

Population Monitoring Work Group Meeting

October 22, 2020

Meeting Materials:

Agenda

Minutes

Draft Review of MRG Fish Population Monitoring Plan [read-ahead, draft, not included]



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

Population Monitoring Work Group (PMWG)

October 22, 2020

1:00 PM – 4:15 PM

Zoom Information:

<https://west-inc.zoom.us/j/8983593120?pwd=bU54V3NGeG93bXVlSlJFcElzcE9wZz09>

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

Meeting Agenda

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|-------------|--|---|
| 1:00 – 1:15 | Welcome, Intros, Agenda, Meeting Notes <ul style="list-style-type: none">➤ Decision: Approval of Sep 30, 2020 meeting minutes➤ Decision: Approval of Oct 22, 2020 meeting agenda <p>Read aheads:</p> <ul style="list-style-type: none"><input type="checkbox"/> September 30, 2020 PMWG meeting minutes | <i>PMWG Chair</i> |
| 1:15 – 2:20 | Report to Executive Committee (EC) on Current Fish Monitoring Program (FMP) <p>Task 2 Objectives – Open Discussion:</p> <ol style="list-style-type: none">1. Evaluate and Refine Sampling Design2. Evaluate and Refine Sampling Methods3. Evaluate and Refine Data Collection Protocols4. Evaluate and Refine Data Analyses | <i>Rich Valdez, Mike
Marcus, Mo Hobbs</i> |
| 2:20 – 2:30 | Break | |
| 2:30 – 3:30 | Report from Small Group on Flow Modeling Scenarios <ul style="list-style-type: none">• Discussion from Oct 7, 2020 Meeting• Strategy for Developing Flow Scenarios and Parameters <p>Read aheads:</p> <ul style="list-style-type: none"><input type="checkbox"/> Strategy for Consensus on Flow Scenarios | <i>Charles Yackulic</i> |
| 3:30 – 4:00 | Report to EC on Current FMP <p>Task 2 Objectives – Open Discussion (continued):</p> <ol style="list-style-type: none">5. Identify Other Data Needs for Concurrent Sampling6. Evaluate How Modeling May Assist in Refining Monitoring7. Additional Data That Help to Inform Monitoring <p>Read aheads:</p> <ul style="list-style-type: none"><input type="checkbox"/> PMWG Task 2 Status Report-Draft 1.1 | <i>Rich Valdez, Mike
Marcus, Mo Hobbs</i> |
| 4:00 – 4:15 | Wrap-Up <ul style="list-style-type: none">• Announcements• Action Items• Next Meeting | <i>PMWG Chair</i> |
| 4:15 | Adjourn | |



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

Population Monitoring Work Group (PMWG) Meeting Minutes

October 22, 2020; 1:00 PM–4:00 PM

Location: Zoom Meeting

Decisions:

- ✓ Approval of October 22, 2020 PMWG meeting agenda
- ✓ Approval of September 30, 2020 PMWG meeting minutes

Action Items:

Who	What	By When
Program Support Team (PST)	Schedule the November 18, 2020 PMWG meeting	10/23/2020
Charles Yackulic	Send the expert elicitation spreadsheet to the Flow Scenarios Small Group for feedback	10/29/2020
Charles Y.	Send the expert elicitation spreadsheet to the full PMWG	11/2/2020
PMWG	Return completed expert elicitation spreadsheets to Charles Y.	11/13/2020
Rich Valdez	Begin evaluating the implementation of panel recommendations into the Fish Monitoring Program (FMP) and the resulting impact on monitoring results	11/18/2020
Mike Marcus	Send Mo Hobbs and Eric Gonzales the report on dry sites	10/26/2020
Rich V.	Send the PMWG the draft status report and preliminary verbal report for review	Week of November 9th
PMWG	Send comments on the reports to Rich V.	12/7/2020

Next Meeting: November 18, 2020; 9:00 AM – 12:00 PM

Meeting Summary

Welcome, Intros, Agenda, Meeting Notes

Rich V., SWCA Environmental Consultants and PMWG chair, opened the meeting and Debbie L., PST, introduced the meeting attendees. Rich V. reviewed the October 22nd meeting agenda and September 30th meeting minutes.

- ✓ **Decision:** Approval of October 22, 2020 PMWG meeting agenda
- ✓ **Decision:** Approval of September 30, 2020 PMWG minutes

Report to Executive Committee (EC) on Current Fish Monitoring Program (FMP)

Task 2 Objectives – Open Discussion:

1. *Evaluate and Refine Sampling Design*
2. *Evaluate and Refine Sampling Methods*
3. *Evaluate and Refine Data Collection Protocols*
4. *Evaluate and Refine Data Analyses*

The PMWG discussed the draft report for the EC summarizing PMWG accomplishments and progress on Task 2. These were the main points made during the discussion:

- The report to the EC is a status report on Task 2. While Task 2 has not been completed, the report will get the EC up-to-date on progress to date.
- The group was sent a preliminary draft of the report.
 - Some written comments were provided to Rich V.
 - An introduction was written, which identifies the primary goals and objectives under the tasks assigned to the PMWG.
 - A section is set aside for what was done to implement and complete Task 1.
 - Mike Marcus and Mo Hobbs worked to consolidate recommendations from Task 1 and include them in the report.
 - Rich V. is working on the section regarding implementation of and progress on Task 2.
 - In the original charge, there were six objectives under Task 2. The PMWG decided to add an objective about additional data that inform monitoring.
- What is the general sense on the report so far?
 - Task 2 is not measurable as written: the language “evaluate and refine” is not specific about the end goal. What are we trying to refine to and evaluate for? There may be an issue with continuing to work to achieve Task 2 when the goal is ambiguous.
 - There have been multiple Rio Grande silvery minnow (RGSM)-related studies (e.g., gear-type studies, floodplain monitoring, etc.). If those are put first in Task 2, that gives us some information to compare the FMP to. This allows us to evaluate the pros and cons of the FMP as compared to other techniques, like fyke nets. This gives us a better basis for evaluation. Only if there are significant gaps should we decide how to refine the FMP.
 - Question was raised about the relevance of Task 2, which was originally approved by the EC eight years ago. Suggestion to consider the bigger picture and what is needed to inform the Collaborative Program’s science and adaptive management efforts.
 - Another way to approach this report is to consider the 2014 survey of the EC prior to the Hubert workshop (included in the preliminary Task 2 report). EC members were asked what they needed to know and how well the FMP met those needs. Some of the

needs identified as most important by EC members were believed to have been the least thoroughly addressed. For example, although EC members believed it was important for the FMP to evaluate species response to management actions, they did not believe the FMP was meeting that need well. Our efforts should help the FMP better meet the needs of the EC.

- The FMP was not designed to meet all the needs listed on the table. We need to figure out if our end goal is to change the FMP (and possibly lose trend data) or create a new monitoring program that meets the needs.
- Members of the EC might not have accurate or complete opinions on how the FMP is meeting the surveyed needs. There is questionable disparity between some of the responses.
- Technical experts within the Program are supposed to give the EC confidence in the results of the FMP data and how well those data can address their questions.
- We are trying to manage a fish in one of the most highly altered water systems in the West. Much of the management occurs without consideration of ecology or biology. We have to accept that before dealing with the problem. The problem will not go away with just improving the FMP. We need to consider how to manage water to improve conditions for RGSM.
- This group has opportunities for making progress. The data gaps identified through Charles Y.'s work offer areas for moving forward. Refining methods in the FMP may not lead us anywhere.
- If members of the PWMG believe the primary goal of the group needs to change, they should include that in their edits of the report and the group can discuss it.
- There is enough information associated with the FMP to address the objectives under Task 2 in a status report to the EC. The EC originally asked the PMWG to evaluate the FMP and we should complete the request.
 - It is good to give an update on what the PMWG has been doing, but the primary goal may have changed. We need to show that we are moving forward. We need to consider how to refine the goal so that it has value today.
- Should we revise the assignment from the EC?
 - The Collaborative Program does not have the same EC members. The current EC members did not assign tasks to the PMWG and we do not know if they agree with them.
 - We should advise on the direction PMWG work should go and tell the EC how we can help.
 - There have been many studies evaluating the FMP. We should focus on summarizing and evaluating the FMP. Leave refinement for a subsequent step after speaking with the EC.
- Do we need to re-survey the EC?
 - We do not need to ask the EC for direction. We can summarize the things that have been done and shape future tasks. We have the knowledge to tell the EC where there are uncertainties in monitoring and what studies to design to address them.
- What is the goal of showing the 2014 EC survey?
 - A thread can be drawn between the EC's opinions, the recommendations from the science panels, and evaluation of the current FMP. We may not be able to

reconcile the needs and how well the needs are being addressed, but the survey points out areas to focus on.

- There have been studies addressing these needs. We can educate the EC on the challenges that have been overcome and where progress has been made.
- The report addresses two things 1) the information that has been gathered in the last eight years 2) how much of that information has been communicated to the managers. The more important aspect of the report is summarizing the science and communicating it as a message to the EC.
- The EC survey was done prior to CPUE workshop and was meant to inform what should be discussed at the workshop. There are conflicts in the responses, but at the time, the EC knew very little about the FMP.
- The survey results acknowledge that the EC was involved with the PMWG tasks and would not hurt to include. Maybe we could do a survey after the report, to see how responses have changed since 2014.
- The scientists in the PMWG have a better understanding of how well the FMP meets the surveyed needs than the EC members. They would have a better sense of how things have improved and could provide insight in the report.

Report from Small Group on Flow Modeling Scenarios

Discussion from Oct 7, 2020 meeting

Strategy for developing flow scenarios and parameters

Charles Y. reported on the Flow Scenarios Small Group meeting on October 7th. These are the main points from the discussion:

- The group is setting up an expert elicitation process for getting input from the PMWG in the absence of sufficient data related to flow and habitat availability.
- Program members have their own understanding about certain quantities and relationships regarding RGSM habitat and flow scenarios. There may not be representative data for this yet. With expert elicitation, we can make best guesses now and use actual estimates when understanding improves in the future.
- Through this process, Charles Y. is looking to develop a synthetic covariate for predicting spawning success in different reaches and years based on hydrographs.
- Going through the expert elicitation process will also help characterize good or bad hydrographs with regards to producing RGSM. This will help people create criteria that can be used to optimize use given an amount of water in the river.
- We can go through similar exercises to elucidate relationships between extent of drying and survival and speed of drying and survival.
- Charles Y. is in the process of developing spreadsheets to share with the PMWG. Members can come up with their best guesses for manipulating a hydrograph. At a later meeting, we can discuss responses.
- The goal is not to reach a single consensus but to highlight agreement and disagreement.
- What is the model's relationship to the Utah State University (USU) model?
 - This model is distinct from the USU model because it will use knowledge from experts. This will help tease out relationships that have not been addressed before. For example, the relationship between the extent and duration of flow.
 - We do not expect very different results from the USU model, but we may be able to identify how to shape a hydrograph with a given water amount to benefit the RGSM.
 - The model will help with planning, especially during difficult water years.

- Are you thinking year-round or focusing on a particular season first?
 - Charles Y. wants to develop something year-round.
 - There are more questions he needs to ask first, for example:
 - Given the geomorphic change in the last 20 years, has there been reach-level change in the relationship between discharge and larval habitat?
 - The consensus at the U.S. Bureau of Reclamation is that there has been significant geomorphic change, especially in the Isleta Reach. The change coincides with keeping the river wet for the RGSM, which has led to vegetation growth. In addition, river/channel maintenance used to occur in the 1980s. Some have considered doing this maintenance again to gauge response.
 - What potential exists for changing the relationship between discharge and larval habitat through restoration activities?
 - Charles Y. shared a spreadsheet with an example of the format for expert elicitation.
 - PMWG members will manipulate a hydrograph to reflect the amount of larval habitat at different flows.
 - Members will enter a highest reasonable value, a lowest reasonable value, their confidence, and lastly, their best guess.
 - Charles Y. will continue to develop the spreadsheet and send it to the Flow Scenarios Small Group for feedback. The spreadsheet will then be sent to the larger PMWG.
 - The next PMWG meeting will be scheduled for November 18, 2020 from 9:00 AM to 12:00 PM and will cover responses to the expert elicitation.
- **Action Item:** Charles Yackulic will send the expert elicitation spreadsheet to the Flow Scenarios Small Group for feedback
 - **Action Item:** Charles will send the expert elicitation spreadsheet to the full PMWG
 - **Action Item:** The PMWG will return completed expert elicitation spreadsheets to Charles Yackulic
 - **Action Item:** The PST will Schedule the November 18, 2020 PMWG meeting

Report to EC on Current FMP

Task 2 Objectives – Open Discussion (continued):

5. *Identify Other Data Needs for Concurrent Sampling*
6. *Evaluate How Modeling May Assist in Refining Monitoring*
7. *Additional Data That Help to Inform Monitoring*

The PMWG group continued to discuss the Task 2 report to the EC. These are the main points from the discussion:

- Mike Marcus and Mo Hobbs began evaluating progress on the recommendations from the Hubert et al. and Noon et al. science panels. They put together a preliminary table of recommendations and progress.
 - The utility of the recommendations table is to track what has been done. There are ways to house this data in one easily accessible spot. The information is not easy to digest, but this is a great start to synthesizing things.
- Is this report an update on PMWG or on Task 2? We may want to make it shorter. There is a lot of information in the report for the EC to digest.

- The full report will be longer than the summarized version given to the EC. There will be a 2-3 page executive summary.
- Recommendations from the Hubert et al. panel were incorporated into the FMP. This is the 4th year since recommendations were incorporated and we need to evaluate the effect on the FMP.
 - For example, 20 additional monitoring sites were added to the FMP and the results have not been evaluated.
 - Rich V. will begin evaluating the impact of implemented recommendations on the FMP.
 - Mike Marcus will send the report on dry sites to Eric Gonzales and Mo Hobbs.
- **Action Item:** Rich Valdez will begin evaluating the implementation of panel recommendations into the Fish Monitoring Program and the resulting impact on monitoring results
- **Action Item:** Mike Marcus will send Mo Hobbs and Eric Gonzales the report on dry sites
- **Action Item:** Rich Valdez will send the PMWG the draft status report and preliminary verbal report for review
- **Action Item:** The PMWG will send comments on the reports to Rich Valdez

Meeting Participants

Participant	Organization
Andy Dean	U.S. Fish and Wildlife Service
Anne Marken	Middle Rio Grande Conservancy District
Catherine Murphy	Program Support Team
Charles Yackulic	U.S. Geological Survey
Debbie Lee	Program Support Team
Eric Gonzalez	U.S. Bureau of Reclamation
Grace Haggerty	New Mexico Interstate Stream Commission
Michelle Tuineau	Program Support Team
Mick Porter	U.S. Army Corps of Engineers
Mike Marcus	Assessment Payers Association of the Middle Rio Grande Conservancy District
Mo Hobbs	Albuquerque Bernalillo County Water Utility Authority
Rich Valdez	SWCA Environmental Consultants
Thomas Archdeacon	U.S. Fish and Wildlife Service