NUTRIENT WORK GROUP MEETING SUMMARY
OCTOBER 5, 2021

1:30 p.m.
Hybrid Meeting: Zoom and DEQ Room 111

ATTENDANCE: NUTRIENT WORK GROUP MEMBERS

Representative & Affiliation	Representing
Susie Turner City of Kalispell	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
Amanda McInnis (sub. for Kelly Lynch) Independent Consultant	Municipalities
Pete Schade Lewis and Clark County Water Quality Protection District	County Water Quality Districts or Planning Departments
Tammy Johnson Montana Mining Association	Mining
Rachel Cone (sub. for John Youngberg) Montana Farm Bureau	Farming-Oriented Agriculture
Jay Bodner Montana Stockgrowers Association	Livestock-Oriented Agriculture
Kristin Gardner Gallatin River Task Force	Conservation Organization: Local
Sarah Zuzulock Zuzulock Environmental Services	Conservation Organization: Regional
David Brooks Montana Trout Unlimited	Conservation Organization: Statewide
Guy Alsentzer Upper Missouri Waterkeeper	Environmental Advocacy Organization
Guy Alsentzer (sub. for Wade Fellin) Upper Missouri Waterkeeper	Water or Fishing-Based Recreation
Andy Efta U.S. Forest Service, Northern Region	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
Samantha Tappenbeck Flathead Conservation District	Soil and Water Conservation Districts – West of the Continental Divide

Representative & Affiliation	Representing
Scott Buecker AE2S	Wastewater Engineering Firms

NOT IN ATTENDANCE: NUTRIENT WORK GROUP MEMBERS

Representative & Affiliation	Representing
Shannon Holmes City of Livingston	Point Source Discharger: Middle-Sized Mechanical Systems (<1 MGD)
Dan Rostad Yellowstone Conservation District Council	Soil and Water Conservation Districts – East of the Continental Divide
Julia Altemus Montana Wood Products Association	Timber Industry

ATTENDANCE: OTHER PARTICIPANTS

Adam Sigler, MSU Extension
Amelia Flanery, DEQ, Surface Water Discharge Permitting
Amy Deitchler, Great West Engineering
Amy Steinmetz, DEQ, Water Quality Division Administrator
Andrew Gorder, Clark Fork Coalition
Bill Andrene, City of Butte
Brian Heaston, City of Bozeman
Christina Staten, DEQ, Watershed Management Section
Christy Meredith, DEQ, Watershed Management Section
Darrin Kron, DEQ, Monitoring and Assessment Section Supervisor
Darryl Barton, DEQ, Technical Assistance and Compliance Section Supervisor
Dave Galt, Montana Petroleum Association
David Clark, HDR
Derf Johnson, Montana Environmental Information Center
Ed Coleman, City of Helena
Eric Trum, DEQ, Watershed Protection Section
Erik Makus, EPA Region 8
Erin Wall, DNRC
Haley Sir, DEQ, Surface Water Discharge Permitting
Hannah New, DEQ, Surface Water Discharge Permitting
Heather Henry, DEQ, Surface Water Discharge Permitting
Jane Madison, DEQ, Water Quality Standards and Modeling Section
Jeff May, DEQ, Surface Water Discharge Permitting
Joanna McLaughlin, DEQ, Surface Water Discharger Permitting
Joe Lierow, ExxonMobil Billings Refinery
John Bernard
Josh Viall, DEQ, Permitting Compliance
Katie Makarowski, DEQ, QA/QC Officer
Kayla Glossner, DEQ, Surface Water Discharge Permitting
Kelsey Wagner, AE2S
Kristi Kline, Montana Rural Water Systems
Kristy Fortman, DEQ, Watershed Management Section Supervisor

Kurt Moser, DEQ, Legal Counsel
Laura Alvey, DEQ, State Superfund Program
Loren Franklin, KC Harvey Environmental
Mark Ockey, DEQ, Watershed Protection Section
Maya Rao, DEQ, Surface Water Discharge Permitting
Melinda Horne, DEQ, Surface Water Discharge Permitting
Mike Koopal – Whitefish Lake Institute
Moira Davin, DEQ, Public Information Officer
Myla Kelly, DEQ, Water Quality Standards and Modeling Section Supervisor
Peggy Trenk, Treasure State Resources Association
Rainie DeVaney, DEQ, Surface Water Discharge Permitting Section Supervisor
Rebecca Harbage, DEQ, Public Policy
Rickey Schultz, HDR
Ryan Leland, City of Helena
Ted Barber, Meeting facilitator

MEETING INITIATION

Ted Barber, meeting facilitator, welcomed everyone to the meeting just after 1:30 p.m. and went over meeting reminders and the meeting agenda. Ted then took a roll call of Nutrient Work Group members present either via Zoom or in Room 111 of the DEQ Metcalf Building in Helena.

NARRATIVE NUTRIENT STANDARDS INTERPRETATION

Amy Steinmetz, DEQ Water Quality Division Administrator, went over slides 9 through 13 of **Attachment A**. Amy stated that typically, in a rulemaking process we would provide the big picture for stakeholders, then break the rule down into pieces and explain the pieces. In this case, we were working with you all to develop the rule and so we had to start with the pieces. We didn't have the big picture yet. So, part of what we're doing today is stepping back and giving the big picture, talking at a high level about narrative standards and the adaptive management program, and then Kristy Fortman will walk us through how TMDLs will fit in with the process.

DEQ is required by state law, under Senate Bill 358, which was passed by the 2021 legislature, to repeal our numeric nutrient standards in DEQ 12-A and to adopt rules related to narrative standards. The rules are to provide for development of an adaptive management program, which must include a balanced watershed approach, consider site-specific conditions and prioritize minimization of phosphorus, identify nutrient response variables and thresholds, and consider new or existing sources and whether the waterbody is impaired. These rules must be adopted by March 1, 2022.

A couple of other things to keep in mind are that we are working within the regulatory framework of both the federal Clean Water Act, as a primacy state, and the state Water Quality Act and the rules adopted under it. These regulations give us the framework for water quality standards, TMDLs, permits, and other provisions that provide for the protection of beneficial uses of Montana's surface waters. SB 358 provides the provision for the adaptive management program to contribute to the goal of protecting water quality.

Regarding slide 10, Amy stated that narrative standards are not new in Montana or across the country. DEQ has had a provision in our rules for narrative standards for decades. The Administrative Rules of

Montana at 17.30.637 state that state surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will either create concentrations or combinations of materials that are toxic or harmful to human, animal, plant, or aquatic life, or that will create conditions which produce undesirable aquatic life. Before adopting numeric nutrient standards, Montana used this narrative standard to regulate nutrients. And there are a lot of examples of other parameters, such as pH, that are regulated as narratives.

Regarding slide 11, Amy stated that numeric and narrative standards are both designed to protect beneficial uses of water quality standards. With narrative standards, it's all about how they're implemented. The narrative nutrient standard will use decades of science that DEQ has on nutrients, and as part of the implementation of the narrative nutrient standards, DEQ will use an adaptive management program that will require monitoring at an unprecedented level in our state, and it will continue to use other water quality tools such as beneficial use assessments, total maximum daily loads, and water quality discharge permits. DEQ has never had such a robust implementation of our narrative standards.

From the 50,000-foot level, the adaptive management program will take a holistic look at a watershed in which a discharger or multiple dischargers are located. It will require monitoring for nitrogen and phosphorus, as well as response variables such as algae, chlorophyll-a, and macroinvertebrates (or bugs.) Response variables indicate how nutrients affect a stream and can show us when something is off. They can be measured as a percentage, a range of numbers, or a visual impact. After the data are collected, they will be analyzed to determine 1) how the watershed is responding to the levels of nitrogen and phosphorus that are present in the water, and 2) where the major contributions of nutrients are coming from. When response variables and thresholds identify a problem, the adaptive management program provides flexibility in how to solve it. This creates a larger toolbox for dischargers.

Regarding slide 12, Amy stated that DEQ's numeric nutrient standards are housed in DEQ 12-A. DEQ is in the process of repealing 12-A as required by SB358. Until it is repealed, 12-A is still in Montana rule, however SB358 explicitly states that permits are to be written using the narrative numeric standard rather than the numeric nutrient standards.

A complicating factor is that EPA reviews and approves all of Montana's water quality standards as a condition of Montana having primacy over the Clean Water Act in the state. EPA's position is that the numeric nutrient standards are still in place for purposes of federal law until they approve any changes. This creates an additional challenge because EPA has not approved a reversion to our narrative standards.

Additionally, the narrative general variance in DEQ 12-B was also repealed via SB358. However, EPA also still views 12-B as effective under the Clean Water Act. What does that mean on the ground? DEQ will meet its obligation to review and issue new permits under the Clean Water Act and the Montana Water Quality Act and will evaluate permits on a case-by-case basis as we work toward this goal.

Amy stated she wanted to review slide 13, which was previously shown during a May Nutrient Work Group meeting. The first pillar is that DEQ will utilize the existing science of nutrient impacts to Montana's beneficial uses—it is not the intent of these meetings to revisit the science. What does it mean that we'll use the existing science? It means that we're using decades of data foundational to protecting the beneficial uses of Montana's surface waters from nutrients. It's the same science but a different how. Instead of using the science to derive a conservative number meant to be protective of

the most sensitive conditions, we'll be looking at ranges of protective levels and will apply the science in a way that is known to be protective of local conditions and uses. The second pillar is that DEQ will adhere to permitting requirements of anti-backsliding. Anti-backsliding is a requirement of both state and federal regulations and simply means that we must maintain existing limits. This means that water quality will not be allowed to get worse under the new regulations. Existing nutrient permit limits will be maintained. The third pillar is that all water quality standards changes will be submitted to EPA for approval under the Clean Water Act. The fourth pillar is that DEQ will actively engage with the Nutrient Work Group as an advisory body. The fifth pillar is that DEQ's developed and vetted nutrient assessment method will remain in place, with minor changes. Our existing nutrient assessment method is modified just slightly from the assessment method that we had in place prior to adoption of DEQ 12-A. So, with a few minor changes, it's the same assessment method we used previously when we were using the narrative nutrient standards. In short, it already incorporates response variables.

ADAPTIVE MANAGEMENT PROGRAM OVERVIEW

Katie Makarowski, DEQ Quality Assurance Officer, went over slides 15 through 22 of **Attachment A**. Slide 15 reviews terminology and the use of the AMP acronym. Katie reiterated that Montana has had narrative nutrient standards for a long time, long before numeric nutrient criteria were adopted. The adaptive management program, as proposed, is a means of implementing the narrative nutrient standards to protect beneficial uses of Montana's waters, incorporated into the permitting process. Slide 16 reviews the key tenets of the adaptive management program. Under this program, permittees will develop adaptive management plans, which are comprised of two main components: a watershed monitoring plan and if required, an implementation plan. The draft rule, circular, and guidance documents contain details about what must be included in adaptive management plans, and DEQ intends to provide templates, case studies, and other guidance to aid those who are developing them. Slides 17 and 18 provide a simple overview of the AMP process. Throughout the process, DEQ iteratively reviews and approves AMPs, and may require additional information or modifications.

Slide 19 reviews the four proposed elements of AMP watershed monitoring plans. Katie stated that DEQ has detailed in past meetings that monitoring approaches vary depending on the complexity of the watershed, including whether or not modeling is used. Slide 20 reviews the types of monitoring locations and parameters and notes that monitoring plans take into account spatial and temporal variation and can describe a phased monitoring approach with interim milestones and adjustments. Slide 21 reviews the elements of an AMP implementation plan. Slide 22 recaps some of the benefits of the adaptive management program.

Rainie DeVaney, Supervisor of DEQ's Surface Water Discharge Permitting Program, went over slide 23 to provide a high level overview of key differences under the proposed adaptive management program. This process is a shift towards looking at a more holistic approach to identify and address nutrient sources in a watershed.

Discussion

Amanda McInnis, technical representative for municipalities, asked in the Zoom chat box "I'm curious to know where the permit limits would be developed? Within the AMP?" Rainie DeVaney verbally responded that if we find that additional effluent limits based on response variables and associated thresholds, they would be developed in the fact sheet and put in the MPDES permit. Amanda responded verbally that we're starting with monitoring, so it seems logical that the analysis would be done in the AMO and then you would go to permit renewal and DEQ would then review the analysis. The action

items and what needs to be done would be developed in the AMP and not in the fact sheet. Rainie responded that today's presentation will go over compliance and permits, so she thinks we might see if some of the discussion later helps with this. When we're talking about limits, we're skipping over initial steps one through three and skipping to the end, which causes confusion. There will be interplay between the folks required to do the implementation plan – portions of the plan would be pulled out and used as special conditions within the permit.

Guy Alsentzer, representative for environmental advocacy organizations, stated that we've talked about the idea of prioritization of phosphorus, but he is having trouble with ambiguity of the terminology "where appropriate." Guy further stated that there is a well-established basis for looking at reducing both nitrogen and phosphorus and asked for more clarity on this statement, wondering if DEQ is just providing lip service to Senate Bill 358. Rainie DeVaney responded that it is not just lip service to the bill language. There are instances, in particular in large river systems, through modeling efforts where we van see a marked improvement in water quality – we might, where appropriate, try phosphorus reduction before going ahead with nitrogen reductions, which require capital improvements. Rainie stated that this will be case-by-case and will depend on what we know about the facility and its effluent characteristics. Guy responded asking how you incorporate the data. There seems to be a lag with goal posts we're trying to get to. Every sector needs to do more to control their contributions of nutrients. Now it's an iterative process where we wait for these issues to present themselves. Do we have to go through the process if there is evidence to suggest there is a problem? Rainie responded that DEQ is not going to ignore information it has on the health of a waterbody. An impaired watershed will be put into a different category under the AMP rules as far as requirements. We're committed to the mission of ensuring downstream beneficial uses are protected and to restoring waterbodies that aren't achieving their beneficial uses. Guy responded that there needs to be distinct clarity for the rulemaking package on how DEQ intends to implement these decisions.

Sarah Zuzulock, representative for regional conservation organizations, stated that it is concerning to hear disconnect between DEQ and EPA on their interpretation of the status of 12-A and 12-B. What is the process for EPA to review the rulemaking process? If EPA doesn't approve, where does the process go from there? Tina Laidlaw, U.S. EPA Region 8 and federal regulatory agencies representative, responded that when Montana submits their rulemaking package, EPA will be looking for whether the criteria are scientifically defensible and whether they are protective of beneficial uses. Then EPA will decide if they're approving based on what's in the submission. If EPA disapproves, the state has 90 days to address the action items. Sarah then asked how EPA's review address anti-backsliding. Erik Makus, EPA Region 8 and technical representative for federal regulatory agencies, responded that he doesn't think anti-backsliding would come up in the rule package review. It is a permit requirement to make sure there aren't any permit conditions less stringent than the previous conditions. Sarah then asked how DEQ will actually apply these rules in current permits that are based on numeric standards that can't be changed because of anti-backsliding. Will they have to go through the adaptive management program? Sarah further stated that she doesn't seem how the narrative standards can be applied in a way that's protective of water quality. This rulemaking is replacing protective standards with narrative standards. Response variables require a waterbody to become impaired or exceed an impairment threshold before there's a response. Rainie DeVaney responded that as far as existing permits with limits and whether they will be required to do additional monitoring for response variables – it depends. Rainie stated she'd like to point back to the flow chart and decision framework DEQ has put together. It is possible that permits with load limits with TN and TP will still have to enter the adaptive management program.

Samantha Tappenbeck, representative of conservation districts west of the continental divide, asked in the chat box "Is the partner identification phase of the AMP process an effort to identify partners that would be address nonpoint source pollutant loads, specifically (if applicable for that watershed)? I have seen that process play out in development of Watershed Restoration Plans. I'm curious if existing Watershed Restoration Plans become redundant with development of an AMP? Or are they meant to supplement?" Kristy Fortman, Supervisor of DEQ's Watershed Management Section, responded verbally that it does resemble a WRP where it identifies all the partners and prioritizes waterbodies. DEQ sees permittees using this information if it's already been developed or working with stakeholders to develop it – don't want to create redundancies. Samantha responded asking: in terms of identifying partners on the AMP, who would be a partner other than the permittee? Who might the list comprise if they aren't addressing nonpoint sources? Kristy responded that this plays out in the implementation piece of it and the wasteload allocation piece of it. It depends on the strategy they choose – maybe they won't need to reach out to partners if they're focusing on their facility. However, conservation districts, watershed groups, etc. would be partners for work on nonpoint sources.

David Brooks, representative of statewide conservation organizations, stated in the chat box "Given that this is being referred to as a more "holistic approach" where is the attention to non-point source nutrient pollution, as this is certainly a critical part of the whole?" David then followed-up with "Sarah said it best: shifting to response variables is measuring impairments after they've already occurred. Hard to see how that's not inherently backsliding. And, as per conversation during our last meeting, we already know there will be long delays between impairments and analysis of sampling for or surveying of response variables." Rainie DeVaney responded verbally that to the first question, when permittees are essentially compiling their list of stakeholders, we would be looking for them to identify all sources of nutrient loading to the watershed, whether it's point or nonpoint, and identify and reach out to all partners to see if there's willingness for engagement. When we've chatted about compiling the larger dataset of near field data, we could find more upstream loading or be seeing more negative response upstream versus downstream – this might be a case where we look at opportunities for nonpoint source reductions upstream rather than capital improvements. This is an example of how it's more holistic.

Guy Alsentzer wrote in the chat box "Piggy backing on Sarah's and David's comments: if an AMP and narrative criteria application allow "flexibility" for nutrient reductions in a watershed over some attenuated time table, as opposed to enforcing numeric nutrient criteria limits for a discharger, how does that "flexibility" in reductions from something other than a point source not trigger anti backsliding or violate EPA rules that require affirmative demonstrations that a point source's permit limits ensure they will not cause or contribute to violations of WQS?" Rainie DeVaney responded verbally that she's not sure she's completely tracking the question. We have two different concepts introduced. Anti-backsliding is a very specific federal regulation that applies to final effluent limits in a permit, whereas reasonable potential analysis is a separate process. Guy responded verbally that he's trying to target nonpoint source pollution generally. If in fact an AMP inventory says we're going to have nonpoint source partners, that commitment is in lieu of what would otherwise be a numeric effluent limit – that is factually a lesser pollution control limit. This also triggers anti-degradation if we're not doing a straightforward analysis. Voluntary compliance over an indeterminate time that is attenuated – that's the rules under which we have to operate. Don't see how the AMP process fits within this rubric. Rainie responded that we will continue to ensure we're protecting beneficial uses through our MPDES program.

OUTSTANDING ITEMS FROM SEPTEMBER 22 MEETING

AMP Sandbox

Amy Steinmetz went over slides 26 and 27 of **Attachment A**. Amy stated that slide 26 is a variation on the sandbox slide that we presented at the last meeting. We wanted to revisit it because there was a lot of concern over what is and is not considered part of the AMP. In the left column are ideas presented by Nutrient Work Group members that we felt could be incorporated directly into the adaptive management program. The ones in the middle may be part of the overall process but have their own separate regulatory process, so while data collected under an adaptive management plan may be used to do a use attainability analysis to revise a waterbody use and may very well be used to do a beneficial use assessment, those tools are their own separate entities. The column on the right includes suggestions that we cannot work into the process. There seemed to be understanding and agreement after the last meeting on TBELS and the fact that they aren't designed to protect beneficial uses. Adopting a comprehensive rule package by March 1, 2022 is not only something that DEQ believes is required by SB358, but it's also necessary to give us the regulatory certainty of an EPA approved rule package. EPA will need to see how the narrative standards and the AMP will be implemented, and specifically how they'll protect beneficial uses, in order to approve it. Using BMPs alone in permits is not appropriate because they don't provide an appropriate level of regulatory certainty. Not using numeric effluent limits is not appropriate because the only way that would be acceptable would be if deriving numeric limits was infeasible. We have decades of data that demonstrate that numeric limits are indeed feasible. Finally, not using response variables in a permit is not appropriate because SB358 tells us that the AMP must identify response variables and thresholds.

Amy then went over slide 27, stating that DEQ feels the Nutrient Work Group's participation is critical. We're still working through the last pieces but want to show some of the changes we've implemented in the process based on your feedback (see slide). This is a complicated process that's new to us and to you and we're continuing to work through it. We look forward to reviews of written documents once they're available. We will take your comments under serious consideration as we move forward.

MPDES Compliance

Rainie DeVaney went over slides 28 and 29 of **Attachment A**. Rainie stated that often when we talk about compliance, it's important to remember there are multiple parts of a MPDES permit: monitoring, effluent limits, and special conditions and standard conditions. The permit as a whole regulates discharges and protects beneficial uses and makes sure water quality standards are met. At the last meeting we jumped into outlining three options for compliance. Now we want to step back and remind people we are anticipating there is a progression through time with steps leading up to compliance options (see slide 29). The compliance options are for when we find effluent limits based on a response variable and threshold limits are needed. The permittee will need time to collect response variable data. DEQ will then make a determination about whether an effluent limit is needed. In the event it is added to the permit, we'll make sure we make an informed decision and will make sure we have adequate data to assess compliance.

Rainie also discussed violation letters and stated DEQ doesn't anticipate modifying its process for sending violation letters for effluent limits based on response variable data, but our conversation last time skipped steps one through three. Rainie concluded by saying she just wanted to remind people of the process and phases.

Alternative TMDLs

Kristy Fortman went over slides 30 and 31 of **Attachment A**. Kristy stated the goal of an alternative TMDL is to pursue a restoration approach in advance of a TMDL – where restoration is a simple and quick solution to implement in a short time and will directly lead to meeting water quality standards. It's important to emphasize that these alternatives are in advance of a TMDL, not in lieu of a TMDL. A TMDL is still required if the waterbody remains on the impaired waters list. In most cases, a TMDL is the first step in restoring waterbodies because it provides a pollution budget that serves as a foundation for implementation plans, regulatory activities, and/or on-the-ground restoration. However, when there is a clear and simple source that already has a solution developed that will directly lead to achieving water quality standards, an alternative TMDL could be appropriate.

Slide 31 provides an overview of the only alternative TMDL that Montana DEQ has pursued, and it is currently in progress. DEQ sampled the Middle Fork Judith River for sediment and the data collected concluded that it is impaired by sediment. There is a single and obvious source of human-caused sediment getting to the stream, which is an ATV trail that runs the middle of the stream, with 27 crossings over 8 miles, and with each crossing having multiple vehicle entry points. Trout Unlimited and the U.S. Forest Service developed a plan to re-route the existing road and restore the road and associated river crossings and started implementing restoration and rerouting this year, with the goal of finishing next year. After completion of this work, the human-caused sources of sediment should be minimized and after some recovery time, the waterbody will no longer be impaired for sediment. This is a good example of where you have one obvious source, an obvious solution, and a plan to implement to restore water quality to meet beneficial uses – which is the intention of an alternative plan. An alternative plan is not appropriate for a complex watershed with multiple sources with a long-term implementation plan.

Kristy concluded by saying the adaptive management plan could be used as an alternative TMDL in cases where there is a simple cause/solution and immediate implementation in advance of doing a TMDL but is not appropriate for complex watersheds. She also stated it's important to keep in mind that a TMDL is required if the waterbody is not meeting water quality standards – the alternative is not in lieu of, just in advance of doing a TMDL.

Discussion

David Brooks asked to go back to the AMP sandbox slide (slide 26). How does "not using response variables in a permit" in the right column match up with the left column option of "flexibility to use alternate response variables, if appropriate"? Will there be a list of response variables that can be used? Can a permittee offer up alternate response variables? Rainie DeVaney responded that DEQ has identified response variables that divide eastern and western Montana, but there may be streams that have characteristics of another ecoregion and those response variables aren't appropriate. A permittee might supplement with eastern Montana variables in a western ecoregion. David then asked who makes the determination of whether it's appropriate to make the substitution? Rainie responded that permittees can make the request and provide information to support the request, but DEQ would need concur this is appropriate. Tina Laidlaw with the U.S. EPA stated that alternate response variables are something EPA would look at to make sure it's not a change to a water quality standard.

Guy Alsentzer asked what "net environmental benefit considered" in the left column of the AMP Sandbox slide means. He stated that this is not a time to consider economic costs. How is DEQ talking

about this idea and how does it play out? Amy Steinmetz responded that this was a suggested concept by the municipalities. Net environmental benefit isn't necessarily a cost issue – it's truly net environmental benefit. If you increase infrastructure to reduce nutrients further, my understanding is there is a climate change exchange there – at the end of the day, are you causing more environmental harm than you are good with the process you are following? Doesn't have to do with financial cost; it has to do with environmental cost. Rainie DeVaney also stated that DEQ recognizes there are areas of the state where the point source discharge potentially makes up a large volume of surface water flow and are finding folks are reaching a point of deciding they're going to remove that volume of water because permit limits are too stringent – this is something to consider.

Sarah Zuzulock asked in the chat box "How do WQBELs fit into the AMP or AMP Sandbox?" Rainie DeVaney responded verbally that these are on the table. There is a host of non-numeric plus numeric water quality-based effluent limits.

Derf Johnson, with the Montana Environmental Information Center, asked regarding the net environmental benefit concept if DEQ has done any sort of analysis on energy usage and whether there's combustion of fossil fuels associated with it. Will there be any discussion on individual municipalities that have taken the extra step on installing large scale solar to offset some of their energy usage? Darrin Kron, Supervisor of DEQ's Monitoring and Assessment Section, stated that he just saw a recent presentation by EPA on energy usage on different types of treatment that was very informative. But it didn't get at where the energy is coming from; just total energy consumption. The presentation hit home that reverse osmosis treatment systems do take high amounts of energy. Tina Laidlaw stated that the presentation was on Lifecycle Analysis and she can share the document.

Susie Turner, representative of large point source dischargers, stated that Louis Engels with the City of Billings went over an example of the amount of energy it would take, the chemicals needed, and the chemicals produced from treatment processes – which refers back to net environmental benefit. It will cost a lot of energy and chemicals and you might not get the net environmental benefit you want to achieve by going to lower limits.

Dave Clark, technical representative for large point source dischargers, wrote in the chat box "To Derf's question, there's a clear connection between nutrient removal and high energy consumption. The connection to GHG emissions is the high electrical power use in advanced wastewater treatment." Dave also provided this link in the chat box: https://www.waterrf.org/research/projects/striking-balance-between-nutrient-removal-wastewater-treatment-and-sustainability

Rika Lashley, representative of small point source dischargers, wrote in the chat box "And also hauling and production of chemicals used."

Derf Johnson then asked if DEQ has reached out to its own Energy section to actually explore this? Amy Steinmetz responded that this is a great suggestion. If we get something as part of an AMP plan suggesting we consider net environmental benefit, we could bring in our Energy folks to help us with the review.

Sarah Zuzulock wrote in the chat box "I am not in agreement that TBELs should not be taken into account in the AMP sandbox on the basis that they don't account for beneficial uses. Accounting for limits of technology to reduce pollution is still important to consider when setting permit limits that are

achievable and protective of receiving water quality. This should be part of the iterative process in an AMPlan."

TMDLs and Adaptive Management Plans

Kristy Fortman went over slides 34 and 35 of **Attachment A**. Slide 34 reviews what a TMDL is and how the program overlaps with the Adaptive Management Program. Point sources receive wasteload allocations, which provide a regulatory mechanism to achieve reductions, as they are incorporated into discharge permits. However, wasteload allocation scenarios will incorporate strategies from the adaptive management plan, and this is where the two programs come together.

Slide 35 shows a portion of the AMP overview flowchart that was shown earlier. The TMDL overlap occurs when permittees are analyzing sources and loads, and DEQ will use information and data collected to help develop TMDL source assessments and allocations. The main overlap occurs in developing action items and goals for reductions, which will be incorporated into wasteload allocations within the TMDL. As part of the AMP implementation plan, the permittee will come up with a strategy to achieve load reductions and may do so by choosing to focus on improving their individual facility, through optimization or capital improvements, and/or proceed with a watershed scale approach, including controlling phosphorus or offsetting point and nonpoint sources in order to meet necessary nutrient reductions to achieve compliance. After implementing approved action items in the adaptive management plan, the department may find, based on the continued AMP watershed monitoring plan or other department assessment, that the facility is not in compliance and in this case, the department may require the permittee evaluate AMP implementation to find additional ways to reduce nutrients in the watershed.

Discussion

There was none.

Draft Rule Package Review

Christina Staten, DEQ Water Quality Specialist, went over slides 37 through 42 of **Attachment A**. Slide 37 outlines the contents of the draft rule and notes which Nutrient Work Group or Technical Subcommittee meetings that the content was discussed, as well as whether it is supported by circular and guidance. Slides 38 and 39 outline the content of draft Circular DEQ-15, Implementation of Narrative Nutrient Standards, and notes which meetings the content was covered. Slides 40 and 41 show the table of contents for the draft Guidance Document for the Implementation of Narrative Nutrient Standards. Christina noted that the Circular and guidance document are still under development and their outlines and contents may change by October 18 when the draft rule package is provided to the Nutrient Work Group. However, Nutrient Work Group members should be able to use these slides as a guide to review meeting presentations and meeting summaries that discuss the sections of the rule, circular, or guidance document. Prior meeting presentations and meeting summaries can be found on the DEQ website at: https://deq.mt.gov/water/Councils. Christina then reviewed slide 42, covering the comment timeline for the Nutrient Work Group and noted that any comments received during this time are considered informal comments. A formal 45-day public comment period will be held when the draft rules are published in the Montana Administrative Register, likely sometime in December. Christina also stated the Nutrient Work Group members will receive an email on October 18 with instructions on how to find the draft rule package on MS Teams and how to submit comments.

Discussion
There was none.

PUBLIC COMMENT

Public comment was taken during the meeting and is incorporated into the "Discussion" sections above. Time was also taken at the end of the meeting for additional public comment, but none was received.

CLOSE OF MEETING

Before the meeting ended, Christina Staten reviewed the common themes from the September 23 listening session, which are shown on slide 47 of **Attachment A**. A full list of questions and comments received during the listening session can be found on the DEQ website at: https://deq.mt.gov/water/Councils.

The next meeting is scheduled for October 27 from 9 to 11 a.m.

The meeting was ended at 3:22 p.m.

SUMMARY OF ACTION ITEMS

As Nutrient Work Group and Technical Subcommittee meetings have been combined, the action items below now contain those from both previous Nutrient Work Group meetings and Technical Subcommittee meetings. All noted in progress or pending Technical Subcommittee responsibilities now fall to the Nutrient Work Group. No new action items were recorded in this meeting.

In-Progress Action Items			
#	**Action**	**Who**	**Status**
1	Define what P prioritization means	DEQ and TSC	Pending
2	Put together case study of what DEQ thinks is a reasonable minimum of data collection for large rivers	DEQ	In Progress
3	Provide documents in advance of NWG meetings	DEQ	Ongoing
4	Summarize SOPs for sampling nutrients	DEQ	Ongoing

Complete Action Items			
#	**Action**	**Who**	**Status**
1	Distribute the flowchart and supporting materials to the TSC in a format to provide comments/track changes	Rainie DeVaney, Mike Suplee	Complete
2	Consider other measures that may trigger action (Box 7 of flowchart)	TSC	Complete
3	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	Complete
4	Define the overall work for the AMP by the June 23 Nutrient Work Group meeting	TSC	Complete

Complete Action Items			
#	**Action**	**Who**	**Status**
5	Provide information to the TSC on how to get on the agenda for a future meeting	Rainie DeVaney, Mike Suplee	Complete
6	Schedule two TSC meetings between each Nutrient Work Group	Rainie Devaney, Mike Suplee	Complete
7	Set up Teams TSC collaboration site. Send invite email. Post comments received from TSC members and draft DEQ documents	Moira Davin, Christina Staten	Complete
8	Update AMP definition based on TSC feedback. Share out to TSC.	Rainie DeVaney, Mike Suplee	Complete
9	Decide whether medium sized rivers should be broken out	TSC	Complete
10	Add the draft approach for determining watersheds to Teams for feedback from TSC	Mike Suplee	Complete
11	Reorganize technical subcommittee Teams folders so they are more intuitive	DEQ	Complete
12	Receive written comments from League of Cities and Towns	Amanda McInnis	Complete
13	Medium rivers definition	Mike Suplee	Complete
14	Create bibliography of nutrient-related literature	DEQ	Complete
15	Provide feedback from the TSC about the time component in the flow chart	TSC	Complete
16	Receive feedback from TSC on time component of each flowchart step.	TSC	Complete
17	Get Microsoft Teams up and running for NWG and TSC members	DEQ	Complete
18	Address the question of nonpoint source participation in the AMP process	DEQ, NWG	Complete
19	Consensus opinion of farming and nonpoint source community on this process and what they think is possible or realistic	Nonpoint source representatives	Comment noted
20	Create responsibility chart for adaptive management program	DEQ and TSC	Complete
21	Summarize the process for determining a wadeable stream vs large river	DEQ	Complete
22	Add groundwater to the adaptive management program framework	DEQ and TSC	Complete
23	Provide copy of EPA action letter on Utah's headwater streams	DEQ	Complete
24	Update the AMP flowchart and supporting materials based on TSC feedback	DEQ	Complete
25	Define roles and responsibilities of DEQ and permittees for AMP process	DEQ	Complete
26	Identify and define what is needed to determine how far upstream and downstream monitoring should occur for a point source	TSC	Addressed
27	Add timeframes to the Adaptive Management Program flowchart	DEQ and TSC	Addressed

ATTACHMENT A: OCTOBER 5, 2021 NUTRIENT WORK GROUP MEETING PRESENTATION SLIDES

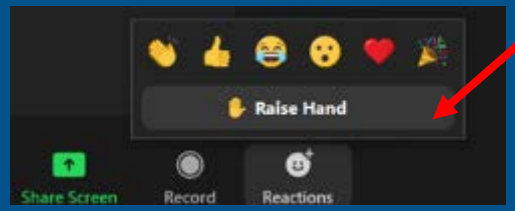
Nutrient Work Group Session Seven

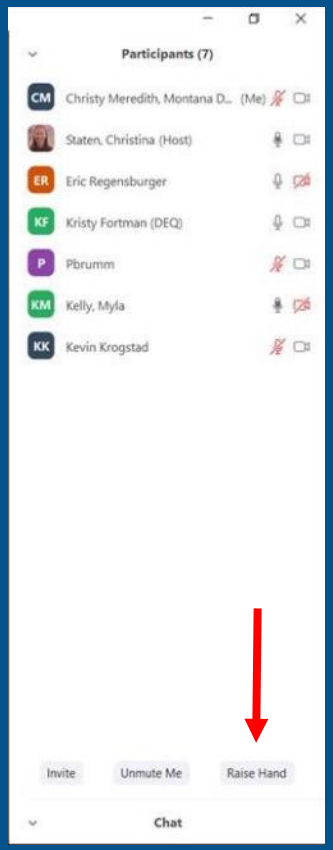
October 5, 2021

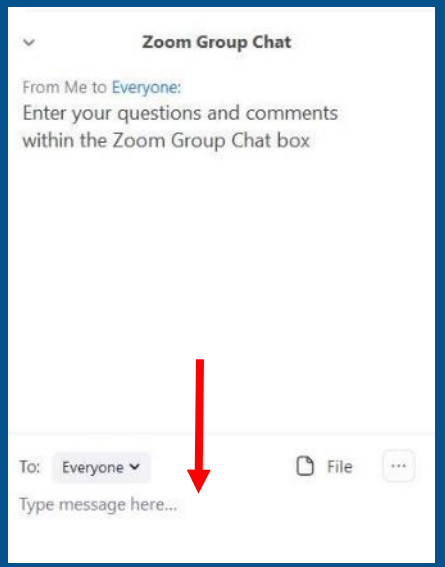
DEQ MONTANA

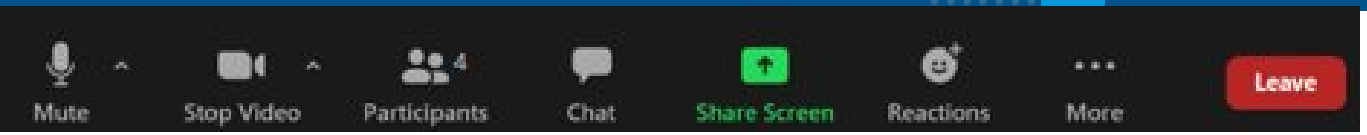
Welcome!

- Please keep your microphone muted until called on
- Only NWG Members may participate during discussions
- Please reserve public comment until the end
- *6 unmutes your phone
- State your name and affiliation before providing your comment
- Enter questions in the chat box or raise hand
- Turning off your video feed provides better bandwidth
- Please sign-in to the chat box with name and affiliation









DEQ MONTANA

Agenda

Meeting Goal:

Wrap up and summarize process for interpreting narrative nutrient standards and developing an Adaptive Management Program, in preparation for draft rule package review

1:30 p.m. Welcome and NWG Roll Call (Ted Barber, Facilitator)

1:40 p.m. Narrative Nutrient Standards Interpretation & Adaptive Management Program Overview

2:10 p.m. Outstanding Items from September 22 Meeting

2:30 p.m. TMDL Wasteload Allocations (Kristy Fortman)

3:00 p.m. Draft Rule Package Review (Christina Staten)

3:10 p.m. Public Comment

As Time Allows: Comments / Themes from September 23 Listening Session

DEQ MONTANA

Introductions

DEQ Staff

- Christopher Dorrington, Director
- George Mathieus, Deputy Director
- Kurt Moser, Legal Counsel
- Moira Davin, Public Relations
- Amy Steinmetz, Water Quality Division Administrator
- Jon Kenning, Water Protection Bureau Chief
- Rainie DeVaney, Discharge Permitting Section Supervisor
- 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
- Michael Suplee, Water Quality Science Specialist

DEQ MONTANA

Introductions

Nutrient Work Group Members

Interest Group	Representative	Substitute
Point Source Discharger: Large Municipal Systems (>1 MGD)	Susie Turner	
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	John Youngberg	
Livestock-Oriented Agriculture	Jay Bodner	
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	Wade Fellin	
Federal Land Management Agencies	Andy Efta	
Federal Regulatory Agencies	Tina Laidlaw	
State Land Management Agencies	Jeff Schmalenberg	
Water Quality Districts / County Planning Departments	Pete Schade	
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	

Ground Rules

- Speak one at a time – refrain from interrupting others.
- Wait to be recognized by facilitator before speaking.
- Facilitator will call on people who have not yet spoken before calling on someone a second time for a given subject.
- Share the oxygen – ensure that all members who wish to have an opportunity to speak are afforded a chance to do so.
- Be respectful towards all participants.
- Listen to other points of view and try to understand other interests.
- Share information openly, promptly, and respectfully.
- If requested to do so, hold questions to the end of each presentation.
- Remain flexible and open-minded, and actively participate in meetings.

DEQ MONTANA

Roles and Responsibilities

The Nutrient Work Group is an advisory group to DEQ.

Members agree to:

- Provide specific local expertise, including identifying emerging local issues;
- Review project reports and comment promptly;
- Attend as many meetings as possible and prepare appropriately;
- Complete all necessary assignments prior to each meeting;
- Relay information to and from their broader interest group counterparts after each meeting and gather information/feedback from their counterparts as practicable before each meeting;
- Articulate and reflect the interests that NWG members bring to the table;
- Maintain a focus on solutions that benefit the entire state;
- Present recommendations for the rulemaking throughout the planning process.

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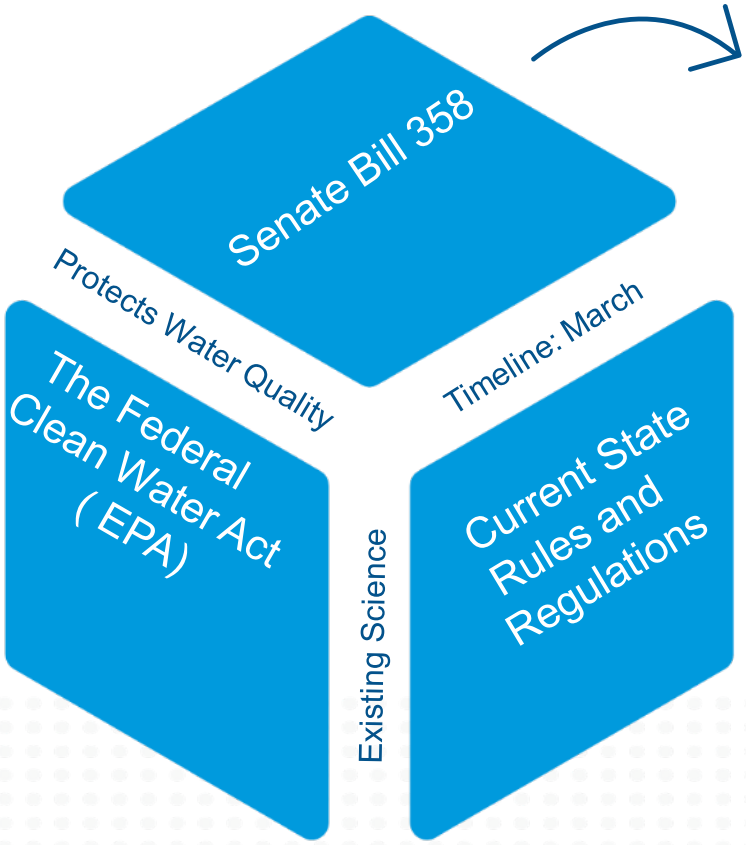
Narrative Nutrient Standards Interpretation & Adaptive Management Program Overview

Narrative Nutrient Standards

Must meet…



Senate Bill 358:

- Rule provides for AMP
- Balances all factors impacting a water body
- Prioritizes the minimization of phosphorus, taking into account site-specific conditions
- Identifies response variables and associated thresholds
- Considers whether point source is new or existing, and impaired or unimpaired
- Rules adopted by March 1, 2022

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What are the Narrative Nutrient Standards?

ARM 17.30.637 General Prohibitions

(1) State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will:

(d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and
(e) create conditions which produce undesirable aquatic life.

Also includes standards such as those for pH which contain narrative components:

ARM 17.30.623 (2)(c): "Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 8.5 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0."

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It's all in the *How*

- Narrative water quality standards are used throughout DEQ and are protective of beneficial uses.
- DEQ has studied nutrients for many years and is using this science to develop the Adaptive Management Program
- SB358 requires DEQ to identify response variables affected by nutrients and associated impact thresholds to protect beneficial uses.
    - Response variables indicate how nutrients affect a stream and show us when something is off.
    - These response variables and thresholds can be monitored through a percentage, a range of numbers or a visual impact.
    - Adaptive management will provide more site-specific data on stream responses to nutrient levels.
- When response variables and thresholds identify a problem, there is flexibility in how to solve the problem. This creates a larger toolbox for dischargers.

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What is the Status of the Numeric Nutrient Standards?

- DEQ is in the process of repealing DEQ-12A, as required by SB358; however, SB358 directs DEQ to administer the discharge permit program using the narrative standards.
- The U.S. EPA considers the numeric nutrient standards (DEQ-12A) as the effective water quality standards for purposes of the Clean Water Act, until EPA approves a replacement;
- DEQ-12B (nutrient variances) was immediately repealed by SB358; however, EPA also still views 12B as an effective water quality standard.

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Pillars

The following guiding principles will serve as the foundation for the rulemaking process.

1. DEQ will utilize the existing science of nutrient impacts to Montana's beneficial uses—it is not the intent of these meetings to revisit the science.
2. DEQ will adhere to permitting requirements of anti-backsliding.
3. All water quality standards changes will be submitted to EPA for approval under the Clean Water Act.
4. DEQ will actively engage with the Nutrient Work Group as an advisory body.
5. DEQ's developed and vetted nutrient assessment method will remain in place, with minor changes.

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Adaptive Management Program Summary

Terminology

AMP acronym

Adaptive Management <u>Program</u>

“watershed-scale system that protects water quality from the impacts of nutrient sources” *

Adaptive Management <u>Plan</u>

"a watershed-specific tool developed under the adaptive management program to achieve the narrative nutrient standards and address nutrients in a specific watershed, comprising a watershed monitoring plan and, if required, an implementation plan, that is incorporated into the MPDES permit of a point source or point sources within the watershed." *

**definitions in draft rule*

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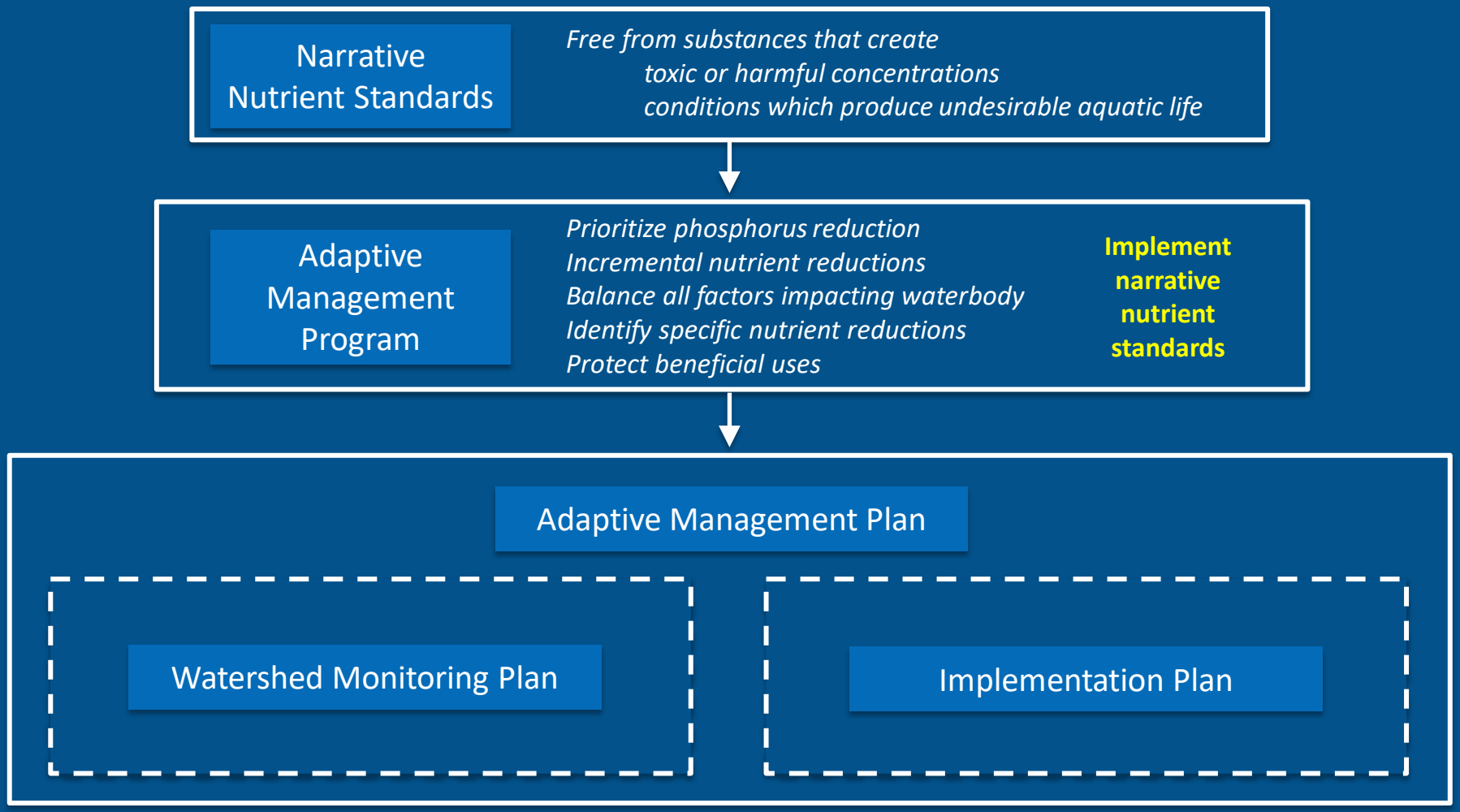
Adaptive Management Program Summary



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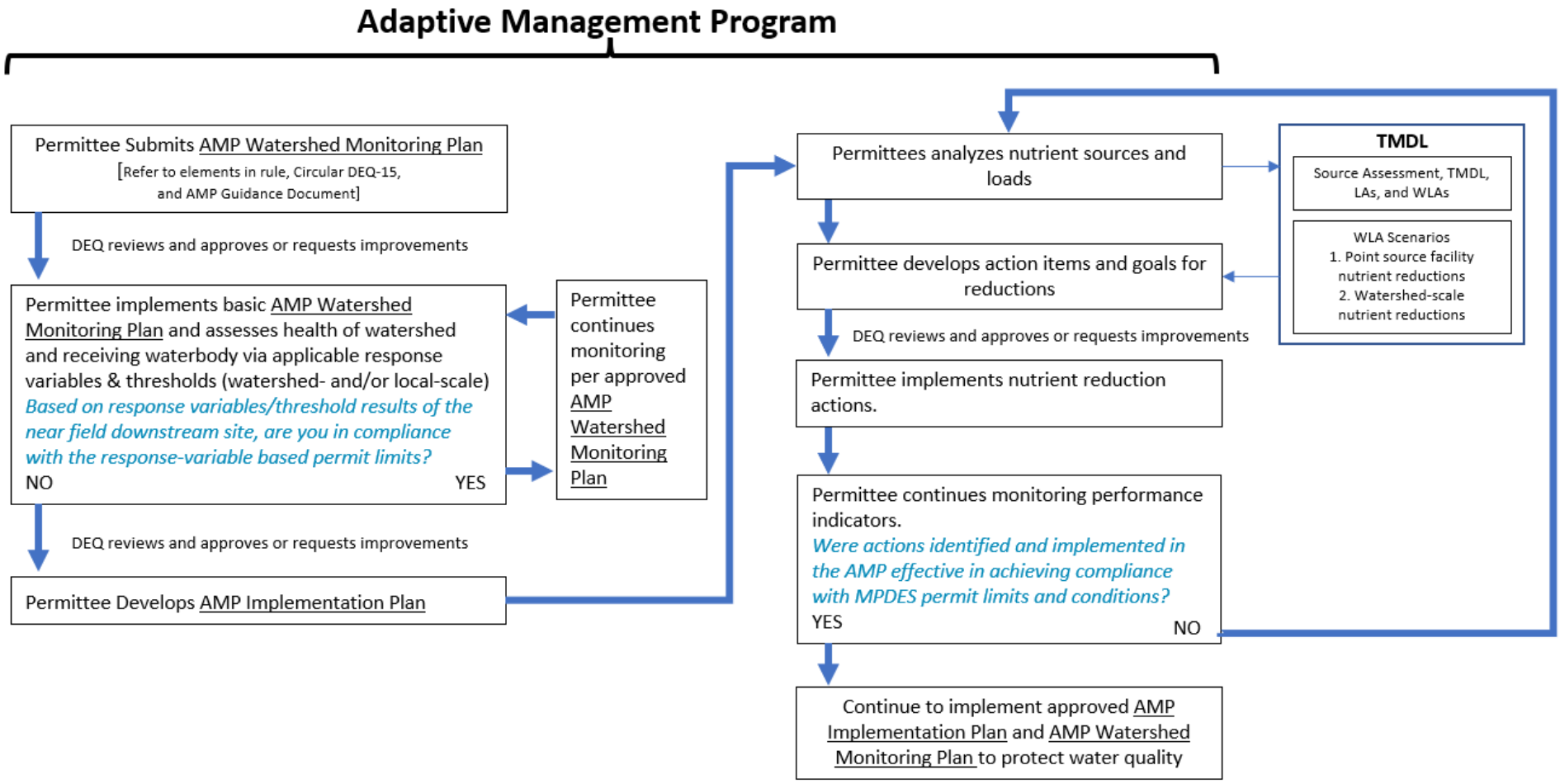
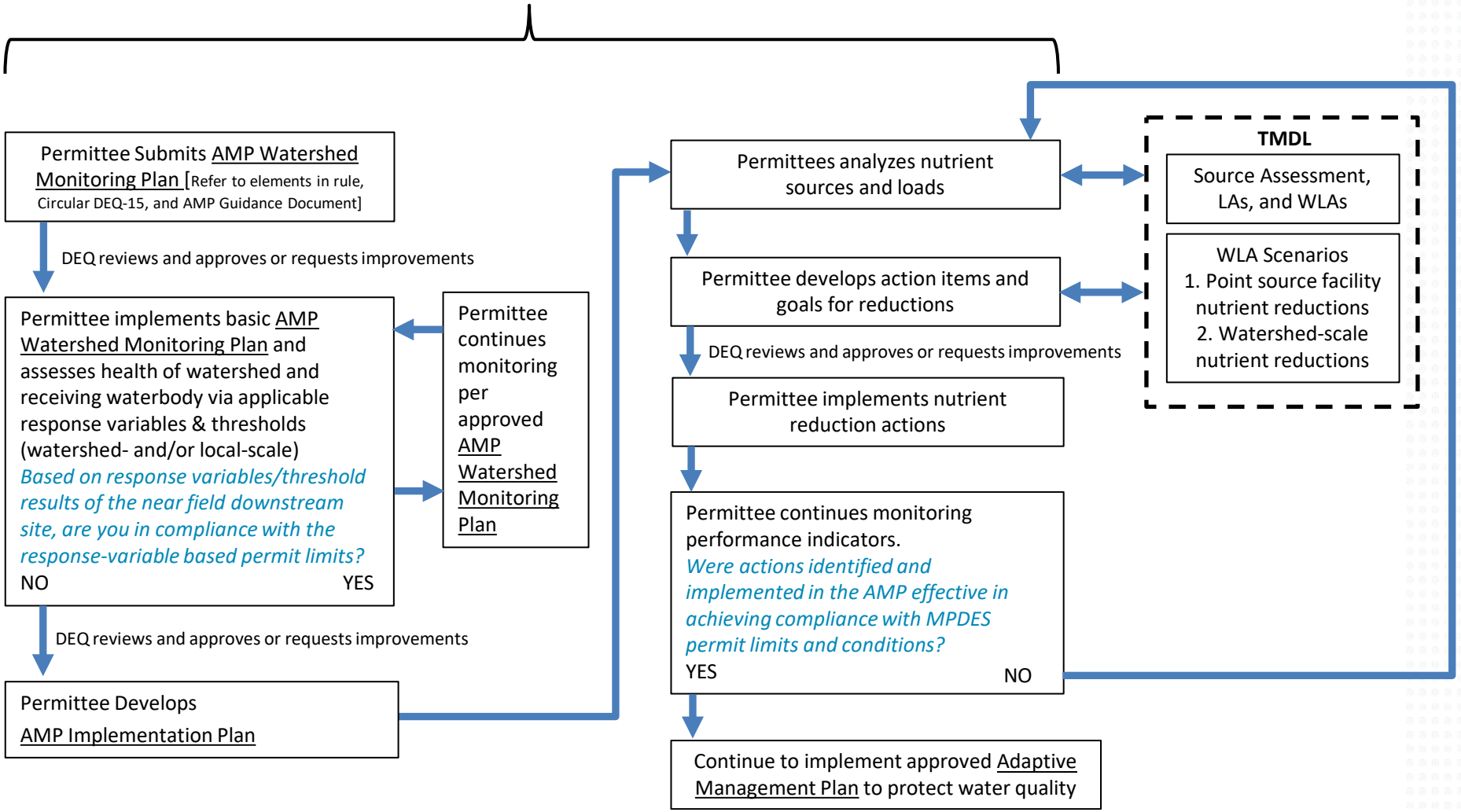
Adaptive Management Program Summary



Adaptive Management Program



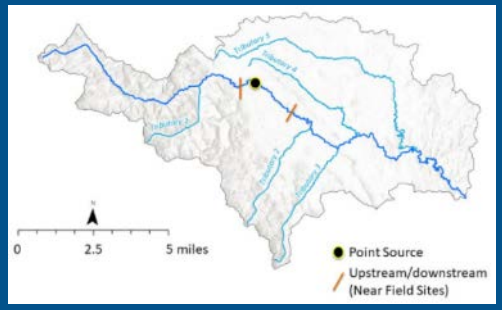
AMP Watershed Monitoring Plan Elements

1. Watershed defined by upstream and downstream extent, principal tributaries, and sampling locations for assessing sources and direct effects of the point source

2. Applicable response variables and sampling frequency

3. Stakeholder engagement plan (stakeholder list and engagement milestones)

4. Watershed inventory (nutrient contributions from point and non-point sources)



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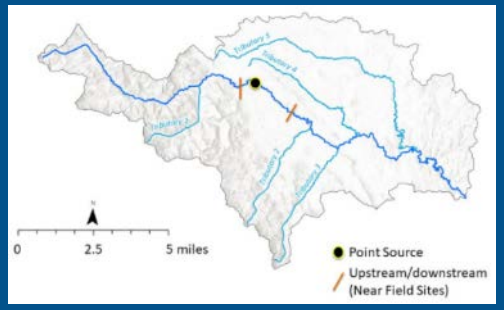
AMP Watershed Monitoring Plan

Approach depends on complexity
- Single or few dischargers (non-model)
- Multiple dischargers (model)

Monitoring Locations
- Near field upstream & downstream of point source
- Upstream & downstream extent of watershed
- Tributaries

Monitoring parameters
- TN, TP concentrations
- Response Variables

Other
- Spatial and temporal considerations
- **Phased approach with interim milestones**
- Annual reports summarizing results
- Submit data in standardized format



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AMP Implementation Plan Elements

1. Quantification of all nutrient sources

2. Partners that will assist in implementing nutrient reductions and their level of support

3. Action items for nutrient reduction, including goals and expected timelines

4. Demonstration of ability to fund and implement the plan (individually, with other permittees and nonpoint sources, or other partners), including contracts reflecting commitments to implement actions.

5. Continued monitoring of response variables and thresholds as indicators of nutrient reduction effectiveness

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Benefits of AMP

- Aims to achieve water quality improvements sooner by giving Permittees more options for achieving nutrient reductions.
- Flexible approach considers all nutrient sources as well as well as the relative cost of treatment options, their feasibility, and their expected water quality improvement.
- Incremental approach allows for implementation and evaluation over time.
- Watershed-specific plans account for site specific conditions, sources, stakeholders, etc.
- Ongoing monitoring ensures current data informs AMP decision-making and is used to evaluate effectiveness.

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Key Differences Compared to Current Permitting Process

- Requirement to prioritize phosphorus reduction instead of phosphorus and nitrogen
  - Site specific exceptions allowed, if appropriate
- Response variables & thresholds requirement means DEQ would evaluate the direct effects manifested *in the river* rather than pollutant concentrations at the end-of-pipe
- If narrative nutrient standards are not met in watershed, AMP would allow for holistic approach to address nutrient sources in water
  - Allows time for improvements to occur

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Nutrient Work Group Discussion and Feedback

Outstanding Items from September 22 Meeting

What's in the AMP Sandbox?

AMP Sandbox (Can work within requirements & framework)	**Separate Regulatory Process** (Occurs outside the AMP process, but data collected under an adaptive management plan can be used)	**Out of the AMP Sandbox** (DEQ does not approve this approach)
• Incentive Program	• Revision of waterbody use classification (Use Attainability Analysis)	• Rulemaking completed after March 1, 2022 (two-step rulemaking process)
• Conceptual model for a watershed	• Beneficial Use Assessment Determinations	• Non-numeric effluent limits based on BMPs alone
• Flexibility to use alternate response variables, if appropriate		• Not using numeric effluent limits
• Net environmental benefit considered		• Not using response variables in a permit
		• Technology Based Effluent Limits (TBELs)

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NWG Feedback Considered

- Revised AMP definitions and AMP flow chart
- Added flexibility for alternate response variables to be used when waterbody doesn't match the ecoregion
- Implementing an incentive program
- Provided use of Teams platform for communication
- Opportunity to hear stakeholder presentations
- Meeting schedules altered
- Nutrient Work Group and Technical Subcommittees combined
- Extra review time added for review of draft rule package
- Worked to clarify points of confusion

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MPDES Compliance

- Monitoring
- Effluent Limits
- Special Conditions and Standard Conditions

Example Permit Conditions Through Time

DEQ Approval of Monitoring Plan

First Phase
Monitoring:
• Response Variables • TN and TP
• Major Tributaries
• Upstream/Downstream Extent
Effluent Limits:
• Retain existing TN/TP loads
• May add relative change or threshold response variable(s)
Special Conditions:
• Watershed Inventory
• Annual Reporting
• Optimization Efforts

Second Phase
Monitoring:
• Response Variables • TN and TP
• Major Tributaries
• Upstream/Downstream Extent
Effluent Limits:
• Retain existing TN/TP loads
• May add relative change or threshold response variable(s)
Special Conditions:
• Update Watershed Inventory
• Engage Stakeholders
• Quantify other loads
• ID limiting nutrient
• Annual Reporting
• Optimization Efforts

Third Phase
Monitoring:
• Response Variables • TN and TP
• Major Tributaries
• Upstream/Downstream Extent
Effluent Limits:
• Retain existing TN/TP loads
• May add relative change or threshold response variable(s)
• May convert response variable data to new TP/TN limit
Special Conditions:
• Update Watershed Inventory
• Engage Stakeholders
• Quantify other loads
• ID limit nutrient
• Develop actions, implement, and assess reductions and health of watershed
• Annual Reporting
• Optimization Efforts

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Alternative TMDLs

- TMDL
  - 1st step in restoring impaired waters
  - Pollution budget
  - Foundation for implementation plans, regulatory activities, and/or on-the-ground restoration

- Alternative TMDL
  - Simple source
  - Simple and fast solution
  - Done in advance of a TMDL
  - Still requires a TMDL

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Alternative TMDLs

Example Alternative TMDL

Middle Fork Judith

- Data collected - concluded that MFJ is impaired by sedimentation/siltation
- One Cause/Source - road with 27 crossings
- Solution - USFS in partnership with Montana Trout Unlimited developed a plan to re-route the existing road and restore the road and associated river crossings

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Nutrient Work Group Discussion and Feedback

TMDLs and Adaptive Management Plans

TMDLs and the AMP

- When a waterbody is not achieving the narrative nutrient standards for nitrogen and/or phosphorus, it is considered impaired, and a total maximum daily load (TMDL) must be developed.
- TMDL = maximum amount of a pollutant a waterbody can receive and still meet water quality standards
- TMDL determines pollutant reductions and allocations
- Point sources receive a wasteload allocation (WLA) and nonpoint sources receive a load allocation (LA).
- Wasteload allocations incorporated into discharge permits
- Waste load allocation scenarios will incorporate strategies from the adaptive management implementation plan

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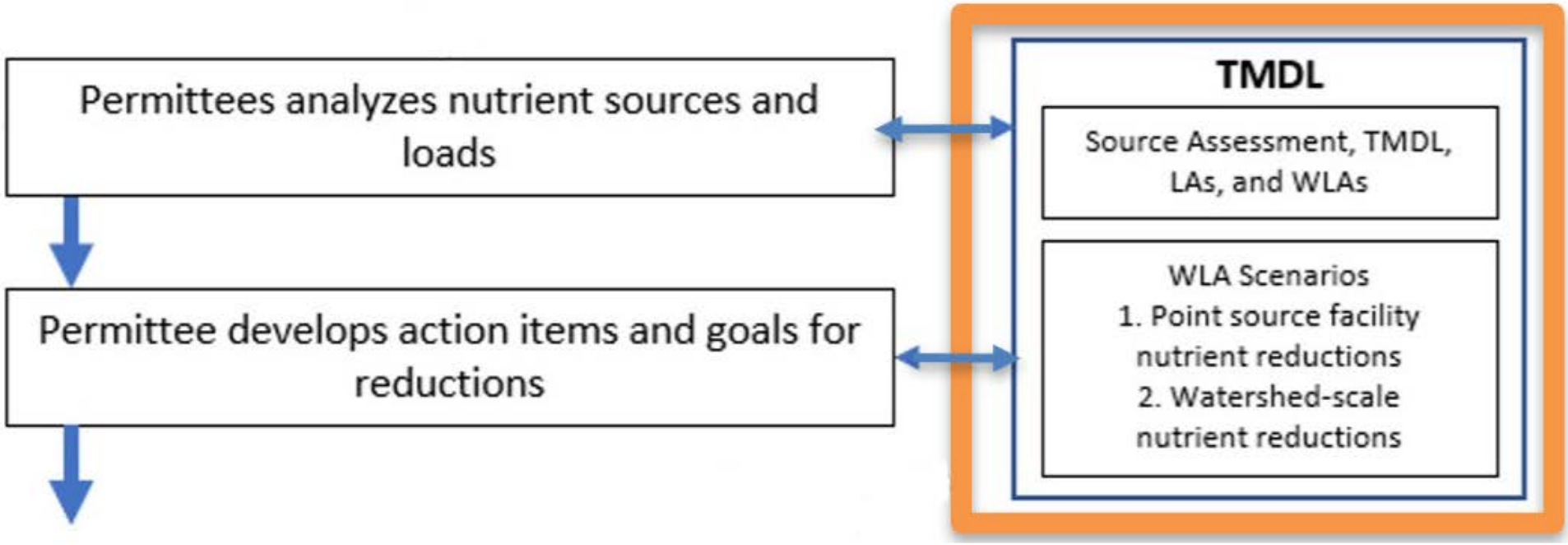
TMDLs and the AMP



Draft Rule Package Review

Draft Rule

3 Pages

Content	Meeting Covered	Supported by Circular and Guidance
Adaptive Management Program Definition	Posted to Teams in July June 21 TSC June 23 NWG July 16 TSC July 28 NWG	
Adaptive Management Plan Definition	October 5 NWG	
MPDES Application Requirements [Timelines]	October 27 NWG	
AMP Watershed Monitoring Plan Requirements	July 6 TSC July 16 TSC July 28 NWG August 3 TSC August 25 NWG September 22 NWG October 5 NWG	☑
Watersheds Not Achieving the Narrative Nutrient Standards	July 28 NWG August 25 NWG	☑
Compliance with MPDES Permit Limits	September 22 NWG	☑

NWG = Nutrient Work Group, TSC = Technical Subcommittee

Circular DEQ-15

Implementation of Narrative Nutrient Standards

24 Pages

Section	Meeting Covered
1.0 Introduction	June 10 TSC June 21 TSC June 23 NWG August 25 NWG
1.1 Definitions • Far Field and Near Field Sites • Large River, Medium River, Wadeable Stream	 August 10 TSC, August 25 NWG July 6 TSC, July 28 NWG
2.0 Different Data Collection and Evaluation Methods Apply Depending on Waterbody Size	July 6 TSC July 28 NWG
3.0 Developing and Using Water Quality Models: Data Collection, Calibration and Validation, Assessment of Beneficial Use/Water Quality Impacts, Simulating the Effect of Potential Management Activities	July 28 NWG August 3 TSC August 25 NWG
4.0 Data Collection Requirements for Watershed Monitoring in Medium Rivers and Wadeable Streams 4.1 Response Variable Data Collection Differs Across the State 4.2 Nutrient Data Collection in an AMP Watershed 4.3 AMP Watershed Monitoring Plan Sample Collection: Index Period 4.4 Types of Sites in an AMP Watershed Monitoring Plan 4.5 Monitoring Data: Western Ecoregional Zone 4.6 Monitoring Data: Eastern Ecoregional Zone 4.7 Identifying Response Variables for Waterbodies that are Atypical of the Ecoregional Zone 4.8 Data Collection for Watersheds with a New Point Source 4.9 Collecting Monitoring Data: Department Field Audits	July 28 NWG August 10 TSC August 25 NWG

*The Circular is still under development and the outline and contents may change by October 18

Circular DEQ-15

Implementation of Narrative Nutrient Standards

24 Pages

Section	Meeting Covered
5.0 Determining Compliance with Permit Limits for Medium Rivers and Wadeable Streams 5.1 Response Variables and Thresholds 5.2 Simple Method 5.3 Exact Binomial Test Method 5.4 Permittee-Proposed Method	September 22 NWG
6.0 Watershed Information Provided by Relative Changes Upstream and Downstream of a Point Source	September 22 NWG
7.0 Integration of the Adaptive Management Program with the Total Maximum Daily Load Program 7.1 Integrating an AMP Implementation Plan and the TMDL Wasteload Allocation	September 22 NWG October 5 NWG
8.0 Watersheds Not Achieving the Narrative Nutrient Standards 8.1 Quantification and Characterization of All Sources of Nutrient Contributions 8.2 Identifying all Partners that will Assist in Implementing Nutrient Reductions 8.3 Developing Action Items for the Reduction of Nutrients in the Watershed 8.4 Continued Data Collection for Response Variables as Performance Indicators	October 5 NWG
9.0 Endnotes	

*The Circular is still under development and the outline and contents may change by October 18

Guidance Document for the Implementation of Narrative Nutrient Standards

54 Pages

*The guidance document is still under development and the outline may change by October 18

Guidance Document for the Implementation of Narrative Nutrient Standards

54 Pages

*The guidance document is still under development and the outline may change by October 18

Comment Timeline

October 18: Draft Rule Package Provided to NWG for NWG Review and Comment
October 27: NWG Meeting to Review Draft Rule Package
October 29: Comments Due from NWG Members
November 3: NWG Meeting to Review Final Rule Package

Comment Submittal

Preferred Method: Submit Comments in MS Teams
(use track changes and save file with affiliation name)

Secondary Method: via Email: CStaten@mt.gov

DEQ MONTANA

Next Meetings

Next Meeting

- Wednesday, October 27: 9 – 11 a.m.

  Topic:
  - Review draft rulemaking package

- Wednesday, November 3: 9 – 11 a.m.

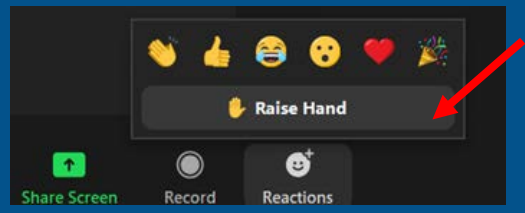
  Topic:
  - Final rule package
  - What's still being developed

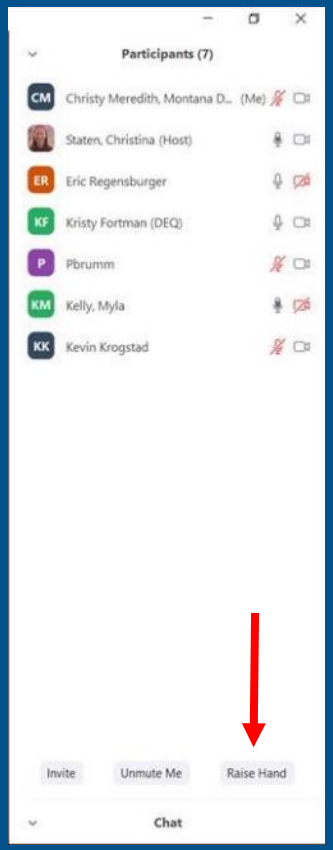
DEQ MONTANA

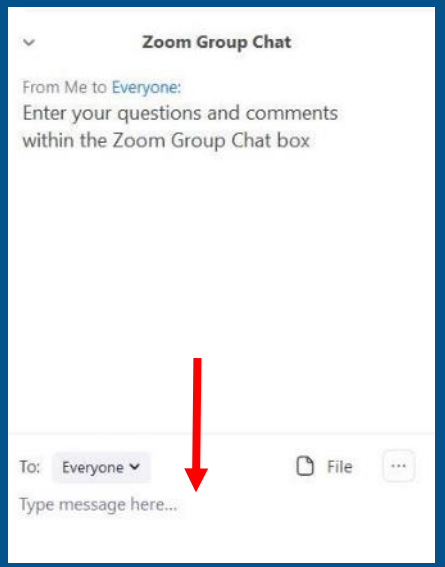
Public Comment

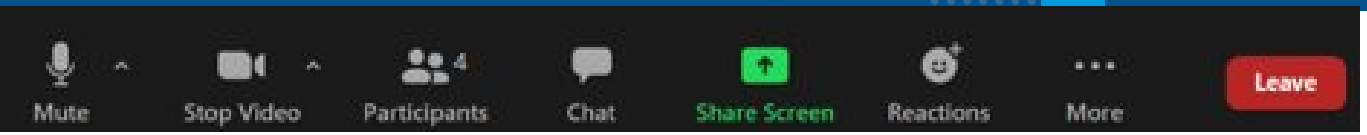
Questions/ Comments

- 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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Public Input

September 23 Listening Session Summary Themes:

- Strength/Protectiveness of Narrative Standards
- Groundwater Discharges
- Monitoring
- Draft Rule Package

Thanks for Joining Us

Contact:
Christina Staten
CStaten@mt.gov

To submit comments or questions

Submit Comments or Questions

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

DEQ MONTANA