**Science and Adaptive Management Committee (SAMC)**

**Meeting Minutes**

**August 26, 2021; 8:00 AM­­­­­­–12:00 PM**

**Location:** Zoom Meeting

# Decisions:

* Approval of August 26, 2021 SAMC meeting agenda with amendments
* Approval of June 24, 2021 SAMC meeting minutes

# Action Items:

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| --- | --- | --- |
| **WHO** | **ACTION ITEM** | **BY WHEN** |
| Program Support Team (PST) | Send out a Doodle Poll to reschedule the next SAMC meeting for the week of November 1 | 8/31/2021 |
| PST | Send out the Habitat Restoration (HR) Workshop agenda | 8/27/2021 |
| PST | Revise the HR Workshop presentation based on SAMC discussion | 8/30/2021 |
| PST | Send Rio Grande silvery minnow (RGSM) Hypotheses Development Ad Hoc Group and Middle Rio Grande (MRG) HR Guidance Ad Hoc Group(s) charges with revisions with the SAMC meeting follow-up | 8/30/2021 |
| SAMC | Suggest potential members for the RGSM Hypotheses Development Ad Hoc Group | 9/3/2021 |
| SAMC | Send any further revisions on the Science & Technical (S&T) Ad Hoc Group charges | 9/3/2021 |
| PST | Schedule MRG HR Guidance Ad Hoc Group(s) meeting(s) | 9/16/2021 |
| PST | Schedule RGSM Hypotheses Development Ad Hoc Group meeting | 9/19/2021 |
| SAMC | Provide additional considerations for the Middle Rio Grande Endangered Species Collaborative Program (MRGESCP) peer review process as outlined in the meeting presentation | 9/3/2021 |

**Next Meeting:** First week of November

**Meeting Summary**

# Welcome, Meeting Objectives, and Agenda Review

Catherine Murphy, PST Science Coordinator and SAMC Facilitator, opened the meeting and led introductions. Catherine M. reviewed the August 26, 2021 meeting agenda and objectives, and made the following amendments: remove the update from the Population Monitoring Work Group (PMWG) Summary Report Ad Hoc, as it was sunsetted, and remove Thomas Archdeacon from the peer review discussion, as he is not present due to a scheduling conflict. In addition, the guests invited by Ari Posner to speak on HR will not be present, so the SAMC will discuss HR amongst themselves.

* **Decision**: Approval of the August 26, 2021 SAMC meeting agenda with amendments

# June Meeting Minutes and Actions Item Review

Catherine M. and Debbie Lee, PST, reviewed the June 24, 2021 meeting minutes and action items.

* **Decision**: Approval of the June 24, 2021 SAMC meeting minutes

**Update from July Executive Committee Meeting**

Catherine M. and Debbie L. gave an update on the July 28, 2021 Executive Committee (EC) meeting. Summary points are below:

* There were 10 decision points and all were approved by the EC.
* Rich Valdez, SWCA Environmental Consultants, presented on the findings and recommendations from the PMWG Summary Report. The EC approved the next steps proposed in the SAMC’s memo. The SAMC will form S&T Ad Hoc Groups to carry out next steps.
  + Repeating the Population Estimation Program (PEP) was proposed in the SAMC memo. Catherine M. asked Rob Dudley, American Southwest Ichthyological Researchers and Museum of Southwestern Biology (Fishes), UNM, about the PEP at his Collaborative Seminar on RGSM population monitoring. If the PEP was repeated, Rob D. believes the population estimate would track the estimate from the Population Monitoring Program. The PEP is unlikely to be repeated, but it is an available tool, should future resources be allotted to address the uncertainty of abundance estimates.
* The EC approved the HR Workshop.
* The EC approved the revised By-Laws. There will be minor changes made to the SAMC Charter to reflect revisions.

**Current Science & Technical Ad Hoc Group Updates**

Catherine M. gave an update on the current S&T Ad Hoc Groups. Summary points are below:

* S&T Ad Hoc Groups have been given flexibility in their timelines, but it is important they finish their work in a timely manner. Catherine M. suggests the deadlines stated in the charges apply to either finishing a deliverable or giving a progress report to the SAMC. Based on the progress report, the SAMC can decide if an S&T Ad Hoc Group should continue or sunset.
* Avian Conceptual Ecological Model (CEM) Ad Hoc – The group filled in the level of uncertainty in relationships between variables in the avian CEMs. The group is now adding information such as which relationships are important for HR and for answering life questions. The group also generated additional references, which adds scientific validity. There will be a summary of the group’s deliverable at the next SAMC meeting.
* RGSM Genetics/CEM Ad Hoc – The group is adding genetics/captive propagation components to the RGSM CEM model. They have completed approximately half of their tasks. Wade Wilson (lead), U.S. Fish & Wildlife Service (USFWS), will give a progress report at the next SAMC meeting.
* RGSM Population Model Ad Hoc – Charles Yackulic (lead), U.S. Geological Survey, continues to work on the Integrated Population Model and is incorporating the information from the expert elicitation group exercise. How he will present progress on the model within the terms of his contract is currently being determined.

# Proposed Science & Technical Ad Hoc Groups

Catherine M. discussed the proposed S&T Ad Hoc Groups (see draft RGSM Population Research Questions Ad Hoc Charge and MRG HR Guidance Ad Hoc Charge). Summary points are below:

* RGSM Hypotheses Development Ad Hoc (name changed from RGSM Population Research Questions Ad Hoc) – Proposed in the SAMC memo on the PMWG Summary Report. The group will review, translate, and refine recommendations from the PMWG Summary Report into specific questions with clear and testable hypotheses. New people are encouraged to join the group to bring in fresh perspectives, in addition to former PMWG members, who are most familiar with the topics.
  + Suggestions for members: Beck Bixby (University of New Mexico), Andy Dean (USFWS), Eric Gonzales (U.S. Bureau of Reclamation [Reclamation]), Matt Wunder (New Mexico Department of Game & Fish), and Joel Lusk (Reclamation).
  + The membership criteria were revised to state, “Seeking a diverse range of perspectives, including individuals with an outside perspective to the original PMWG.”
  + The PMWG Summary Report has a list of four findings and eight recommendations (Valdez 2021). Not all recommendations need to be developed into hypotheses.
  + RE: Evaluating recommendations for hypothesis development
    - Some recommendations need robust reasoning for completing (ex. #6). Recommendations need to be evaluated based on research potential and reasoning provided if they are not recommended for further development.
    - If a recommendation cannot be addressed, it is best left open, so it can be addressed in the future, should resources and/or new approaches become available.
  + RE: Communication with the SAMC
    - The group will give regular progress reports for SAMC input.
  + RE: Tasks 1 and 2 in the Ad Hoc Charge
    - Task 1 prescreens the recommendations before hypotheses are formed in Task 2. Reorder Tasks 1 and 2, so that developing hypotheses for the recommendations will inform the screening process. New Task 1 will be to translate all recommendations into questions with hypotheses. New Task 2 will be to review each hypothesis and outline any study considerations needed to scope a project to address it, where appropriate.
  + RE: Task deadlines
    - The group will give an update on hypotheses after Task 1 and the SAMC will assign a deadline for Task 2, based on the list from Task 1.
* MRG HR Guidance Ad Hoc – *Discussion moved to later in meeting*.
* **Action Item**: The PST will send RGSM Hypotheses Development Ad Hoc Group and MRG HR Guidance Ad Hoc Group(s) charges with revisions with the SAMC meeting follow-up
* **Action Item**: The SAMC will suggest potential members for the RGSM Hypotheses Development Ad Hoc Group
* **Action Item**: The SAMC will send any further revisions on the S&T Ad Hoc Group charges
* **Action Item**: The PST will schedule MRG HR Guidance Ad Hoc Group(s) meeting(s)
* **Action Item**: The PST will schedule RGSM Hypotheses Development Ad Hoc Group meeting

**Document Review Considerations**

Debbie L. presented on a proposed peer review process (see Draft Peer Review Process presentation). Summary points are below:

* Peer review is a spectrum; there are different categories and types of peer review to meet different needs. Types include statistical, editorial, contextual, and programmatic. Categories are listed below:
  + Internal Administrative Review – For MRGESCP documents (ex. By-Laws, Long-Term Plan). Reviewed by signatories. Low time commitment and low cost.
  + Internal Scientific Review – For S&T Ad Hoc Group work products and science & adaptive management (AM) tools (ex. CEMs, scopes of work). Needs expert reviewers, which can include the SAMC or external reviewers. Low time commitment and low cost.
  + External Expert Review – For important administrative/scientific documents and models with medium-to-high level of contention (ex. Science & AM Plan, population viability analysis). SAMC recommends reviews and the EC approves. Requires expert reviewers that are external to the MRGESCP and paid. Reviews are generally remotely administered. The result could be individual comment forms or a panel report. Medium cost and time commitment.
  + Independent Science Panel (ISP) – For important scientific issues with high level of contention that need programmatic review (ex. Hubert panel, Noon panel). SAMC recommends reviews and the EC approves. Needs expert reviewers that are external and paid. Reviews are in-person and multi-day. The result is a panel report. High cost and greatest time commitment.
* The processes for internal and external scientific review and panel report next steps are laid out in the Draft Peer Review Process presentation (slides 7-11).
* The PST will write a section on peer review for the Science & Adaptive Management (S&AM) Plan, with more details in an appendix.

Summary points for questions/comments/responses are below:

* RE: Presenting panel recommendations and findings
  + The full MRGESCP should be included when presenting panel recommendations and findings, such as with a public seminar.
* RE: Reviewing MRGESCP comments on panel reports
  + In step 8 of the Panel Report Next Steps (slide 11 of the Draft Peer Review Process presentation), the panel contractor documents MRGESCP comments. There may need to be another step for the MRGESCP to review and accept changes. There needs to be documented justification for accepting or rejecting comments.
  + It is not always possible to satisfy every comment on a document. That is the reason a public comment review matrix has been used for S&T Ad Hoc Groups.
  + There could be an intermediary SAMC review before the full MRGESCP sees a panel report. The SAMC can identify areas of high contention or potential confusion and coordinate with the ISP on revisions.
    - The PST will add a step into the peer review process for the SAMC to do the first contextual review of panel reports.
* RE: Internal versus external reviews
  + Internal reviews are much more nimble, responsive, and low cost. External expert reviews can cost between $3,000-7,000 per reviewer. An ISP can cost between $75,000-100,000. There should be a high bar for ISPs.
  + The cost difference between the review categories should be more apparent on the comparison chart. Dollar signs could be added to each category or Debbie L. could add cost ranges.
* RE: External experts
  + If we consistently need to looked outside the MRGESCP for expert review, that is a red flag that we need additional expertise in the MRGSCP (ex. New Mexico Meadow jumping mouse expert).
* RE: PMWG Summary Report addendum
  + For the PMWG Summary Report, when there was a lack of consensus, the report moved forward with differing opinions reflected in an addendum. The report carries more weight than an addendum. It may be better to include differing opinions in the report.
  + We have moved away from standing workgroups and the S&T Ad Hoc Group tasks are more specific, so there are fewer areas of disagreement.
* **Action Item**: The SAMC will provide additional considerations for the MRGESCP peer review process as outlined in the meeting presentation

# HR Workshop: August 31, 2021

Catherine M. opened discussion on the HR workshop and reviewed the event agenda (see Draft HR Workshop Agenda and 2021 HR Workshop Questionnaire Results presentation). Summary points are below:

* The HR Workshop is scheduled for August 31, 2021 from 1:00 – 4:00 PM.
* The objectives of the HR Workshop are to discuss defining restoration goals and success, documenting HR project success, and choosing metrics for measuring success.
  + These may not be covered fully at the HR Workshop, but a list of questions and issues will be generated for the MRG HR Guidance Ad Hoc Group to address.
* The HR Workshop will start with a presentation on defining HR success, which includes results from the pre-workshop questionnaire, before moving to break out groups, and closing with report outs from the break out groups.
* Break Out Groups:
  + SAMC members will moderate break out rooms and PST members will record notes. Discussions in break out rooms will be summarized for presentation to the entire HR Workshop.
  + The SAMC will use the set of questions below to moderate break out room discussion. Participants will answer round-robin style.

1. Name, affiliation, and role in HR.
2. How do you define success/performance for HR?
3. What do you measure to document success/performance?
4. Is anything preventing you from collecting the data you want?
5. Share a positive or negative experience with HR.

* Pre-Workshop Questionnaire results are summarized on the 2021 HR Workshop Questionnaire Results presentation. Respondents were asked to answer all questions with respect to their organization’s most recent HR project.
* The outcome of the HR Workshop will be a list of questions, issues, and challenges to send to the MRG HR Guidance Ad Hoc Group. The group will match them up with available resources or recommend next steps for addressing them.
* This upcoming HR Workshop is set up to be the first in a series. Future iterations of HR Workshops could form around more specific topics, such as habitat for individual species.
* After the HR Workshop, the MRG HR Guidance Ad Hoc Group Charge will be updated.
* During the break out groups, the PST will note any participants who contribute heavily to discussions and would be good nominees for the MRG HR Guidance Ad Hoc Group.

Summary points for questions/comments/responses are below:

* RE: HR workshop schedule
  + It would be better to hold off on the HR success presentation until after the break out groups to prevent bias in responses. The results from the Pre-Workshop Questionnaire can still be presented early, but save topics like the Bosque Ecosystem Monitoring Program resources for the end of the HR Workshop.
* RE: Combining organization members into the same break out groups
  + People may learn less if they are in break out groups with people they work with. Spreading them out can help share different perspectives.
* RE: Dividing break out groups by species
  + The purpose of the HR Workshop is to define restoration goals and success, but not for a specific project or species. The conversation should stay broad.
  + Reclamation’s MRG Width Maintenance Program combines riparian and aquatic issues. It would be helpful for others to discuss their projects in a broad, overlapping way.
* RE: Broad HR questions
  + Examples of broad questions: How many times should we be sampling? Are we using metrics that make sense?
  + How success of a project is defined should determine the metrics used and frequency of data collection.
  + When it comes to HR monitoring, researchers look for species presence at the site and any impact on population.
* RE: Changes to break out room questions
  + Remove the question on sharing a positive or negative experience. Responses could get too negative.
  + In Question 4, suggestion to ask where the water for HR is coming from.
    - This would be too contentious.
  + Change Question 3 to “What is your approach to project design?” to elicit information on monitoring, site selection, data collection, duration, etc.
  + Change Question 4 to “What support or resources would help you measure success?” to keep discussion positive.
    - Focus on expectations and how we can help meet them.
* **Action Item**: The PST will send out the HR Workshop agenda
* **Action Item**: The PST will revise the HR Workshop presentation based on SAMC discussion

# HR to Inform Adaptive Management

Ari Posner discussed HR that informs AM. Summary points are below:

* The ideal format for exploring HR that informs AM is an S&T Ad Hoc Group. Related issues may rise out of the HR Workshop, and the SAMC can task an S&T Ad Hoc Group with addressing them.
* The MRG HR Guidance Ad Hoc Charge includes a task for reaching out for related HR resources. It may be more fruitful to synthesize what is being done in the MRG.
  + The task was not intended to exclude or ignore data resources within the MRG. Catherine M. will revise the charge to make this clear.
* The August newsletter will include a section on conservation and planning support tools. There will also be a Resources page on the Portal with links to these tools and any other provided.

# “Collaboratory” Workshop

Debbie L. discussed the proposed Collaboratory Workshop for inclusion in the S&AM Plan operating schedule. Summary points are below:

* MRGESCP participants want to make sure the science being done is management relevant and timely. The PST developed an idea for a biennial workshop to relate scientific results/findings to management needs.
* Participants at the workshop can also bring awareness to any ongoing or upcoming projects that may have been omitted from discussions.
* At the workshop, participants will discuss the MRGESCP’s focus for the next two years corresponding to managers’ needs. Feedback gained through workshop discussions will be used to revise the MRGESCP’s science objectives and strategies.
* The Collaboratory Workshop and Science Symposium will alternate every year. The Science Symposium will help document scientific progress, and the Collaboratory Workshop will strengthen management relevance of the science program.

# SAMC Informal Evaluation

Catherine M. discussed the SAMC evaluation. Summary points are below:

* The EC approved an annual self-evaluation for the MRGESCP. Evaluation is an important part of AM.
* The SAMC members will evaluate their own experience and participation on the SAMC, as well as the support provided by the PST. Feedback will help improve both the SAMC and MRGESCP.
* The formal evaluation will be implemented after the EC approves the process. This is currently projected to be in October.

# Closing Items

* The next SAMC meeting was originally scheduled the same week as the next EC meeting. Therefore, the October SAMC meeting will be rescheduled for the first week of November.
* **Action Item**: The PST will send out a Doodle Poll to reschedule the next SAMC meeting for the week of November 1

**Meeting Participants**

|  |  |
| --- | --- |
| Alan Hatch | EC *Ex Officio* Member |
| Ara Winter | Statistics/Modeling Expert |
| Ari Posner | Geomorphology Expert |
| Catherine Murphy | Program Support Team, SAMC Facilitator |
| Dale Strickland | Program Support Team |
| Debbie Lee | Program Support Team |
| Meaghan Conway | Ecosystem Function Expert |
| Megan Friggens | Climate Science Expert |
| Michelle Tuineau | Program Support Team |
| Mo Hobbs | Aquatic Ecology Expert |
| Ryan Gronewold | Hydrology Expert |