			х	x						х	х	х	х	х	х			
4a	Convene a Peer Review Administrative Ad Hoc Group to revise the draft MRGESCP peer review process		х					х	Х	Х	Х	Х							
4b	Review and approve the revised MRGESCP peer review process	х		х									Х						
4c	Conduct a survey of management needs regarding Rio Grande silvery minnow population monitoring			х			х			х	х	х	х						
4d	Evaluate and refine Project Bank scoring rubric to align with management needs			х			х				х	х	х	х	х	х	х		
4e	Plan for and host the Collaboratory	х		х			х									х	х	х	Х
5a	Send out regular MRGESCP newsletters						Х		х		х		х		х		х		х
5b	Host quarterly HR coordination meetings					х	х		х			х			х			х	
5c	Coordinate on fulfilling project needs that were identified at the HR coordination meetings					х			х			х			x			x	
5d	Host regular collaborative seminars			Х			х			х			х			х			х
5e	Host a topical workshop (topic: TBD)]	х							-			-			х		

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

Draft Annual Rick Billings Award Administrative Ad Hoc Group Charge [read-ahead, draft]

Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) Administrative (Admin) Ad Hoc Group Charge Annual Rick Billings Award Ad Hoc Group

Approved by the Executive Committee (EC) on *DATE*. **Approved by the Annual Rick Billings Award Ad Hoc Group on** *DATE*.

Parent Committee

The Annual Rick Billings Award Admin Ad Hoc Group is formed by and reports to the EC, and operates at the will of the EC. The EC may, at any time, request updates from the group, revise its charge, alter its membership, or sunset the group.

Ad Hoc Group Charge

The Annual Rick Billings Award Admin Ad Hoc Group is charged with reviewing anonymously submitted nominees for the Annual Rick Billings Award, and recommending a recipient to the EC with the reasoning for their selection. The EC will make the final decision on the award recipient, which will be announced at the December EC meeting.

Background

Rick Billings was the former EC Non-federal Co-chair, an EC member, and a long-time supporter of the MRGESCP. In his memory, the Bureau of Reclamation's Albuquerque Area Office sponsors an annual award recognizing an individual's contributions to the success of the MRGESCP. The Rick Billings Award is presented at the December EC meeting.

Membership

Each year, final membership for the Annual Rick Billings Awards Ad Hoc Group will be determined by the EC Co-chairs. Membership will be comprised of an equal number of federal EC representatives and non-federal EC representatives.

A. Criteria for membership

- Member of the EC
- Non-nominee for the year's Rick Billings Award
- An understanding of the activities of the MRGESCP

B. Member List

• TBD

Tasks and Deliverables

Task	Objective	Deliverable	To Be Completed By
Review nominees for the Annual Rick Billings Award, recommend an individual for the award, and provide reasoning to the EC.	Provide a recommendation to the EC on the annual recipient of the Rick Billings Award	Recommended recipient of the Rick Billings Award	November
Alternative Task: Provide a memo detailing the dissenting opinions on the	If the Ad Hoc Group members cannot reach a consensus, members shall provide a		November

winner of the year's Rick	memo with the dissenting	
Billings Award to the EC	opinions and justification for	
Co-chairs for final	the EC to consider.	
selection.		

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

Draft Information and Data Quality Standards Hybrid Ad Hoc Group Charge [read-ahead, draft]

Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) Information and Data Quality Standards Hybrid Ad Hoc Group DRAFT Charge

Note: Due to this charge's relationship to both MRGESCP administrative and science practices, this group will be a hybrid Administrative/Science and Technical Ad Hoc Group. Therefore, the charge and final deliverables must be approved by both the Executive Committee (EC) and the Science and Adaptive Management Committee (SAMC).

Approved by the SAMC on *DATE.* **Approved by the EC on** *DATE.*

Ad Hoc Group Charge

The Information and Data Quality Standards Hybrid Ad Hoc Group will investigate the feasibility, utility, and necessity of applying Information Quality Act (IQA)¹ standards to the MRGESCP. If warranted, the group will develop standards for information and data quality to ensure MRGESCP compliance with the IQA, and will develop language for a data disclaimer for the Program Portal.

Membership

- A. Criteria for membership
 - An understanding of the Information Quality Act (IQA) and other federal and state regulations/policies regarding data management and information quality assurance/quality control (QA/QC).
 - An understanding of good data management practices.
 - Experience with, or future interest in, providing scientific information to the MRGESCP in order to inform recommendations to natural resource management agencies.
 - Experience with, or future interest in, posting scientific data and reports onto the Program Portal.

B. Member List

- TBD, Administrative co-lead
- TBD, Scientific co-lead
- TBD

Background

The requirements for the IQA are linked to the Federal peer review process and any information and data used by Federal agencies to make or support decisions must meet these standards. Because the MRGESCP makes science-based recommendations to management agencies, the MRGESCP signatories may need to adopt standards consistent with the IQA when using science to inform recommendations.

Ensuring the quality and integrity of the information and data used to update MRGESCP tools, justify science priorities, and support management recommendations increases the utility and impact of the MRGESCP's work. For providers and users of decision support data, IQA compliance can strengthen the influence of and confidence in data, respectively.

¹ The Information Quality Act (IQA) or Data Quality Act (DQA) (Section 515 of Public Law 106-554) directs the Office of Management and Budget (OMB) to issue government-wide guidelines that "provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies."

Employing IQA-consistent practices regarding information and data also streamlines the peer review process, both within the MRGESCP and internally within an agency. Data that are collected, recorded, and managed using standardized documentation and quality control procedures can be reviewed more efficiently and analyzed with greater confidence.

Tasks and Deliverables

Task One Description

Identify the elements and considerations for development of Standards for Information and Data Quality for the MRGESCP.

Objective of Task One

To determine the feasibility and suitability of applying IQA standards to the MRGESCP and the elements needed to ensure compliance to the IQA, as well as addressing signatory concerns regarding the development and implementation of the MRGESCP Standards for Information and Data Quality.

Deliverable:

- 1. Outline of elements to include in the MRGESCP Standards for Information and Data Quality for SAMC review.
- 2. Revised outline of elements to include in the MRGESCP Standards for Information and Data Quality addressing SAMC review comments.

Task Two Description

Upon SAMC approval of the Task One deliverables, draft Information and Data Quality Standards for SAMC and EC review.

Objective of Task Two

To develop Information and Data Quality Standards for the MRGESCP that ensure compliance with IQA and other relevant regulations. The Information and Data Quality Standards should consider best practices for data management, QA/QC procedures, documentation requirements, and MRGESCP administrative processes for tracking and oversight.

Deliverable(s):

- 1. Draft Standards for Information and Data Quality for SAMC and EC review.
- 2. Revised Standards for Information and Data Quality addressing SAMC and EC review comments.

Task Three Description

Develop a data disclaimer for the Program Portal.

Objective of Task Three

To develop a data disclaimer to protect the MRGESCP, signatories, agencies that fund project contracts, and project contractors, from liability relating to decisions supported by data and other information served on the Program Portal.

Deliverable(s):

Draft disclaimer language for SAMC and EC review to put on the Program Portal.

Timeline and Reporting Scheduling

Task	Subtask	Deliverable	To Be Completed By
Identify the elements and considerations for development of Standards for Information and Data Quality for the MRGESCP.	Review IQA and other regulatory requirements for data management and QA/QC standards, to determine the minimum requirements for compliance with the relevant federal, state, and local regulations regarding information and	Outline of elements to include in the MRGESCP Standards for Information and Data Quality for SAMC review.	TBD
Draft MRGESCP Standards for Information and Data	data quality. Revise the outline of elements to include in the MRGESCP Standards for Information and Data Quality. Develop Standards for Information and Data Quality for the	Revised outline of elements to include in the MRGESCP Standards for Information and Data Quality addressing SAMC review comments. Draft Standards for Information and Data Quality for SAMC and EC	TBD
Quality for SAMC science review and EC administrative review.	MRGESCP that ensure compliance with IQA and other relevant regulations, and is not overly onerous for signatories.	review.	
	Revise the Standards for Information and Data Quality.	Revised Standards for Information and Data Quality addressing SAMC and EC review comments.	TBD
Draft a data disclaimer for the Program Portal.		Draft disclaimer language for SAMC and EC review to put on the Program Portal.	TBD

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

SAMC Memo to the EC on the Information and Data Quality Standards Hybrid Ad Hoc Group [read-ahead]



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

- DATE: September 30, 2022
- TO: The Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) Executive Committee (EC)
- FROM: The MRGESCP Science and Adaptive Management Committee (SAMC)
- RE: Forming a Hybrid Science & Technical (S&T) and Administrative (Admin) Ad Hoc Group on Information and Data Quality Standards for the MRGESCP

This memorandum summarizes the need for a hybrid S&T/Admin Ad Hoc Group to develop information and data quality standards for the MRGESCP. The SAMC has already approved forming such a group on August 23, 2022, and recommends that the EC do the same.

During the development of the MRGESCP Peer Review Process, the Administrative Ad Hoc Group charged with reviewing the draft process learned about the Information Quality Act (IQA). The IQA requires federal agencies to ensure the quality, objectivity, utility, and integrity of the information and data that it publicizes, publishes, and/or bases decisions on. Ultimately, this has implications for the MRGESCP as a science and adaptive management program that makes science-based management recommendations, posts datasets onto our Program Portal website, and whose signatory scientists may have an interest in publishing.

At the July 23, 2022 SAMC meeting, Art Coykendell, U.S. Bureau of Reclamation (Reclamation), presented on Reclamation's IQA compliance, which is carried out through peer review. Mr. Coykendell relayed that Reclamation policies require peer review for any scientific information that is considered "influential" or "highly influential," with differing levels of peer review for each that generally correspond with the MRGESCP's categories of peer review.

Currently, the Collaborative Program has not adopted any data or information quality standards. The SAMC approved the draft charge Hybrid S&T/Admin Ad Hoc Group because the members believe the group's task of developing data quality standards for the MRGESCP is important for moving forward as a science and adaptive management program. Developing standards will facilitate and expedite carrying out peer review and synthesizing findings from disparate scientific studies.

The draft charge lays out the following tasks of the Information and Data Quality Standards Hybrid S&T/Admin Ad Hoc Group:

- 1. Identify the elements and considerations for development of Information and Data Quality Standards for the Collaborative Program that would be consistent with the IQA.
- 2. Draft Information and Data Quality Standards for SAMC and EC review.
- 3. Develop a data disclaimer for the Program Portal to protect the MRGESCP, the signatories, agencies that fund project contracts, and project contractors, from liability relating to decisions supported by data and other information served on the Program Portal.

Consistency with IQA standards provides greater confidence to federal agencies who may implement the MRGESCP's recommendations. Having data and information quality standards generates trust in the science and data being developed by the MRGESCP and its signatories, and strengthens its science-based recommendations.

The SAMC recommends the EC also approve the draft charge, so that the group can commence its work.

Link to full Meeting Materials List

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

MRGESCP Portal [presentation]

MRGESCP Portal

A centralized website for collaboration, exploration, and data dissemination https://webapps.usgs.gov/MRGESCP/

WELCOME TO THE PROGRAM PO	RTAL		🖨 Event	ts About + Resources + Science Symposiums + Contact Us Log
				Search Search
View the 2021 Annual Report The 2021 MRGESCP Annual Report gives you an over Program's 2021 accomplithments and outlook for 20 also need 2023 signatory highlightst Click this Link to MRGESCP Annual Reports.	view of the Check out the newsletter to find out whe MRGESCPI You can read about the unce	hat's happening in the Chavez, McCollou ertainty of monsoons, see Woods fire on Au about upcoming events in Mon Program on	Aug 23. Click the link below to view both! Click 📰 Octob	Fill Out the Poll! oilaborative Poll is on managing vegetated Islands and four responses will inform the upcoming workshop on or 4-5, 2022 (Click the Link for results from all orative Polls
The Middle Rio Grande Endang	MIDDLE RIO GRANDE EN	SCP or Program) is a partnership of 16	COLLABORATIVE PROGR	AM
MRGESCI Mission		within the Program Area, and to protect existing	Implementation of adaptive management to the benefit g and future water uses while complying with applicable st	
Upcoming Events E EXECUTIVE COM Sep Contractor (0.900)	IMITTEE MEETING am - 12:00pm	Recent Pub Date Published: 2022 Final Rio Gran Archdeacon T.		-2028
20 S&T AD HOC CR Sep Tuesday © 1:00pt	OUP: RGSM HYPOTHESES DEVELOPMENT AD HOO m - 2:30pm	Date Published: 2022	20624 Very Minnow Population Monitoring During May 202	22
New Mexico Meadow Jumping Mouse	Pecos Sunflower	Yelow-Billed Cuckoo	Southwestern Willow Flycatcher	Rio Grande Silvery Minnow
to Gredit: U.S. Fish and Wildlife Service	Photo Credit: U.S. Fah and Wildlife Gervice	Photo Ciredit: Andy Reago and Chrissy Mc Clamen	Photo Credit: Shannon Carupo	Photo Credit: Joel Lusk

Contents

		MR	GESCP Event	s			
earch by Group:			Search by Keyword:				
Choose an option	* E	with .		Searth			
August			eptember 2022 • 3 events			October 4	
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
25	30	31		2	3		
5	6	7	a • Executive Committee Meeting	5	10	1	
12	13	34	15	16	17	1	
19	20 SAT At Hoc Grane, ISSM Hyrother	21	• Partal Stakeholder Meeting	23	24	1	
26	23	28	23	30			
September 2022		October 2022		Novembe	er 2022		
Executive Committee Meeting Thurstee, September 6, 2022 9:00em - 12:0 S&T Ad Hoc Group: RGSM Hypothes		SAIVE THE DATE - Main Workshop Tuesdes October 4, 2022 8	opement of Vegetated Islands and Bank-Attu	ched Bars Science and Tuesday, Nov	Science and Adaptive Management Committee Meeting Tuester, November 8, 2022 8 00wn - 12 00yn		

About the MRGESCP **Guiding Principles** Plans SPECIES OF INTEREST New Mexico Meadow Jumping Mouse Pecos Sunflower Rio Grande Silvery Minnow Southwestern Willow Flycatcher Yellow-Billed Cuckoo COMMITTEES Executive Committee Fiscal Planning Committee Science and Adaptive Management Committee Science & Technical Ad Hoc Groups Administrative Ad Hoc Groups

 \checkmark

Document Library Data Interactive Map SAMIS DATA SETS Habitat Restoration (RioRestore) Rio Grande Silvery Minnow Monitoring

RGSM Rescue

RiverEyes River Miles

Events About 👻 Resources 👻 Science Symposiums 类

River Reaches

Vegetation

HYDROLOGY

New Mexico Drought Monitor

3 Month Outlook

River Basin Storage

SNOTEL Interactive Map

2020 SCIENCE SYMPOSIUM

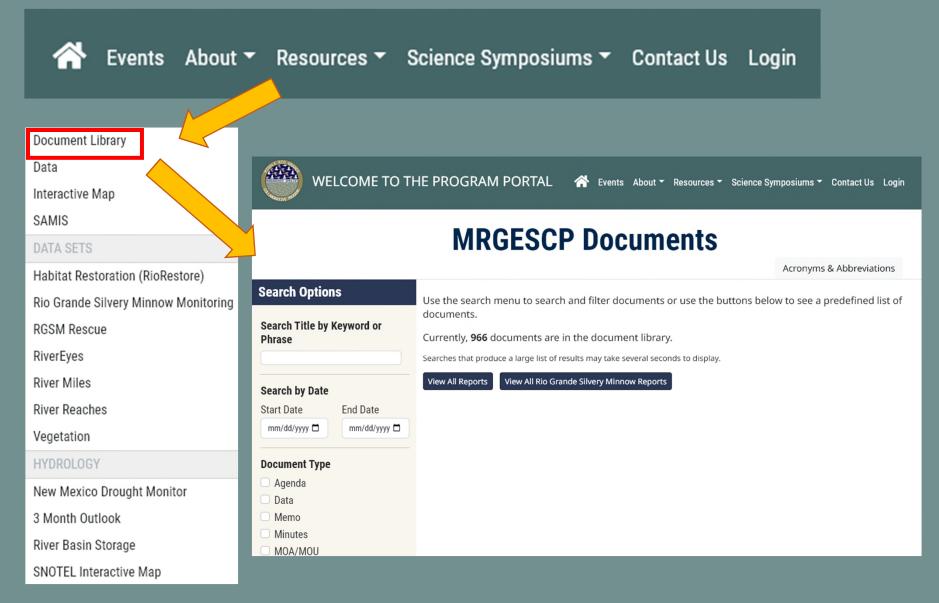
Contact Us Login

Agenda, Abstracts, and Presentations Q&A 2019 SCIENCE SYMPOSIUM Details

Agenda

Abstracts

Data discovery: document library



Data discovery: document library

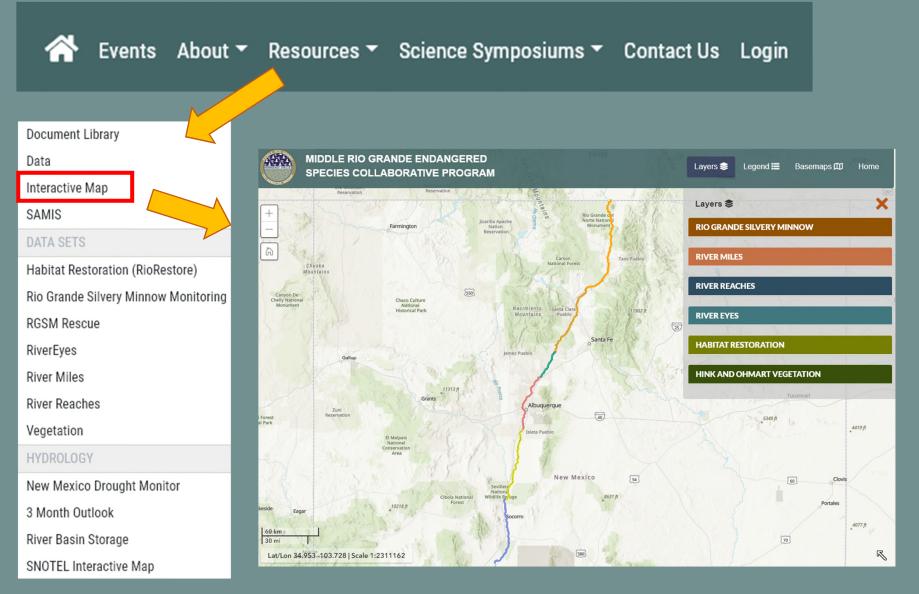
WELCOME TO THE PROGRAM



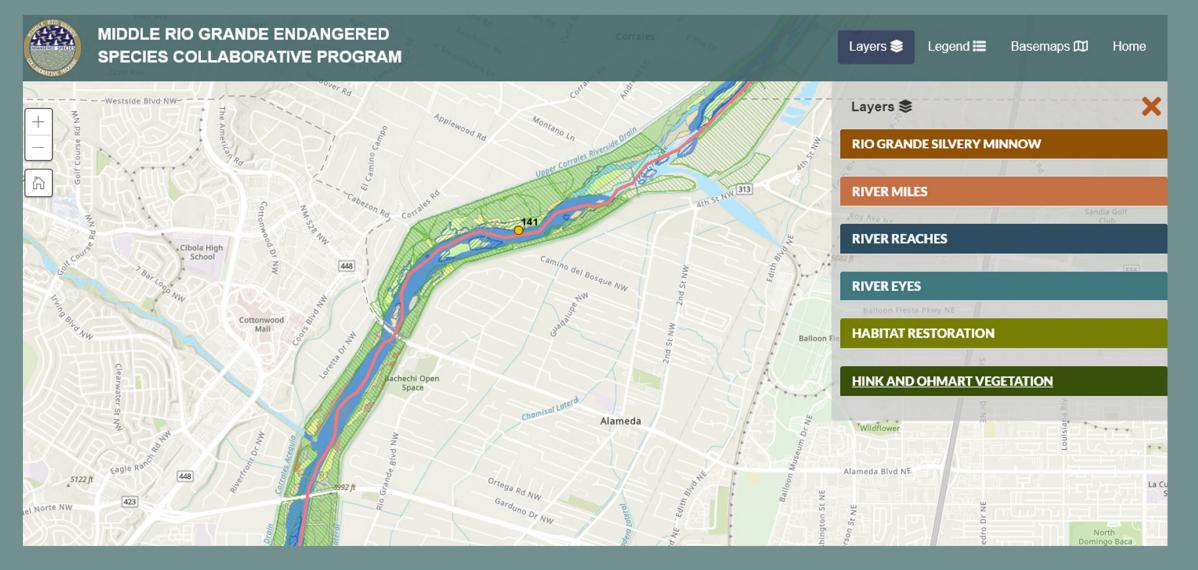
Us PORTAL **MRGESCP** Documents Acronyms & Abbreviations Search Options 2022/08/23 Collaborative Seminar (Dudley): 2021 RGSM Population Monitoring Search Title by Keyword Dudley R.K. or Phrase Document Type: Presentation Related Documents habitat restoration Species: Rio Grande Silvery Minnow Search by Date Groups: Collaborative Seminar Start Date End Date mm/dd/yy 🛱 mm/dd/yy 🗖 2022/04/12 2022 April 12 Science and Adaptive Management Committee Meeting Materials **Document Type** MRGESCP Agenda Document Type: Agenda , Minutes , Read-Ahead , Related Documents Data Charter/Charge, Draft, MRGESCP Plan, Follow-Up Memo

Events About - Resources - Science Symposiums - Contact Login

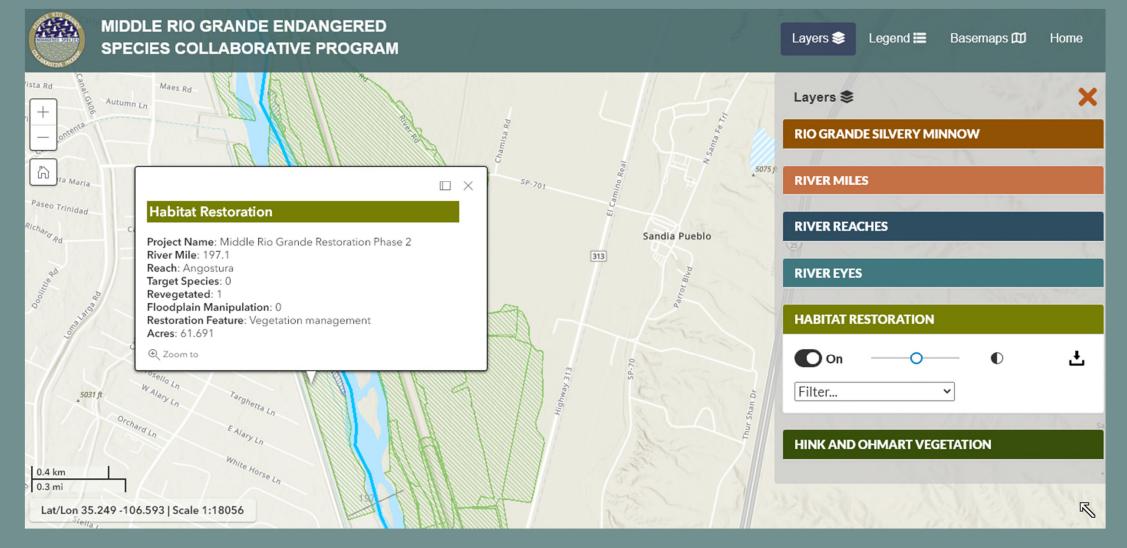
Data discovery: interactive map



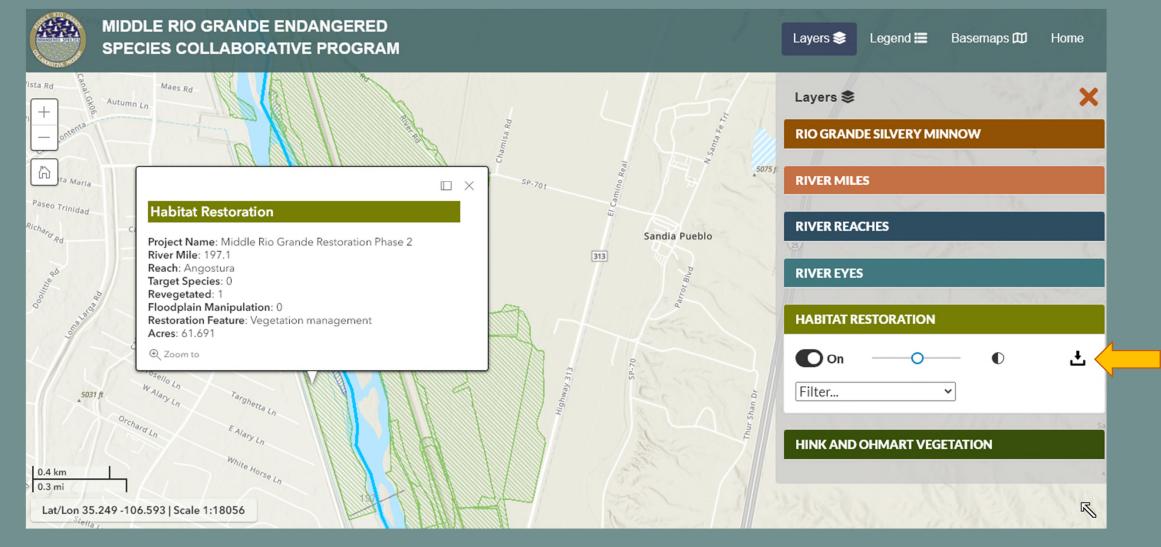
Data discovery: spatial relationships



Data discovery: interactive map



Data discovery: interactive map



Data discovery: data page



WELCOME TO THE PROGRAM PORTAL

👚 Events About 🔻 Resources 🔻 Science Symposiums 👻 Contact Us Login

Habitat Restoration (RioRestore)

The New Mexico Interstate Stream Commission (NMISC) contracted GeoSystems Analysis (GSA) to create a new comprehensive MRG habitat restoration geo-database (named RioRestore) that consolidates information from prior geo-spatial datasets, develops a standard nomenclature and attribution structure (e.g. data dictionary) for describing specific implementation activities and goals.

Data Contact

Chad McKenna GeoSystems Analysis, Inc.

Metadata and Zip File	Data Sets	Reports
Metadata	Rio Restore Domains and Schema	Current Report
Rio Restore Memo	Habitat Restoration Geospatial Data	Current report is not available.
Zip File	For archived data sets, contact the person	Related Reports
Download metadata, datasets, and current report in a zip file.	listed under "Data Contact" above.	The button below links to a list of all related reports.
Download Zip File		I≡ Related Reports

Data Description

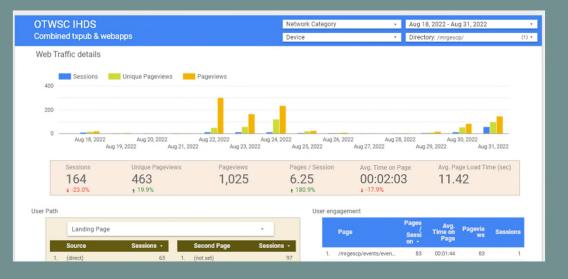
The RioRestore tool also populates information into this standardized data structure (as available), and identifies and integrates project

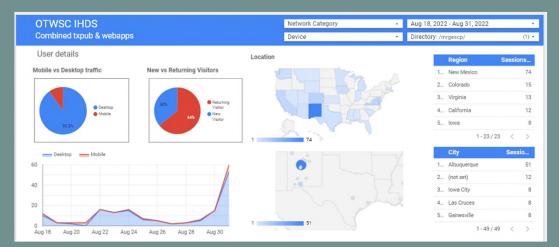
Data discovery: data page

合 Events About 🔻	Resources 👻 Science Symp	oosiums 👻 Co	ontact Us Log	jin
Document Library				
Data				
Interactive Map SAMIS	WELCOME TO THE PROGRAM PORTA	🖒 🕋 Events About -	Resources 🔻 Science Symposiur	ms ▼ Contact Us Login
DATA SETS	MR	GESCP Data		
Habitat Restoration (RioResto Rio Grande Silvery Minnow Monit RGSM Rescue	Disclaimer for Portal Data Sets: While the Collaborative Program strives to ensure the info no claims, promises, or guarantees about the accuracy, co liability for errors and omissions.	3	,	
RiverEyes River Miles	River Reaches	WELCOME TO THE PROGE	RAM PORTAL 🛛 🔺 Events About 🕶	Resources * Science Symposiums * Conta
River Reaches	River Miles Habitat Restoration (RioRestore)	Habita	t Restoration (Rid	oRestore)
Vegetation	USFWS Rio Grande Silvery Minnow Rescue Da	Analysis (GSA) to create a new comp	ommission (NMISC) contracted GeoSy rehensive MRG habitat restoration geo	o-database Chad McKenna
HYDROLOGY	Vegetation		s information from prior geo-spatial d nd attribution structure (e.g. data dict ctivities and goals.	
New Mexico Drought Monitor	Rio Grande Silvery Minnow Monitoring	Metadata and Zip File	Data Sets	Reports
3 Month Outlook	RiverEyes	Metadata	Rio Restore Domains and Schema	Current Report
River Basin Storage		Zip File	Habitat Restoration Geospatial Data For archived data sets, contact the person listed under "Data Contact" above.	Related Reports The button below links to a list of all related
SNOTEL Interactive Map		Download metadata, datasets, and current report in a zip file. Download Zip File		reports.

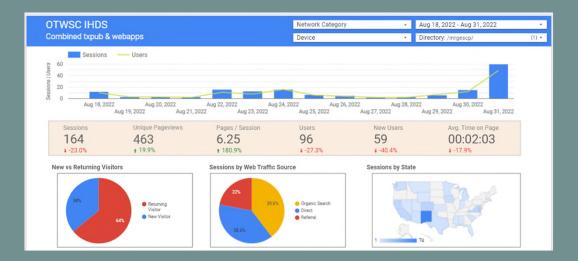
Data Description

Google Analytics





MRGESCP Portal Google Analytics link



OTWSC IHDS		Network Category	 Aug 18, 2022 - Aug 31, 2022 	
Combined txpub & webapps		Device	Directory: /mrgescp/	(1)
Source details				
Sessions by Web Traffic Source	ns	al Sources		
164		Referrer	Landing Page Se	ssions -
22%	1.	mail.google.com	/mrgescp/	12
39.6% Organic Search		statics.teams.cdn.office.net	/mrgescp/	3
Direct Referral	3.	intcraftdev.cr.usgs.gov	/mrgescp/	3
38.4%	4.	usgs.gov	/mrgescp/	2
38.4%	5.	mail.google.com	/mrgescp/documents/documents	2
	6.	statics.teams.cdn.office.net	/mrgescp/about/guiding-principles	1
essions by Social Referrals		lens.google.com	/mrgescp/species/southwestern-w	1
No da	ta 8.	statics.teams.cdn.office.net	/mrgescp/about/about	1
	9.	mail.google.com	/mrgescp/documents/responses-t	1
	10.	statics.teams.cdn.office.net	/mrgescp/events/eventcalendar.ht	1
No data	11.	mail.google.com	/mrgescp/documents/rio-grande-s	1
	12.	intcraftdev.cr.usgs.gov	/mrgescp/symposium2020/2020-d	1
	13.	url.emailprotection.link	/mraescb/documents/western-vell 1 - 19 / 19	1

What's next?

The portal has been in its current form for about two years.

USGS has new funding from USACE for support and development of the portal through calendar year 2023.

What work is in progress?

MRGESCP Documents Acronyms & Abbreviations Search Options Use the search menu to search and filter documents or use the buttons below to see a predefined list of documents. Search Title by Keyword or Currently, 964 documents are in the document library. Searches that produce a large list of results may take several seconds to display View All Rio Grande Silvery Minnow Reports View All Reports Search by Date End Date Start Date 0 mm/dd/yy mm/dd/yy **Document Type** "Make the logo bigger" Agenda Data - CLIENT Memo Minutes Improve the document search "Use the primary colour" - QA TESTER

Phrase

Incorporate Bugherd - a visual feedback tool for websites

"Image is low res"

- PROJECT MANAGER



Make it more mobile friendly

WELCOME TO THE PROGRAM PORTAL A Events About - R

MRGESCP Data

Disclaimer for Portal Data Sets:

(A)

While the Collaborative Program strives to ensure the information on the Program Portal is as timely and accurate as possible, it makes no claims, promises, or guarantees about the accuracy, completeness, or adequacy of the datasets listed below, and expressly disclaims liability for errors and omissions

River Reaches			
River Miles			
Habitat Restoration (RioRe	store)		
USFWS Rio Grande Silvery	Minnow Rescue Data		
Vegetation			
Rio Grande Silvery Minnov	Monitoring		
RiverEyes			

Update existing datasets

MRGESCP Portal Stakeholder Meeting

Thursday, September 22, 2022 1pm to 4pm (MDT) on Zoom

Purpose: Evaluate the portal and refine the scope of work for the coming fiscal year.

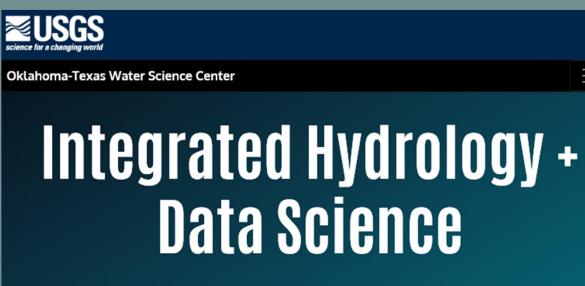
MRGESCP Portal Stakeholder Meeting

What do the program partners want from the portal?

- What's working?
- What's not working?
- What needs to be improved? Added? Removed?
- Are there new datasets and reports that agencies would like to add? Or old ones?
- What new functionality do you want?

The portal development team

Shannon Watermolen- lead developer Florence Thompson- project chief and geographer Ramona Neafie- web analytics Anjela Bubiy- web mapping application developer



The Integrated Hydrology + Data Science Branch intersects science and technology using interdisciplinary expertise to deliver critical information to the public and stakeholders.

https://webapps.usgs.gov/

Questions?

https://webapps.usgs.gov/MRGESCP/contact/contactus.html

Contact Us

What is the nature of your inquiry?	
Choose One	A 345
First Name	A SAME AND A
First Name	
Last Name	
Last Name	
Email address	The second secon
Enter email	
Ve'll never share your email with anyone else. P hone Number	
XXX-XXX-XXXX	
Leave us a message	
Leave us a message	

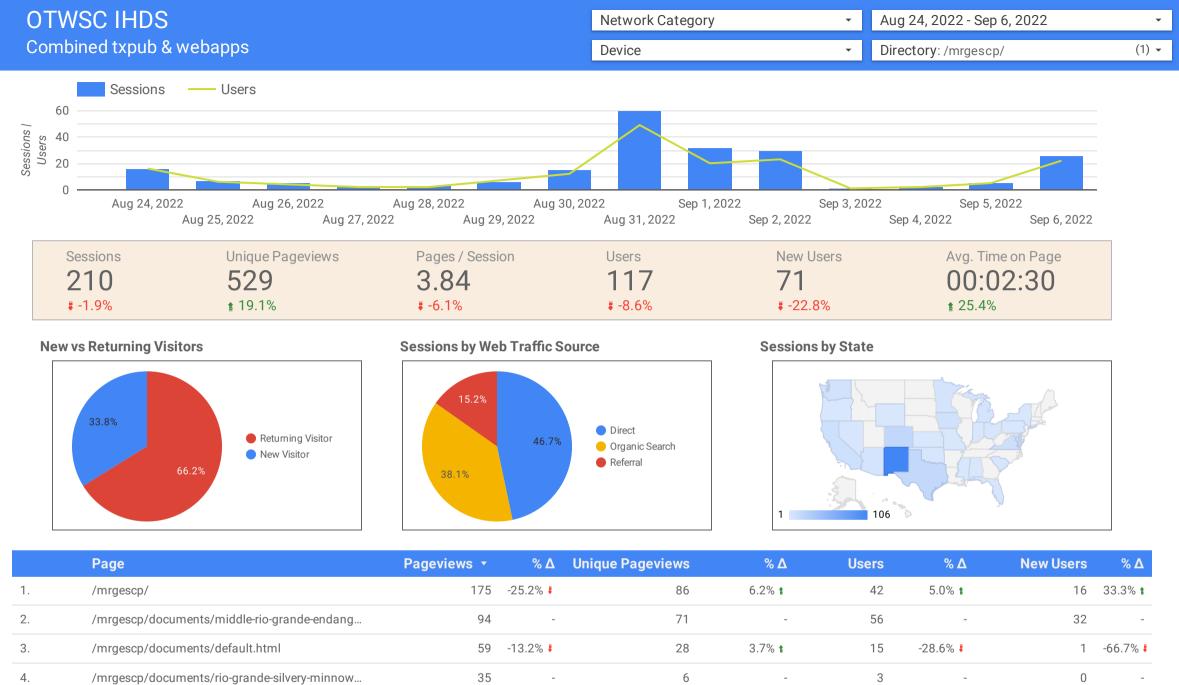
Submit

Link to full Meeting Materials List

Executive Committee Meeting September 8, 2022

See the following meeting material on the page below:

MRGESCP Portal Analytics [follow-up]



/mrgescp/events/eventcalendar.html	32 -57.3% 🖡	17	30.8% 🛔	9	0.0%	0 -
/mrgescp/events/event/34554/	26 2,500 1	22 2	2,100.0% 🛔	18	1,700.0% 🛔	3 -
/mrgescp/data/data.html	19 26.7% 🕯	10	25.0% 🛔	5	-28.6% 🖡	0 -
/mrgescp/documents/documents.html?q=colla	14 0.0%	8	14.3% 🛔	5	25.0% 1	0 -
/mrgescp/about/about	13 -51.9% 🖡	12	100.0% 🛔	8	100.0% 🛔	0 -
/mrgescp/species/new-mexico-meadow-jumping	13 30.0% 1	9	80.0% 🛔	8	60.0% 🛔	3 50.0% 1
						1 - 100 / 137 < 📏

5.

6.

7.

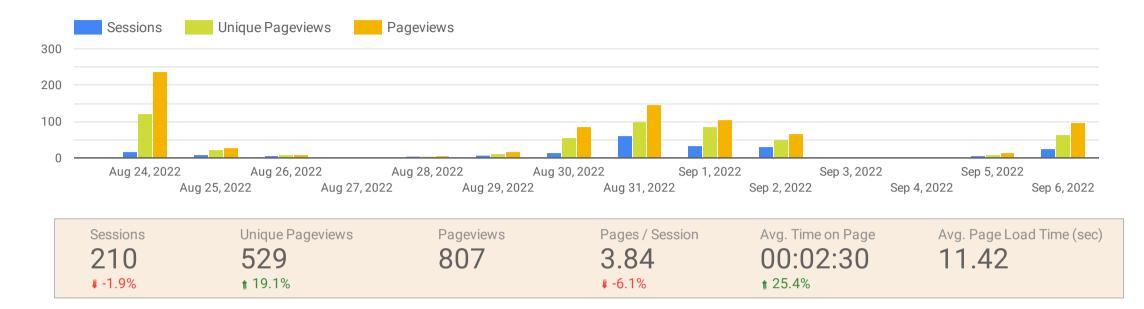
8.

9.

10.

OTWSC IHDS	Network Category -	Aug 24, 2022 - Sep 6, 2022	•
Combined txpub & webapps	Device -	Directory: /mrgescp/	(1) 🗸

Web Traffic details



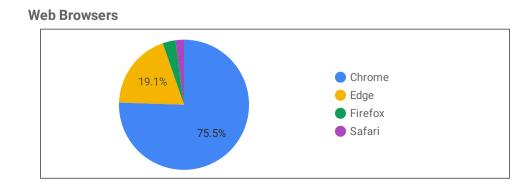
User Path

	Landing Page				•
	Source	Sessions 🔹		Second Page	Sessions 🔹
1.	(direct)	98	1.	(not set)	118
2.	google	75	2.	/mrgescp/	15
3.	mail.google.com	22	3.	/mrgescp/documents/	12
4.	intcraftdev.cr.usgs.gov	4	4.	/mrgescp/events/even	7
5.	bing	3	5.	/mrgescp/documents/	б
6.	statics.teams.cdn.offic	2	б.	/mrgescp/documents/	5
7.	url.emailprotection.link	2	7.	/mrgescp/events/even	5
8.	lens.google.com	1	8.	/mrgescp/about/about	5
9.	oceanhero.today	1	9.	/mrgescp/documents/	4
	duckduckgo	1		/mrgescp/resources/s	4
	1 - 10 /	11 < >		1 - 10 /	31 < >

User engagement

	Page	Pages / Sessi on •	Avg. Time on Page	Pagevi ews	Sessions
1.	/mrgescp/events/even	32	00:01:08	32	1
2.	/mrgescp/documents/	14	00:00:24	14	1
3.	/mrgescp/symposium	11	00:01:01	11	1
4.	/mrgescp/data/data.h	9.5	00:02:38	19	2
5.	/mrgescp/documents/	8.75	00:01:38	35	4
6.	/mrgescp/documents/	8.43	00:01:58	59	7
7.	/mrgescp/map/map.h	7	00:04:09	7	1
8.	/mrgescp/hydrology/u	7	00:00:28	7	1
9.	/mrgescp/work-group	7	00:00:37	7	1
	/mrgescp/about/about	6.5	00:03:01	13	2

OTWSC IHDS Combined txpub & webapps			Network Category	- Au	Aug 24, 2022 - Sep 6, 2022			•
			Device	Device Directory: /n		gescp/		(1) 🕶
User details		Location				Region	Sessio	
Mobile vs Desktop traffic	New vs Returning Visitors					New Mexico	565510	106
				à ma		Colorado		18
Desktop Mobile B9.5%	Poturping					Texas		16
	Visitor			T D a		Virginia		10
	66.2% Visitor					California		9
		1 106				1 - :	28 / 28 <	>
Desktop Mobile						City	Sess	io
					Albuquerque		78	
40						(not set)		20
20 0 Aug 24 Aug 26 Aug 28 Aug 30 Sep 1 Sep 3 Sep 5 1						Las Cruces		12
		1 78			Austin		10	
					Ashburn		9	
					la in DDI		49 / 49 <	>
		Network Domain export.				-/IIIaye		
			Network Domain	Service Provi	ider		Session	s 🔻
	Apple	1.	(not set)	(not set)				210



50%

36.4%

🛑 Samsung

🛑 Google

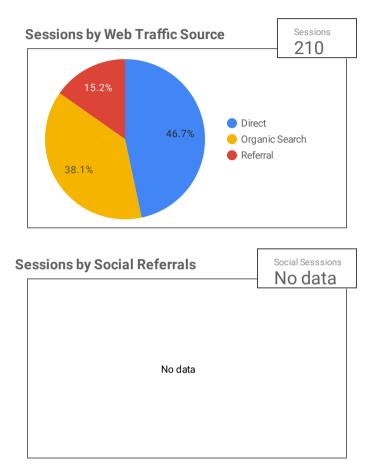
🔵 Motorola

110		export.	
	Network Domain	Service Provider	Sessions -
	1. (not set)	(not set)	210

OTWSC IHDS	Network Category -	Aug 24, 2022 - Sep 6, 2022	•
Combined txpub & webapps	Device •	Directory: /mrgescp/	(1) 🗸

Referral Sources

Source details



Unavailab	Unavailable in PDF/Image export.
export.	

	Referrer	Landing Page	Session	s 🔹
1.	mail.google.com	/mrgescp/		13
2.	intcraftdev.cr.usgs.gov	/mrgescp/		4
3.	url.emailprotection.link	/mrgescp/documents/western-yell		2
4.	mail.google.com	/mrgescp/documents/middle-rio-g		1
5.	mail.google.com	/mrgescp/events/default/2022/09		1
б.	statics.teams.cdn.office.net	/mrgescp/		1
7.	mail.google.com	/mrgescp/events/executive-commi		1
8.	lens.google.com	/mrgescp/species/southwestern-w		1
9.	statics.teams.cdn.office.net	/mrgescp/about/about		1
10.	oceanhero.today	/mrgescp/documents/default.html		1
11.	mail.google.com	/mrgescp/documents/documents		1
12.	mail.google.com	/mrgescp/documents/rio-grande-s		1
13.	mail.google.com	/mraescp/documents/rio-arande-s 1 - 16 /	16 🔇	1

			Default Channel Grouping / Sessions
Landing Page	Referral	Organic Search	Direct
/mrgescp/	18	32	21
/mrgescp/documents/middle-rio	1	14	46
/mrgescp/events/event/34554/	-	1	10
/mrgescp/documents/default.ht	1	1	5
/mrgescp/documents/western-y	2	1	2
/mrgescp/documents/middle-rio	-	-	5
/mrgescp/documents/rio-grande	1	1	2
/mrgescp/species/new-mexico	-	1	2