



Montana TMDL Prioritization Framework

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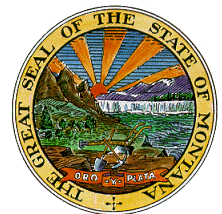


TABLE OF CONTENTS

Montana TMDL Priority Rating Method 3

 Priority Levels..... 3

 Level 1 – High 3

 Level 2 – Medium..... 3

 Level 3 – Low..... 3

 Priority Rating Steps..... 3

 Step 1: Watershed Scale Prioritization 3

 Step 2: Waterbody Scale Prioritization 3

 TMDL Priority Factors 4

 Priority Factors with Greatest Influence 4

 Priority Factors with Medium Influence 5

 Priority Factors with Lowest Influence 5

 Additional Considerations..... 5

 Integration with Adaptive Management Plans..... 5

 Statewide TMDL Advisory Group Feedback..... 6

Addressing EPA Vision 2.0 Goals and Focus Areas..... 6

 Vision 2.0 Goals..... 6

 Planning and Prioritization..... 7

 Restoration..... 7

 Protection 8

 Data and Analysis..... 8

 Partnerships 9

 Vision 2.0 Focus Areas 9

 Environmental Justice 9

 Climate Change 10

 Tribal Water Quality and Program Development 10

 Program Capacity Building 11

Public Input on this Framework..... 11

 Attachment A: TMDL Priority Language from Montana State Law (75-5-702, Montana Code Annotated)..... A-1

MONTANA TMDL PRIORITY RATING METHOD

For efficiency purposes, Montana Department of Environmental Quality (DEQ) favors a watershed scale approach for developing TMDLs, and therefore sets TMDL development priorities at a watershed scale although there is allowance for setting priorities at the individual waterbody scale. Montana state law establishes priority factors that must be incorporated when DEQ sets TMDL priorities (**Attachment A**). State law prioritization factors are discussed below. Additionally, Montana's state law requires consultation with the Statewide TMDL Advisory Group (STAG) when prioritizing waters for TMDL development. Further discussion on STAG participation is below in the public input section of this document, along with other factors considered by Montana when setting TMDL development priorities.

PRIORITY LEVELS

Montana DEQ establishes priority levels based on evaluation of the priority factors (**Attachment A**), the priority rating steps described below, and in consultation with the STAG:

Level 1 – High

Highest level of priority with TMDL completion anticipated within 2 years.

Level 2 – Medium

TMDL completion anticipated within 2 to 6 years; water quality planning activities and other TMDL development support may be in progress.

Level 3 – Low

TMDL development not started or TMDL completion anticipated beyond 6 years.

PRIORITY RATING STEPS

Montana DEQ uses the following methodology for determining priorities for watershed- and waterbody-scale TMDLs and in making priority commitments to EPA.

Step 1: Watershed Scale Prioritization

1. Identify watersheds. TMDL watersheds generally correspond to Montana's TMDL Planning Area boundaries.
2. All watershed TMDL priorities are initially set at Level 3 priority (Low).
3. Watershed TMDL priority can be changed to Level 1 (High) or Level 2 (Medium) based on priority factors (see below) applicable to the watershed or a pollutant group (e.g., nutrients) within the watershed. Individual waterbody factors can influence the watershed priority.
4. All waterbody TMDL development priorities are set equal to the corresponding watershed priority. If the prioritization is only applicable to a specific pollutant group, then only those specific waterbody – pollutant combinations within the watershed receive the higher priority level.

Step 2: Waterbody Scale Prioritization

1. Only pursued where there is an apparent need to modify an individual waterbody (or waterbody – pollutant combination) priority from what was developed under Step 1.

2. This can result in one or more waterbodies (or waterbody – pollutant combinations) receiving a TMDL priority level that is different from the watershed priority. This implies variable TMDL completion schedules within the watershed. Therefore, this type of priority adjustment should only be pursued where the priority factors or other unique circumstances justify the potential reduction in TMDL development efficiency.
3. Example situations where this may occur:
 - a. A higher priority may be assigned to an individual waterbody where the TMDL is required or could have significant impact on a new discharge permit.
 - b. A lower priority may be assigned where significant standards development is desired and the potential outcome could negate the need for a TMDL on one or more waterbodies.

TMDL PRIORITY FACTORS

Montana DEQ refers to subsections (a) through (m) within 75-5-702(7), Montana Code Annotated (MCA), and the new individual permit application requirement within 75-5-702(9), MCA as “priority factors” (**Attachment A**). These factors have been ranked and grouped from greatest to lowest influence for TMDL prioritization.

Priority Factors with Greatest Influence

New Individual Permit Application Factor (75-5-702(9), MCA)

NOTE: This overrides all other priority factors, if 75-5-702(9), MCA applies, then it is a high priority unless there is an alternative schedule that is agreed upon between the applicant and DEQ as allowed under 75-5-702, MCA.

Factors linked to Potential Implementation (75-5-702(7), MCA)

- (d) the degree of public interest and support
- (k) the availability of technology and resources to correct the problems
- (l) whether actions or voluntary programs that are likely to correct the impairment of a particular waterbody are currently in place

Factors linked to Program Coordination (75-5-702(7), MCA)

- (j) state policies and priorities, including the protection and restoration of native fish when appropriate
- (h) immediate programmatic needs, such as waste load allocations for new permits or permit renewals and load allocations for new nonpoint sources

Factors linked to Resource Value (75-5-702(7), MCA)

- (f) whether the waterbody is an important high-quality resource in an early stage of degradation
- (m) the recreational, economic, and aesthetic importance of a particular waterbody

Factors linked to Magnitude of Potential Impact to Use (75-5-702(7), MCA)

- (c) the impacts to human health and aquatic life
- NOTE: Unless there are unique circumstances, this factor will be considered inherently equivalent for all watershed projects and all waterbodies.*

Priority Factors with Medium Influence

Factors linked to Impairment Characteristics (75-5-702(7), MCA)

(e) the character of the pollutant and the severity and magnitude of water quality standard noncompliance

NOTE: This factor will be considered inherently equivalent except that sediment, temperature, and metals TMDLs in warm water streams may be of lower priority until further standards or assessment method development is completed; unless this work is integrated within the TMDL development.

Factors linked to Court Determinations (75-5-702(7), MCA)

(i) court orders and decisions relating to water quality

NOTE: This is still a priority influence because of the need to avoid future court orders.

Priority Factors with Lowest Influence

Factors linked to General Waterbody Characteristics (75-5-702(7), MCA)

(a) the beneficial uses established for a waterbody

NOTE: Unless there are unique circumstances, this factor will be considered inherently equivalent for all watershed projects and all waterbodies.

(b) the extent that natural factors over which humans have no control are contributing to any impairment

NOTE: Unless there are unique circumstances, this factor will be considered inherently equivalent for all watershed projects. If an impairment is predominately due to these types of conditions, then it is possibly an assessment or standards issue that can be addressed outside of TMDL development.

(g) the size of the waterbody not achieving standards

NOTE: Unless there are unique circumstances associated with size only, this factor will be considered inherently equivalent for all watershed projects.

ADDITIONAL CONSIDERATIONS

Montana DEQ takes into account additional considerations when prioritizing TMDLs for development and in making priority commitments to EPA. These considerations include adaptive management plans addressing nutrient impairments, advance restoration plans, and the input of the Statewide TMDL Advisory Group, each discussed in the below sections.

Integration with Adaptive Management Plans

The Montana Department of Environmental Quality will be initiating rulemaking in April 2024 to adopt an adaptive management program for narrative nutrient standards. Upon adoption of the new rules, Montana Pollutant Discharge Elimination System (MPDES)-permitted point source dischargers may choose to enter this program to achieve nutrient standards and to address nutrients in a specific watershed. Entering the program requires the owner or operator of a point source to provide an

adaptive management plan (AMP) which will detail how nutrients will be addressed in the specific watershed.

To the extent possible, Montana DEQ may coordinate TMDL development or revision in conjunction with active AMPs to promote efficiencies in data collection, source assessment, and implementation efforts. TMDL revisions will be prioritized when data collected by a permittee indicate a different nutrient target than used in an approved TMDL is more appropriate for achieving narrative nutrient standards. These TMDL revisions will still be prioritized in accordance with 75-5-702, MCA (**Attachment A**), and through consultation with the Statewide TMDL Advisory Group.

In watersheds with no existing nutrient TMDLs, Montana DEQ may submit permittee-developed adaptive management plans as an advance restoration plan (ARP) to EPA for acceptance. EPA acceptance of an AMP as an ARP may prompt Montana DEQ to lower the priority ranking of TMDL development for the waterbody-pollutant combination addressed by the ARP, in accordance with 75-5-702, MCA. If the ARP is determined not to be the most immediate and practical approach to attain all beneficial uses, Montana DEQ would increase the priority ranking of TMDL development for the waterbody-pollutant combination.

Statewide TMDL Advisory Group Feedback

Montana DEQ is required to consult with the Statewide TMDL Advisory Group (STAG) when prioritizing waterbodies for TMDL development, per 75-5-702, MCA. The STAG is comprised of 14 members representing a broad base of water related interests serving in an advisory capacity to Montana DEQ. Because of the STAG's diversity in representation of interest groups across Montana, it can play an important role in formulating Montana's water quality policy. Montana DEQ generally meets with the STAG twice a year and solicits their feedback on TMDL priority areas, which is taken into consideration when making priority commitments to EPA.

ADDRESSING EPA VISION 2.0 GOALS AND FOCUS AREAS

This portion of the document outlines a general strategy for implementing the goals of the 2022 Vision through 2032. Vision 2.0 (2022 – 2032 Vision for the Clean Water Act Section 303(d) Program published in September 2022 and found at: https://www.epa.gov/system/files/documents/2022-09/CWA%20Section%20303d%20Vision_September%202022.pdf) and the 2024 Integrated Report (IR) Memo ("Information Concerning 2024 Clean Water Act Section 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," published by the U.S. EPA in March 2023 and found at: https://www.epa.gov/system/files/documents/2023-03/2024IRmemo_032923.pdf) provided five goals and four focus areas, as defined below.

VISION 2.0 GOALS

Vision 2.0 defined five goals and the 2024 IR memo requested that states identify broad water quality objectives and actions across programs that will help progress toward these objectives in a way that aligns with the Vision goals: planning and prioritization, restoration, protection, data and analysis, and partnerships. The goals are summarized as follows:

Planning and Prioritization Goal: States, territories, and tribes develop a holistic strategy for implementation of Vision Goals, systematically prioritize waters or watersheds for TMDL and other plan

development (restoration and/or protection), and report on the progress towards development of plans for priority waters.

Restoration Goal: States, territories, and tribes design TMDLs and other restoration plans to attain and maintain water quality standards, facilitate effective implementation, and drive restoration of impaired waters.

Protection Goal: In addition to recognizing the protection benefits that TMDLs and other restoration plans can provide, states, territories, and tribes may develop protection plans to prevent impairments and improve water quality, as part of a holistic watershed approach.

Data and Analysis Goal: The CWA Section 303(d) program coordinates with other government and non-governmental stakeholders to facilitate data production and sharing, and effectively analyzes data and information necessary to fulfill its multiple functions.

Partnerships Goal: The CWA Section 303(d) program meaningfully communicates and collaborates with other government programs and non-governmental stakeholders to restore and protect water quality effectively and sustainably.

Planning and Prioritization

The Water Quality Planning Bureau of Montana DEQ undergoes strategic planning each year to set the Bureau's water quality monitoring, assessment, TMDL development, and TMDL implementation evaluation priorities. The Water Quality Planning Bureau houses the department's Water Quality Standards and Modeling, Monitoring and Assessment, TMDL, and Nonpoint Source and Wetlands sections. This planning incorporates the prioritization factors listed above in the TMDL Priority Factors section of this document. Coordination with other Clean Water Act programs such as the Montana Pollutant Discharge Elimination System permitting program is also conducted to take into account department programmatic needs for long-term planning purposes.

Prioritized projects generally span three to six years, or longer, involving multiple years of data collection for beneficial use impairment determinations and TMDL source assessment, conducting water quality assessments, and subsequently developing TMDLs that include water quality improvement recommendations. Some projects may also involve a water quality modeling component, which may extend the timeframe for TMDL completion.

The Water Quality Planning Bureau also works with other department programs such as Superfund, Abandoned Mine Lands, Coal Mining, and Hard Rock Mining to coordinate on TMDL development and TMDL implementation evaluation priorities. Although not a measures commitment to EPA (or performance metric), TMDL implementation evaluations (TIEs) are conducted by the TMDL Section to evaluate progress towards implementing completed TMDLs and achieving water quality standards. TIE documents are published and posted online to inform watershed stakeholders and the public on what collective actions have taken place in the watershed toward achieving the goals set by the TMDL and recommendations on additional actions needed.

Restoration

The TMDL Section is incorporating measures to promote restoration efforts in multiple ways. In conjunction with the other Water Quality Planning Bureau sections, the TMDL Section is participating in

an internal workgroup to streamline methods for creating simplified summaries of TMDL document recommendations to provide concise takeaways from the TMDL document in layman's terms for local planning efforts to jump start development of 9-element watershed plans by local entities. It is a goal to provide a summary document to accompany each approved TMDL document that provides a short overview of the water quality problems, recommended water quality improvement actions, and potential restoration project locations for each stream addressed in the TMDL document. The TMDL Section is also working with the Nonpoint Source and Wetlands Section to begin integrating TMDL and 9-element plan development for future projects, with a goal of having both documents completed at the same time.

The TMDL Section also participates on the review board for the annual Section 319 Call for Applications to review applications and select projects to fund. This integration with the Nonpoint Source and Wetlands program keeps both programs abreast of restoration projects being implemented in Montana, as well as current restoration practices that should be recommended in TMDL documents.

As discussed above in the Planning and Prioritization section, TMDL implementation evaluations (TIEs) also provide updated restoration recommendations from those included in the original TMDL document. TIEs are completed at least five years after TMDL completion with a goal of promoting additional restoration efforts in watersheds where water quality standards are still not being attained.

Protection

Montana is incorporating the development of protection plans into long-term planning efforts. With the completion of EPA Region 8's first protection plan in 2023 for nutrients in the Bitterroot River, this effort has made headway. Protection plans will be considered by Montana for unimpaired waters susceptible to pollution from population growth, climate change, or other factors. A salinity protection plan for the Tongue River may be developed if the river is determined not to be impaired for specific conductivity after completion of a water quality standards re-evaluation that is underway. This is a long-term planning project for Montana that has been ongoing since the early 2000s.

Data and Analysis

Montana DEQ houses a Clean Water Act Information Center (<https://clean-water-act-information-center-mtdeq.hub.arcgis.com/>) for sharing water quality assessment data and completed TMDL plan information with the public. This is a unique state resource that has proven valuable to our stakeholders.

As mentioned above in the Restoration section, the Water Quality Planning Bureau has initiated an internal workgroup to streamline our source assessment and watershed characterization processes. This creates efficiencies across Clean Water Act programs by eliminating duplicate processes undertaken by multiple programs and creating faster turnaround times for conducting source assessments for TMDL development.

Montana DEQ is currently working to convert an Excel macro data compilation tool into an R shiny application that is more efficient and easier to use. The update also integrates some steps in the beneficial use impairment determination (assessment) process.

These steps will improve Montana's efficiencies toward meeting our EPA commitments in water quality data reporting and TMDL development.

Partnerships

Montana DEQ works to develop and maintain partnerships with sister agencies, federal partners, and tribal nations. Sister agencies include the Montana Department of Natural Resources and Conservation and Montana Fish, Wildlife & Parks. Both agencies serve on DEQ's annual review board for 319 applications and provide information to DEQ on their funded restoration projects when DEQ is conducting TMDL implementation evaluations. DNRC is also represented on Montana's Statewide TMDL Advisory Group, representing state trust land management agencies.

Montana DEQ has memorandum of understandings (MOUs) with both the U.S. Forest Service (USFS) and the Bureau of Land Management (BLM) to document cooperation toward implementing water quality improvement measures in Montana, specifically addressing nonpoint source pollution. The MOU with the USFS is specifically to document cooperation on implementing Montana's Nonpoint Source Management Plan on national forest service lands within Montana. DEQ also meets with the USFS every other year to discuss progress towards meeting the goals of the MOU.

There are seven tribal reservations located in Montana. Montana DEQ consults with tribal nations for TMDL development or revisions when there is shared jurisdiction for a waterbody or when tribal waters are located directly downstream of the TMDL project area. Montana has previously established an MOU with a tribal nation to jointly implement a TMDL for a shared jurisdictional waterbody (Flathead Lake) and may consider this again in the future, if necessary.

The partnerships discussed above are also maintained through each TMDL project's watershed advisory group, which is initiated per Montana state law (75-5-704, MCA), directing DEQ to request the participation of representatives of specified interest groups to work in an advisory capacity to the department during TMDL development. This includes federal land management agencies with land in the TMDL project area (e.g., USFS, BLM), state trust land management agencies (i.e., Montana Department of Natural Resources and Conservation), and the USDA District Conservationist associated with the local conservation district serving the TMDL project area. Watershed advisory group formation also always includes requests for participation from Montana Fish, Wildlife & Parks and from tribal nations with shared or downstream waterbodies.

VISION 2.0 FOCUS AREAS

Vision 2.0 defined four focus areas and the 2024 IR memo requested that states incorporate these focus areas into their prioritization framework: environmental justice, climate change, tribal water quality and program development, and program capacity building.

Environmental Justice

Environmental justice considerations are not inherently part of Montana's TMDL priority factors, as outlined in state law (**Attachment A**). However, Montana is taking steps to incorporate considerations of this aspect. As Montana is a vast state dominated by state and federally managed public lands and a rural agricultural landscape, environmental justice is addressed by traveling to local watersheds to hold stakeholder and public meetings, which minimizes travel time for local interested persons to attend meetings related to TMDL development. Holding in-person meetings also allows for participation from residents in broadband gap areas. Meeting dates and times are also set to accommodate local ranching and farming needs, as this is a dominant livelihood in much of the state and an important stakeholder

on Montana’s TMDL watershed advisory groups. To capture feedback from this interest group, representatives from both farming-oriented and livestock-oriented agriculture are sought to serve on a watershed advisory group for each TMDL project in Montana (75-5-704, MCA).

As discussed above under Partnerships, there are seven tribal reservations located in Montana. Montana DEQ consults with tribal nations for TMDL development or revisions when there is shared jurisdiction for a waterbody or when tribal waters are located directly downstream of the TMDL project area. Tribal collaboration is an important aspect of addressing environmental justice concerns.

Additionally, Montana has recently begun designating “focus watersheds” for devoting significant nonpoint source staff time where technical resources and funding can be focused for a short multi-year time period. This includes capacity building for the local watershed to become ready to implement water quality restoration projects. These types of efforts will address environmental justice concerns for rural communities that do not have as much capacity for developing and implementing water quality restoration projects.

Climate Change

Montana is addressing climate change considerations in a variety of ways. Via our priority rating steps, watersheds more vulnerable to increased stream temperatures are being prioritized for TMDL development as excess algae listings are becoming more prevalent and are becoming the focus of stakeholder interest in these watersheds. For example, two watersheds are currently being evaluated for excess algae through extensive water quality studies and will likely be TMDL development commitments in the next two-year cycle for Vision 2.0.

Montana has developed the first protection plan in Region 8 for a river susceptible to nutrient impairment (the Bitterroot River) and is evaluating a second river for protection plan development if TMDL development is determined to be unnecessary for salinity concerns (the Tongue River). Pollution concerns for both rivers may be exacerbated by climate change due to potential lower future flows and rising river temperatures. Protection plans may be prioritized to protect water quality, which will capture and address climate change concerns.

Montana is currently developing an assessment method for lake and reservoir eutrophication, which will lead to future lake and reservoir TMDLs. As part of this assessment method, harmful algal blooms (HABs) are taken into consideration and will be addressed by subsequent TMDL development.

Additionally, when developing temperature TMDLs, climate variability is taken into account by modeling worst-case scenarios and critical conditions to evaluate lethal stream temperatures on native fisheries. Temperature TMDL documents include water quality improvement recommendations of water storage and floodplain improvement practices, which also inherently address climate change concerns. These are also considerations when evaluating restoration project applications for Section 319 funding.

Tribal Water Quality and Program Development

As discussed above, Montana coordinates with tribal nations on TMDL projects when there is shared jurisdiction for a waterbody or when tribal waters are located directly downstream of the TMDL project area. Montana also coordinates with tribal nations on other Clean Water Act program matters, such as water quality standards development when there is a shared boundary. Montana DEQ does not

otherwise consider this focus area relevant to its prioritization framework, as Montana DEQ does not have jurisdiction on tribal lands.

Program Capacity Building

As of the development of this prioritization framework in 2023, the Water Quality Planning Bureau is nearly fully staffed to meet its Clean Water Act commitments. The TMDL Section, in particular, is in the process of filling its last vacancy, increasing TMDL-specific staff numbers to six. Montana's TMDL development pace has been lagging in the last few years; however, with staffing up, Montana will be able to increase its Vision 2.0 commitment numbers.

Montana DEQ is also increasing the amount of training materials available for new TMDL writers by developing a basic manual that walks through the steps of TMDL development for Montana. This will be in addition to our TMDL Section manual that lays out resources for TMDL writers. The Water Quality Planning Bureau, which houses Montana DEQ's Monitoring and Assessment Section as well as the TMDL Section, takes a full bureau approach to water quality monitoring, which allows for cross-training in monitoring methods and builds capacity to conduct water quality monitoring projects to meet EPA commitments. Nearly all Bureau staff participate in water quality monitoring efforts. Assessment method development writing is also shared across Bureau programs, again increasing capacity to further our monitoring and assessment work.

PUBLIC INPUT ON THIS FRAMEWORK

Montana DEQ held a Statewide TMDL Advisory Group (STAG) meeting on March 11, 2024 to present an overview of this framework and to receive both STAG and public feedback on the framework. As discussed above, the STAG is comprised of 14 interest groups in Montana representing a broad range of interests. The meetings are open to the public with time incorporated for public comment at each meeting. Although no public comment was received on this framework at the March 11 meeting, discussion was had with STAG members surrounding the details of the framework. A draft version of this document was also provided to the STAG on March 19, 2024 with a request for written comment, but none was received.

ATTACHMENT A: TMDL PRIORITY LANGUAGE FROM MONTANA STATE LAW (75-5-702, MONTANA CODE ANNOTATED)

(7) Except as provided in subsection (9), in prioritizing waterbodies for TMDL development, the department shall, in consultation with the statewide TMDL advisory group, take into consideration the following:

- (a) the beneficial uses established for a waterbody;
- (b) the extent that natural factors over which humans have no control are contributing to any impairment;
- (c) the impacts to human health and aquatic life;
- (d) the degree of public interest and support;
- (e) the character of the pollutant and the severity and magnitude of water quality standard noncompliance;
- (f) whether the waterbody is an important high-quality resource in an early stage of degradation;
- (g) the size of the waterbody not achieving standards;
- (h) immediate programmatic needs, such as waste load allocations for new permits or permit renewals and load allocations for new nonpoint sources;
- (i) court orders and decisions relating to water quality;
- (j) state policies and priorities, including the protection and restoration of native fish when appropriate;
- (k) the availability of technology and resources to correct the problems;
- (l) whether actions or voluntary programs that are likely to correct the impairment of a particular waterbody are currently in place; and
- (m) the recreational, economic, and aesthetic importance of a particular waterbody.

(8) Except as provided in subsection (9), the department shall, in consultation with the statewide TMDL advisory group, develop a method of rating waterbodies according to the criteria and considerations described in subsection (7) in order to rank the listed waterbodies as high priority, moderate priority, or low priority for TMDL development. The department may not rank a waterbody as a high priority under this section without first validating the data necessary to support the ranking.

(9) (a) When the department receives an application for a new individual permit to discharge into a surface waterbody or a segment of a surface waterbody pursuant to 75-5-401, the surface waterbody or segment of a surface waterbody has been listed pursuant to subsection (2) of this section, the discharge would contain a pollutant for which the waterbody or segment is threatened or impaired, and a TMDL has not been developed for that waterbody or segment, the department shall:

- (i) within 30 days of the department's receipt of the application, initiate the development of a TMDL on the waterbody or segment; and
- (ii) except as provided in subsection (9) (b), within 180 days of the department's receipt of the application, complete development of the TMDL pursuant to 75-5-703.