



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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August 13, 2021

Ref: 8WD-CWS

**SENT VIA EMAIL
DIGITAL READ RECEIPT REQUESTED**

Amy Steinmetz, Administrator
Water Quality Division
Montana Department of Environmental Quality
asteinmetz@mt.gov

Re: Approval of Musselshell Project Area *E. coli* Total Maximum Daily Loads

Dear Ms. Steinmetz,

The U.S. Environmental Protection Agency (EPA) has completed review of the total maximum daily loads (TMDLs) submitted by your office on August 6, 2021. In accordance with the Clean Water Act (33 U.S.C. §1251 *et. seq.*) and the EPA's implementing regulations at 40 C.F.R. Part 130, the EPA hereby approves Montana's TMDLs for 11 waterbody segments in the Musselshell Project Area. The EPA has determined that the separate elements of the TMDLs listed in the enclosure adequately address the pollutant of concern, are designed to attain and maintain applicable water quality standards, consider seasonal variation and includes a margin of safety. The EPA's rationale for this action is contained in the enclosure.

Thank you for submitting these TMDLs for our review and approval. If you have any questions, please contact Peter Brumm on my staff at (406) 457-5029 or brumm.peter@epa.gov.

Sincerely,

Judy Bloom, Manager
Clean Water Branch

Enclosure:

Musselshell Project Area *E. coli* TMDLs EPA Decision Rationale

Cc:

Galen Steffens, Water Quality Planning Bureau Chief, Montana DEQ
Kristy Fortman, Watershed Protection Section Supervisor, Montana DEQ

EPA TOTAL MAXIMUM DAILY LOAD (TMDL) DECISION RATIONALE

TMDL: Musselshell Project Area *E. coli* Total Maximum Daily Loads

ATTAINS TMDL ID: LMO-TMDL-01a

LOCATION: Meagher, Wheatland, Sweet Grass, Fergus, Petroleum, Garfield, Rosebud, Musselshell, Golden Valley, and Stillwater Counties, Montana

IMPAIRMENTS/POLLUTANTS: The submittal contains eleven TMDLs addressing eleven pollutants prepared for eleven waterbody segments in the Musselshell TMDL Project Area.

Waterbody/Pollutants Addressed in this TMDL Action

Assessment Unit ID	Waterbody Description	Pollutants Addressed
MT40A002_120	American Fork, Confluence of Middle and North Forks American Fork to mouth (Musselshell River)	Escherichia coli (<i>E. Coli</i>)
MT40A002_130	Big Coulee Creek, Confluence of North and South Forks Big Coulee Creek to mouth (Musselshell River)	Escherichia coli (<i>E. Coli</i>)
MT40A002_070	Fish Creek, Headwaters to mouth (Musselshell River)	Escherichia coli (<i>E. Coli</i>)
MT40B002_021	Fords Creek, East Fork Fords Creek to mouth (Box Elder Creek)	Escherichia coli (<i>E. Coli</i>)
MT40A002_090	Half Breed Creek, Headwaters to mouth (Musselshell River)	Escherichia coli (<i>E. Coli</i>)
MT40B002_010	McDonald Creek, North and South Forks to mouth (Box Elder Creek)	Escherichia coli (<i>E. Coli</i>)
MT40A001_010	Musselshell River, North & South Fork confluence to Deadmans Basin Diversion Canal	Escherichia coli (<i>E. Coli</i>)
MT40A001_020	Musselshell River, Deadmans Basin Supply Canal to HUC boundary near Roundup	Escherichia coli (<i>E. Coli</i>)
MT40C003_010	Musselshell River, Flatwillow Creek to Fort Peck Reservoir	Escherichia coli (<i>E. Coli</i>)
MT40A002_012	North Fork Musselshell River, Bair Reservoir to confluence with South Fork Musselshell River	Escherichia coli (<i>E. Coli</i>)
MT40B002_070	South Fork McDonald Creek, Headwaters to confluence with North Fork McDonald Creek	Escherichia coli (<i>E. Coli</i>)

BACKGROUND: The Montana Department of Environmental Quality (MDEQ) submitted to EPA the final *E. coli* TMDLs for the Musselshell TMDL Project Area with a submittal letter requesting review and approval dated August 6th, 2021.

The submittal included:

- Letter requesting EPA's review and approval of the TMDLs

- Final TMDL document for Musselshell Project Area *E. coli* TMDLs

APPROVAL RECOMMENDATIONS: Based on the review presented below, the reviewer recommends approval of the final Musselshell Project Area *E. coli* TMDLs. All the required elements of approvable TMDLs have been met.

TMDL Approval Summary	
Number of TMDLs Approved:	11
Number of Causes Addressed by TMDLs:	11

REVIEWERS: Peter Brumm, EPA

The following review summary explains how the TMDL submission meets the statutory and regulatory requirements of TMDLs in accordance with Section 303(d) of the Clean Water Act (CWA), and EPA's implementing regulations in 40 C.F.R. Part 130.

EPA TMDL REVIEW OF THE MUSSELSELL PROJECT AREA E. COLI TMDLS

This TMDL review document includes EPA's guidelines that summarize the currently effective statutory and regulatory requirements relating to TMDLs (CWA Section 303(d) and 40 C.F.R. Part 130). These TMDL review guidelines are not themselves regulations. Any differences between these guidelines and EPA's regulations should be resolved in favor of the regulations themselves. The italicized sections of this document describe the information generally necessary for EPA to determine if a TMDL submittal fulfills the legal requirements for approval. The sections in regular type reflect EPA's analysis of the state's compliance with these requirements. Use of the verb "must" below denotes information that is required to be submitted because it relates to elements of the TMDL required by the CWA and by regulation.

1. Identification of Waterbody, Pollutant of Concern, Pollutant Sources, and Priority Ranking

The TMDL submittal must clearly identify (40 C.F.R. §130.7(c)(1)):

- *the waterbody as it appears on the State's/Tribe's 303(d) list;*
- *the pollutant for which the TMDL is being established; and*
- *the priority ranking of the waterbody.*

The TMDL submittal must include (40 C.F.R. §130.7(c)(1); 40 C.F.R. §130.2):

- *an identification of the point and nonpoint sources of the pollutant of concern, including location of the source(s) and the quantity of the loading (e.g., lbs. per day);*
- *facility names and NPDES permit numbers for point sources within the watershed; and*
- *a description of the natural background sources, and the magnitude and location of the sources, where it is possible to separate natural background from nonpoint sources.*

This information is necessary for EPA's review of the load and wasteload allocations, which are required by regulation.

The TMDL submittal should also contain a description of any important assumptions made in developing the TMDL, such as:

- *the spatial extent of the watershed in which the impaired waterbody is located;*
- *the assumed distribution of land use in the watershed (e.g., urban, forested, agriculture);*
- *population characteristics, wildlife resources, and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources;*
- *present and future growth trends, if taken into consideration in preparing the TMDL (e.g., the TMDL could include the design capacity of a wastewater treatment facility); and*
- *an explanation and analytical basis for expressing the TMDL through surrogate measures, if applicable. Surrogate measures are parameters such as percent fines and turbidity for sediment impairments; chlorophyll a and phosphorus loadings for excess algae; length of riparian buffer; or number of acres of best management practices.*

The Musselshell Project Area follows the mainstem of the Musselshell River from the headwaters in the Little Belt, Castle and Crazy Mountains to the river's mouth, at the confluence with Fort Peck Reservoir and includes the watersheds of many tributary streams draining to the Musselshell River. The project area encompasses approximately 9,470 square miles in central Montana and includes portions of Meagher, Wheatland, Sweet Grass, Fergus, Petroleum, Garfield, Rosebud, Musselshell,

Golden Valley, and Stillwater Counties. Figure 2-1 displays the general location of the Musselshell Project Area, Table DS-1 displays impaired segments and the pollutants causing those impairments, Figures 5-3 through 5-13 display the *E. coli* monitoring locations.

MDEQ has identified 11 waterbody segments in Table 1-1 that do not meet applicable *E. coli* water quality standards. All of these were ranked high priority for TMDL development on the most recent 303(d) list (MDEQ, 2021). As displayed in Figure 5-1, TMDLs are established for the pollutant of concern that is clearly identified and matches the state's 303(d) list: *E. coli*. In addition, Table 1-2 identifies 16 metals and sediment TMDLs previously approved in the project area while Table 1-3 lists other known nutrient, metals, salinity, sediment and non-pollutant impairments to area waters that will be addressed by future MDEQ efforts.

Section 2.0 (Musselshell Watershed Description) summarizes the physical, ecological and social profile of the project area and includes multiple maps showing the distribution of various watershed attributes such as hydrography, geology, population density, land use, land management, and grazing allotments.

There are approximately 26 permitted point sources in the Musselshell Project Area, however, only ten have the capacity to discharge *E. coli*. These facilities are identified by NPDES permit number and are described further in Section 5.6.1.3 (Point Source Discharges). Nonpoint sources are also reviewed in Section 5.6.1 (Description of *E. coli* Source). Nonpoint sources are characterized into the following categories: natural background, agriculture, livestock grazing, irrigated/dryland cropping, septic systems, domestic pets, and recreational uses. Source contributions are assessed for each stream segment individually in Sections 5.6.2 through 5.6.12.

Assessment: EPA concludes that MDEQ adequately identified the impaired waterbodies, the pollutants of concern, the priority ranking, the identification, location and magnitude of the pollutant sources, and the important assumptions and information used to develop the TMDLs.

2. Description of the Applicable Water Quality Standards and Numeric Water Quality Target

The TMDL submittal must include:

- *a description of the applicable State/Tribal water quality standard, including the designated use(s) of the waterbody, the applicable numeric or narrative water quality criterion, and the antidegradation policy (40 C.F.R. §130.7(c)(1)); and*
- *a numeric water quality target for each TMDL. If the TMDL is based on a target other than a numeric water quality criterion, then a numeric expression must be developed from a narrative criterion and a description of the process used to derive the target must be included in the submittal (40 C.F.R. §130.2(i)).*

EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation.

Section 3.0 (Montana Water Quality Standards) describes the water quality standards applicable to the impaired segments with citations to relevant Montana regulations. Streams within the Musselshell Project Area are to be maintained suitable for a variety of designated uses according to their bundled use classification defined in Table 3-1.

Table 3-2 indicates that *E. coli* is preventing primary contact recreation from being a fully supported designated use in the 11 TMDL streams. The mechanisms by which *E. coli* impacts recreation are explained in Section 5.1 (Effects of Excess *E. coli* on Beneficial Uses). MDEQ has identified primary contact recreation as the most sensitive use to excess *E. coli*, thus by establishing TMDLs to protect primary contact recreation it is expected that all other designated uses will also be protected. The state's antidegradation policies are discussed in Section 3.3 (Nondegradation Provisions).

Table 5-2 clearly identifies all components (magnitude, duration, frequency) of the numeric *E. coli* water quality criteria for both the recreation season (April-October) and the non-recreation season (November-March). These numeric *E. coli* criteria are applied directly as water quality targets for the TMDLs and are comprised of a seasonally dependent 30-day geometric mean criterion (≤ 126 or ≤ 630 cfu/100mL) and an individual sample criterion (≤ 252 or $\leq 1,260$ cfu/100mL). MDEQ expects that meeting the numeric *E. coli* criteria will lead to conditions necessary to support all other relevant narrative criteria.

Assessment: EPA concludes that MDEQ adequately described its applicable water quality standards and numeric water quality targets for these TMDLs.

3. Loading Capacity - Linking Water Quality and Pollutant Sources

The TMDL submittal must include the loading capacity for each waterbody and pollutant of concern. EPA regulations define loading capacity as the greatest amount of a pollutant that a water can receive without violating water quality standards (40 C.F.R. §130.2(f)).

The TMDL submittal must:

- *describe the method used to establish the cause-and-effect relationship between the numeric target and the identified pollutant sources. In many instances, this method will be a water quality model;*
- *contain documentation supporting the TMDL analysis, including the basis for any assumptions; a discussion of strengths and weaknesses in the analytical process; and results from any water quality modeling; and*
- *include a description and summary of the water quality data used for the TMDL analysis.*

EPA needs this information to review the loading capacity determination, and load and wasteload allocations, which are required by regulation (40 C.F.R. §130.2).

The full water quality dataset should be made available as an appendix to the TMDL or as a separate electronic file. Other datasets used (e.g., land use, flow), if not included within the TMDL submittal, should be referenced by source and year. The TMDL analysis should make use of all readily available data for the waterbody unless the TMDL writer determines that the data are not relevant or appropriate.

The pollutant loadings may be expressed as either mass-per-time, toxicity or other appropriate measure (40 C.F.R. §130.2(i)). Most TMDLs should be expressed as daily loads (USEPA. 2006a). If the TMDL is expressed in terms other than a daily load (e.g., annual load), the submittal should explain why it is appropriate to express the TMDL in the unit of measurement chosen.

The TMDL submittal must describe the critical conditions and related physical conditions in the waterbody as part of the analysis of loading capacity (40 C.F.R. §130.7(c)(1)). The critical condition can be thought of as the "worst case" scenario of environmental conditions (e.g., stream flow, temperature, loads) in the waterbody in which the loading expressed in the TMDL for the pollutant of concern will continue to meet water quality

standards. TMDLs should define the applicable critical conditions and describe the approach used to estimate both point and nonpoint source loads under such critical conditions.

MEQ relied upon a weight of evidence approach to establish the cause-and-effect relationship between the numeric target and the identified pollutant sources. Assessments to determine sources of *E. coli* were conducted individually for each TMDL subwatershed starting with Section 5.6.2 (North Fork of the Musselshell River Source Assessment) and were based on water quality monitoring data collected by MDEQ from 2015-2016, flow measurements collected by the United States Geological Survey (USGS), aerial photos, GIS analysis, field work, grazing lease management plans and literature reviews. MDEQ compared spatial and temporal patterns of the monitoring data against the locations and known characteristics of source categories to conclude the primary sources were generally agriculture, natural, and other human-caused sources (e.g., septic systems, domestic pets, etc.).

The natural background contribution was estimated using the median *E. coli* concentration (37 cfu/100mL) of a monitoring dataset collected from unimpaired and relatively undisturbed streams in the watershed. The process is described further in Section 5.6.1.1 (Natural Background).

Water quality data used for analysis are presented in tables within stream-specific source assessment sections. Secondary datasets are referenced by source and year. TMDLs are expressed as 24-hour limits in terms of million colony forming units (MCFU) per day consistent with EPA guidance (USEPA, 2001).

Critical conditions are defined and incorporated into the TMDL process as described in Section 5.9.1 (Seasonality and Critical Conditions). MDEQ considers critical conditions to be wet weather periods when the highest *E. coli* concentrations were observed, and summer low flow periods when water-based recreation is most common.

Assessment: EPA concludes that MDEQ's loading capacity was calculated using an acceptable approach, used observed concentration data and water quality targets consistent with numeric water quality criteria, and has been appropriately set at a level necessary to attain and maintain the applicable water quality standards. The pollutant loads have been expressed as daily loads. The critical conditions were described and factored into the calculations and were based on a reasonable approach to establish the relationship between the target and pollutant sources.

4. Load Allocation

The TMDL submittal must include load allocations (LAs). EPA regulations define LAs as the portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution and to natural background sources. Load allocations may range from reasonably accurate estimates to gross allotments (40 C.F.R. §130.2(g)). Where possible, separate LAs should be provided for natural background and for nonpoint sources.

In the rare instance that a TMDL concludes that there are no nonpoint sources or natural background for a pollutant, the load allocation must be expressed as zero and the TMDL should include a discussion of the reasoning behind this decision.

As described in Section 5.7 (Approach to TMDL Allocations), MDEQ established two LAs for each TMDL, one for natural background and a second representing all human-caused nonpoint sources. The natural background LA was calculated according to Equation 5-4 and was based on the observed median *E. coli* concentration of nearby unimpaired streams. The composite human-caused LA was calculated as the difference between the TMDL and the sum of all other allocations as displayed in Equation 5-5. This composite LA represents all human-caused nonpoint source contributions as one allocation; however, individual nonpoint source categories were characterized in greater depth for each TMDL subwatershed in Section 5.6 (Source Assessment). In some instances, a third LA was established representing the contribution from tributary source areas based on monitoring data or tributary TMDLs.

Assessment: EPA concludes that the LAs provided in the TMDL are reasonable and will result in attainment of the water quality standards.

5. Wasteload Allocations

The TMDL submittal must include wasteload allocations (WLAs). EPA regulations define WLAs as the portion of a receiving water's loading capacity that is allocated to existing and future point sources (40 C.F.R. §130.2(h)). If no point sources are present or if the TMDL recommends a zero WLA for point sources, the WLA must be expressed as zero. If the TMDL recommends a zero WLA after considering all pollutant sources, there must be a discussion of the reasoning behind this decision, since a zero WLA implies an allocation only to nonpoint sources and natural background will result in attainment of the applicable water quality standards, and all point sources have no measurable contribution.

The individual WLAs may take the form of uniform percentage reductions or individual mass based limitations for dischargers where it can be shown that this solution meets WQSs and does not result in localized impairments. In some cases, WLAs may cover more than one discharger (e.g., if the source is contained within a general permit).

There are approximately 26 permitted point sources in the Musselshell Project Area. MDEQ reviewed these point sources and determined, based on the characteristics of the facilities and other permit information, that only ten are likely to discharge *E. coli*. These ten facilities are identified in Table 5-16 and include five publicly owned sewage treatment systems (Harlowton, Ryegate, Grass Range, Lavina, and Winnett) and five Concentrated Animal Feeding Operations (CAFOs). The existing discharge characteristics of these point sources are described in the source assessments of each TMDL subwatershed.

MDEQ established individual WLAs for the sewage treatment systems following Equation 5-6 based on effluent concentrations meeting at end-of-pipe criterion (126 cfu/100mL) using average design flow conditions, or average summer design flow for the lagoon facilities (Grass Range, Lavina, and Winnett). The TMDL submittal states the intent of these WLAs will be met by following permit effluent limits and conditions, including *E. coli* monitoring, and that MDEQ will perform a reasonable potential analysis if future effluent data exceeds criteria.

Where present, CAFOs were also assigned WLAs. Under Montana's general CAFO permit, these facilities are prohibited from continually discharging wastewater, are required to contain all wastewater and stormwater, and must follow general practices to reduce pollutants in stormwater discharges. Due to

their infrequent discharge and relatively low potential for *E. coli* loading, MDEQ established WLAs equal to zero for all CAFOs in the project area.

Assessment: EPA concludes that the WLAs provided in the TMDL are reasonable, will result in the attainment of the water quality standards and will not cause localized impairments. The TMDLs account for all point sources contributing loads to impaired segments, upstream segments and tributaries in the watershed.

6. Margin of Safety

*The TMDL submittal must include a margin of safety (MOS) to account for any lack of knowledge concerning the relationship between load allocations, wasteload allocations and water quality (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)). The MOS may be **implicit** or **explicit**.*

*If the MOS is **implicit**, the conservative assumptions in the analysis that account for the MOS must be described. If the MOS is **explicit**, the loading set aside for the MOS must be identified.*

An implicit MOS was established for all TMDLs using conservative assumptions throughout the TMDL development process as summarized in Section 5.9.2 (Margin of Safety). For example, selecting the 30-day geometric mean criterion as the daily loading target and not factoring a bacterial decay rate into loading calculations contribute to the implicit MOS, which is represented as zero in the TMDL equation.

Assessment: EPA concludes the TMDLs incorporate an adequate implicit margin of safety. The conservative assumptions used to form the implicit MOS were adequately described in the TMDL submittal and are reasonable.

7. Seasonal Variation

The TMDL submittal must be established with consideration of seasonal variations. The method chosen for including seasonal variations in the TMDL must be described (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)).

MDEQ considered the impacts of seasonality in assessing loading conditions, selecting water quality targets, and developing TMDLs and allocation as summarized in Section 5.9.1 (Seasonality and Critical Conditions). *E. coli* water quality criteria are seasonally defined to coincide with impacts to designated uses. Criteria are more stringent during the summer season (April 1st through October 31st) when bacterial growth is high and water-based recreation is common. MDEQ focused monitoring and source analysis work during this timeframe and ultimately chose the more stringent summer criterion for the TMDL target as a protective measure.

Assessment: EPA concludes that seasonal variations were adequately described and considered to ensure the TMDL allocations will be protective of the applicable water quality standards throughout any given year.

8. Reasonable Assurances

When a TMDL is developed for waters impaired by both point and nonpoint sources, EPA guidance (USEPA. 1991) and court decisions say that the TMDL must provide reasonable assurances that nonpoint source control measures will achieve expected load reductions in order for the TMDL to be approvable. This information is necessary for EPA to determine that the TMDL, including the load and wasteload allocations, has been established at a level necessary to implement the applicable water quality standards (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1)).

EPA guidance (USEPA. 1997) also directs Regions to work with States to achieve TMDL load allocations in waters impaired only by nonpoint sources. However, EPA cannot disapprove a TMDL for nonpoint source-only impaired waters, which do not have a demonstration of reasonable assurance that LAs will be achieved, because such a showing is not required by current regulations.

Several TMDLs contained in this submittal are developed for waters impaired by both point and nonpoint sources. Section 4.4 (Determining Pollutant Allocations) and Equation 5-6 clearly show that WLAs are set independently from LAs at “end-of-pipe” concentration levels matching numeric *E. coli* criteria and will be implemented through NPDES permits. Nonregulatory, voluntary-based reasonable assurances are provided for the LAs where the submittal discusses MDEQ’s adaptive management approach to the TMDL process, the monitoring strategy that will be used to gage TMDL effectiveness in the future, and the core aspects of a TMDL implementation strategy. These assurances include the recommendation of specific activities to focus implementation by source category, the identification of watershed partners with shared interests in water quality, and the identification of several potential funding sources, which are discussed throughout Section 7.0 (Water Quality Improvement Plan and Monitoring Strategy).

Assessment: EPA considered the reasonable assurances contained in the TMDL submittal and concludes that they are adequate to meet the load allocation reductions. Nonpoint source load reductions are expected to occur through the implementation of best management practices planned to begin in the near future following the development of a Watershed Restoration Plan. Point sources with NPDES permits require that the effluent limits be consistent with assumptions and requirements of WLAs for the discharges contained in the TMDL (40 C.F.R. §122.44(d)(1)(vii)(B)).

9. Monitoring Plan

The TMDL submittal should include a monitoring plan for all:

- *Phased TMDLs; and*
- *TMDLs with both WLA(s) and LA(s) where reasonable assurances are provided.*

Under certain circumstances, a phased TMDL should be developed when there is significant uncertainty associated with the selection of appropriate numeric targets, estimates of source loadings, assimilative capacity, allocations or when limited existing data are relied upon to develop a TMDL. EPA guidance (USEPA. 2006b) recommends that a phased TMDL submittal, or a separate document (e.g., implementation plan), include a monitoring plan, an explanation of how the supplemental data will be used to address any uncertainties that may exist when the phased TMDL is prepared and a scheduled timeframe for revision of the TMDL.

For TMDLs that need to provide reasonable assurances, the monitoring plan should describe the additional data to be collected to determine if the load reductions included in the TMDL are occurring and leading to attainment of water quality standards.

EPA guidance (USEPA. 1991) recommends post-implementation monitoring for all TMDLs to determine the success of the implementation efforts. Monitoring plans are not a required part of the TMDL and are not approved by EPA but may be necessary to support the decision rationale for approval of the TMDL.

In Section 7.0 (Water Quality Improvement Plan and Monitoring Strategy), MDEQ provides monitoring recommendations that are intended to assist local land managers, stakeholder groups, and federal and state agencies in developing appropriate monitoring plans to meet the water quality improvement goals outlined in the TMDL submittal. These recommendations include collecting additional data to address specific knowledge gaps in source assessments and conducting future monitoring using consistent data collection methodologies. Once restoration measures have been implemented and given time to take effect, MDEQ is compelled by state law (MCA 75-5-703(7) & (9)) to monitor and re-evaluate the impairment status to determine whether water quality standards (i.e., TMDL targets) are being met in these waters.

Assessment: Monitoring plans are not a required element of EPA's TMDL review and decision-making process. The TMDL document submitted by MDEQ includes objectives for future monitoring written to evaluate the progress toward attainment of water quality standards. EPA is taking no action on the monitoring plan included in the TMDL submittal.

10. Implementation

EPA policy (USEPA. 1997) encourages Regions to work in partnership with States/Tribes to achieve nonpoint source load allocations established for 303(d)-listed waters impaired by nonpoint sources. Regions may assist States/Tribes in developing implementation plans that include reasonable assurances that nonpoint source LAs established in TMDLs for waters impaired solely or primarily by nonpoint sources will in fact be achieved. The policy recognizes that other relevant watershed management processes may be used in the TMDL process. EPA is not required to and does not approve TMDL implementation plans.

EPA encourages States/Tribes to include restoration recommendations (e.g., framework) in all TMDLs for stakeholder and public use to guide future implementation planning. This could include identification of a range of potential management measures and practices that might be feasible for addressing the main loading sources in the watershed (see USEPA. 2008, Chapter 10). Implementation plans are not a required part of the TMDL and are not approved by EPA but may be necessary to support the decision rationale for approval of the TMDL.

The TMDL submittal contains information to assist local stakeholders develop a future Watershed Restoration Plan, which is a locally developed plan that will provide more specific restoration goals for the Musselshell Project Area. In Section 7.0 (Water Quality Improvement Plan and Monitoring Strategy), MDEQ encourages a variety of general restoration approaches by source type like grazing management and septic systems design and maintenance. Additional information to support future implementation activities are also provided, such as a discussion of partner roles and potential funding sources.

Assessment: Although not a required element of the TMDL approval, MDEQ discussed how information derived from the TMDL analysis process can be used to support implementation of the TMDLs. EPA is taking no action on the implementation portion of the TMDL submittal.

11. Public Participation

EPA policy is that there must be full and meaningful public participation in the TMDL development process. Each State/Tribe must, therefore, provide for public participation consistent with its own continuing planning process and public participation requirements (40 C.F.R. §25.3 and §130.7(c)(1)(ii)).

The final TMDL submittal must describe the State/Tribe's public participation process, including a summary of significant comments and the State/Tribe's responses to those comments (40 C.F.R. §25.3 and §25.8). Inadequate public participation could be a basis for disapproving a TMDL; however, where EPA determines that a State/Tribe has not provided adequate public participation, EPA may defer its approval action until adequate public participation has been provided for, either by the State/Tribe or by EPA.

Section 6.0 (Public Participation and Public Comments) explains the public engagement process MDEQ followed during development of the TMDL document. A draft TMDL report was released for public comment from July 5th, 2021 to August 2nd, 2021. A virtual public informational meeting was held July 14th, 2021 via Zoom. The public comment period and public meeting were announced in a June 30th, 2021 press release which was published on MDEQ's website and was distributed to multiple media outlets across Montana, including: The Billings Gazette, The Times Clarion, The Lewistown News-Argus and The Roundup Record-Tribune. Additionally, the announcement was distributed to the project's TMDL watershed advisory group, the Statewide TMDL Advisory Group, and other additional contacts via e-mail. MDEQ received no comments during the public comment period.

Throughout the process, MDEQ worked to keep stakeholders apprised of project status and solicited input from a TMDL watershed advisory group. Interest groups defined in state law (MCA 75-5-704) were invited by MDEQ to participate and included local city and county representatives, livestock-oriented and farming-oriented agriculture representatives, conservation districts, watershed groups, and state and federal land management agencies. In particular, the Musselshell Watershed Coalition provided support identifying stakeholders, coordinating meetings, reviewing draft documents and conducting public outreach.

Assessment: EPA has reviewed the MDEQ's public participation process and concludes that the state involved the public during the development of the TMDLs and provided adequate opportunities for the public to comment on draft documents.

12. Submittal Letter

The final TMDL submittal must be accompanied by a submittal letter that explicitly states that the submittal is a final TMDL submitted under Section 303(d) of the Clean Water Act for EPA review and approval. This clearly establishes the State's/Tribe's intent to submit, and EPA's duty to review, the TMDL under the statute (40 C.F.R. §130.7(d)(1)). The final submittal letter should contain such identifying information as the waterbody name, location, assessment unit number and the pollutant(s) of concern.

A transmittal letter with the appropriate information was included with the final TMDL report submission from MDEQ, dated August 6th, 2021 and signed by Amy Steinmetz, Division Administrator, Water Quality Division.

Assessment: EPA concludes that the MDEQ's submittal clearly and unambiguously requested EPA to act on final TMDLs in accordance with the Clean Water Act and the submittal contained all the necessary supporting information.

References

MDEQ. 2021. *Montana 2020 Final Water Quality Integrated Report*. Montana Department of Environmental Quality, Water Quality Division, Water Quality Planning Bureau. Helena, MT.

USEPA. 1991. *Guidance for water quality-based decisions: The TMDL process*. EPA 440-4-91-001. Office of Water, Assessment and Watershed Protection Division and Office of Wetlands, Oceans, and Watersheds, U.S. Environmental Protection Agency, Washington, DC.

USEPA. 1997. *New policies for establishing and implementing Total Maximum Daily Loads (TMDLs)*. Office of Water, U.S. Environmental Protection Agency, Washington, DC.

USEPA. 2001. *Protocol for Developing Pathogen TMDLs*. EPA 841-R-00-002. Office of Water, U.S. Environmental Protection Agency, Washington, DC.

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