

Statewide TMDL Advisory Group (STAG) Meeting Summary
Room 111 Metcalf Building, Helena
December 18, 2009
10:00 a.m. – 3:08 p.m.

Attendees:

STAG Members:

Jay Bodner
Doug Parker
Alan Tolerton
Bruce Sims
Brian Sugden
Gary Frank
Stephen Granzow
Christine Brick

Representing:

Livestock-Oriented Agriculture
Mining
Municipalities
Federal Land Management Agencies
Forestry
State Trust Land Management Agencies
Conservation District – East
Environmental/Conservation Interest

Other:

Ron Steg
George Mathieus
Mark Bostrom
Dean Yashan
Robert Ray
Bob Bukantis
Michael Pipp
Mike Suplee
Rod McNiel
Carrie Greeley
Jeff Tiberi

Affiliation:

EPA Region 8 Helena Office
DEQ PPAD
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Montana Association of Conservation Districts

Members Not Attending the Meeting:

Joe Gatoski, Water Based Recreation; Frank Pickett, Hydroelectric; Robin Cunningham, Fishing Related Business; Terry McLaughlin, Point Source Discharger; John Youngberg (chair), Farming-Oriented Agriculture.

John Youngberg could not attend and had previously designated Doug Parker as acting chairman for this meeting. Doug called the meeting to order at 10:05 a.m. Introductions were made.

Water Quality Planning Bureau Staffing Updates

Mark Bostrom from DEQ's Planning, Prevention and Assistance Division (PPAD), Water Quality Planning Bureau (WQPB) gave a staffing update within the bureau. He said that the bureau is structured toward TMDL development and monitoring, with a higher relative proportion of resources in the TMDL development section (Watershed Management Section). This limits the total resources that can be devoted to other water quality management aspects such as monitoring for status and trends and implementation/restoration.

Triennial Review Update

Rod McNeil from PPAD, WQPB gave a [PowerPoint](#) presentation on Montana's numeric water quality standard updates within DEQ-7, the triennial review process, EPA requirements, and the opportunity for public comment. Brian Sugden asked for clarification regarding public input opportunities and George Mathieus clarified that the triennial review opens existing water quality standards to public comment and can run concurrent with opportunity to comment on water quality standards updates such as those proposed for DEQ-7. Doug Parker asked if the changes have any anticipated significant impacts on Montana dischargers and if there would be potential impacts to public water supplies. Rod said the changes to DEQ-7 relate principally to pesticides and parameters that could potentially impact the paper-pulp industry. The changes are not likely to impact wastewater treatment or public water supply facilities in rural states. Rod also discussed potential future compounds which may be added to DEQ-7, based on current national water quality surveys where personal care products and other potential endocrine disruptors are being identified more and more. Chris Brick asked about sampling in Montana to assess these compounds. Rod said that personal care products were detected at low levels in ground water in Montana and that many of these products are on the newly proposed list (CCL-3) generated by the EPA. Alan Tolerton stated that he understands the need to comply with the federal standards but hopes that we don't incorporate or adopt changes in a way that creates unnecessary issues with dischargers.

Nutrient Standards Status

Dr. Mike Suplee, PPAD, WQPB presented a [PowerPoint](#) presentation on the development of numeric nutrient standards focused on nitrogen and phosphorus. Mike's presentation included the following topics:

- A Montana statute created the Nutrient Work Group to craft implementation of standards and the associated variance process. This group has been routinely meeting to work on implementation of the nutrient standards. Several STAG members are involved with this working group.
- Mike noted that at the national level EPA had made it a goal for state's to develop nutrient standards and have them completed by now. EPA has recently increased their focus on statewide development of nutrient standards, and Mike described an example where EPA developed nutrient standards for Florida.
- Mike noted that the existing nutrient standards are narrative and focused more on effects/impacts, whereas the numeric nutrient standards would focus more on the cause of the use impacts via elevated nutrient concentrations.
- Elevated nutrient concentrations can lead to excess algal growth and impacts to recreation in Western Montana and cold water streams, and low dissolved oxygen in prairie streams. The definition of excess algal growth is linked to a Montana water user survey and low dissolved oxygen levels are considered a problem when they are below existing numeric standards for dissolved oxygen.

- The nutrient standards would vary across different eco-regions of Montana based on the natural variability observed in reference streams.
- The nutrient standards would only apply to the summer growing season when algal blooms and associated low dissolved oxygen impacts would normally result from elevated nutrient concentrations.
- Many wastewater treatment plant (WWTP) dischargers could have trouble complying with the nutrient standards if discharging into a water body impaired for nutrients. Montana's approach to developing the nutrient standards incorporates relief on a case by case basis via a variance process allowed per SB 95 passed during the 2009 Montana Legislative Session. The above referenced Nutrient Work Group is charged with developing implementation details regarding the variance process. Mike noted that a discharger will still have to meet standards but SB95 allows staged implementation based on cost and limits of technology considerations.
- The DEQ is developing a nutrient trading policy to help provide discharge and variance compliance options for WWTPs.
- Mike noted that the draft numeric standards would not apply to large rivers and lakes. DEQ currently has a separate approach for large rivers. One example includes efforts to develop numeric nutrient standards underway for a portion of the Yellowstone River.

STAG members and meeting attendees had several questions regarding Mike's presentation:

- There was a question regarding what constitutes a large river. Mike noted that it is obvious in some situations, but not all and that there is an internal DEQ group refining the definition of large rivers.
- Mike was asked if what happened in Florida, where EPA took charge of numeric nutrient standard development, could happen to Montana. Mike replied that he hopes EPA will note how seriously Montana has pursued numeric nutrient criteria and endorse our approach.
- DEQ was asked if there were any TMDLs in place that addressed nutrients, how well they are working and if there were any TMDLs on hold for nutrient standards. Dean Yashan noted that DEQ has completed several nutrient TMDLs in recent years, mainly in watersheds with only nonpoint sources of nutrients. The water quality standards targets for completed TMDLs have been based on a translation of narrative standards using values consistent with the most recent proposed values for numeric nutrient standards. Over the past few years, DEQ has rescheduled some nutrient TMDL work in anticipation of adoption of the numeric nutrient standards, which will facilitate TMDL development, particularly in watersheds with permitted wastewater treatment plant (WWTP) discharges. Dean noted that DEQ currently has large number of nutrient TMDLs under development in watersheds with WWTP discharges, and the DEQ will ensure smooth integration between numeric nutrient standards, the variance process, and TMDL development.

- Mike was asked about an allowable exceedence rate for dissolved oxygen. Mike noted that the existing Montana rule implies no allowed exceedence, although EPA guidance does allow for a small exceedence rate (10 to 20%) for something like DO. Magnitude of exceedence and possible seasonal considerations can also be critical factors.
- There was a question about whether DEQ would only look at nutrients or also evaluate other measures. Mike noted that there would be a decision rule factoring things like nutrient exceedence frequency and magnitude as well as chlorophyll a values. Mark Bostrom noted that this information would be incorporated into DEQ's updated assessment methodology (see below presentation summary).

EC & SAR Standards Update

Bob Bukantis, PPAD, WQPB gave a [PowerPoint](#) presentation on Montana's EC and SAR standards for the Tongue and Powder River drainages, including a brief overview of water quality standards and nondegradation as applied to these drainages. This included a discussion of existing water quality in these drainages, as well as descriptions of harmful considerations and how the information is used for setting numeric levels to avoid harm to uses, specifically irrigation. Bob discussed the existing concerns with coal bed methane (CBM) discharge water, which often has more salt than receiving waters and can lead to soil and crop yield problems when used for irrigation. Bob gave a brief overview of court cases addressing Montana's EC (Electrical Conductivity) and SAR (Soil Absorption Ratio) standards that initially included issues nondegradation and more recently involved issues with EPA's approval process for the numeric standards. The result of the recent court case resulted in the court remanding EPA's approval of Montana's EC and SAR standards based on how EPA conducted their approval process.

303(d) List Status

Mark Bostrom gave a status update on Montana's integrated report (IR), which is must be submitted to EPA every 2 years. The 2006 IR, which was approved by EPA, addressed several consent decree requirements linked to water body reassessments. The 2008 IR was submitted to EPA on November 5, 2009 and is considered final by Montana.

Assessment Method Revision

Mark Bostrom provided an update on DEQ's assessment method revision activities. Mark also integrated discussion on DEQ's ten year monitoring strategy developed to satisfy both EPA and DEQ planning requirements. Mark's presentation included the following:

- Through 2012 the monitoring strategy has a TMDL development focus. The longer term goal is to build a balanced program that includes more support for implementation activities and long term trend monitoring via fixed stations and/or rotating basin assessments.
- The STAG will be provided review opportunities of assessment method updates. The updated assessment method will have to accommodate any changes to water quality standards such as adoption of numeric nutrient criteria. Some of the assessment method revision information may be incorporated into the upcoming 2010 Integrated Report.

- The sufficient credible data portion of the assessment method needs significant revision. Mark provided several examples of issues such as the definition of readily available data, lack of data age limitations, and a lack of sample size requirements. Anticipated revisions will result in improved consistency.

There were several questions regarding sufficient credible data. Doug Parker asked if EPA had guidance on data age. Ron Steg replied that there may be something in EPA guidance but ultimately any approach needs to link back to water quality standards. Mark noted that other states often have 3 to 7-year data limitations.

- Assessment methodology updates will include more focus on magnitude and duration within beneficial use determinations. Currently many of our standards imply “no sample shall exceed” the numeric standard. The goal is to incorporate magnitude and duration considerations consistent with EPA guidelines and consistent with the intent of the water quality standards.
- A major goal is to develop a two-tier assessment approach where the first pass is used as a screening pass that can then lead to a focused approach to refine any potential impairment determinations or areas of uncertainty. This will result in a significantly higher level of certainty for new impairment determinations.
- DEQ approach to addressing natural is still evolving. At this time, impairment causes linked to natural conditions are placed in a special category (2B) within the Integrated Report.

George Mathieus provided an overall summary observation about how many of these and other DEQ activities are focused on a long-term sustainable program versus just meeting a 2012 TMDL deadline. The ongoing program improvements will benefit all bureau programs, including future TMDL development activities through 2012 and beyond.

Water Quality Assessment Database

Mark provided an overview of DEQ’s current data storage for assessment results. Historically this involved several spreadsheets per water body that were not incorporated into a common database. These spreadsheets include the sufficient credible data tables, beneficial use determination tables, as well as the reference tables. The Department subsequently created a database, referred to as WARD, that centralizes all available information in one location and provides the ability to run query reports for information on individual water bodies or water bodies by county or watershed. DEQ has also built a reference library that incorporates all reports and other information used for water body assessments. This information is currently available to the public via the Clean Water Act Information Center (CWAIC) Page on DEQ’s website.

Mark discussed DEQ’s new database (WARD Phase II), which will improve the way in which assessment information is incorporated into the database and used for queries. It will also improve TMDL development and implementation tracking and provide the ability to track

individual impairment causes from initial identification through resolution (e.g. TMDL development through TMDL implementation). WARD II will provide a linkage to the water quality standards used for making impairment determinations and will provide internal quality assurance improvements. WARD II will also provide improved reporting capabilities, both internally and for external reports such as EPA updates and future integrated reports.

Doug Parker asked if DEQ will still maintain public access to information as they are currently doing via CWAIC. Mark replied that DEQ will still maintain CWAIC and it will be expanded and improved.

TMDL Update

Dean Yashan, PPAD, WQPB gave a [PowerPoint](#) presentation that addressed two major topics: the status of TMDL development in Montana and recent (past few years) EPA TMDL guidance.

TMDL Update Topics

- There has been a substantial increase in completed TMDLs, ranging from 28 in 2007 to 94 in 2008 and 133 in 2009. Dean noted that the three year pace for 2007 through 2009 increased substantially from any previous 3 year pace since TMDL development in Montana began during the late 1990's. Montana DEQ received positive feedback from EPA Region 8 during 2009 for their TMDL development pace.
- DEQ is currently working on more than 700 TMDLs and the goal is to complete at least another 540 through 2012. Focus is on a list neutral approach to TMDL development where the majority of TMDLs are completed in a watershed independent of the date that the pollutant impairment was first identified.
- Dean identified several TMDL programmatic improvements and areas of increased support, including an increase in monitoring and assessment staff support to help with sampling during early TMDL development phases.
- The major goal is to develop plans that help implement water quality protection and improvement activities versus just meeting an arbitrary bean count. The list neutral approach helps meet this intent.

Brian Sugden asked if the identified TMDL development plans through 2012 will meet the requirements of the court order (linked to Friends of Wild Swan lawsuit). Dean explained that the DEQ and EPA had received positive feedback from plaintiffs on the list neutral approach, which will result in more TMDLs completed through 2012 versus only just addressing existing impairment causes that link back to the 1996 List. Instead of doing smaller percentages of TMDLs in each watershed throughout the state and then cycling through the state at least one more time to complete TMDLs not linked to the 1996 List, the DEQ is doing a larger percentage of TMDLs within each watershed where activities are under way to better meet the intent of the Water Quality Act. This results in more efficiency over time since focus on only those pollutants from a given 303(d) List date such as 1996 is more costly and results in more redundant TMDL development within a given watershed.

Recent EPA TMDL Guidance Topics

- EPA Region 8 developed a detailed TMDL approval form. This form helps define EPA expectations and provides a method to communicate EPA expectations to stakeholders. The EPA expectations within the review form were consistent with how Montana DEQ has been developing TMDLs for the past several years.
- All TMDLs must have daily loading expressions per EPA (National) guidance which also states that non-daily allocations will often be necessary to satisfy water quality standards. Under those circumstances, both daily and non-daily expressions are recommended. Daily loading has been successfully integrated into all DEQ TMDL documents for all pollutant types. This has added to the DEQ TMDL workload but not to the extent as originally forecasted.
- EPA (Region 8) now has a preference toward expressing many allocations for historical mining as waste load allocations versus load allocations, even under conditions where there is uncertainty regarding the existence of obvious point sources. This has led to modifications in the way DEQ develops metals TMDLs, with recent success working with EPA on how to integrate this new requirement.
- Per EPA requirements, permitted stormwater sites must have waste load allocations. EPA (National) prepared draft guidance on how to deal with the complexities of this requirement. DEQ has successfully applied this guidance to some unique circumstances.
- EPA (National) developed guidance promoting a watershed approach to TMDL development. This is consistent with how DEQ pursues TMDL development, particularly under the list neutral approach.
- EPA (National) is considering guidance regarding reasonable assurance requirements. This is partly in response to recent litigation. There is already a basic level of reasonable assurance required on all TMDLs, documented within the above-noted Region 8 EPA approval form. Additional levels of reasonable assurance might be required in situations where new point source waste load allocations are incorporated into a TMDL.

Doug Parker asked about new construction storm water permits and potential reasonable assurance requirements. Dean thought that it might not be a problem since the pollutant of concern will often be sediment and meeting the BMP requirements of the permit should result in a situation where the activity is not contributing toward impairment per the narrative water quality standards for sediment. Ron Steg said that he expects EPA to develop reasonable assurance guidance in the near future.

2012 Schedule and General Comments

There was additional discussion on the topic of the 2012 schedule and meeting the court order (Friends of Wild Swan lawsuit) requirements. Ron and Dean clarified that the list neutral TMDL approach Montana is currently implementing will not specifically address each water body - pollutant combination linked to the 1996 303(d) List by 2012, but will instead result in the completion of a higher total number of TMDLs. This is possible because the 1996 impairments

represent only about 50% of the currently identified pollutant impairments identified within the more recent 2008 303(d) List. Ron went on to say that EPA and DEQ have been meeting with the plaintiffs annually and that they have been supportive in these meetings regarding TMDL accomplishments and application of a list neutral approach.

Both EPA and DEQ noted that we are at a fork in the road and there is a need to get formal court approval to use the list neutral approach as a way to satisfy the intent of the 2012 schedule. Otherwise, significant resources need to be shifted toward addressing all pollutant impairments linked to the 1996 List. Therefore, both agencies are working on obtaining formal approval of this approach while also planning for the worse-case-scenario where the list neutral approach is abandoned.

Several STAG members expressed support for the list neutral approach and discussed the possibility of writing an endorsement letter. Members also stressed the need to obtain resolution in a timely manner.

Five Year Review and 319 Project Status

Robert Ray, PPAD, WQPB gave an update on the five year review process and how 319 projects are helping with the implementation of TMDLs. There is no EPA requirement for the 5 year review period but state law has a five-year review requirement to track progress toward TMDL implementation, which depends mostly on voluntary actions and incentives (grants) through local groups. There are now more TMDLs to implement than ever and there are 20-25 contracts per year for TMDL implementation projects. The Nonpoint source program's 319 grants require an education and outreach component to the grants and a monitoring component for any implementation project. They are looking at longer term monitoring to meet EPA requirements, and have developed a certification process for volunteer groups that have monitoring plans.

Robert's group is testing a five year review template that incorporates major aspects of TMDL implementation activities and associated monitoring. The template also includes recommendations such as whether more time is needed and if there are other contributing factors now affecting the TMDL. This template will be brought to watershed groups to get feed back, but as an interim tool they are using a tracking spreadsheet for water body/pollution segment and implementation actions in the watersheds. This information will be integrated with the WARD II database.

Doug Parker asked how DEQ will address the increased workload for five year reviews given the significant increase in TMDL development. Mark noted that there may be a need to restructure the Water Quality Planning Bureau after 2012 to help move resources from TMDL development to implementation.

Brian Sugden suggested that the STAG be provided with 5-year review drafts discussed above, either as an agenda item for the next meeting or via the DEQ website. DEQ agreed to meet this request.

General Comments and Next Meeting

Christine Brick asked if there was a summary of the list neutral rationale and if she could be provided a copy. Dean said that a summary would be made available for Christine.

There was discussion on STAG roles and meeting frequency. Mark noted that the STAG can provide feedback on DEQ's new assessment methodology as it progresses. This could be accomplished using a website wiki to facilitate timely STAG review opportunity and input between meetings.

Doug, Brian and Gary all stressed the need for routine updates on resolution of the 2012 court schedule. Brian suggested that the next meeting agenda include the 2012 schedule resolution along with upcoming legislative session linkages. October was identified as a potential timeframe for the next STAG meeting.

The meeting was adjourned at 3:08 p.m.