STATEWIDE TMDL ADVISORY GROUP (STAG) MEETING SUMMARY
FEBRUARY 16, 2021

Zoom Meeting
1:30 p.m.

To supplement this meeting summary, see **Attachment A** for a copy of the presentation given by DEQ. Both this summary and the meeting agenda can be found on the STAG website at: http://deq.mt.gov/Water/Councils/STAG/advisory_group

ATTENDANCE: STAG MEMBERS

STAG Member & Affiliation	Representing
Jay Bodner Montana Stockgrowers Association	Livestock-Oriented Agriculture
John DeArment Clark Fork Coalition	Conservation or Environmental Interest
David Brooks Montana Trout Unlimited	Water-Based Recreation
Brian Sugden American Forest Management, Inc.	Forestry Industry
Ryan Leland City of Helena	Municipalities
Brian Heaston City of Bozeman	Point Source Dischargers
Greg Bryce Hydrometrics, Inc.	Mining
Alden Shallcross Bureau of Land Management	Federal Land Management Agencies
Jeff Schmalenberg MT Dept. of Natural Resources and Conservation	State Trust Land Management
Donna Pridmore Flathead Conservation District	Conservation District Supervisors West of the Continental Divide
Jeff Pattison Valley Conservation District	Conservation District Supervisors East of the Continental Divide
Jordan Tollefson Northwestern Energy	Hydroelectric Industry

ATTENDANCE: OTHER PARTICIPANTS

Peter Brumm, U.S. Environmental Protection Agency, Region 8 TMDL Program
Julia Altemus, Montana Wood Products Association
Beth Schrayshuen, EA Engineering Science and Technology
Vicki Marquis
Josh Letcher

ATTENDANCE: OTHER PARTICIPANTS (CONTINUED)

Kristy Fortman, DEQ Supervisor – Watershed Protection Section
Darrin Kron, DEQ Supervisor – Monitoring and Assessment Section
Myla Kelly, DEQ Supervisor – Water Quality Standards and Modeling Section
Christy Meredith, DEQ – Watershed Protection Section
Christina Staten, DEQ – Watershed Protection Section
Mark Ockey, DEQ – Watershed Protection Section
Hannah Riedl, DEQ – Watershed Protection Section
Robert Ray, DEQ – Watershed Protection Section

Kristy Fortman, DEQ's Watershed Protection Section Supervisor, called the meeting to order just after 1:30 p.m. and there was a roll call of STAG members in attendance via Zoom. The meeting agenda was then reviewed.

STAG OVERVIEW

Kristy Fortman provided an overview of the role of the Statewide TMDL Advisory Group in formulating Montana's water quality policy, stating that members serve in an advisory capacity to DEQ. She also went over the process for appointing new members to the advisory group for two-year terms, as well as the general structure of STAG meetings. Each STAG member then introduced themselves, providing a brief history of their involvement with the STAG as well as with the interest group they represent. Each STAG member also discussed how they interact and share information about STAG meetings with other organizations in their interest group:

> Jay Bodner, Executive Vice President for the Montana Stockgrowers Association, represents livestock-oriented agriculture. The Montana Stockgrowers Association has a board of directors that Jay discusses STAG matters with, and the Association communicates with its members via a newsletter. Additionally, information is sometimes provided during annual meetings.
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> John DeArment is the Science Director for the Clark Fork Coalition and represents conservation or environmental interests. The Clark Fork Coalition is a watershed group dedicated to the protection and restoration of the Clark Fork River watershed. The Coalition communicates with the rest of the conservation community via its website and includes relevant STAG information in its newsletters. John stated that he's also in regular communication with other organizations and brings up STAG-related information.
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> David Brooks is the Executive Director of Montana Trout Unlimited and represents water-based recreation. Montana Trout Unlimited (TU) is a conservation organization and represents 13 chapters around the state with a few thousand members. David meets with a board of directors on a quarterly basis, where he reports on things such as his involvement with the STAG. Montana TU has a quarterly newsletter that goes out to members and daily social media postings; additionally, action alerts are sent out to members as needed.
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> Brian Sugden represents Montana's forestry industry and is a District Manager for American Forest Management, which manages former Weyerhaeuser timber lands. Key groups that Brian

interacts with and reports out to include the Montana Wood Products Association, particularly their Resource Committee, as well as the Montana Forest Owners Association.

Ryan Leland, Public Works Director for the City of Helena, represents Montana's municipalities. Ryan mainly coordinates through the Montana League of Cities and Towns, but also has quarterly meetings with the public works directors from the seven largest cities in the state. He is also on the board of the American Public Works Association which includes Montana, Idaho, and Wyoming and discusses TMDL development.

Brian Heaston, a Water Resource Engineer for the City of Bozeman, represents point source dischargers. Brian also primarily coordinates through the League of Cities and Towns via newsletters and meetings. He will give some thought as to how to coordinate with non-POTWs (publicly owned treatment works) across the state, particularly industry, given that point source dischargers is a fairly broad category of representation.

Greg Bryce, with the consulting firm Hydrometrics, represents mining in Montana. Greg is also an Associate Director with the Montana Mining Association, which will be his primary means of communicating STAG-related information to its Board of Directors and staff.

Alden Shallcross, Aquatic Habitat Management Program Lead for the Bureau of Land Management (BLM), represents federal land management agencies. A lot of coordination between the BLM and other federal agencies in Montana occurs at the field office level; however, Alden also has direct contact with his counterparts at other agencies, particularly at the U.S. Forest Service.

Jeff Schmalenberg is the Resource Management and Planning Section Supervisor with the Montana Department of Natural Resources and Conservation (DNRC) and represents state trust land management agencies. DNRC owns and manages 5.2 million acres of trust lands throughout the state. Jeff will largely be coordinating and communicating with his Division Administrator at DNRC.

Jeff Pattison represents conservation district (CD) supervisors east of the Continental Divide, out of the 58 total CDs in Montana, and is a Supervisor for the Valley Conservation District. Jeff chairs the Water Resources Committee with the Montana Association of Conservation Districts (MACD) and is also the Chairman of the Milk River Watershed Alliance. Jeff will primarily coordinate with the MACD board on STAG-related topics.

Donna Pridmore represents conservation district supervisors west of the Continental Divide in Montana and is a Supervisor for the Flathead Conservation District. She will communicate with both the Board of the Flathead CD and with other supervisors for the western CDs.

Jordan Tollefson is a Water Quality Specialist with Northwestern Energy and represents Montana's hydroelectric industry. Northwestern Energy operates the most number of hydroelectric dams in Montana, but others are operated by Avista, the U.S. Bureau of Reclamation, the Confederated Salish and Kootenai Tribe, and other entities. Jordan informally meets fairly regularly with these other hydro organizations. He also communicates information via the Northwest Hydropower Association.

INFORMAL CHAIR NOMINATION DISCUSSION

As the informal STAG Chair, John Youngberg, was not present for this meeting, the agenda item of STAG Chair nominations was deferred to the next meeting.

UPDATE ON NUTRIENT WATER QUALITY STANDARDS AND VARIANCES

Myla Kelly, Supervisor of DEQ's Water Quality Standards and Modeling Section, provided a brief history of the establishment of Montana's base numeric nutrient water quality standards (Circular DEQ 12-A) and nutrient standards variances (Circular DEQ 12-B), and then discussed recent actions surrounding these Circulars. Almost a decade of work, in association with the Nutrient Work Group, went into establishing numeric nutrient water quality standards, which were codified in 2014. These standards were coupled with a variance process, which allows time for a point source discharger to meet the underlying water quality standard for nitrogen and/or phosphorus. The standards and variance process were intrinsically tied together through a non-severability clause, all of which was adopted by the state in 2014. Both Circulars DEQ 12-A and 12-B needed to be acted upon by the U.S. EPA, who has ultimate Clean Water Act authority. EPA approved both packages in 2015. Immediately after that, EPA updated their own variance regulations, which created a new level of requirements for permittees to comply with, and be eligible for, a variance. In 2017, DEQ submitted to EPA its triennial review of water quality standards, majority of which EPA approved. In 2018, DEQ submitted its first individual variance for the City of Whitefish, which EPA approved. However, ongoing litigation throughout that time resulted in a federal court decision that led DEQ to revise its nutrient standards package, Circular 12-B. In 2020, EPA disapproved DEQ's 2019 revisions to Circular 12-B, but approved the non-severability clause. Because of recent court decisions, DEQ began undertaking rulemaking in 2020 to again revise Circular 12-B to be in alignment with the Court's decision. During that time, however, DEQ filed a "stay" with the Court, which was granted this month on February 9. This means that the Court concluded that DEQ's request for the stay met the criteria that was required, and therefore, DEQ will not be carrying forward the rulemaking for DEQ 12-B. In addition to this, DEQ has also filed an appeal to the Ninth Circuit Court, which is pending. However, the Judge made clear in his ruling that during this time while the appeal is ongoing, the 2017 version of the general variance and its timeline remain in effect, pending the resolution of DEQ's ongoing appeal.

Discussion

Brian Heaston, Point Source Dischargers representative, asked where DEQ may be taking proposed legislation for nutrient water quality standards in the current Session. Myla responded that DEQ has not seen a final version of any related legislation that's going forward.

Brian Sugden, Forestry Industry representative, asked whether there is any doubt that the non-severability clause could be executed on should that need arise, or is there potentially a situation of being trapped with the current nutrient criteria and no variance process. Myla responded that it is very important with the nutrient criteria to have a functional variance process, but the process is currently not functioning how it was intended in Statute, how the Nutrient Work Group intended, nor how DEQ intended. Some of this has to do with changes to EPA requirements, as well as components of the current litigation. As of now, the Court has said the 2017 version of the variance remains, and that is what DEQ is following. Brian then sought clarification on whether there is concern that the non-severability clause may not be able to be executed, should that need arise. Myla responded that DEQ will be arguing in its appeal that the variance functions not as a timeline to the standard itself, but as a

timeline to "what is the highest attainable condition," so that we can continue with a functional variance process.

Greg Bryce, Mining representative, asked when Judge Morris ordered DEQ to use the 2017 version of Circular DEQ 12-B in lieu of rulemaking. Myla responded: February 9, 2021. Greg then stated that their understanding was that the non-severability clause was self-enacting and asked DEQ's opinion on how to evaluate this. Myla responded that DEQ is required to follow the District Court's ruling, and doesn't have a better answer than that for now.

WATER QUALITY STANDARDS UPDATES: ALUMINUM, AMMONIA, AND SELENIUM

Myla Kelly then discussed how DEQ makes decisions on how the water quality standards section prioritizes work for the coming years. DEQ has the authority to establish water quality standards, but EPA has the ultimate Clean Water Act authority over water quality standards. EPA is continuing research on what are appropriate water quality standards for the protection of beneficial uses (e.g., human health, aquatic life, agriculture, and industry). Montana has hundreds of water quality standards, most of which follow what EPA recommends, which are called "national recommended water quality standards." EPA is constantly re-evaluating water quality standards and whether new science has arisen to update standards. When EPA updates a standard, Montana then evaluates whether to adopt the new standard.

One current example of this is aluminum. EPA's aluminum standard update includes the recognition that the toxicity of aluminum to aquatic life is highly dependent upon pH and dissolved organic carbon, so an equation has been established that incorporates these two factors in order to guide what the appropriate water quality standard would be for aluminum. Montana has not yet adopted this and is in the process of evaluating this new standard. Montana does not have a lot of dissolved organic carbon data, so this is an effort DEQ is taking on in the next few years.

EPA has also updated their ammonia water quality standard, and DEQ will be looking at its statewide data and determining whether this is a standard that can be implemented on a state-wide level. Lastly, the national recommended water quality criteria for selenium has been updated, and DEQ is actively evaluating whether and when Montana would be in a position to adopt this new criteria on a state-wide level. This update incorporates both water column and fish tissue criteria.

Discussion

John DeArment, Conservation or Environmental Interests representative, noted that there was rulemaking in front of the BER about a year or so ago for manganese and iron groundwater standards, which was put on hold in response to public comments; John asked if DEQ is still working towards establishment of these standards. Myla responded that manganese can be harmful at certain levels, particularly to babies that are almost entirely bottle-fed, so this is a human health criterion that is being referred to. In some places in Montana, there are naturally high levels of manganese in groundwater, so there was some concern from stakeholders about how DEQ was going to address this. In the interim, DEQ has created a non-binding health advisory fact sheet that details the recommended health advisory levels for manganese for sensitive groups. These levels follow the same explanations that were brought before the Board last year. John then asked if DEQ is still working on addressing the concerns over background concentrations and moving forward toward a numeric standard. Myla responded the health advisory are all the plans that DEQ has at this time.

Brian Heaston asked about other constituents that were proposed for water quality standards at the same time as manganese (diallate, dioxin, PFOS, and PFOA), and whether they were sidelined as well. Myla responded that DEQ bifurcated those out of the rulemaking, as there are not natural levels of those constituents. Those went forward, and groundwater standards were adopted for diallate, dioxin, PFOS, and PFOA.

Greg Bryce stated that the national standard for aluminum is based on total aluminum, but Montana's standards are for dissolved aluminum – is DEQ evaluating both a total and dissolved standard or just looking at what the federal guidelines are? Greg also noted that aluminum is more present in surface waters farther east in the state, where this becomes more important. Myla stated that EPA's recommendation is total recoverable and Montana's current standard is total dissolved. Myla further stated that DEQ will be looking at exactly EPA's national recommended criteria, but will be collecting both total dissolved and total recoverable aluminum data to look at the comparison. Darrin Kron, Supervisor of DEQ's Monitoring and Assessment Section, also stated that it will be interesting to see how much dissolved carbon is associated with high turbidity in eastern Montana, which could come into play with the aluminum calculation.

WATER QUALITY MONITORING AND ASSESSMENT ACTIVITIES

Darrin Kron provided an overview of recent activities completed by DEQ's Monitoring and Assessment Section. The Monitoring and Assessment Section assesses current water conditions, as compared to the water quality standards, and includes those assessments in a water quality integrated report that is produced every other year. The 2020 Integrated Report was just submitted to EPA for approval this month, and included updated assessments for the Tongue River, many streams in the Red Rock watershed, and Lake and Stanley creeks in northwest Montana. Additionally, the overarching Beneficial Use Assessment Guide was recently updated; an assessment method for electrical conductivity (EC) and sodium adsorption ratio (SAR) was developed for Rosebud Creek, the Tongue, Powder, and Little Powder rivers, and the Tongue River Reservoir; and an E. coli assessment was created that can be used across the state.

Darrin also reported that EPA is pushing states to develop assessment methods for all pollutants for which a state has water quality standards. To that end, DEQ will be working to develop assessment methods for: pH; dissolved oxygen; temperature; lake/reservoir eutrophication; EC/SAR for tributaries of the Tongue, Powder, and Rosebud; toxics (PCBs, fish tissue use, ammonia, and others in Circular DEQ-7); and harmful algal blooms. Additionally, the existing sediment assessment method will undergo revisions. Draft versions of assessment methods will be provided to the STAG for their input and will also be made available for public comment.

Areas that DEQ will be focusing on for assessments for the 2022 Integrated Report include: all segments of the Yellowstone River, likely Lake Koocanusa and the Kootenai River, various sediment success story investigations in small watersheds in western Montana, and requests received from the upcoming biennial Call for Data (if enough data exists). Additionally, using a new EPA grant, the Monitoring and Assessment Section will be partnering with DEQ's Remediation program to screen areas across the state for the prevalence of PFOS in both surface and ground water.

Discussion

Brian Heaston asked if new assessment methods for pH, dissolved oxygen, and temperature will feed back into an update to the nutrient assessment method since they are all interrelated constituents.

Darrin responded that they can be interrelated, but not always – they will be standalone pollutant assessment methods because we have standalone standards for them. However, the water quality standards program has been investigating how daily fluctuations in dissolved oxygen play a role in nutrient responses in eastern Montana streams, which is currently accounted for in DEQ's assessment methodology for eastern Montana. Kristy also noted other ways that DEQ looks holistically at pollutant interactions is through modeling work and TMDL development when the relationships between related pollutants are analyzed.

Jeff Pattison, representative of Conservation Districts East of the Continental Divide, asked if DEQ has a specific model or goal that it looks at for water quality, because eastern streams have the correct turbidity and temperature for Pallid Sturgeon and if we tried to clean that up, it would be detrimental to the fish populations – does DEQ take this into account? Darrin responded that for non-toxic pollutants, DEQ takes ecoregion into account, as different ecoregions have different water quality expectations. When it comes to setting standards, standards must support beneficial uses and the native fisheries are a use that we would want to protect. It was also noted that the sediment assessment method varies by geographic region and the temperature water quality standards have different numbers for eastern and western Montana. Darrin stated that DEQ does recognize the differences between prairie and mountainous streams.

TMDL PROGRAM ACTIVITIES

Kristy Fortman provided a summary of recently completed and ongoing activities by the TMDL program (see Attachment A for a map of TMDL project areas). EPA approval was received for the following TMDL documents in 2020: Madison sediment and temperature, Beaverhead metals, and Sheep Creek aluminum. TMDL documents currently being drafted and expected for completion by the end of this year are: Musselshell E. coli and Red Rock sediment, metals, and E. coli. Also under development, but not scheduled for completion until 2022 is the Tongue River electrical conductivity document.

Future scheduled projects include the Yellowstone River (potentially 2022), Smith River nutrients (projected for 2023) and Missouri River nutrients and metals (projected for 2023). Projects not yet scheduled, but considered a TMDL development priority include: Flathead Lake Phase II nutrients, Beaverhead nutrients, Musselshell nutrients, and Otter Creek iron.

Discussion

Greg Bryce asked if any additional data collection is needed for the Otter Creek iron TMDL document. Kristy responded that all data has been collected. She added that the Otter Creek TMDL became a priority when the Otter Creek coal mine was proposed and would have required a surface water discharge permit. Since there is no longer a pending permit application, the TMDL project was pushed back, although it still remains on the priority list. Greg expressed the concern that the collected day may become obsolete if the TMDL is not completed soon. Kristy clarified that for water quality assessment purposes, data must be considered "recent," and have been collected within the last 10 years; however, this is not the case for TMDL development. TMDL development is more focused on source assessment, and as long as the sources have not drastically changed since data collection, the data is still considered relevant.

Jordan Tollefson, Hydroelectric Industry representative, asked the rationale behind putting off some nutrient TMDL projects (e.g., Beaverhead and Musselshell) but moving forward with nutrient TMDLs for the Yellowstone, Smith, and Missouri rivers. Kristy responded that the Yellowstone and Missouri rivers

will have site-specific nutrient standards developed and should not get tied up in the current actions related to Circulars DEQ 12-A and 12-B. Also, the Smith River monitoring project has involved a lot of site-specific data collection and analysis that may allow DEQ to move forward with development of nutrient TMDLs for this river.

NONPOINT SOURCE PROGRAM ACTIVITIES

Kristy explained that many TMDL allocations are to nonpoint sources, and as part of TMDL implementation, the Nonpoint Source program works to implement on-the-ground projects to reduce pollution to surface waters. Recently, the program added "focus areas" where half of technical resources and federal 319 grant funding are concentrated so that measurable water quality improvements can be seen. The Bitterroot River watershed is the current focus area and the Lower Gallatin River watershed has been chosen as the next focus area. Roughly half of the program's financial assistance was allocated to new projects in the Bitterroot in 2020, a protection plan for the river is under development, and success story monitoring took place on multiple Bitterroot and upper Lolo River tributaries in 2020. A community readiness assessment has been completed in both the Bitterroot and Lower Gallatin watersheds where key stakeholders were interviewed to determine their awareness surrounding specific nonpoint source pollution issues, such as riparian area management. As a result, DEQ is looking to do more education and outreach focusing on these issues.

Other program activities include possible development of an alternative watershed restoration plan (WRP) for the Middle Fork of the Judith River. If there is nonpoint source pollution problem that is limited in scope and scale and is caused by one or very few pollution sources, which is the case for the Middle Fork of the Judith River for sediment, EPA allows for development of a WRP alternative. Monitoring was conducted in conjunction with the U.S. Forest Service (USFS) on this river in 2020 and DEQ is looking to move straight into implementation activities, as opposed to TMDL development. The USFS will be conducting road improvements and implementing best management practices along stream crossings to work toward water quality improvements.

Lastly, success story water quality monitoring was conducted in conjunction with the Monitoring and Assessment Section on: Goat Creek (tributary to the Swan River), Kennedy Creek (tributary to Ninemile Creek), Upper Ruby River tributaries, Rattlesnake Creek in Missoula, and tributaries in the upper Lolo River and Bitterroot headwaters. The goal is to evaluate whether water quality has improved enough to remove the stream from the impaired waters list. The Nonpoint Source Program is also working on a new template and process for conducting TMDL implementation evaluations to speed up the process.

Discussion

Alden Shallcross, Federal Land Management Agencies representative, stated that with respect to monitoring, we know that water quality is often the lagging indicator when the source of the problem is associated with riparian functions, and often other processes are restored before you see changes in the water quality spectrum. These other processes can be measured much more inexpensively by seeing indicators in hydraulics and geomorphology of the stream system. Alden also stated that when DEQ conducts effectiveness monitoring, it appears to have been expensive and focused on water quality monitoring, and therefore asked whether DEQ has considered using analogs to water quality, at least during some of the initial phases of restoration. Kristy responded that in addition to in-stream water quality, DEQ looks at morphology as well. Past riparian assessments have been fairly general and not as in-depth as what the BLM conducts; however, DEQ is working on a GIS process to map riparian areas and evaluate changes in land cover over time. Kristy added that DEQ's sediment evaluations for western

Montana streams involve width/depth and floodprone width measures, and evaluations of pool frequency and large woody debris. Darrin Kron stated that the Monitoring and Assessment Section is looking at riparian habitat conditions but wants to be careful about not creating duplicative impairment listings as a result. He also noted that beneficial use assessments must focus on factors that affect in-stream uses like fish and aquatic life; therefore, measurements are focused there and are of such things like percent fines and number of pools.

David Brooks, Water-Based Recreation representative, asked if success story monitoring uses volunteers or if it is all DEQ staff driven. Kristy responded that sometimes DEQ uses volunteers, but other times it is staff-driven. Success stories are a formal measurement of success that are turned into EPA and must follow quality assurance and quality control procedures. Darrin stated that success story monitoring can be triggered by volunteer group's efforts of long term monitoring. David also discussed using volunteers and partnering with other groups to help spread the word about success stories.

PLANNING FOR NEXT STAG MEETING

Kristy suggested an early or late summer virtual meeting and will send out a Doodle poll to choose a date.

David Brooks stated he would be interested in seeing a calendar of, or at least tentative dates for, when success story monitoring will occur in order to plug-in to these monitoring efforts. Kristy noted that DEQ's list of monitoring sites hasn't been finalized for 2021 yet.

Darrin noted that the Call for Volunteer Monitoring Applications is currently out and closes February 25, 2021. Additional information can be found here: http://deq.mt.gov/Water/SurfaceWater/Monitoring

Alden Shallcross noted that it would be interesting for the group to see a presentation on the types and scope of implementation/restoration projects that have taken place in the last five years under 319 funding. Kristy stated that the Nonpoint Source program is putting together a compilation of what has been achieved in terms of pollutant reductions and the number and types of projects that have been implemented, and this could be a presentation at the next meeting.

PUBLIC COMMENT

There was no public comment.

The meeting was closed just after 3:00 p.m.

ATTACHMENT A: FEBRUARY 16, 2021 MEETING PRESENTATION