NUTRIENT WORK GROUP MEETING SUMMARY
JUNE 10, 2021

9:00 a.m.
Zoom Meeting

ATTENDANCE: NUTRIENT TECHNICAL SUBCOMMITTEE GROUP MEMBERS

Representative & Affiliation	Representing
Rainie DeVaney (co-chair)	DEQ, Surface Water Discharge Permitting Section Supervisor
Michael Suplee (co-chair)	DEQ, Water Quality Standards & Modeling
Dave Clark HDR	Point Source Discharger: Large Municipal Systems (>1 MGD)
Rika Lashley Morrison Maierle	Point Source Discharger: Small Municipal Systems with Lagoons
Shane Lacasse CHS Inc.	Point Source Discharger: Non-POTW
Amanda McInnis Consultant for MT League of Cities and Towns	Municipalities
Matt Wolf Sibanye Stiillwater	Mining
Rachel Cone MT Farm Bureau Federation	Farming-Oriented Agriculture
Sarah Zuzulock Consultant	Conservation Organization-Regional
	Conservation Organization – Statewide
	Environmental Advocacy Organization
Thor Burbach U.S. Forest Service	Federal Land Management Agencies
Tina Laidlaw U.S. Environmental Protection Agency	Federal Regulatory Agencies
Jeff Schmalenberg MT Dept. of Natural Resources and Conservation	State land Management Agencies
Pete Schade Lewis and Clark Water Quality Protection District	Water Quality Districts / County Planning Departments
Coralynn Revis HDR	Wastewater Engineering firms

NOT IN ATTENDANCE: NUTRIENT TECHNICAL SUBCOMMITTEE GROUP MEMBERS

Representative & Affiliation	Representing
Vacant	Point Source Discharger: Middle-Sized Mechanical Systems (<1 MGD)
Vacant	Livestock-Oriented Agriculture
Vacant	Conservation organization - Local

Representative & Affiliation	Representing
Vacant	Water or Fishing-Based Recreation
Vacant	Soil & Water Conservation Districts – West of the CD
Vacant	Soil & Water Conservation Districts – East of the CD
Julia Altemus	Timber Industry

ATTENDANCE: OTHER PARTICIPANTS

Alan Olson, Montana Petroleum Association
Amelia Flanery, DEQ, Surface Water Discharge Permitting
Amy Deitchler, Great West Engineering
Amy Steinmetz, DEQ, Water Quality Division Administrator
Bob Zimmer
Christina Staten, DEQ, Watershed Protection Section
Christine Weaver, DEQ, Surface Water Discharge Permitting
Christy Meredith, DEQ, Watershed Protection Section
Cori Hach, Montana Legislative Services Division
Darrin Kron, DEQ, Monitoring and Assessment Section Supervisor
Ed Coleman, City of Helena
Erik Makus, U.S. Environmental Protection Agency
Galen Steffens, DEQ, Water Quality Planning Bureau Chief
Griffin Nielsen
Hanna New, DEQ, Surface Water Discharge Permitting
Heather Henry, DEQ, Surface Water Discharge Permitting
Jeff May, DEQ, Surface Water Discharge Permitting
Joanna McLaughlin, DEQ, Surface Water Discharge Permitting
Jon Kenning, Water Protection Bureau Chief
Kayla Glossner, DEQ, Surface Water Discharge Permitting
Kristy Fortman, DEQ, Watershed Protection Section Supervisor
Lauren Sullivan, DEQ, Water Quality Standards and Modeling Section
Loren Franklin, KC Harvey Environmental
Louis Engels, City of Billings
Lynn Mass, Friends of Lake Mary Ronan
Maya Rao, DEQ, Surface Water Discharge Permitting
Melinda Horne, DEQ, Surface Water Discharge Permitting
Michael Kasch, HDR
Michelle Pond, WGM Group
Moira Davin, DEQ, Public Information Officer
Rickey Schultz, HDR
Ryan Leland, City of Helena
Ryan Sudbury, City of Missoula
Susie Turner
Vicki Watson

MEETING OBJECTIVES

- Share draft Adaptive Management Flowchart
- Get feedback from TSC on the draft AM Flowchart and other supporting materials
- Work on details of the Adaptive Management Program

MEETING HIGHLIGHTS

- Desire to have more frequent meetings
- Improved ways to share documents for TSC to provide written feedback
- Modifications to the structure of the flowchart
- Edits to the definition

A list of meeting action items and discussion topics flagged for future meetings can be found at the end of this summary

MEETING INITIATION

Rainie DeVaney welcomed everyone to the meeting and thanked everyone for their time and participation. The technical subcommittee (TSC) meetings were described to the group as an extension of the larger Nutrient Work Group meetings and designed to be working sessions for technical topics. Rainie reviewed the agenda, the goals for the meeting, and the supporting materials previously distributed to the group.

Rainie introduced DEQ contacts that may be in regular attendance and participating in the TSC meetings and Christina Staten conducted a rollcall of TSC members in attendance.

RULEMAKING FRAMEWORK OVERVIEW

Mike Suplee reviewed the rulemaking framework and described how the day's TSC meeting fits in with the overall objectives and timeline of the Nutrient Work Group. The timeline Mike referenced had previously been presented at the May 27 Nutrient Work Group meeting and has since been updated to include Nutrient Work Group meeting dates. See **Attachment A** for the presentation slides.

Mike noted the first Nutrient Work Group meeting was held on May 27, 2021. At that meeting, it was discussed that the Nutrient Work Group would like to begin working on key components of Adaptive Management Program (AMP). Mike described how that Nutrient Work Group objective fits with the goals for the day's TSC meeting and reiterated that DEQ would like to hear from the TSC on the draft materials previously distributed and would like to work on details of the AMP. It is a goal to have defined the overall work for the AMP by the June 23 Nutrient Work Group meeting **(Action)**. Meeting this goal will support the second Nutrient Work Group meeting where they can discuss the definition and move into a watershed-scale framework.

Mike continued to review the Rulemaking Framework Activities outlining milestones for both the Nutrient Work Group and TSC between May 27 and October 27, 2021.

Discussion

There was discussion around the timeline. Dave Clark commented on the ambitious timeline and noted that the content for the TSC meetings may be substantial. Mike commented that DEQ intends to keep to the schedule as best as possible and that there is a statutory obligation to complete rulemaking by March 2022. He noted that DEQ would like the rulemaking (with supporting rulemaking documents) to begin in November to ensure the March deadline is met.

There was discussion around guidance documents initiated by Amanda McInnis, where Mike described that DEQ anticipates the development of guidance documents and standard operating procedures (SOPs). Those documents would be developed in conjunction with rulemaking but due to the finer details, may be completed after rulemaking and not necessarily before.

ADAPTIVE MANAGEMENT FLOWCHART

Rainie explained that the purpose of the flowchart is to visually represent the mechanics of how this process may work. The flowchart is meant to describe the foundation for the process and the mechanics to guide the finer detailed discussions of future Nutrient Work Group and TSC meetings. Rainie acknowledged that one missing component of this flowchart is time. Rainie requested feedback from the TSC about that and what is realistic **(Action)**.
Rainie walked through the flowchart describing each of the eight boxes/steps. See **Attachment A** for the presentation slides.

Discussion

Rika asked if this process would include locally developed narrative standards. Rainie responded that the narrative standards are those referenced in the Administrative Rules of the Montana of the State of Montana and noted that could be clarified if the TSC would like **(Action)**. Rainie asked the group for feedback on the diagram and the steps.

Dave Clark commented that for each box the focus is on the permittee along with DEQ review and approval. He elaborated that Senate Bill 358 does not assign all the responsibilities to the permittees and that for this to be successful from a watershed management standpoint there needs to be other stakeholders to be engaged and other sources of loadings to be engaged and responsible for actions beyond Box 5. Dave asked if the DEQ concept for the AMP is exclusively assigned to point source dischargers? Rainie responded that there is a focus on permittees because that is the regulatory mechanism and noted there is room for improvement on the flowchart and encouraged the TSC to provide suggestions on how to improve for the flowchart so that it can acknowledge the health of the watershed as a whole.

Tina Laidlaw asked when will the Monitoring Plan be submitted (is that part of the permitting application)? When will the public get to review what is being proposed for monitoring? Will DEQ have monitoring guidance? Rainie reiterated that the time component is not addressed in the flowchart in its current form and would like to hear feedback from the TSC on this **(Action)**. With regards to the public notice and/or public participation, those details are yet to come. Permits are available for public participation but how exactly public comment is incorporated into the different steps in the AMP needs to be worked out. Rainie flagged that for future discussion **(Action)**. Rainie acknowledged that any of the box's in the flowchart could have supporting guidance, SOPs, or other supporting materials from

DEQ and reiterated that the objective with this flowchart is for everyone to be on the same page with the foundation before getting into those finer details which are flagged for future discussion **(Action)**.

There was discussion pertaining to how AMPs are developed and applied. Rainie noted that the AMP could incorporate more than one permittee, such that there is one AMP at the watershed scale incorporating multiple permittees. Rainie elaborated that the directive is to have AMPs for watersheds with nutrient contributions meaning that every point source discharger (which includes nitrogen as a pollutant of concern) should be included in an AMP at some level. Rainie commented that DEQ would like to leverage what resource are already available such as TMDLs or loading analysis previously conducted by DEQ. Dave Clark had some comments on TMDLs expressing some concern about many being outdated and no longer relevant. Caution was expressed to not create a process that creates a distraction. Kristy Fortman noted that any changes to targets in TMDLs must go back through EPA and the public comment which takes time. Rainie clarified for the group that there are specific TSC meetings in the future where the focus for discussion will be the nexus between this new directive and TMDLs and requested we focus on the objective for the day's meeting and discuss TMDL's at future meetings.

Sarah Zuzulock suggested that it may be helpful to develop a case study to use that as guidance for how to go through this process. This could include how the discharger and non-point source or other stakeholders ultimately participate in the process on a watershed basis **(Action)**.

AMP FLOWCHART DETAILS

Rainie walked through a series of slides describing each box of the flowchart in more detail and leaving room for open dialogue for each of box or step of the flow chart.

DISCUSSION: FLOWCHART BOX 1

Box 1: Permittee submits Monitoring Plan under their AMP

Rainie described the Monitoring Plan in more detail while acknowledging the finer details are yet to come. Rika inquired about the cost of the monitoring for both lab and staff. She highlighted that very small dischargers can often have one employee doing a multitude of jobs and these small dischargers do not have the resources for more. She asked if there is a role for DEQ in assisting these additional monitoring efforts or if funding can be found for these small systems to assist. There was no answer to this question, but Rika emphasized the importance of this question and the impact on small dischargers as something to consider as the discussions and process carry forward.

Sarah Zuzulock asked, what is the scope for the permittee? Who is responsible for ultimately providing baseline data for the watershed? If there is a TMDL or watershed plan that needs to be updated, who does that and is that part of what is within the scope of monitoring for a permittee? Rainie commented that DEQ is working on doing an inventory of Montana's watersheds and hoping to leverage data previously collected. She noted that this new directive will increase monitoring requirements for the regulated community. Mike added that there is a future Nutrient Work Group and subsequent TSC meeting where the "scale" will be specifically discussed and some of those questions will be addressed at that time. For example, what is done on a large river is different than what is done on a small stream. Mike elaborated that monitoring upstream and downstream of a facility is well within the scope. He noted that additional discussions need to take place to come to a decision on how that fits within the watershed scale and referenced that some of that work has already been done, some needs to be done,

some of that work is currently being carried out by watershed groups. Details on how all these pieces fit together need to be worked out.

DISCUSSION: FLOWCHART BOX 2

Box 2: Per monitoring plan, permittee assesses health of watershed and receiving waterbody via applicable response variables/thresholds

Rainie noted Box 2 is really addressing the question, "how is the watershed responding to its current nutrient loading?" Rainie acknowledged that there are future meetings reserved for discussion on response variables and thresholds and getting into the finer details of what that means and how it relates back to the Monitoring Plan.

There was discussion around modifying the structure of the flowchart. Dave Clark provided a suggestion that the flowchart be structurally modified to include additional feedback loops. Specifically, Dave noted Box 7 could go back to Box 2. Dave briefly linked this to achievability. Mike added that ultimately Box 7 asks, is there a problem in the watershed, yes or no. He noted that this is the root of the new law. The new law says that we have to operate under the narrative standard and how that links to achievability may be a discussion for down the road. Dave suggested separating Box 2 to include a box for the Monitoring Plan and a separate box that has this consideration of the response variables and thresholds to focus that discussion. He noted, it may help to facilitate discussion and better represent the iterative process that may be expected under an AMP. Mike committed to making the flowchart available as a PowerPoint file, sending it to the TSC, and getting feedback on modifications folks would like to see **(Action)**.

Tina Laidlaw noted EPA would like to hear from DEQ in a future meeting on the following; from a permitting standpoint, reasonable potential analysis looks at causing and contributing. There is talk about doing some downstream analysis but it could also be that elevated concentrations of nutrients could contribute to an issue that just hasn't yet been manifested, so EPA will be curious how the state plans to address that piece. This was flagged for DEQ **(Action)**.

DISCUSSION: FLOWCHART BOX 3

Box 3: Permittee begins stakeholder engagement, watershed inventory, identifying the most commonly limiting nutrient.

Rainie described this box as a deep dive into the watershed inventory. This could include identifying potential sources, data sources and data gaps, identifying partners, and identifying the commonly limiting nutrient for the watershed.

Pete Schade reiterated earlier comments expressed by others that the responsibility seems to rely heavily on the permittee to do a number of watershed assessments that are watershed-wide in support of their permitting requirements. He also requested the opportunity to provide written comments on the materials presented in the day's meeting. Rainie emphasized DEQ would like the detailed feedback and encouraged those on the TSC to send written comments. Co-chairs committed to sending the meetings supporting materials in a format other than PDF so that comments and feedback can be sent **(Action)**.

DISCUSSION: FLOWCHART BOX 4

Box 4: Permittee analyze sources and loads.

Rainie described this as the quantification of loads and provided an example of how Wisconsin uses PRESTO.

No additional discussion.

DISCUSSION: FLOWCHART BOX 5

Box 5: Permittee develops action items and goals for reductions

Rainie described this box as "what actions items can we do that are specific" and "what reduction goals do you think we can achieve?" This could include optimization efforts, treatment improvements, and best management practices (BMPs). Rainie acknowledged financial responsibilities, commitments, and other partnerships within the watershed.

Rika noted if there is a watershed with a point source discharger, sometimes there may be the biggest bang for the buck is to do something downstream of the point source discharge. She noted that in the past EPA hasn't been open to looking at that because they say targets need to be met at the point source if they are truly holding the point source accountable. Rika went on to ask, is addressing downstream more on the table with this whole effort? What can DEQ's role be in holding other stakeholders accountable? Mike responded that the downstream question is addressed in Circular DEQ-13 and that "directional trading" is allowed but no hot spots can be left behind. To Rika's other question, Mike noted that this will continue to be figured out throughout this whole process.

There was some discussion on the regulatory law in the state that requires water quality standards to be met by the point-source whereas non-point source is voluntary. Kristy Fortman noted that the non-point source has limited funding each year and funds approximately five projects per year of approximately 2-3 stream miles. She noted there is a lot of work going on in non-point source and the partnerships are strong but the overall funding is limited in comparison of what needs to be accomplished. There was further discussion lead by Dave Clark on including the local conservation districts engaged in these TSC meetings to include their expertise, knowledge of the watershed, information on funding pathways to frame this all. He noted the permittees have a more limited viewpoint on some of these details of the watershed. Rainie noted that it would be helpful if DEQ could have a coordinator to help facilitate watershed relationships to help this process go a long way, but the details of that are still to come.

DISCUSSION: FLOWCHART BOX 6

Box 6: Permittee implements actions, assesses effects on waterbody. Recommends adjustments, if needed.

Rainie described this box as the implementation portion whether its optimization, BMPs, or other.

No additional discussion.

DISCUSSION: FLOWCHART BOX 7

Box 7: Are narrative standards achieved?

Rainie described this step as ultimately asking, "are narrative standards being met?" Is the waterbody being protected?

Sarah Zuzulock noted that she does not think narrative standard can be the only measure that triggers action steps back to looking at improving water quality in Box 5. She elaborated that current permit holders with NPDES limits that are based on numeric standards and that the anti backsliding component is very important. Rainie agreed that there may be other measures that trigger action and flagged this to discuss in more detail at a future meeting **(Action)**.

OPEN DISCUSSION OF PROPOSED ADAPTIVE MANAGEMENT PROGRAM

Tina Laidlaw asked, where does the NPDES permit application process fit in to this whole process? Rainie noted permittees will be in various stages and that finding a structure that works for everyone is ideal. Mike noted some of the early steps would take considerably less time than later steps. Rainie encouraged feedback on a structure that answers this question **(Action)**.

Rika asked if AMPs can be covered under special conditions? Rainie responded yes, most likely.

Amanda McInnis added that there is ARPA funding coming to many municipalities and even the smaller ones could use that money to do some of the adaptive management work. Applications are due by July 15. Amanda commented on the responsibility of point-source and non-point source and noted that there are some good case studies from Wisconsin that if we were to look at those programs and how those permits were implemented we could learn some lessons from their dischargers.

Dave Clark asked, "are we reverting back to nutrient concentrations here in the end or do we have a broad consideration of what the targets will be to restore beneficial uses?" Mike responded that the new law is clear in Montana and we are not going back to numeric standards in isolation. Mike noted there will be future discussion on this. Mike noted that the narrative standard describes what the state of Montana (and what the people of Montana have long concluded) is the condition of the river that they want to see. He elaborated, we know how that relates back to nutrients through those secondary effects that nutrients cause (DO, nuisance algae, etc.). Studies on how, when, and where to monitor, is out there in the state (of Montana), nationally, and internationally, and address how nutrient concentrations lead to the thresholds that we want to maintain and is going to have to be brought in somewhere in the process by which the permit limits for the permittee or watershed are. Mike noted that while the permit may not necessarily come back and land on those numbers, they do need to be viewed or kept in mind because that is the scientific information that informed us about the causal variable that led to these problems. Again, with this higher resolution detail data analysis in each watershed, theoretically we should be able to make more informed decisions and incorporate more of the idea that there are other variables in the watershed that are either enhancing or inhibiting some of the problems we tend to see from excess nutrients.

Dave expressed concern that in some cases we have point-sources that are a substantial amount of the water that is in a stream and if we do not have a balanced approach to addressing all the loadings in a watershed, then those low concentration nitrogen and phosphorus values when they become end-of-

pipe effluent limits may take us into the area where we may doing more damage trying to treat to those levels or we might do more damage to the waterbody by diverting the effluent completely. He noted others have mentioned land application which could be a massive change to the waterbody. Mike noted that is actually the place that the AMP can allow the wisest decisions, where that stuff can be put into context and balanced. Mike commented that these concepts will need to get baked into this process if it's going to work well. It was noted that this conversation will continue into future meetings.

Rainie prompted the TSC to provide feedback on the frequency of the TSC meetings and the length of the meetings. There was one suggestion to have two separate meetings separated by a day or two to allow time to digest the items, then come back while the discussion is still fresh on everyone minds. Other suggestions included maintaining high frequency of meetings. It was noted that it would be helpful for the TSC to have the materials in a format where they can provide track changes and/or comments. It was asked, how does a TSC member get on the agenda? Co-chairs committed to consider the best route and let the group know **(Action)**.

PUBLIC COMMENT

Public comment was taken at the end of the meeting.

Vicki Watson asked if a watershed already has a nutrient TMDL and/or a Watershed Restoration Plan and would like to stick with those, do they need to develop a new AMP? Or is this AMP process just for those who want to set aside their nutrient TMDL and start over form scratch with monitoring, developing load targets and implementation plans? Rainie acknowledged that there are some future meetings that will be devoted to talk about the overlap between TMDLs and AMPs. The question of if you can opt out of an AMP and stick with what you've got will need to continue to be discussed.

Vickie inquired on where she can find the table with dates located in this presentation. Mike committed to checking the website to make sure it will be on there and/or getting Vickie the table with dates **(Action)**. Christina Staten added that on the DEQ website there is a tab called meeting Calendar where the dates are updated as they are decided. That website can be found at https://deq.mt.gov/Water/Resources/nutrientworkgroup

Rika noted the paragraph "to whom Adaptive Management Program applies" defines that all watersheds with point-sources must have an AMP and asked if that needs to be modified? Rainie flagged this to revisit **(Action)**.

CLOSING

Rainie informed the group that the next Nutrient Work Group meeting is scheduled for July 23, 2021 from 9-11. The next TSC meeting is forthcoming and to expect an email from the co-chairs. Rainie reminded the group that there is an option on the DEQ Nutrient Work Group website to submit comments or questions. Rainie thanked the group and closed the meeting.

SUMMARY OF MEETING ACTIONS

	Action	Who
1	Distribute the flowchart and supporting materials to the TSC in a format to provide comments/track changes	Rainie DeVaney & Mike Suplee
2	Provide feedback from the TSC about the time component in the flow chart	TSC
3	Consider other measures that may trigger action (Box 7 of flowchart)	TSC
4	Clarify in the supporting documents that the narrative standards are those referenced in the Administrative Rules of the Montana of the State of Montana.	Rainie Devaney & Mike Suplee
5	Update the flowchart and supporting materials based on TSC feedback	Rainie Devaney & Mike Suplee
6	Define the overall work for the AMP by the June 23 Nutrient Work Group meeting	TSC
7	Provide information to the TSC on how to get on the agenda for a future meeting	Rainie Devaney & Mike Suplee
8	Schedule two TSC meetings between each Nutrient Work Group	Rainie Devaney & Mike Suplee

Questions/topics flagged for future discussion
Tina asked when will the Monitoring Plan be submitted (is that part of the permitting application)? When will the public get to review what is being proposed for monitoring? Will DEQ have monitoring guidance?
How exactly the public process is incorporated into the different steps in the AMP need to be worked out and flagged that for future discussion.
Consider developing a case study to guide the MT process.
Tina noted, there is talk about doing some downstream analysis but it could also be that elevated concentrations of nutrients could contribute to an issue that just hasn't yet been manifested, so EPA will be curious how the state plans to address that piece.
Discussion on the nexus between TMDLs and AMPs.
Tina asked where does the NPDES permit application process fit in to this whole process?

ATTACHMENT A: JUNE 10 2021 NUTRIENT TECHNICAL SUBCOMMITTEE MEETING PRESENTATION SLIDES

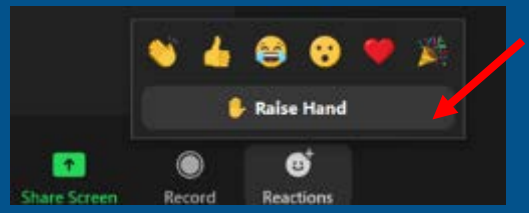
Nutrient Work Group Technical Subcommittee Meeting

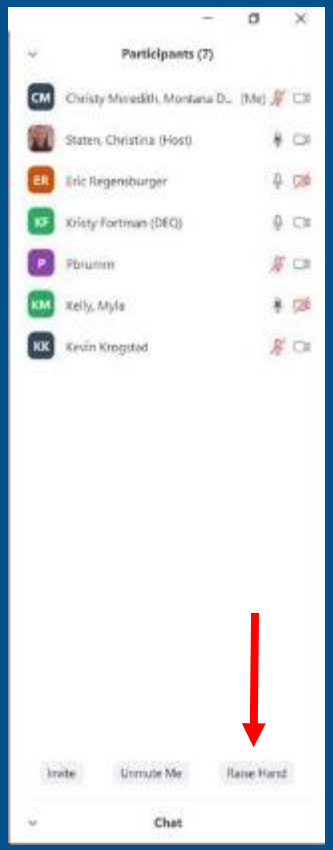
June 10, 2021

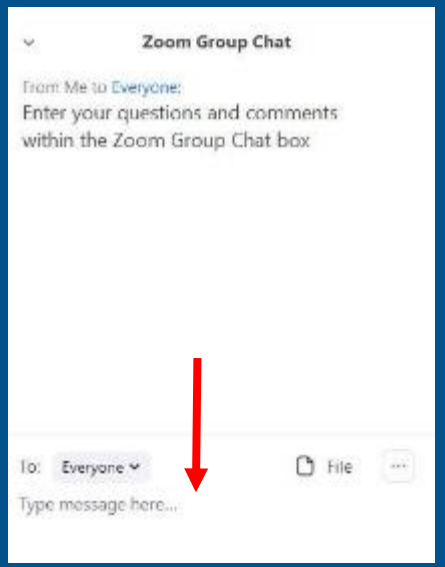
DEQ MONTANA

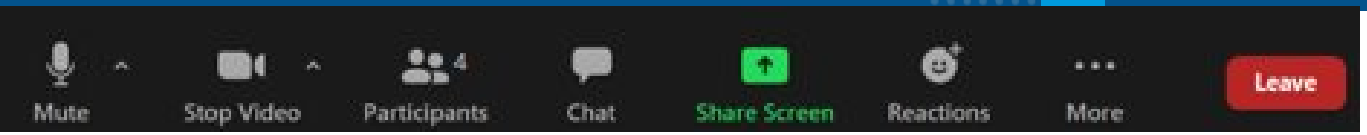
Welcome!

- Please keep your microphone muted until called on
- Only TSC Members may participate during discussions
- *6 unmutes your phone
- State your name and affiliation before providing your comment
- Enter questions in the chat box at any time
- Turning off your video feed provides better bandwidth
- Please sign-in to the chat box with name and affiliation









DEQ MONTANA

Agenda

Nutrient Work Group Technical Subcommittee Meeting

- Introductions and Roll Call
- Rulemaking Framework Overview
- Adaptive Management Program Flowchart
- Flowchart Details
- Close of Meeting
  - Future Listening Sessions
  - Next Meeting Topics
  - Open Public Discussion and Q&A

DEQ MONTANA

Introductions

DEQ Staff

- Michael Suplee, Water Quality Science Specialist
- Rainie DeVaney, Discharge Permitting Section Supervisor
- Amy Steinmetz, Water Quality Division Administrator
- Jon Kenning, Water Protection Bureau Chief
- Galen Steffens, Water Quality Planning Bureau Chief
- Myla Kelly, WQ Standards & Modeling Section Supervisor
- Kristy Fortman, Watershed Protection Section Supervisor
- Darrin Kron, WQ Monitoring & Assessment Section Supervisor

DEQ MONTANA

Introductions

Nutrient Work Group Technical Subcommittee Members

Interest Group	Representative	Substitute
Point Source Discharger: Large Municipal Systems (>1 MGD)	Dave Clark	
Point Source Discharger: Middle-Sized Mechanical Systems (<1 MGD)	Vacant	
Point Source Discharger: Small Municipal Systems with Lagoons	Rika Lashley	
Point Source Discharger: Non-POTW	Shane Lacasse	
Municipalities	Amanda McInnis	
Mining	Vacant	
Farming-Oriented Agriculture	John Youngberg	Rachel Cone
Livestock-Oriented Agriculture	Vacant	
Conservation Organization - Local	Vacant	
Conservation Organization – Regional	Sarah Zuzulock	
Conservation Organization – Statewide		
Environmental Advocacy Organization		
Water or Fishing-Based Recreation	Vacant	
Federal Land Management Agencies	Andy Efta	Thor Burbach
Federal Regulatory Agencies	Tina Laidlaw or Erik Makus	
State Land Management Agencies	Jeff Schmalenberg	
Water Quality Districts / County Planning Departments	Pete Schade	
Soil & Water Conservation Districts – West of the CD	Vacant	
Soil & Water Conservation Districts – East of the CD	Vacant	
Wastewater Engineering Firms	Coralynn Revis	
Timber Industry	Julia Altemus	

Rulemaking Framework

Overview

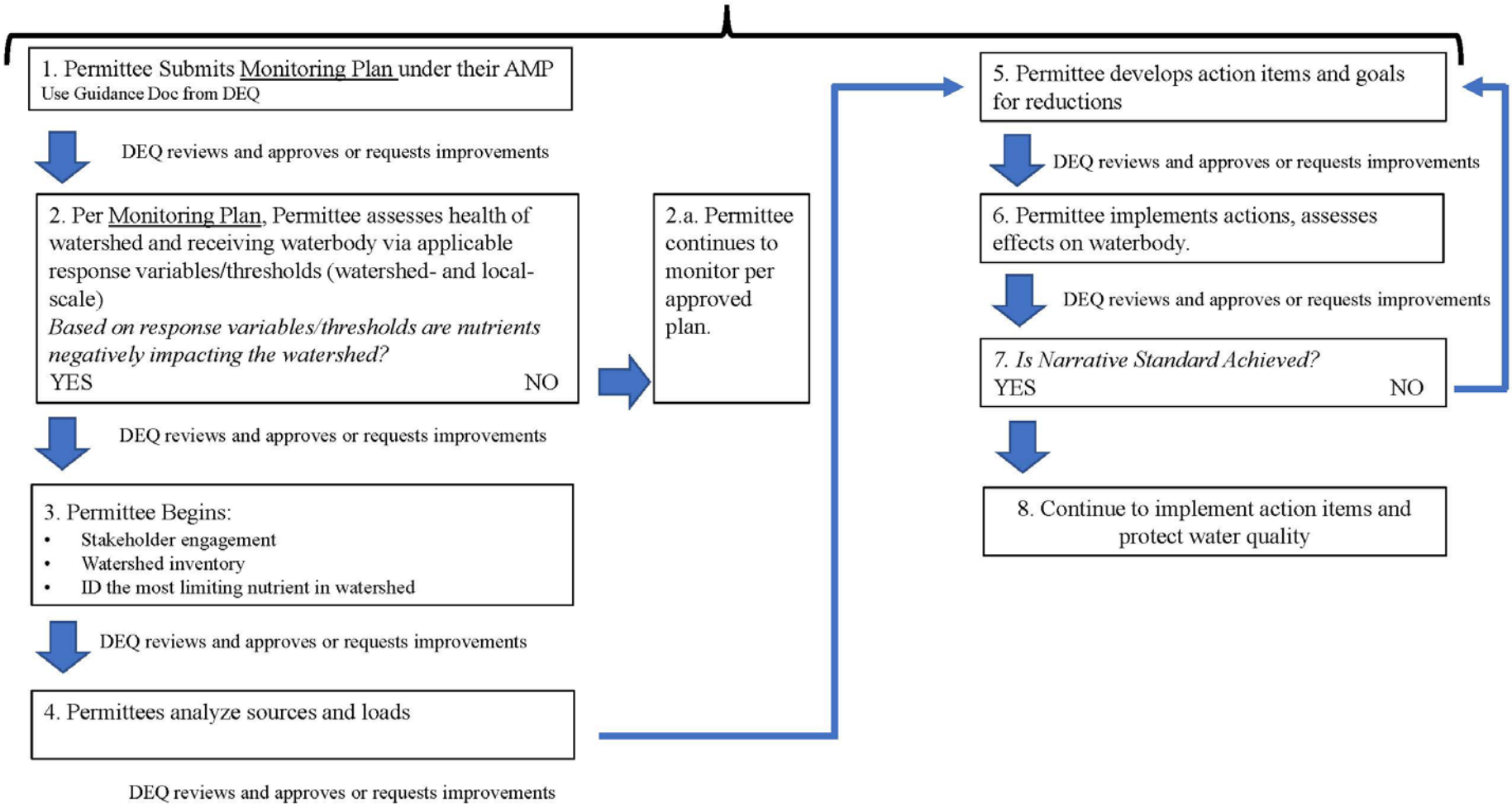
Rulemaking Framework Activities

Summary of principal activities needing completion prior to rulemaking

Activity	Main Nutrient Work Group	Sub-committee	Complete By (6 NWG meetings planned)	Date (2021)
Discuss Key Components of Adaptive Management Program	X		Meeting 1	5/27
Work on details of Adaptive Management Program and Plans, including procedural aspects, rolling review, adaptation		X	Prior to Meeting 2	6/10
Define overall Adaptive Management Program. Initial discussion of watershed-scale framework	X		Meeting 2	6/23
Work on details of watershed-scale framework; address approach for complex watersheds containing multiple point sources or which drain to lakes		X	Prior to Meeting 3	TBD
Adaptive Management Program scale framed. Initial discussion of response variables and harm-to-use thresholds.	X		Meeting 3	7/28
Work of details of response variables, harm-to-beneficial use thresholds, where measured, how often, etc.		X	Prior to Meeting 4	TBD
Complete response variable discussion. Initial discussion of process for identifying point source long-term nutrient targets, accounting for all factors impacting waterbody.	X		Meeting 4	8/25
Work on details for identifying point source long-term nutrient targets		X	Prior to Meeting 5	TBD
Complete discussion of point source long-term nutrient targets. Initial discussion of AMP-TMDL relationship.	X		Meeting 5	9/22
Work on details of AMP-TMDL integration		X	Prior to Meeting 6	TBD
Complete discussion of AMP-TMDL relationship. Complete discussion of outstanding issues prior to rulemaking.	X		Meeting 6	10/27

Adaptive Management Program Flowchart

Adaptive Management Program



DEQ MONTANA

AMP Flowchart Details

To Whom the Adaptive Management Program Applies

All watersheds that include point sources discharges of nutrients must have an Adaptive Management Plan (AMP) under the program. One AMP can include multiple permittees in a watershed. The analysis and conclusions of the AMP will drive facility specific actions for permittees to reduce nutrient contributions. The program may prioritize statewide watersheds based on today's available data. This will be updated periodically as new data are collected & evaluated.

DEQ MONTANA

AMP Flowchart Details

Box 1

Permittee submits monitoring plan under their Adaptive Management Plan

The plan lays out monitoring and analysis of response variables upstream- and downstream of facility and at the watershed scale. Locations, frequency, etc. must be defined. Plan may incorporate existing related watershed information from DEQ's Monitoring & Assessment and TMDL programs, or others. (***Details on response variables will be addressed at later NWG meetings.***) Source identification and quantification (watershed inventory) may be initiated.

DEQ MONTANA

AMP Flowchart Details

Box 2

Per monitoring plan, permittee assesses health of watershed and receiving waterbody via applicable response variables/thresholds

Findings from the Monitoring Plan should answer the question "*Based on response variables/thresholds are nutrients negatively impacting the watershed?"* Permittees in impacted watersheds will be required to move to Box 3 in flowchart; those in unimpacted watersheds may be required to conduct nutrient monitoring and continue to protect existing water quality. The monitoring plan must also include details to demonstrate water quality improvements through time.

DEQ MONTANA

AMP Flowchart Details

Box 3

Permittee begins stakeholder engagement, watershed inventory, identifying the most commonly limiting nutrient

Find partners in the watershed to improve water quality. The permittee may need to formalize commitment from partners through contracts or memorandums of agreement. Describe the watershed by including a comprehensive source identification, stream flows, existing water quality data.

DEQ MONTANA

AMP Flowchart Details

Box 4

Permittees analyze sources and loads

The permittee must quantify the TN and TP loads for each source identified through the watershed inventory, for both point and non-point sources. For example, Wisconsin uses PRESTO.

DEQ MONTANA

AMP Flowchart Details

Box 5

Permittee develops action items and goals for reductions

Describe optimization efforts, best management practices, treatment improvements, etc. identified as opportunities to improve water quality. Each of these action items need to identify the responsible party, financial commitments, and timeframes to achieve. Estimate load reductions for each action items for all sources.

<u>Discussion items related to Box 5:</u>

Identifying the phosphorus target reduction (***future NWG meetings will address in detail***)

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AMP Flowchart Details

Box 6

Permittee implements actions, assesses effects on waterbody. Recommends adjustments, if needed.

Discussion items related to Box 6:

Allow for experimentation with different treatment processes/discharge N:P ratios and allow for instream evaluation of receiving waterbody effects.

AMP Flowchart Details

Box 7

Are narrative standards achieved?

Based on the established monitoring plan and response variable thresholds, determine if the watershed is meeting the narrative standards. If not, the permittee will be required to conduct additional steps, on a case-by-case basis, including re-evaluating sources in the watershed, reanalyzing pollutant loading and source contributions, and implementation of additional actions items.

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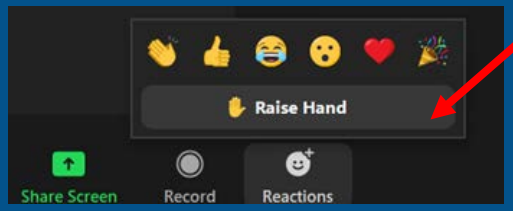
Open Discussion of Proposed AM Program

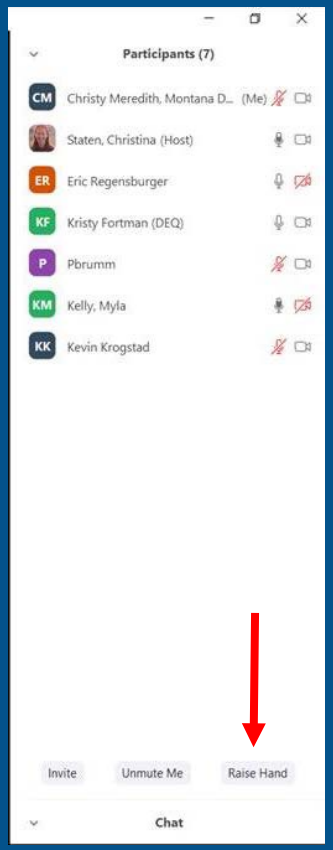
- Technical Subcommittee Members only please

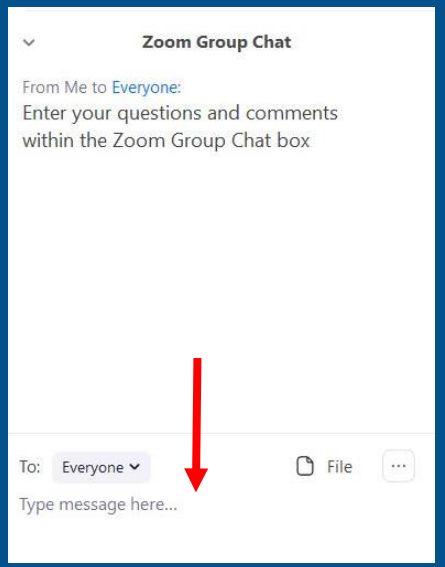
Public Comment & Close of Meeting

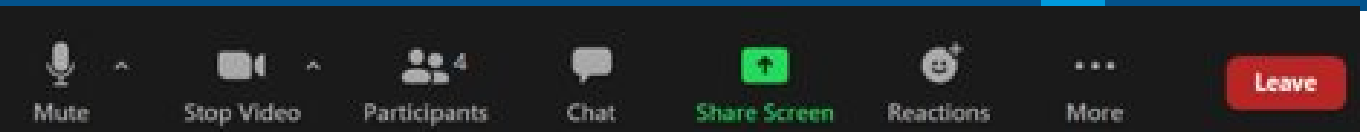
Questions/ Comments

- Raise hand or type questions into the chat
- Please keep your microphone muted until called on
- If calling by phone, press*6 to unmute
- State your name and affiliation before providing your comment









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Next Meetings

- Nutrient Work Group:
  - Wednesday, June 23 from 9-11 AM
  - Operating Scale of Adaptive Management Program
- Technical Subcommittee Meeting
  - Date forthcoming
  - Watershed scale framework

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Thanks for Joining Us

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To submit comments or questions

Submit Comments or Questions

http://deq.mt.gov/water/resources/nutrientworkgroup

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