

NUTRIENT WORK GROUP MEETING SUMMARY

January 9, 2023

9:00 a.m. – 11:00 a.m.
Hybrid Meeting: Zoom and DEQ Room 111

ATTENDANCE: NUTRIENT WORK GROUP MEMBERS

Representative & Affiliation	Representing
Louis Engels City of Billings	Point Source Discharger: Large Municipal Systems (>1 MGD)
Rika Lashley Morrison-Maeirle	Point Source Discharger: Small Municipal Systems with Lagoons
Alan Olson Montana Petroleum Association	Point Source Discharger: Non-POTW
Kelly Lynch Montana League of Cities and Towns	Municipalities
Kelly Lynch (sub. for Shannon Holmes) Montana League of Cities and Towns	Point Source Discharger: Middle-Sized Mechanical System (<1 MGD)
Tammy Johnson Montana Mining Association	Mining
Kristin Gardner Gallatin River Task Force	Conservation Organization: Local
Sarah Zuzulock Zuzulock Environmental Services	Conservation Organization: Regional
Guy Alsentzer Upper Missouri Waterkeeper	Environmental Advocacy Organization
Jeff Schmalenberg MT Dept. of Natural Resources and Conservation	State Land Management Agencies
Andy Efta U.S. Forest Service, Northern Region	Federal Land Management Agencies
Julia Altemus Montana Wood Products Association	Timber Industry
Pete Cardinal Pete Cardinal Outfitters	Water or Fishing-Based Recreation
Scott Buecker AE2S	Wastewater Engineering Firms
Nick Banish Gallatin Local Water Quality District	County Water Quality Districts or Planning Departments
Tina Laidlaw U.S. Environmental Protection Agency	Federal Regulatory Agencies

NOT IN ATTENDANCE: NUTRIENT WORK GROUP MEMBERS

Representative & Affiliation	Representing
Rachel Cone Montana Farm Bureau	Farming-Oriented Agriculture
Raylee Honeycutt Montana Stockgrowers Association	Livestock-Oriented Agriculture
Samantha Tappenbeck Flathead Conservation District	Soil and Water Conservation Districts – West of the Continental Divide
David Brooks Montana Trout Unlimited	Conservation Organization: Statewide
Dan Rostad Yellowstone River Conservation District Council	Soil and Water Conservation Districts – East of the Continental Divide

ATTENDANCE: OTHER PARTICIPANTS

Amanda McInnis, Jacobs
 Amelia Flanery, DEQ, Surface Water Discharge Permitting
 Amy Steinmetz, DEQ, Waste Management and Remediation Division Administrator
 Andy Ulven, DEQ, Water Quality Planning Bureau Chief
 Brian Heaston, City of Bozeman
 Brian Sugden
 Christina Staten, DEQ, Watershed Management Section
 Christine Weaver, DEQ, MPDES Permitting
 Coralynn Revis, HDR
 Darrin Kron, DEQ, Monitoring and Assessment Section Supervisor
 David Clark, HDR
 Ed Coleman, City of Helena
 Ella Lunny, DEQ, Water Quality Permit Writer
 Eric Trum, DEQ, Watershed Protection Section Supervisor
 Erik Makus, EPA, Federal Regulatory Agency
 Hannah New, DEQ, Surface Water Discharge Permitting
 Jack
 Jeff Dunn, WGM Group
 Jeff May, DEQ, Surface Water Discharge Permitting
 Jeremy Perlinski
 Joe Lierow, ExxonMobil Billings Refinery
 Josh Viall, DEQ, Compliance and Technical Assistance Section
 Katie Makarowski, DEQ, Standards and Modeling Section Supervisor
 Kristi Kline, Montana Rural Water Systems
 Kurt Moser, DEQ, Legal Counsel
 Kyle Milke, DEQ, Adaptive Management Program Scientist
 Lindsey Krywaruchka, DEQ, Water Quality Division Administrator
 Lisa Anderson, DEQ, Watershed Protection Bureau
 Logan McInnis, City of Missoula
 Loren Franklin
 Margarite

Mark Ockey, DEQ, Watershed Protection Section
Matte Wolfe, Sibanye Stillwater
Michael Kasch, HDR
Michael Skinner
Michael Suplee, DEQ, Water Quality Standards and Modeling
Moirra Davin, DEQ, Public Information Officer
Nicholas Danielson, DEQ, New Media Specialist
Peggy Trenk, Treasure State Resources Association
Rickey Schultz, HDR
Ryan Koehnlein, DEQ, Water Quality Monitoring Specialist
Ryan Urbanec
Vic Watson, University of Montana Watershed Clinic
Vicki Marquis, Holland and Hart

MEETING PURPOSE / OBJECTIVES

- Discuss key topics and provide clarity for NWG members
 - Phosphorus prioritization
 - Entry into Adaptive Management Planning
 - Ecoregional Ranges
 - Economics – **Deferred to 2/13/2023 meeting**
 - Narrative Standard – **Deferred to 2/13/2023 meeting**
- Discussion of future meeting topics
- Review of 2023 NWG meeting schedule

MEETING HIGHLIGHTS / DECISIONS MADE

- Phosphorus prioritization
 - Adaptive management is flexible
 - Phosphorus prioritization was included because of law
 - Summertime phosphorus reductions will most likely occur via point sources
 - Updated Circular DEQ-15 Figure 1-1
 - Getting phosphorus limits does not mean they are set in stone or that they need to be met immediately
- Entry into Adaptive Management Planning
 - Implementation and monitoring are a part of adaptive management planning
 - Entry into the adaptive management program starts when a plan is submitted to DEQ
 - End of pipe chemistry data can inform the response variables and other monitoring efforts, which helps to prevent degradation
 - Implementation can occur concurrently with monitoring
- Ecoregional ranges
 - Ecoregional ranges are a starting point
 - It is possible to have a value outside of the ecoregional ranges, although unlikely
 - Averaged over a month, compared to metrics to determine if water quality is being met

MEETING INITIATION

Moira Davin, DEQ public information officer and meeting facilitator, welcomed everyone to the meeting at 0904. Moira went over meeting logistics (slide 2 of **Attachment A**), the meeting agenda (slide 3 of **Attachment A**), and took a roll call of Nutrient Work Group members present either via Zoom or in Room 111 of the DEQ Metcalf Building in Helena (slide 4 of **Attachment A**). Moira then presented slide 5 and 6 of **Attachment A** and informed the NWG that Jon Kenning will be leaving and DEQ will be working on finding a permitting replacement for the NWG.

INTRODUCTION TO KEY TOPICS

Amy Steinmetz, DEQ Water Quality Division Administrator, gave a brief introduction to the key topics (slide 7 of **Attachment A**). Emphasis was placed on how far the NWG has come since May 2021. There is the draft rule, circular, and guidance from December 5, 2022 that lay out the foundation of a brand new program in Montana – one designed to improve nutrient water quality at a watershed scale while considering significant challenges that dischargers face in treating for nutrients.

Amy reminded NWG members of the NWG Charter and the very first meeting on May 27, 2021. “Critical success factors include NWG members dedicated to working together to find solutions to common issues that ensure success for all parties. Members should be cooperative, solution-oriented, and willing to listen to opposing viewpoints. Members will need to work to find common goals and priorities and build on those commonalities to find solutions to issues with opposing viewpoints.”

Amy said that as the NWG moves forward, it is important to remember that it is not possible for everyone to get exactly what they want. We are here to do what is best for the state of Montana. That has to mean meeting in the middle on some issues and we must protect beneficial uses. We must be able to listen to one another and to find common ground and meet in the middle.

PHOSPHORUS PRIORITIZATION DISCUSSION

Katie Makarowski, DEQ Standards and Modeling Section Supervisor, went over phosphorus prioritization (slide 8 of **Attachment A**). Katie covered the differing viewpoints: phosphorus prioritization should be included/should occur within the adaptive management program, and that it should allow for a watershed approach. It was also mentioned that nitrogen should be addressed as well.

Katie then covered DEQ’s proposal for phosphorus prioritization (slide 9 of **Attachment A**). Katie mentioned: the flexibility of the adaptive management program; that phosphorus prioritization was included in accordance with the law, and also included because there is potential for this approach to be successful in protecting beneficial uses, to be verified via response variables; and most opportunities to significantly reduce summertime phosphorus loads will be most likely achieved via point source reductions.

Katie stated that as described in the rule package, if DEQ determines that phosphorus prioritization is not appropriate (based on site-specific conditions) or is not sufficient to prevent excursions of the narrative nutrient standard, the permittee would receive TP and/or TN effluent limits that protect the most sensitive beneficial use. DEQ’s rule package, as proposed, does not preclude a permittee from submitting an adaptive management plan that incorporates both point and nonpoint source phosphorus reduction actions.

Kelly Lynch, Montana League of Cities and Towns, made note that this was not their intent under Senate Bill 358 – that it would all be part of the adaptive management plan. Kelly clarified by saying that they want to be able to prioritize actions that prioritize phosphorus and not nitrogen, and what they think will get the biggest bang for the buck. Amy Steinmetz responded by reminding everyone that in the last few meetings we have talked about how we're not precluding that being an option, however, a monitoring plan would need to be submitted to DEQ.

Moira Davin shared the updated Circular DEQ-15 Figure 1-1 with the NWG (slide 25 of **Attachment A**). Achieving phosphorus reductions could be/should be part of an adaptive management planning process. There was some disagreement over the figure and how it still places phosphorus limits based on ecoregional ranges.

Kelly Lynch recommended capping at current. Amy Steinmetz said that there may be situations in which we could cap at current, but the reasonable potential analysis will determine if that is appropriate.

Amanda McInnis, Jacobs, mentioned that specific watershed-based science should be placed on a higher level than ecoregional values that were developed on a larger scale. Ecoregional ranges should be a part of the consideration of what happens within an individual watershed as part of adaptive management planning. Tina Laidlaw responded that when the state is submitting a package to EPA, there needs to be a replacement for the numeric criteria you are removing. The ecoregional ranges are part of the clarity and can be changed based on the adaptive management planning.

Andy Ulven, DEQ Water Quality Bureau Chief, sees an initial limit based on the best available information and a goal that is refined through monitoring and evaluation. Potentially capping at current would be an option.

Christine Weaver, DEQ MPDES Permitting, made mention that getting phosphorus limits does not mean meeting the limits tomorrow, it could be over a longer period, for example, a 20-year compliance schedule. If adaptive management planning is chugging along, the limit can change. Erik Makus mentioned that having a goal based on the best available science is the best option, from a Clean Water Act permitting perspective.

Tammy Johnson, Montana Mining Association, asked if you have both initial reasonable potential and are entering adaptive management, can those limits be changed once they are in a permit? Erik Makus, EPA, responded that the permit limits can change. In the Clean Water Act, there is discussion about anti-backsliding. It states final effluent limits can't be made less stringent unless there are some exceptions as specified in law, for example:

- new information has come to light
- significant changes have been made to the facility

Scott Buecker, AE2S, asked why are we fixated on phosphorus limits going immediately to the ecoregional range? Is there some step in there? Tina Laidlaw responded that the ecoregional ranges are what are out there that is scientifically defensible.

Kurt Moser closed out the discussion by saying that the adaptive management works like a compliance schedule. It is always difficult to talk specifics because every permit is different. If you set a final effluent limit at the end, that's the final effluent limit, you're not backsliding because you're not there yet. If we

get more info through the adaptive management process, then we can change those limits and we don't view that as backsliding. You don't have to meet the final limit right away.

ENTRY INTO ADAPTIVE MANAGEMENT PLANNING DISCUSSION

Kyle Milke, DEQ Adaptive Management Program Scientist, went over entry into adaptive management planning (slide 10 of **Attachment A**). Kyle covered the differing viewpoints: it is unclear where adaptive management planning starts, and we should circle back to this, and using response variables allows degradation to occur.

Kyle Milke covered DEQ's proposal for entry into adaptive management planning (slide 11 of **Attachment A**). Kyle mentioned: You enter the adaptive management program when you provide DEQ with an adaptive management plan; by definition, implementation and monitoring is part of adaptive management planning; and that an adaptive management plan includes a watershed monitoring plan and, if required, an implementation plan.

Once it has been determined that phosphorus prioritization is appropriate, the facility should start implementation and monitoring efforts under adaptive management planning. Monitoring produces valuable site-specific data that can inform implementation and evaluation of adaptive management planning actions.

Kyle Milke reminded the NWG of the non-degradation policy. Non-degradation is addressed via the Non-degradation Policy within Montana state statute (75-5-303, MCA) and via Montana's non-degradation rules (ARM 17.30.7). The adaptive management program is an incremental watershed-based approach that allows for flexible decision making. Management actions can be adjusted based off response variables and chemistry data (i.e., combined criterion approach). There are multiple lines of evidence that support the decisions that will be made.

Tina Laidlaw asked if there is a reason why when you enter an adaptive management plan and you are doing the monitoring, that you are also not looking at implementation? Why is there a distinction between the two? Andy Ulven responded that we view it as happening simultaneously. There may be optimization changes that happen right away, but there can be some watershed scale implementation that could be taken on immediately. It starts when you submit a monitoring plan. The monitoring plan must be approved. At the same time, we might ask for a version one of the implementation plan. In most cases, in summer, there are not many opportunities for non-point source implementation, but not to say there are zero. Katie Makarowski added that some of this will be dependent on the complexity of the watershed, how many stakeholders there are, how many point sources, etc.

Kelly Lynch closed out the discussion by mentioning that the whole idea of Senate Bill 358 was to constantly reanalyze, revisit, and take action.

ECOREGIONAL RANGES DISCUSSION

Mike Suplee, DEQ Water Quality Standards and Modeling, went over ecoregional ranges (slide 12 of **Attachment A**). Mike covered the differing viewpoints: the ecoregional ranges are the same as previous numeric criteria and that they are not local but are regional, and that the ecoregional ranges are aspirational and unachievable.

Mike Suplee then covered DEQ's proposal for ecoregional ranges (slide 13 of **Attachment A**). Mike mentioned: ecoregional ranges are a starting point; values outside of ecoregional ranges are allowed with DEQ approval; there is a greater focus on the response variables as compared to the chemistry data, and he put emphasis on the combined criteria approach.

Tina Laidlaw asked, looking at Circular DEQ-15, are these going to be seasonal averages? Mike Suplee responded that what we have so far is that we would view them as averages over a month and compared to metrics to determine if water quality is being met – are we inside or outside of the range. Mike Suplee mentioned Kurt Moser explained the idea that final permit limits can be set well into the future via a compliance schedule very well. We added in circular if you identify a value outside of ecoregional ranges and it is protective, that's fine, as long as you have the data to support it. The combined criteria approach is compliant with the Clean Water Act.

Dave Clark asked Mike Suplee, how would you consider multiple sampling locations, are you thinking of averaging them? Mike Suplee responded that we are open to this idea. It needs to be determined how this gets put together in the adaptive management planning; so far DEQ has, presumed there will be an initial single downstream location and developed DEQ-15 to address that. If there are two locations that are both considered downstream affected areas, we'll have to come up with more details on how those data can be put together. DEQ's Monitoring and Assessment Section who often will have several data collection points within a stream reach, has processes for aggregating data across sites.

Guy Alsentzer, Upper Missouri Waterkeeper, mentioned he would like a deep dive on the table with response variable parameters. Guy asked how does DEQ use that to do its ongoing compliance monitoring, how are we reconciling something with reasonable potential and then response variables are triggered, how does that inform permit development or effluent limits? Mike Suplee reiterated Jon Kenning's points in the previous meeting that if you start into a permit without response variable data, and you identify a long-term value from the ecoregional ranges, then in the interim the data collection process for response variables begins. At some point in the future (3-5 years) enough data will have been collected to use the translator. If it isn't met, that informs permit decisions. If it is met, whatever they are treating to at that point in time is essentially adequate to meet beneficial uses.

David Clark mentioned the crux is with ecoregional values, the way your combination decision tables work, it is a very narrow pathway. The immediate establishment of a final effluent limit, precludes those considerations in the adaptive management planning to determine site specific conditions. This forces consideration of one thing, the next level of treatment for a point source. Mike Suplee responded that it actually opens up more doors for possible considerations as the permit process advances over the years than there was when we were under Circular DEQ-12A.

David Clark asked what would the incentive be for a utility pursuing adaptive management if there are compliance schedules as an option? Mike Suplee responded, in the translator case, if you are exceeding nutrient criteria ranges but you meet the response variables – the standard is met. In that case, what is occurring at the facility is sufficient.

CLOSING REMARKS

Amy Steinmetz closed out the meeting by bringing up a few important topics.

Funding: DEQ has calculated that this process has cost the state about a half of a million dollars over the last year and a half. Until recently, all of DEQ's efforts to develop an adaptive management program have been with existing staff, which means that those staff have been taken away from their regular responsibilities and other work is not getting done. The program will not be able to be implemented without some sort of cash infusion, likely an adaptive management program fee structure. We plan to bring this up in NWG meetings over the next three to four months.

Legislation: If you're considering legislation, I would ask the important question, "Why?" Is it because you're not getting exactly what you want or do our current laws truly create some problem that must be addressed through legislation. If you are putting forth legislation, or you're considering it, I ask you to please do a few things. 1) Make sure you've read and understand the current rule drafts. If you have questions about the current drafts, please contact DEQ so we can discuss. And 2) please visit with DEQ about your ideas and concerns so that we can help be a part of the solution, especially because we will need to be an integral part of implementing it.

OVERALL PROCESS DISCUSSION

PUBLIC COMMENT

Time was taken at the end of the meeting for public comment. Ed Coleman, City of Helena, asked why no one from permitting was present at the meeting and requested that DEQ have someone from permitting at future meetings. Moira Davin noted that DEQ announced at the beginning of the meeting that Jon Kenning was not able to attend and has accepted a new position and will be leaving DEQ. DEQ will be determining a replacement for the NWG from permitting. It was also noted that Christine Weaver from permitting was present at the meeting.

Vic Watson, University of Montana Watershed Clinic, asked if DEQ had some information on costs that will allow DEQ to ask for some new resources from the legislature this session. Amy Steinmetz mentioned that DEQ does not have plans to request funding from the legislature this session. Once the program is in place, and reviews are being conducted, it would be appropriate to have a fee structure on the submittals.

Moira Davin noted that there was no one else with their hand raised. She then covered upcoming 2023 meetings (slide 18 of **Attachment A**). She noted that everyone should finish reviewing the rule package by the February 13, 2023 meeting.

The meeting was ended at 10:59 a.m.

**ATTACHMENT A: JANUARY 9, 2023 NUTRIENT WORK GROUP MEETING
PRESENTATION SLIDES**

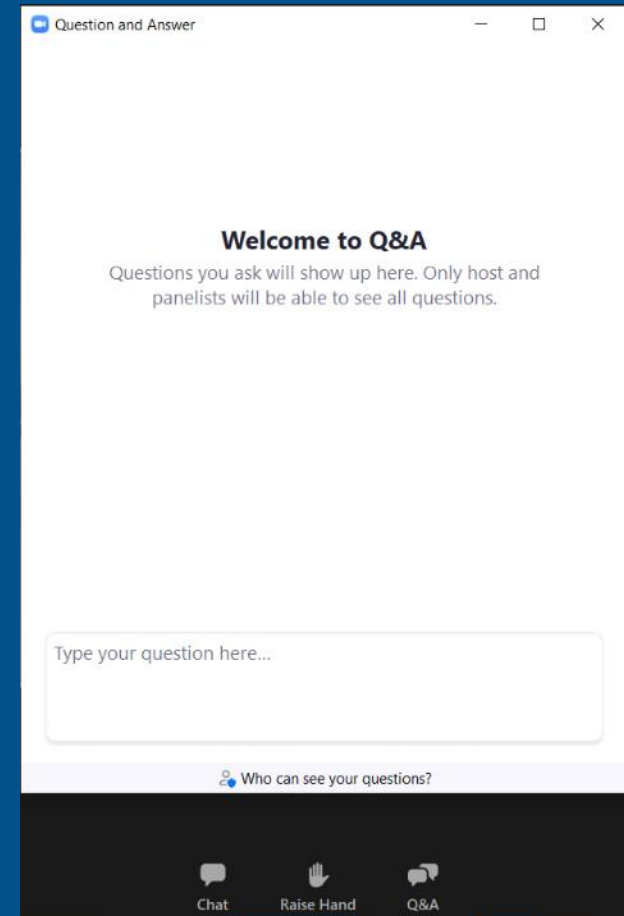


Nutrient Work Group

January 9, 2023

Welcome!

- This meeting is a webinar
- NWG members will be panelists
- Members of the public can raise their hand or use the Q&A feature to ask questions during the public comment portion of the meeting
- *9 raises your hand if you're on the phone
- State your name and affiliation before providing your comment



Unmute

Chat

Raise Hand

Q&A

Leave

Agenda

Meeting Goal: Discuss key topics and provide clarity for NWG members

Preliminaries

- Nutrient Work Group Roll Call

DEQ Updates

- Water Protection Bureau Chief

Key Topics

- Phosphorus Prioritization
- Entry into Adaptive Management Planning
- Ecoregional Ranges
- Economics
- Narrative Standard

Public Comment & Close of Meeting

- Public Comment
- Schedule of Upcoming Meetings

Roll Call

Nutrient Work Group Members

Interest Group	Representative	Substitute
Point Source Discharger: Large Municipal Systems (>1 MGD)	Louis Engels	
Point Source Discharger: Middle-Sized Mechanical Systems (<1 MGD)	Shannon Holmes	
Point Source Discharger: Small Municipal Systems with Lagoons	Rika Lashley	
Point Source Discharger: Non-POTW	Alan Olson	
Municipalities	Kelly Lynch	
Mining	Tammy Johnson	
Farming-Oriented Agriculture	Rachel Cone	
Livestock-Oriented Agriculture	Raylee Honeycutt	
Conservation Organization - Local	Kristin Gardner	
Conservation Organization – Regional	Sarah Zuzulock	
Conservation Organization – Statewide	David Brooks	
Environmental Advocacy Organization	Guy Alsentzer	
Water or Fishing-Based Recreation	Pete Cardinal	
Federal Land Management Agencies	Andy Efta	
Federal Regulatory Agencies	Tina Laidlaw	
State Land Management Agencies	Jeff Schmalenberg	
Water Quality Districts / County Planning Departments	Nick Banish	
Soil & Water Conservation Districts – West of the Continental Divide	Samantha Tappenbeck	
Soil & Water Conservation Districts – East of the Continental Divide	Dan Rostad	
Wastewater Engineering Firms	Scott Buecker	
Timber Industry	Julia Altemus	



DEQ Updates

DEQ Updates

- Staff Updates



Key Topics

Phosphorus Prioritization

Have we captured these accurately?

DEQ's Proposal

- Bill states “...prioritizes the minimization of phosphorus, taking into account site-specific conditions.”
 - Protective of beneficial uses
 - Verification through response variable monitoring
- Phosphorus prioritization
 - Implementation
 - Monitoring
- Reductions
 - Facility optimization
 - Upgrades
 - Adaptive management planning

Entry into Adaptive Management Planning

Have we captured these accurately?

DEQ's Proposal

- Adaptive management planning
 - Implementation
 - Monitoring
- Efforts to reduce phosphorus
 - Optimization
 - Facility Upgrades
- Planning actions
- Combined criterion

Ecoregional Ranges

Have we captured these accurately?

DEQ's Proposal

- Ecoregional ranges are a starting point
 - Reasonable potential when there are no response variables available
- Combined criteria approach
 - Translator
- Geographic variability
 - Uniform aquatic ecological environment
- Values outside of ecoregional ranges
 - Allowed—but need to be protective of beneficial uses
- Greater focus on response variables
- Compliance with the Clean Water Act

Economics

Have we captured these accurately?

DEQ's Proposal

- Economics have always been considered
- Variety of options
 - Partnerships
 - Nutrient trading
 - Variances
- Phosphorous prioritization
 - More economically feasible
- Higher costs – Watershed-scale AMP strategy

Narrative Standard

Have we captured these accurately?

DEQ's Proposal

- Narrative standard translation
 - Incorporation into MPDES permits
 - Incorporation into other department programs
- New Rule I
 - Beneficial uses protected
 - Narrative nutrient standards achieved
- **Combined criterion approach**
 - Causal and response variables expression
- EPA Combined Criteria Memo

Topics to Discuss in 2023

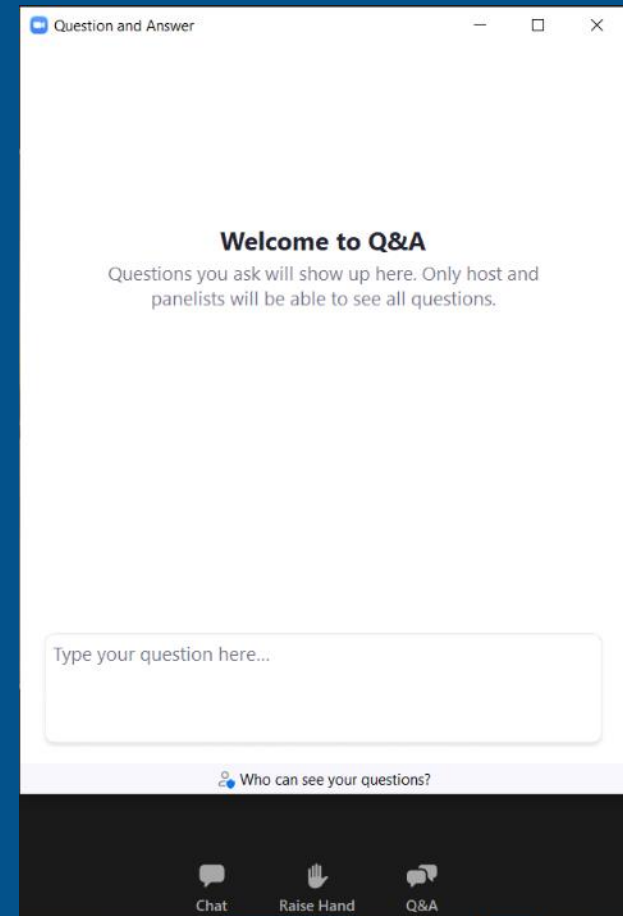
- February 13, 2023
 - Rule package review – **Finish reviewing, submit or come with questions**
 - Funding, resources, and costs
- March 13, 2023
 - MEANSS Model and Nutrient Trading
 - How to select approvable nonpoint source projects / BMPs
- April 10, 2023
 - DEQ resources and costs



PUBLIC COMMENT

Questions/ Comments

- Raise hand (*9 if on the phone) or type questions into the Q&A
- DEQ will unmute you if you wish to provide your comment orally
- If calling by phone, press *6 to unmute
- State your name and affiliation before providing your comment



Unmute

Chat

Raise Hand

Q&A

Leave



Upcoming Meetings

Upcoming Meeting Schedule

- Monday, February 13, 2023, 9 – 11 a.m.
- Monday, March 13, 2023, 9 – 11 a.m.
- Monday, April 10, 2023, 9 – 11 a.m.

Meeting Summary

❖ Phosphorus prioritization

- Implementation
- Monitoring
- Adaptive Management planning

❖ Entry into AMP

- Implementation and Monitoring: Planning
- Phosphorus reductions at point source
- Adaptive management planning actions

❖ Economics

- Have always considered economics
- Tools: partnerships, nutrient trading, and variances
- P prioritization is economically more feasible

❖ DEQ narrative standard

- Combined criteria approach
- Protective of beneficial uses of state waters
- EPA Combined Criteria Memo

❖ Ecoregional ranges

- Used if there is RP, but no RV data
- Geographic variability
- Combined criteria approach

Thanks for Joining Us

Contact:

Kyle Milke

kyle.milke@mt.gov

To submit comments or questions



<https://deq.mt.gov/water/Councils>



