

Science and Adaptive Management Committee Meeting

November 8, 2022

Meeting Materials:

[Agenda](#)

[Minutes](#)

[Draft 2023 MRGESCP Work Plan \[read-ahead, draft, spreadsheet\]](#)

[Revised Information and Data Quality Standards Ad Hoc Group Charge \[read-ahead, draft\]](#)

[Revised Strategic Plan for Drying in Angostura Reach Ad Hoc Group Charge \[read-ahead\]](#)

Yackulic et al. (2022) [read-ahead, not included]

[Draft RGSM CEM Schematic \[read-ahead, draft\]](#)

Osborne et al. (2022) [read-ahead, not included]

[2022 Vegetated Islands Workshop Summary of Outcomes \[read-ahead, presentation\]](#)

[Summary Outline Regarding MRGESCP Needs Assessment for Restoration Monitoring, Assessment, and Decision Support \[read-ahead\]](#)

[Revised Collaboratory Agenda \[read-ahead\]](#)

[Revised Project Evaluation Criteria for Long-Term Plan \[read-ahead\]](#)

[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting
November 8, 2022

See the following meeting material on the page below:

Agenda



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

Science and Adaptive Management Committee (SAMC) Meeting Agenda

November 8, 2022; 8:00 AM – 12:00 PM

Location: Zoom

<https://west-inc.zoom.us/j/8983593120?pwd=bU54V3NGeG93bXVISjJFcElzcE9wZz09>

Call-In: +1-669-900-6833

Meeting ID: 898-359-3120; Passcode: 1251

Meeting Objectives:

- Hear updates from the September Executive Committee (EC) meeting
- Hear a status update on Hybrid Ad Hoc Group to develop an information and data quality standard
- Discuss status of Science & Technical (S&T) Ad Hoc Group to address drying in the Angostura Reach
- Discuss Rio Grande silvery minnow (RGSM)-specific S&T Ad Hoc Groups and relationship among work products
- Discuss outcomes of Workshop on Management of Vegetated Islands and Bank-attached Bars
- Discuss Collaborative Program role regarding restoration monitoring, assessment and decision support
- Discuss draft agenda and breakout session topics for December Collaboratory event
- Determine next steps in revised criteria for evaluating projects for the Long-Term Plan (LTP)

8:00 – 8:10	Welcome, Guest Introductions, Agenda Review <ul style="list-style-type: none">✓ Decision: Approval of November 8, 2022 Agenda	Catherine Murphy, Program Support Team (PST)
8:10 – 8:20	April Meeting Minutes and Action Item Review <ul style="list-style-type: none">✓ Decision: Approval of July 12, 2022 SAMC meeting minutes <p>Read-Ahead:</p> <ul style="list-style-type: none"><input type="checkbox"/> Draft July 12, 2022 SAMC Meeting Minutes	Catherine Murphy, PST
8:20 – 8:40	Update on 2022 Activities and 2023 Planning <ul style="list-style-type: none">• Draft 2023 Work Plan<ul style="list-style-type: none">○ Revising order of committee meetings○ Discuss development of conceptual ecological models (CEMs) for New Mexico meadow jumping mouse (NMMJM) and Pecos sunflower (PESU)○ Updates to scenario planning initiative• Updates to the Program Portal• Need to submit request to EC in December for subject matter experts to fill open SAMC positions <ul style="list-style-type: none">✓ Decision: Who should lead development of NMMJM and PESU CEMs?	Debbie Lee, PST

- **Action Item:** PST will redirect NMMJM and PESU CEM development to SAMC-selected experts
- ✓ **Decision:** What SAMC positions will be opening up? Are new areas of expertise needed for the upcoming term?
- **Action Item:** PST draft a memo to the EC finalizing the SAMC membership roster and requesting areas of expertise

Read-Ahead:

- Draft 2023 Work Plan

8:40 – 8:50

Hybrid Ad Hoc Group – Information and Data Quality Standards

Debbie Lee, PST

- Update on Information and Data Quality Standards Hybrid Ad Hoc
- Membership and iterative task development
- Timing for convening

Read-Ahead:

- Revised Charge for Hybrid Ad Hoc Group – Information and Data Quality Standards

8:50 – 9:20

S&T Ad Hoc Group - Strategic Plan for Drying in Angostura Reach

Kevin Shelley and Catherine Murphy, PST

- Update on background document and group status
- Membership and task timeline
- ✓ **Decision:** Is the revised draft charge approved?
- **Action Item:** If approved, PST will expedite group tasks.
- ✓ **Decision:** How will the deliverables be reviewed by the SAMC and presented to the EC in January?
- **Action Item:** PST will guide interim and final SAMC reviews of deliverables at the direction of the SAMC.

Read-Ahead:

- Revised Charge for S&T Ad Hoc Group – Strategic Plan for Drying in Angostura Reach

9:20 – 9:50

RGSM-Specific S&T Ad Hoc Groups

Facilitated discussion

- Update on RGSM integrated population model (Yackulic et al. 2022)
- Update on status of RGSM genetics/CEM refinements
 - Implications of transitioning to single-nucleotide-polymorphism(SNP)-based microhaplotypes in RGSM genetic monitoring (Osborne et al. 2022)
- Update on status of RGSM hypothesis development
- ✓ **Decision:** Who is interested in working to integrate these RGSM efforts to inform adaptive management (AM)?

- **Action Item:** PST will form a subgroup of SAMC members to begin guiding the integration of RGSM-specific AM tools and determine next steps.

Read-Ahead:

- Yackulic et al. (2022) [for reference only]
- Draft RGSM CEM Schematic
- Osborne et al. (2022) [for reference only]

9:50 – 10:00 **BREAK**

10:00 – 10:45 **Workshop on Management of Vegetated Islands and Bank-attached Bars**

Ari Posner, Bureau of Reclamation

- Assessment of in-person October workshop and small planning group
- Discuss workshop outcomes and determine next steps
- ✓ **Decision:** What outcomes and next steps should be highlighted at the December Collaboratory? Who will present?
- **Action Item:** PST will organize SAMC highlights and take-aways from workshop for presentation at the Collaboratory.

Read-Ahead:

- 2022 Vegetated Islands Workshop Summary of Outcomes

10:45 – 11:10 **MRGESCP Needs Assessment for Restoration Monitoring, Assessment, and Decision Support**

Facilitated discussion

- Overview of summary and motivations for this topic
- Discussion of suggested approaches for monitoring, assessment and decision support for AM
- In light of these approaches, discuss fate of Habitat Restoration (HR) Monitoring Guidance S&T Ad Hoc
- ✓ **Decision:** Are restoration efforts within the MRG likely to benefit from organization under a common framework?
- **Action Item:** If yes, SAMC will select a framework for further review and potential adaptation to the MRG
- ✓ **Decision:** Does the SAMC want to recommend development of an ecosystem-level conceptual model?
- **Action Item:** If yes, SAMC will select a model format or request more options
- ✓ **Decision:** Does the SAMC want to recommend the characterization of ecosystem services to inform management decisions in the MRG?
- **Action Item:** With SAMC approval, PST will draft a memo that provides justifications for the selected recommendations and outlines next steps

Read-Ahead:

- Summary Outline Regarding MRGESCP Needs Assessment for Restoration Monitoring, Assessment, and Decision Support

11:10 – 11:30 **Planning the December 2022 Collaboratory**

*Debbie Lee and
Catherine Murphy, PST*

- Review draft Collaboratory agenda on screen
- Discuss speakers and tentative breakout sessions topics
- Discuss potential outcomes and implications for AM in the MRGESCP

- **Action Item:** PST will revise agenda per SAMC discussion, if needed

Read-Ahead:

- Revised 2022 Collaboratory Agenda

11:30 – 11:45 **Project Evaluation Criteria for Long-Term Plan**

Catherine Murphy, PST

- Discuss review comments, if needed
- Determine next steps in applying criteria to SAMIS Project Bank

- ✓ **Decision:** Does the SAMC approve of the evaluation criteria?
- **Action Item:** PST will draft a memo to the EC suggesting a “pilot run” of the evaluation criteria to assess their utility for the Long-Term Plan

Read-Ahead:

- Revised Project Evaluation Criteria for LTP

11:45 – 12:00 **Action Items, Next Steps and Announcements**

PST

- **Upcoming events:**
 - 1st Biennial MRGESCP Collaboratory – December 6-7, (in-person only) UNM Continuing Education Conference Center
 - EC Meeting – December 22, 9-noon, (hybrid) Bureau of Reclamation
- **SAMIS Trainings** – Schedule with PST
- **Next Meeting:** February 2022

12:00 **Adjourn**

[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting
November 8, 2022

See the following meeting material on the page below:

Minutes



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

Science and Adaptive Management Committee (SAMC) Meeting Minutes

November 8, 2022; 8:00 AM – 12:00 PM

Location: Zoom Meeting

Decisions

- ✓ Approval of the November 8, 2022 SAMC meeting agenda
- ✓ Approval of July 12, 2022 SAMC meeting minutes
- ✓ SAMC members noted if they would be staying on the SAMC for another year of membership
- ✓ The SAMC will recommend the following areas of expertise for the Executive Committee (EC) to consider when appointing new SAMC members: climate change, aquatic ecology/fisheries biology, restoration ecology, and planning
- ✓ Approval of Collaboratory agenda
- ✓ Approval of WEST development of draft conceptual ecological models (CEMs) for New Mexico meadow jumping mouse (NMMJM) and Pecos sunflower (PESU) with SAMC guidance
- ✓ Approval of moving forward with Climate Scenario Planning effort for 2023 Fall workshop
- ✓ Approval of recommending next steps to EC regarding outcomes from Workshop on Management of Vegetated Islands and Bank-Attached Bars
- ✓ Approval of the draft charge for the Strategic Plan for Potential Drying in Angostura Reach S&T Ad Hoc Group
- ✓ Approval of the Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) project evaluation criteria
- ✓ Approval of pilot testing Long-Term Plan Project Evaluation Criteria

Action Items

WHO	ACTION ITEM	BY WHEN
Program Support Team (PST)	Distribute the link to the U.S. Geological Survey simulated hydrograph tool	11/10/2022
PST	Send a Doodle poll to schedule the February SAMC meeting	11/18/2022
PST	Revise the Strategic Plan for Potential Drying in Angostura Reach S&T Ad Hoc Group charge for SAMC review and approval	11/18/2022
PST	Develop a proposal for a climate change/scenario planning "wargame" exercise for the MRGESCP	December 2022
A. Winter, K. Eichhorst, A. Posner, M. Friggens	Help the PST plan a climate change/scenario planning "wargame" exercise for 2023	Fall 2023
PST	Finalize membership for the Information and Data Quality Standards Hybrid Ad Hoc Group	December 2022
PST	Send a list of projects to the SAMC to test project evaluation criteria on	December 2022

SAMC members	Apply project evaluation criteria to the list of projects for comparison and discussion at the February SAMC meeting	February SAMC meeting
PST	Review notes from the Workshop on Management of Vegetated Islands and Bank-Attached Bars and compile a list of words and terms that need to be defined	February SAMC meeting
PST	Draft a charge for an S&T Ad Hoc Group to define terms related to vegetated islands and bars for SAMC review	February SAMC meeting
PST	Synthesize the strategies that came out of the Workshop on Management of Vegetated Islands and Bars	February SAMC meeting

Next Meeting: February 2023

Meeting Minutes

Welcome, Meeting Objectives, and Agenda Review

Catherine Murphy, PST Science Coordinator and SAMC Facilitator opened the meeting. Catherine M. reviewed and the SAMC approved the November 8, 2022 SAMC meeting agenda.

- ✓ **Decision:** Approval of the November 8, 2022 SAMC meeting agenda

January Meeting Minutes, New Protocol, and Action Items Review

Catherine M. and Debbie Lee, PST, reviewed and the SAMC approved the July 12, 2022 meeting minutes and action items.

- ✓ **Decision:** Approval of July 12, 2022 SAMC meeting minutes

Update from March 2022 Executive Committee Meeting

Debbie L. gave an update on the 2022 Activities and 2023 Planning. Summary points are below:

- Discussed SAMC membership tenure and suggested new member areas of expertise.
 - SAMC-suggested areas of expertise: Climate change, Rio Grande silvery minnow (RGSM) and aquatic ecology, restoration ecology, planning/regulatory
- Discussed new order of committee meetings and Draft 2023 Work Plan.
 - To facilitate Program planning, SAMC meetings will take place in the month prior to EC meetings. No SAMC members raised concerns.
 - The Draft 2023 Work Plan included tasks to develop CEMs for NMMJM and PESU. Given lack of expertise among regular participants in the Collaborative Program, the SAMC agreed that WEST should take the lead in drafting the NMMJM and PESU CEMs.
 - SAMC members suggested using species status assessments and related recovery permits to inform habitat requirements and life cycles.
 - The Draft 2023 Work Plan included a Climate Scenario Planning Workshop. SAMC members were supportive of such an event.
- Discussed updates to Program Portal functions and updates to data resources.
 - There was a question about river mile zero standard on mapper, and whether the 2012 Reclamation Standard was currently used. The interactive mapper includes the 2012 river mile delineations as a layer, as well as the 2002 delineation.

Update on Hybrid Ad Hoc Group – Information and Data Quality Standards

Debbie L. discussed the Information and Data Quality Standards Hybrid Ad Hoc Group. Summary points are below:

- The EC approved the Ad Hoc Group charge.
- Membership and iterative task development are in progress.
- Group will start in the new year and is aiming to be done by June.

Update on Science & Technical (S&T) Ad Hoc Group – Strategic Plan for Drying in Angostura Reach

Catherine M. and Kevin Shelley provided an update on the expedited development of this group to address the EC request.

- Discussed compilation of current MRG drying management actions into a summary reference document by PST.
- Reviewed and discussed the draft group charge:
 - Tasks listed and timeline seem ambitious and require some clarification.
 - Difficult to compare year-to-year results based on current reporting on monitoring efforts. Real-time (or near-real-time) tracking of drying also would be helpful.
 - Primary objectives are to 1) summarize/review current management actions and 2) recommend improvements, if appropriate, especially regarding RGSM management.
 - SAMC suggests keeping RGSM priority for this effort, but consider broader conservation needs at the ecosystem level.
 - Discussed modified review schedule and deliverables timeline, given short deadline.

Update on RGSM-Specific S&T Ad Hoc Groups

Catherine M. facilitated a group discussion about the progress within each of the three RGSM-specific S&T Ad Hoc Groups and how they relate to/inform each other:

- Update on RGSM integrated population model (Yackulic et al. 2022)
 - SAMC suggestion: translate this conceptual model into a quantitative model, if possible.
 - Need to be conscious of conceptual versus empirical inputs, as well as the sensitivity of model inputs.
 - Need to identify potential users of the RGSM models, technical expertise needed to run them, and ease of user experience.
- Update on status of RGSM genetics/CEM refinements
 - Discuss draft modified CEM schematic (in-progress)
 - Implications of transitioning to single-nucleotide-polymorphism(SNP)-based microhaplotypes in RGSM genetic monitoring (Osborne et al. 2022)
 - Updates in SAMIS:
 - Updates to tabular format CEM (in-progress)
 - Prioritizing existing SNP-dependent proposed projects in Project Bank
 - Adaptive management tracking potential
- Update on status of RGSM hypothesis development
 - Upcoming meeting November 28, 2022
 - Targeting two recommendations for hypothesis development: #4 (re: mesohabitat measurement and influence on RGSM distribution) and #7 (re: comparison of multiple RGSM modeling efforts and applicability to management)
- Subset of SAMC members will work on synthesizing outcomes of these RGSM-specific ad hoc groups to recommend next steps and to inform tools for adaptive management.

Follow-up to Workshop on Management of Vegetated Islands and Bank-attached Bars

Ari Posner led a group discussion on the outcomes from the Workshop on Management of Vegetated Islands and Bank-attached Bars:

- Key takeaways from SAMC discussion:
 - Bars and islands are not replacements for the floodplain
 - Need to maintain floodplain and deal with perceived inevitability of bar/island development
 - Just because bars and islands are generated, doesn't mean they are desirable
- Identified research, planning and management needs:
 - A more comprehensive and common understanding of the workshop topic
 - Some kind of model to help inform current and future trends and conditions
 - Define technical terms and relationships relating to this topic
 - A summary of the terms and relationships, available data sets (with scale), and data gaps
 - A designated team (or additional workshop) to carry these efforts forward
 - Mapping of bars and islands, possibly characterized by successional stage
 - Develop conceptual model for island/bar phenomenon
 - Define the spatial and temporal rhythms of the successional changes on islands and bars
 - Identify management alternatives with potential impacts
 - Determine the ecosystem functions/conditions of interest and first formulate goals around those (e.g., functional wetlands)
- Breakout Session at Collaboratory will be dedicated to this topic
- Need to designate at least one S&T Ad Hoc for this effort

MRGESCP Needs Assessment for Restoration Monitoring, Assessment, and Decision Support

Catherine M. facilitated a discussion recapping the motivations for restoration guidance on assessment and monitoring in the MRGESCP and presented additional resources to inform and integrate these efforts:

- Motivations:
 1. A request to utilize the monitoring results from adaptively managed restoration sites in the San Acacia Reach to inform standardization was brought to the Program in 2021.
 2. August 2021 Habitat Restoration Workshop identified three primary needs regarding habitat restoration in the MRG:
 - A need to inform adaptive management – maintenance thresholds
 - A need for more versatile restoration response metrics/indicators
 - A need for a standardized approach to measure restoration “success”
 3. Habitat restoration is one of the “nonflow management actions” used to predict Rio Grande silvery minnow abundance in the integrated population model (Yackulic et al. 2022).
 4. October 2022 Workshop on Management of Vegetated Islands and Bank-attached Bars identified planning and research needs that would benefit from an ecosystem approach with characterization of ecosystem services, trade-offs and synergies at various spatial scales.
 5. Several speakers at the October 2022 NM Water Conference discussed the importance of ecosystem services to resilience, as well as the important roles of agriculture in the modern MRG ecosystem.
- Questions for SAMC consideration:
 1. Do you agree that restoration efforts within the MRG could benefit from organization under a common framework?

2. Should we recommend development of an ecosystem-level conceptual model?
 3. Should we recommend the use of ecosystem services to navigate complex management scenarios and to provide greater context for species-specific actions and decisions?
 4. Do any of the tools or approaches listed below seem appropriate/adaptable for the MRG?
- Additional resources/approaches that can inform this topic include (*refer to read-ahead for more detail*):
 - Potential approach to standardized monitoring guidance for habitat restoration
 - Sacramento-San Joaquin Delta Conservancy's "Compendium of Resources, Protocols, and Guidelines for Environmental Monitoring"
 - Consider adapting this compendium with types of monitoring required for the State Wildlife Grants (SWG) Program to be consistent with the NM State Wildlife Action Plan (SWAP)
 - NM SWAP seems to be initiating a standardized monitoring framework already
 - Potential assessment framework for ecological restoration:
 - Society for Ecological Restoration (SER) 5-Star Recovery Wheel
 - 2009 (ERDC) MRG Bosque Ecosystem Restoration Feasibility Study Habitat Assessment Using Habitat Evaluation Procedures (HEP)
 - Potential decision-support approach using ecosystem services:
 - Classification of ecosystem services (ES) interactions that incorporates societal values as drivers of management decisions along with biophysical factors as likely causes of ES trade-offs
 - Felipe-Lucia, M. R., F. A. Comín, and E. M. Bennett. 2014. Interactions among ecosystem services across land uses in a floodplain agroecosystem. *Ecology and Society* 19(1): 20.
- **Action Item:** SAMC will continue discussion of this topic and consider the resources listed in the context of the Collaborative Program and signatory needs.
 - **Action Item:** Determine next steps at February meeting.

Planning the December 2022 Collaboratory

Debbie L. and Catherine M. presented the draft agenda for the upcoming Collaboratory, and discussed breakout sessions, intended outcomes and implications for adaptive management.

- SAMC requested clarification of purpose and objectives and provided minor revisions to draft
- **Decision:** Approval of revised Collaboratory agenda

Project Evaluation Criteria for Long Term Plan (LTP)

Catherine M. led a discussion of the revised evaluation criteria:

- Group agreed that criteria are useful and applicable for individual managers' purposes.
- Group suggested a "pilot run" of criteria on a small set of projects to assess their utility for the Long-Term Plan.
- ✓ **Decision:** Approval of revised evaluation criteria
- **Action Item:** Set up a pilot test of evaluation criteria on small set of projects in the Long-Term Plan.

Action Items, Next Steps, and Announcements

- **Upcoming events:**
 - 1st Biennial MRGESCP Collaboratory – December 6-7, (in-person only) UNM Continuing Education Conference Center
 - EC Meeting – December 22, 9-noon, (hybrid) Bureau of Reclamation
- **SAMIS Trainings** – Schedule with PST
- **Next Meeting:** February 2023

- **Action Item:** The PST will send a Doodle Poll to schedule the February SAMC meeting

Meeting Participants

SAMC Member

Role

Alan Hatch	Executive Committee <i>Ex Officio</i> Member
Ara Winter	Statistics/Modeling Expert
Ari Posner	Geomorphology Expert
David Moore	Terrestrial Ecology Expert
Meaghan Conway	Ecosystem Function Expert
Megan Friggens	Climate Science Expert

Program Support Team

Role

Catherine Murphy	SAMC Facilitator
Angela Medina	Support
Debbie Lee	Support
Luana Sencio	Support

Guests

Organization

Lynette Giesen	U.S. Bureau of Reclamation
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[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting
November 8, 2022

See the following meeting material on the page below:

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

Comm Inforr	2.4a	Approve the proposal for the 2023 Science Symposium	X											X					
	2.4b	Collect abstracts for the 2023 Science Symposium							X						X	X	X	X	
	2.4c	Finalize the agenda for the 2023 Science Symposium			X				X									X	
	2.4d	Host the 2023 Science Symposium	X		X				X										X
Science Decision Support Planning and Tools Develop	3.1	Information and Data Quality Standard																	
	3.1a	Convene the hybrid ad hoc group to develop a data and information quality standard for the MRGESCP to ensure consistency with the Information Quality Act			X	X				X	X	X	X	X					
	3.1b	Review and approve the data and information quality standard for the MRGESCP	X		X								X	X					
	3.2	Survey of Manager Confidence in MRGESCP Science Support																	
	3.2a	Administer the survey of manager confidence in MRGESCP science support	X						X									X	X
	3.2b	Collate and present results of the survey	X						X										X
	3.3	Evaluate and refine project evaluation criteria to align with management needs			X														
	3.4	Conceptual Ecological Models																	
	3.4a	Complete the revisions to the Rio Grande Silvery Minnow (RGSM) Conceptual Ecological Model to incorporate genetics considerations and the augmentation program			X	X				X	X								
	3.4b	Initiate an Internal Science Review of the draft revised Rio Grande Silvery Minnow (RGSM) Conceptual Ecological Model			X	X			X		X	X							
3.4c	Scenario planning effort for the Middle Rio Grande in the context of listed species			X	X			X											
3.4d	Draft a conceptual ecological model for the New Mexico meadow jumping mouse.			X	X			X											
3.4e	Draft a conceptual ecological model for the Pecos sunflower.			X	X			X											
Implementing Adaptive Management Activities	4.1	Reconvene the RGSM Hypothesis Development S&T Ad Hoc Group for Phase 2				X						X	X	X					
	4.2	Provide Recommendations for Drying in the Angostura Reach																	
	4.2a	Provide recommendations for management actions and data collection in response to potential drying in the Angostura reach in 2023.	X		X	X			X	X									
	4.2b	Develop public messaging strategies in concert with recommendations for drying in 2023	X	X					X	X	X								
	4.2c	Report back to MRGESCP on adopted plan for potential drying in Angostura Reach in 2023 given Annual Operation Plan (AOP)	X					X				X							
	4.2d	Evaluate effective of the drying response plan, and refine recommendations for 2024.	X		X	X			X							X	X	X	X
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														
Coordination of Signatory Activities	5.1	Host quarterly HR coordination meetings					X	X		X			X		X			X	
	5.2	Identify coordination opportunities related to the spring/summer hydrology	X					X			X								
	5.3	Provide updates on coordination activities related to the spring/summer hydrology, and lessons learned	X					X											X
	5.4	Provide updates on the implementation of signatory activities from the Long-Term Plan					X	X		X			X		X		X		

[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting

November 8, 2022

See the following meeting material on the page below:

Revised Information and Data Quality Standards 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 data quality.	Outline of elements to include in the MRGESCP Standards for Information and Data Quality for SAMC review.	TBD
	Revise the outline of elements to include in the MRGESCP Standards for Information and Data Quality.	Revised outline of elements to include in the MRGESCP Standards for Information and Data Quality addressing SAMC review comments.	
Draft MRGESCP Standards for Information and Data Quality for SAMC science review and EC administrative review.	Develop Standards for Information and Data Quality for the MRGESCP that ensure compliance with IQA and other relevant regulations, and is not overly onerous for signatories.	Draft Standards for Information and Data Quality for SAMC and EC review.	TBD
	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

[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting
November 8, 2022

See the following meeting material on the page below:

Revised Strategic Plan for Drying in Angostura Reach Ad Hoc Group Charge [read-ahead]

Middle Rio Grande Endangered Species Collaborative Program (MRGESCP)
Science & Technical (S&T) Ad Hoc Group Charge
Strategic Plan for Potential Drying in Angostura Reach Ad Hoc

Approved by Science and Adaptive Management Committee (SAMC) on **DATE**.

Parent Committee

The Strategic Plan for Potential Drying in the Angostura Reach S&T Ad Hoc Group is formed by and reports to the SAMC, and operates at the will of the SAMC. The SAMC may, at any time, request updates from the S&T Ad Hoc Group, revise its charge, alter membership, or sunset the group.

Ad Hoc Group Charge

Develop recommendations for management actions to deploy in preparation for, or in response to, a potential drying event in the Angostura Reach near Albuquerque, New Mexico. Recommendations should include descriptions of each management action, scientific justification, anticipated responses, and considerations for deployment, including the consequences and tradeoffs for each alternative. Each alternative for the Angostura Reach should be considered in the context of other reach drying response actions or strategies (if in existence), and include recommendations for related data collection efforts, use of water infrastructure, and endangered species management actions for the Rio Grande silvery minnow (*Hybognathus amarus*; RGSM).

Membership

A. Criteria for membership (at least one of the following is required for each member)

- Knowledge of the operational scheme for water management within the Angostura, Isleta and San Acacia Reaches of the Middle Rio Grande;
- Experience with the RiverEyes Monitoring Program protocols and action thresholds
- Knowledge of endangered species management and recovery actions for RGSM

B. Member List

- _____ (Angostura Reach Strategic Plan Team Lead)
- _____ (Member)
- _____ (Member)
- _____ (Member)
- _____ (Member)
- _____ (Member)

Iterative Steps for Task Development

Background

Portions of the Middle Rio Grande basin can experience channel drying during the summer months for up to 80 km (Archdeacon, 2016). While the Isleta and San Acacia reaches tend to experience drying events every summer, the Angostura Reach flows has not dried since the 1980's.

Angostura instream flows are typically managed at low levels through complex combination of interacting factors and can vary greatly as a function of inputs from upstream tributaries, irrigation demands, irrigation return flows, municipal demands and wastewater returns, water releases to supplement natural flows, downstream water delivery requirements, and precipitation.

However, should drought conditions and low snowpack in the Upper Rio Grande basin and in Colorado continue in the future, maintaining flows in the Angostura Reach is likely to become even more challenging.

A higher frequency of drying in the Angostura Reach would not only negatively impact the RGSM and other listed species, but it would also adversely affect the agricultural, recreational, and municipal use of the river. Public safety and the overall perceptions of river conditions would also likely become unfavorable within the Albuquerque and surrounding metropolitan areas.

Concerns over Angostura Reach drying have been raised at multiple Executive Committee (EC) meetings since 2020. Accordingly, the MRGESCP now recognizes the urgency and importance of developing a strategic plan to address concerns associated with potential drying in the Angostura Reach. The proposed strategic plan will be developed beginning with the tasks in this charge.

Tasks and Deliverables

Task 1: Expert review and opinion of past management actions deployed in the Isleta and San Acacia Reaches.

Objective of Task 1.

Become sufficiently familiar with the historic actions of agencies in response to drying in the Isleta and San Acacia Reaches of the MRG in order to formulate an opinion on the efficacy of past management actions. Task 1 will focus on describing RGSM-specific objectives, scientific justification, validity of methods, and realized conservation benefits.

Deliverable(s): Opinion on efficacy (with respect to RGSM) of past management actions in response to drying in Isleta and San Acacia Reaches.

Task 2: Design and prioritize a suite of management objectives and associated actions regarding drying in the Angostura Reach. Base objectives and actions on the strength of scientific support and anticipated conservation benefit for the RGSM.

Objective of Task 2

The objective is to design new RGSM conservation objectives and actions (as needed) from insights gained in Task 1 that have a high likelihood of achieving measurable and meaningful benefits.

Deliverable(s): Prioritized list of management objectives and associated actions for conservation of RGSM in anticipation of drying in the Angostura Reach.

Task 3: Develop an innovative and achievable strategy to address the conservation needs of the RGSM in response to drying events in the Angostura Reach.

Objective of Task 3

The objective is to have a proactive, scientifically vetted and operationally sensitive suite of prioritized RGSM conservation actions to deploy in the Angostura Reach in response to the stressors associated with drying/dewatering events.

Deliverable(s): A strategic framework identifying consequences, tradeoffs, and associated risk and uncertainty to avoid or mitigate the adverse impacts of dewatering events on the RGSM.

Timeline and Reporting Scheduling

Task	Subtask	Deliverable	To Be Completed By
Task 1	Subtask 1A: Review	None	November 2022
	Subtask 1B: Expert Evaluation	Expert opinion on past actions	November 2022
Task 2	Subtask 2A: Design management objectives & actions	Comparison of management actions, consequences, & tradeoffs	November 2022
	Subtask 2B: Prioritize management actions	Prioritized list of management actions based on benefit & scientific defensibility	November 2022
	Subtask 2C: Describe metrics and methods	Monitoring plan	November 2022
Task 3	Subtask 3B: Design a deployment strategy for RGSM conservation actions	Draft strategic framework	January 2023

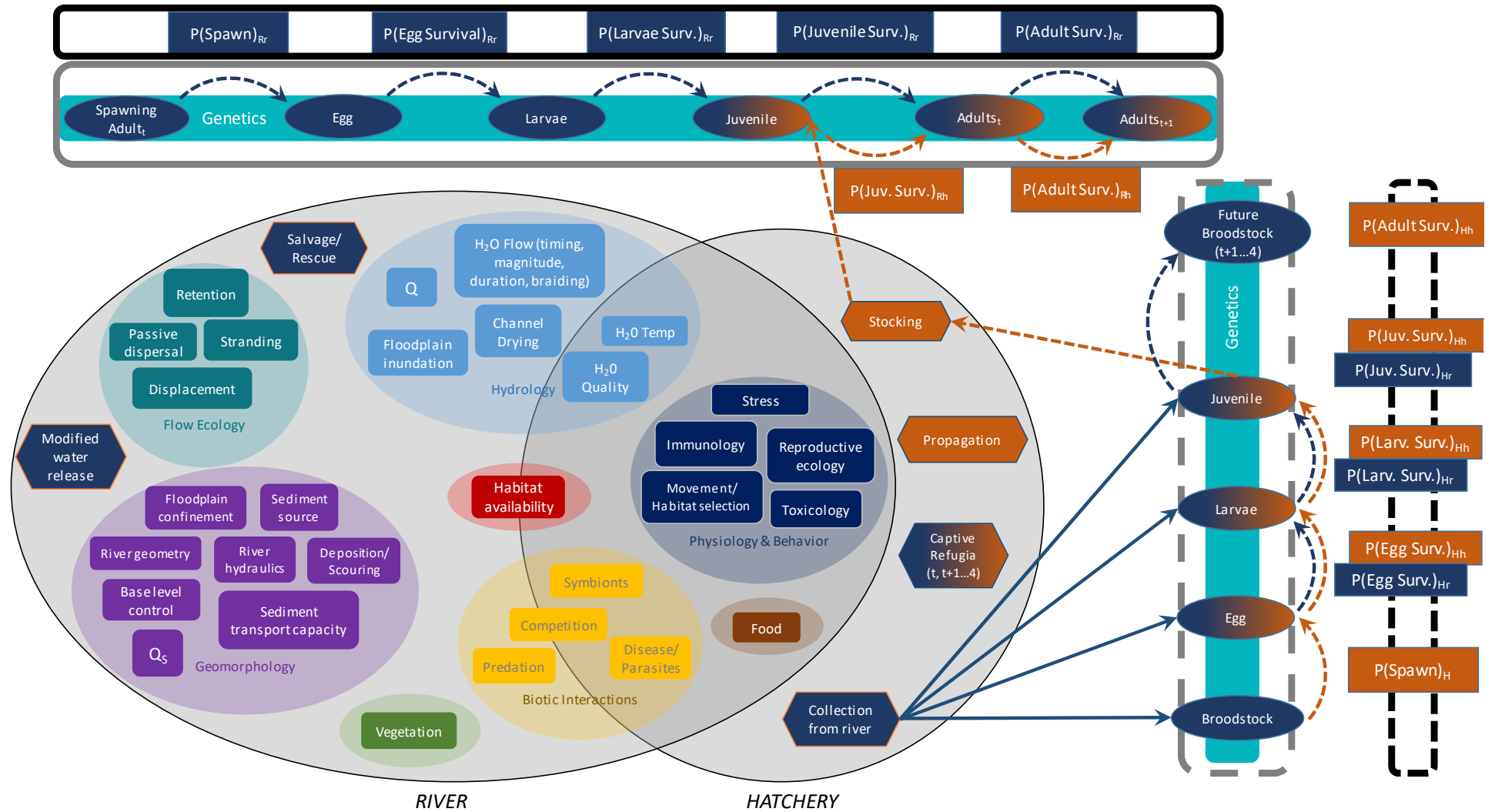
[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting
November 8, 2022

See the following meeting material on the page below:

Draft RGSM CEM Schematic [read-ahead, draft]

MRGESCP - DRAFT RGSM CEM Schematic (July 2022 RGSM Genetics/CEM S&T Ad Hoc Group)



[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting
November 8, 2022

See the following meeting material on the page below:

2022 Vegetated Islands Workshop Summary of Outcomes [read-ahead, presentation]

Middle Rio Grande Endangered Species Collaborative Program



Management of Vegetated Islands and Bank-Attached Bars Workshop

Summary of Workshop Outcomes

FINAL WORKSHOP TAKEAWAYS

- “The focus of the breakout sessions was on vegetated bars, but it seems most of the groups quickly realized this wasn't the main issue in the MRG.”
- **There are three main management priorities in the MRG: water delivery, flood control, and ecosystem management. How do we balance these priorities through collaboration and partnerships in the face of a dynamic river system under climate change?**
- Groups developed strategies for tool development (maps/models), defining terms and relationships, and a report to develop consensus amongst stakeholders.
- A team is recommended to carry out these tasks.
- Follow up workshop may be needed for map development.
- Islands/bars do not supersede floodplain. Both provide habitat, but they differ in how much they align with different stakeholder goals.

RED BREAKOUT GROUP

Facilitator: Ari Posner

Note Taker: Debbie Lee

RED BREAKOUT GROUP - OUTCOMES

Problem Statement: The challenge to trying to develop one solution for all vegetated islands/bars is there are many functions. How do we effectively measure each of those functions in order to make decisions to address specific management needs?

Objective: Develop a model that correlates flows with ecological functions by reach.

Strategy: 1) Determine the inputs to develop the model(s) with a capacity assessment of existing models and data, identifying the ecological functions of interest, and identifying data gaps, 2) use existing model outputs as inputs to test hypotheses (what questions do we need to ask?), and 3) validate outputs of integrated model(s) with experiments to test assumptions.

GREEN BREAKOUT GROUP

Facilitator: Megan Friggens

Note Taker: Kevin Shelley

GREEN BREAKOUT GROUP - OUTCOMES

Problem Statement: We have managed for less variability in flow, which has decreased channel dynamics and impaired function. We need to integrate management action to improve channel dynamics.

Objective: Develop an experimental framework to determine whether we can improve channel dynamics at the reach scale to balance diversity of habitats and water conveyance.

Strategy: Assemble teams, one for each reach, to define relationships and terms (& success?) associated with channel dynamics and water conveyance.

BLUE BREAKOUT GROUP

Facilitator: Yasmeen Najmi

Note Taker: Catherine Murphy

BLUE BREAKOUT GROUP - OUTCOMES

Problem Statement: Given reduced flows, how do we cost-effectively manage vegetated islands and bars to create a dynamic habitat mosaic for species of concern while maintaining sustainable water and sediment conveyance?

Objectives:

- a) Qualify indicators of ecosystem function that will be provided by vegetated bars.
- b) Increase acreage of emergent (Class 1) bars through vegetation management on bars/islands with recurring maintenance on a cycle to be determined.
- c) Create a map of existing vegetated bar habitats to include: elevation, vegetation type and age class, and sediment transport, as well as additional layers.
- d) Evaluate main channel bankfull capacity to carry 2-year return flows.

BLUE BREAKOUT GROUP - OUTCOMES

Strategies:

- 1) The proposed map will help to identify “good” habitat as well as stabilized areas requiring management action. Layers will need to be updated regularly (as frequently as possible) in order to remain relevant for dynamic management of bars and for identifying research needs.
- 2) Determine the appropriate/sufficient amount of increased acreage (per river mile?) of emergent bars. Determine suitable locations for increased acreage of emergent bars. Q: How do we implement “dynamic management?”
- 3) Habitat valuation will be informed by the development of the bar class map (as indicator of physical processes), as well as by existing habitat suitability maps. This effort builds on active research in species-specific habitat quality and quantity to define indicators of ecosystem function. Acknowledgement of the ephemeral nature of “habitat value” is key to the idea of “dynamic management.”
- 4) Geomorphic monitoring – decadal and annual field reconnaissance during runoff and post monsoons

YELLOW BREAKOUT GROUP

Facilitator: Colleen McRoberts and Lynette Giesen

Note Taker: Michelle Tuineau

YELLOW BREAKOUT GROUP - OUTCOMES #1

Problem Statement: There is increased vegetation due to more islands/bars, including invasives. We need to develop tools for classifying vegetation by type and age in order to inform decision making.

Objectives: 1) Develop metrics and priorities for assessing vegetation and 2) Develop cooperative agreements between state, local, and federal agencies for managing vegetation.

Revised Objective: Develop a plan to prioritize actions taken on islands and bars based on balanced management goals (balanced meaning meeting management goals, flood control, ecosystem goals, and water delivery).

YELLOW BREAKOUT GROUP - OUTCOMES #1

Strategies:

- 1) Develop a report and map on condition of vegetated islands/bars using available resources
- 2) Develop consensus among stakeholders on condition of vegetated islands/bars
- 3) Develop consensus on balanced management goals
- 4) Develop consensus on metrics
- 5) Develop a plan to prioritize any action taken on islands and bars

YELLOW BREAKOUT GROUP - OUTCOMES #2

Problem Statement: Higher prevalence of islands and bars have created more wetlands, which triggers more regulation and management. We need tools for assessing wetlands (e.g., ecological value vs value of management, identification, etc.) to inform decision making.

Objective: Develop tools for 1) rapidly assessing wetlands, 2) properly characterizing wetland function and significance, and 3) modeling short-, medium-, and long-term effects of wetland enhancement/degradation.

YELLOW BREAKOUT GROUP - OUTCOMES #3

Problem Statement: Higher prevalence of vegetated islands and bars has led to conveyance issues.** We need to find a way to balance water conveyance with regional stakeholder concerns.

Objective: Develop a stakeholder tool for comprehensively metering water use.

LESSONS LEARNED FROM THE SMALL GROUP

- Wouldn't change the workshop much. Everyone got something out of it, as indicated by feedback surveys. Would be useful to post a list of terms and acronyms to avoid miscommunication, but that could be difficult to do.
- More cultural awareness is needed. Add a statement acknowledging native lands to open Collaborative Program events.
- More coordination with presenters would be beneficial. Speakers need to nail down their talks early and coordinate to complement each other's presentations.
- Younger and less experienced participants did not speak as much. This may be because they don't have the knowledge base to contribute more. Written exercises in groups may help include them more.
- The days should have been divided up better. The first day was too long and people were fatigued.

[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting November 8, 2022

See the following meeting material on the page below:

Summary Outline Regarding MRGESCP Needs Assessment for Restoration Monitoring, Assessment, and Decision Support [read-ahead]

Motivations:

1. A request to utilize the monitoring results from adaptively managed restoration sites in the San Acacia Reach to inform standardization was brought to the Program in 2021.
2. August 2021 Habitat Restoration Workshop identified three primary needs regarding habitat restoration in the MRG:
 - A need to inform adaptive management
 - A need for more versatile restoration response metrics/indicators
 - A need for a standardized approach to measure restoration “success”
3. Habitat restoration is one of the “nonflow management actions” used to predict Rio Grande silvery minnow abundance in the integrated population model (Yackulic et al. 2022).
4. October 2022 Workshop on Management of Vegetated Islands and Bank-Attached Bars identified planning and research needs that would benefit from an ecosystem approach with characterization of ecosystem services, trade-offs and synergies at various spatial scales.
5. Several speakers at the October 2022 NM Water Conference discussed the importance of ecosystem services to resilience, as well as the important roles of agriculture in the modern MRG ecosystem.

Questions for SAMC consideration:

1. Do you agree that restoration efforts within the MRG could benefit from organization under a common framework?
2. Should we recommend development of an ecosystem-level conceptual model?
3. Should we recommend the use of ecosystem services to navigate complex management scenarios and to provide greater context for species-specific actions and decisions?
4. Do any of the tools or approaches listed below seem appropriate/adaptable for the MRG?

I. Potential approach to standardized monitoring guidance for habitat restoration:

- ❖ Sacramento-San Joaquin Delta Conservancy’s “Compendium of Resources, Protocols, and Guidelines for Environmental Monitoring”
 - Stated purpose: “...to provide guidance to project proponents and programs with the intent to enhance habitat restoration monitoring and data management in the Bay-Delta by providing a short overview of available resources and facilitate coordination in approaches among efforts.”
 - For a quick summary, see the Overview Table on pages 23-24 of the Compendium (<http://deltaconservancy.ca.gov/wp-content/uploads/2020/02/Monitoring-Compendium-for-Habitat-Restoration-Projects.pdf>)
 - Is consistent with the concepts and terms of California’s State Wetlands and Riparian Area Monitoring Plan (plus the tools EcoAtlas and the California Rapid Assessment Method)
 - Uses the three-level classification system for assessments developed by the U.S. Environmental Protection Agency (USEPA).
 - Level 1 – Remotely sensed and Geographic Information System (GIS)- or model-derived landscape-scale assessment: aquatic resource and project inventories;
 - Level 2 – Field-based rapid assessment of the condition of aquatic resources at the project or site scale;

MRGESCP needs assessment for restoration monitoring, assessment and decision support
SAMC discussion November 2022

- Level 3 – Field-based intensive site assessment of specific resource function and condition (e.g., biological assessment, water quality evaluation, diagnosing the cause of degraded conditions).
- For the MRG, we might consider adapting this compendium with three types of monitoring required for the State Wildlife Grants (SWG) Program to be consistent with the NM State Wildlife Action Plan (SWAP)
 - https://nhnm.unm.edu/sites/default/files/nonsensitive/New-Mexico-State-Wildlife-Action-Plan-SWAP-2017_Links.pdf#Chapter11
 - Type 1 - species and habitats
 - Type 2 - effectiveness of conservation actions
 - Type 3 - adaptive management
- If adapted for the MRG, this compendium would need to link to other resources being developed, to avoid any duplication of effort:
 - NM Conservation Information System <https://nhnm.unm.edu/data>
 - NM Water Data Initiative <https://catalog.newmexicowaterdata.org/>
- ❖ **FYI:** NM SWAP seems to be initiating a standardized monitoring framework already:
 - *“A coordinated effort among resource managers to compile in a database and disseminate results of monitoring programs in the State in a format that is comparable between projects and over time should be a priority for SWAP implementation.”*
 - Stated purpose: *“...assessing whether the portfolio of implemented conservation actions is improving the overall status of wildlife species and habitats across the State.”*

II. Potential assessment framework for ecological restoration:

- ❖ Society for Ecological Restoration (SER) 5-Star Recovery Wheel
 - Well-vetted by the restoration research community
 - Has been applied internationally
 - Potentially very useful for tracking and quickly communicating changes in condition at restoration sites
 - Module attributes vary by habitat type, but visual presentation of results is standardized across all types
 - Also useful for identifying research needs to fill-in unknown or poorly known attributes
- ❖ 2009 (ERDC) MRG Bosque Ecosystem Restoration Feasibility Study Habitat Assessment Using Habitat Evaluation Procedures (HEP)
 - <https://apps.dtic.mil/sti/pdfs/ADA566399.pdf>
 - Developed a driver/stressor-based conceptual model for MRGBER
 - Used a single community-based functional HSI model (Bosque Riparian Community) for HEP calculation
 - Three categories were identified as the key functional components necessary to model the ecosystem integrity:
 - Hydrology
 - Structure/Soils/Biotic Integrity
 - Spatial Integrity and Disturbance
 - Analysis does not appear to address trends in hydrology due to climate change and would need to be updated for more realistic projections
 - Use of HEP is somewhat outdated, but generally accepted

- Use of technical jargon and clunky presentation of results make it less effective as a communication tool for stakeholders
- The HSI model used was certified by the Ecosystem Restoration Planning Center of Expertise (ECO-PCX) with One-Time Use Approval in April 2009

III. Potential decision-support approach using ecosystem services:

- ❖ Felipe-Lucia, M. R., F. A. Comín, and E. M. Bennett. 2014. Interactions among ecosystem services across land uses in a floodplain agroecosystem. *Ecology and Society* 19(1): 20. <http://dx.doi.org/10.5751/ES-06249-190120>
 - Authors propose a classification of ecosystem services (ES) interactions that incorporates societal values as drivers of management decisions along with biophysical factors as likely causes of ES trade-offs.
 - Measured 12 ES (each with a specified indicator metric):
 - Climate regulation, gas regulation, nutrient regulation,
 - Soil stability, habitat quality,
 - Raw material production, food production, fishing,
 - Sports, recreation, education, and social relationships.
 - Seven common land-use types at three spatial scales:
 - Patch, municipality, and landscape, in a riparian floodplain in Spain.
 - Results (scenarios analysis) illustrated that each land-use type provides unique bundles of ES and that the spatial scale at which measurements were taken affected the mixture of services.
 - Authors “*expect this classification would be applicable to other ecosystems for trade-offs analysis. Knowledge about the driving forces that provoke trade-offs can improve management for multiple ES.*”
 - Adapting this methodology to the MRG might help to simplify the complex management decision space by:
 - Comparing different actions with a common set of ES indicators,
 - Identifying optimal spatial scales for management actions,
 - Recognizing trade-offs, and
 - Capitalizing on synergies.
 - Definitions applied to ecosystem services:
 - Trade-off: Situation in which land use or management actions increase the provision of one ecosystem service and decrease the provision of another. This may be caused by simultaneous responses to the same driver or caused by true interactions among services.
 - Synergy: Situation in which the combined effect of a number of drivers acting on ecosystem services is greater than the sum of their separate effects. In other words, a synergism occurs when ecosystem services interact with one another in a multiplicative or exponential fashion. These can be positive, i.e., multiple services improving in provision, or negative, i.e., multiple services declining in provision.

[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting
November 8, 2022

See the following meeting material on the page below:

Revised Collaboratory Agenda [read-ahead, draft]



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

2022 Collaboratory: From Planning to Practice DRAFT Workshop Agenda

December 6-7, 2022

Location: University of New Mexico Continuing Education Conference Center
1634 University Blvd NE, Albuquerque NM 87131

Meeting Objectives:

- Provide an overview of how the Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) implements and supports adaptive management.
- Communicate scientific learning from 2021-2022 activities, and discuss potential opportunities to increase their management applications.
- Prioritize management needs for the next two years and beyond.
- Identify constraints and opportunities under climate change and collaborate to manage species strategically.

Day One: December 6, 2022

8:30 – 9:00	Sign-In and Breakfast	
9:00 – 9:15	Introduction and Welcome <ul style="list-style-type: none">• Land acknowledgement• Theme of the Collaboratory• Agenda review• Anticipated outcomes and next steps	<i>Catherine Murphy & Debbie Lee, Program Support Team (PST)</i>
9:15 – 9:35	Opening Remarks	<i>John Stomp Wayne Pullen, U.S. Bureau of Reclamation (to-be invited)</i>
9:35 – 10:00	Overview of the MRGESCP Approach to Adaptive Management <ul style="list-style-type: none">• Processes and tools developed• Applying the ecosystem approach• Ensuring management relevance• Key milestones	<i>Debbie Lee, PST</i>
10:00 – 10:20	Program Portal Enhancements <ul style="list-style-type: none">• Priorities from stakeholders• Planned updates to existing functions• Planned new development• Portal enhancements as tools to support adaptive management	<i>Florence Thompson, U.S. Geological Survey</i>

- 10:20 – 10:50 **Introduction to Breakout Session I** *Debbie Lee & Catherine Murphy, PST
Ad Hoc Group Leads*
- Breakout session topics: short summary of scientific findings
 - Questions to consider in the breakout session
- 10:50 – 11:05 **Break and Transition to Breakout Session I**
- 11:05 – 12:30 **Breakout Session I: 2021-2022 Science Recap**
- Discussion of management implications
 - Recommendations for more effective science communication
 - Ensuring these science activities are in line with management needs
- Focus Questions:
- What motivated the investigation?
 - What new things were learned?
 - How can the findings be applied?
 - What new questions were raised?
- 12:30 – 1:30 **Lunch (provided)**
- 1:30 – 2:00 **Breakout Session I Report Outs**
- 2:00 – 3:00 **Making Defensible Decisions: Lessons from the U.S. Navy Planning Process (presentation)** *CAPT Jon. C. Duffy, U.S. Navy*
- 3:00 – 4:00 **Signatory Roundtable** *Signatory presenters*
- Planned big projects
 - Issues and questions the MRGESCP can help address in order to help with decision-making
 - MRGESCP process to address those questions
- 4:00 – 4:30 **Day One Wrap Up and Preparation for Day Two**
- 4:30 **Adjourn for the Day**
- 5:30 – 8:00 **Happy Hour (Location TBD)**

Day Two: December 7, 2022

- 8:30 – 9:00 **Sign-In and Breakfast**
- 9:00 – 9:30 **Welcome, Applying Science for Adaptive Management in the MRGESCP** *Catherine Murphy, PST*
- Meaningful progress towards our goals
 - Prioritizing questions
 - Linking inferences to decisions
 - Daylighting assumptions
 - Formulating effective arguments
 - Follow through
 - Utilizing the Science and Adaptive Management Information System (SAMIS)

9:30 – 10:15	Balancing Competing Water Needs <i>(presentation)</i>	<i>Josh Mann, Mann Water Law (invited)</i>
10:15 – 11:00	Perspectives from Agriculture <i>(presentation)</i>	<i>Paula Garcia, New Mexico Acequia Association (to-be invited)</i>
11:00 – 11:45	Future Conditions of the Middle Rio Grande <i>(presentation)</i>	<i>TBD, U.S. Geological Survey (USGS)</i>
11:45 – 12:45	Lunch (provided)	
12:45 – 1:45	Panel Discussion: TOPIC?	<i>CAPT Jon C. Dufy Josh Mann TBD, Acequia Association TBD, USGS</i>
1:45 – 2:00	Introduction to Breakout Session II	
2:00 – 2:15	Break and Transition to Breakout Session	
2:15 – 3:30	Breakout Session II: Adaptive Management With our New Hydrograph <ul style="list-style-type: none"> • Identifying issues and questions for each species and the ecosystem • Developing strategies to manage under future conditions • Potential recommendations on scientific studies to reduce uncertainty 	
3:30 – 4:00	Breakout Session II Report Outs	
4:00 – 4:15	Collaboratory Summary and Next Steps <ul style="list-style-type: none"> • Informing the Science Evaluation 	<i>Catherine Murphy, PST</i>
4:15 – 4:30	Closing Remarks	<i>Katrina Grantz and Mark Kelly, Executive Committee Co-Chairs</i>
4:30	Adjourn	

[Link to full Meeting Materials List](#)

Science and Adaptive Management Committee Meeting
November 8, 2022

See the following meeting material on the page below:

Revised Project Evaluation Criteria for Long-Term Plan [read-ahead]

Questions to guide SAMC review of evaluation criteria:

- Do you approve of this approach to evaluation of projects for consideration in the Long-Term Plan? Yes; Yes
- Are the criteria clear, appropriate, and complete? Yes; Yes
- Is the rating scale clear and appropriate? Yes; See comments
- How many of these evaluations do you think you might be able to complete within a week? < 1; This would depend on the length and detail of the proposal
-
- What is the minimum number of SAMC reviewers that should be required for each review? 3; At least 2
- Are the results formatted in a way that will be useful to signatories? Yes; Depends on who is using this information/report – are signatories wanting to evaluate/rank their own projects? Are they sending them to the SAMC for this purpose? Or is this a program wide ranking of projects? Are signatories comparing their project proposals against others (how does it rank)?

MRGESCP LONG-TERM PLAN FOR SCIENCE AND ADAPTIVE MANAGEMENT: EVALUATION CRITERIA FOR PROPOSED PROJECTS AND ACTIVITIES

The overall objective for this evaluation framework is to assess the various MRGESCP projects and activities in terms of their scientific integrity, alignment with the MRGESCP mission and management priorities, and contribution to MRG ecosystem health. Review the SAMIS-generated summary for each Project Bank item to be evaluated. Use the following criteria to evaluate the project DESIGN and level of DETAIL on: **clarity and completeness (A1-3)**, **relevance and value to the Collaborative Program mission**, including management and/or science priorities (B1-3), **and vision and utility for adaptive management (C1-3)**. For each criterion, select a rating of **Exceptional, Adequate, Insufficient, or Unable to Determine** from the drop-down list provided. Rating scale definitions are provided below. Suggest improvements in the space provided, if needed.

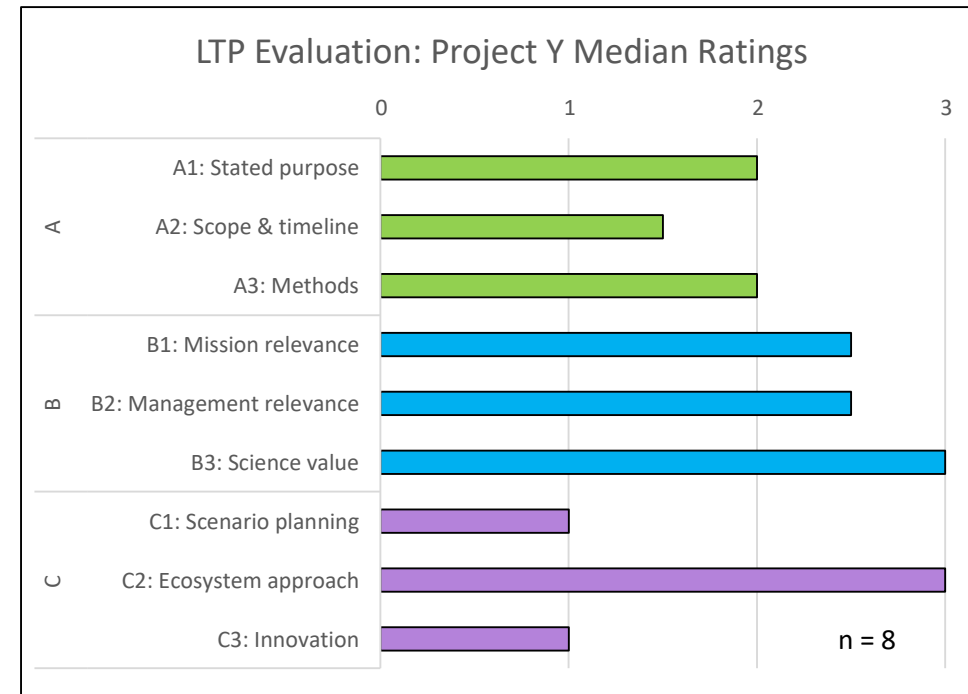
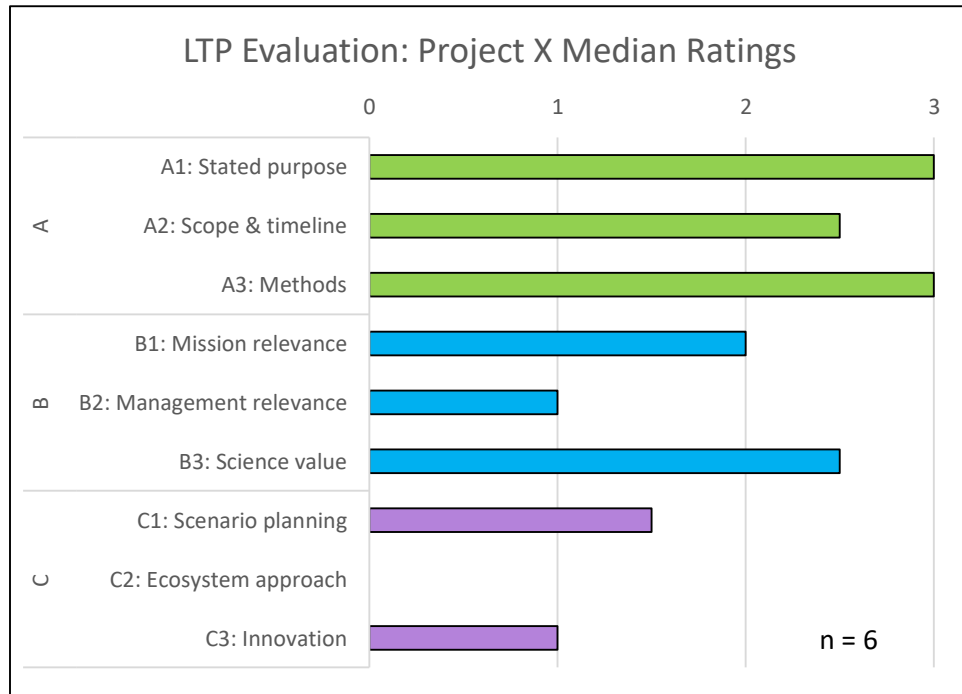
ID	Criterion	DESIGN ¹	DETAIL ¹	Suggested Improvements	Questions to Guide the Assessment of Each Criterion
Clarity and Completeness (REQUIRED)					
A1	Statement of purpose	Select a rating	Select a rating		How clear are the project objectives? If this is a scientific study, is the research question clearly articulated?
A2	Scope and timeline	Select a rating	Select a rating		Does the scope describe a single, well-defined project or should it be split into several different projects? Is the timeline reasonable for the scope?
A3	Aptness of methods	Select a rating	Select a rating		Are the methods well-suited to the project objectives or research question? Are important elements missing?
Relevance and Value to Collaborative Program (REQUIRED)					
B1	Relevance to mission	Select a rating	Select a rating		How well does the project align with the Collaborative Program’s mission? Could anything be added to the description to increase relevance?
B2	Relevance to management	Select a rating	Select a rating		How well does the project address the Collaborative Program’s management priorities and recommendations? Use the linkages to strategies and ISP recommendations to inform your answer.
B3	Value to advancement of science	Select a rating	Select a rating		Will the project produce data or findings that will 1) inform other projects and/or 2) reduce a scientific uncertainty identified in the conceptual ecological models (CEMs)? Use the linkages to projects and uncertainties to inform your answer.
Vision and Utility for Adaptive Management (ENCOURAGED)					
C1	Value to scenario planning	Select a rating	Select a rating		How valuable is the project for planning for future climate scenarios and/or increasing resilience under changing conditions?
C2	Relevance to ecosystem approach	Select a rating	Select a rating		Will the project inform an integrated approach for management of systems supporting land, water, and living resources? Does the project contribute towards the amelioration of threats, offsetting the impact of threats, and/or promote conservation and sustainable use?
C3	Proactivity and innovation	Select a rating	Select a rating		How forward thinking is the work described? Will the project result in a new technology, methodology, or model that improves the way we study the species or system or plan for the future?

¹See instructions below for rating scale.

Rating Scale for Evaluation Criteria

Value	Rating	How well does the project address this criterion?
3	Exceptional	Project exceeds my expectation under this criterion.
2	Sufficient	Project meets my expectation under this criterion.
1	Insufficient	Project falls short of my expectation under this criterion.
0	Unable to Determine	Project does not contain enough information to rate this criterion.

Examples of Assessment Results – Median Ratings for Project X and Project Y



Example Interpretation:

Project X is well-scoped, fits within the mission of the Collaborative Program and will add scientific value. Direct relevance to management is not clear and may require additional explanation. The Project X will inform scenario planning but Project Y is more well-suited to the Collaborative Program, having greater relevance and scientific value. Project Y also better informs the ecosystem approach and may be useful towards improving ecosystem resiliency (note that criteria C1-3 are encouraged but optional). However, the description for Project Y would benefit from greater detail.

SAMIS Data Viewer report type – Long-Term Plan project summaries for SAMC evaluation

Project ID

- ✓ Project Bank ID#, Project Name, Project Status

Project Description fields

- ✓ MRGESCP Category, Focus, Species, Reach
- ✓ Anticipated Benefit
- ✓ Project Description, Study Considerations (if applicable)
- ✓ Planning or Regulatory document linkage(s) (e.g., Biological Opinions, Genetics Management Plan, NM State Wildlife Action Plan, etc.)

SAMIS Linkages (lookup lists can be found in the S&AM Plan appendices)

- ✓ Related Projects (#parent, #child, project names)
- ✓ MRGESCP Science or Management Strategies (#strategies; use numeric label to indicate goal, objective, strategy)
- ✓ ISP Recs (#recs; include panel name and rec number)