



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Ref: 8WD-CWB

SENT VIA EMAIL

Lindsey Krywaruchka, Water Quality Division Administrator
Department of Environmental Quality
lkrywaruchka@mt.gov

Re: EPA Action on Montana's Addendum to the 2020 Water Quality Integrated Report –
Gallatin River 303(d) Listing for Excess Algal Growth

Dear Ms. Krywaruchka:

Thank you for your submittal of the Montana Department of Environmental Quality (MDEQ) April 2023 Addendum to the State's 2020 Water Quality Integrated Report (IR). The 2023 Addendum lists the middle segment of the Gallatin River, Yellowstone National Park Boundary to Spanish Creek (MT41H001_021) as impaired for aquatic life and recreational use support, because the applicable narrative water quality standard¹ is violated based on excess algal growth. EPA reviewed the revisions made to Section 6 of the IR, MDEQ's response to public comment,² the Gallatin River Existing Conditions Summary and Beneficial Use Assessment,³ and MDEQ's ATTAINs submission.⁴ EPA approves MDEQ's decision to place this segment of the Gallatin River on Montana's Clean Water Act (CWA) Section 303(d) list as impaired due to excess algae growth and has determined that Montana's Addendum to its 2020 CWA Section 303(d) list⁵ meets the requirements of CWA Section 303(d) and EPA's implementing regulations found at 40 C.F.R. Part 130.

Background

MDEQ received a petition on March 31, 2022, to evaluate whether the middle segment of the Gallatin River (MT41H001_021) should be considered impaired for excess algal growth and placed on Montana's CWA Section 303(d) list. On June 20, 2022, MDEQ released a notice of intent to list the Gallatin River as impaired because the applicable narrative water quality standard is violated based on

¹ ARM 17.30.637(1)(e) requires that state surface waters must be free from substances that will create conditions that produce undesirable aquatic life.

² Appendix K: Public Comment and Responses Regarding the Addition of the Excess Algal Growth Cause to the Gallatin River, 2023 Addendum to the 2020 IR, pages 82-113.

³ Attachment 1 - Gallatin River Existing Conditions Summary and Beneficial Use Assessment, 2023 Addendum to the 2020 IR, pages 113-127.

⁴ EPA's Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINs) is an online system for accessing information about the conditions in the Nation's surface waters and serves as EPA's electronic system for review of and tracking state CWA 303(d) list and TMDL submissions.

⁵ EPA's April 23, 2021 Action Letter on Montana's 2020 IR ("Clean Water Act Section 303(d) Total Maximum Daily Load (TMDL) Waterbody List) is attached to this letter regarding the 2023 Addendum.

excess algal growth and initiated a 60-day public comment period which closed on August 22, 2022. A public hearing to hear public comments on the state’s proposal to list the Gallatin River was held on July 14, 2022. Montana received over 2,000 public comments.

In the 2023 Addendum, MDEQ documented its response to public comments and provided a rationale for concluding that the middle segment of the Gallatin River is impaired for excessive algae growth.⁶ In the rationale, MDEQ summarized the available water quality data (i.e., data for total nitrogen, total phosphorus, macroinvertebrates, benthic chlorophyll-a, and ash free dry weight). As noted in the rationale, MDEQ also considered photographs and video submitted by petitioners and written testimonials submitted by outfitters and recreational users that documented their observations of algal growth and the aesthetic and economic impacts of these conditions on their use of the middle segment of the Gallatin River.

In the 2023 Addendum, MDEQ concluded that: “Montana will list this segment of the Gallatin River for Excessive Algae Growth as a category 5 listing in an addendum to the 2020 Integrated Report. A category 5 listing means one or more applicable beneficial uses have been assessed as being impaired or threatened, and a Total Maximum Daily Load (TMDL) is required to address the factors causing the impairment or threat.”⁷

Statutory and Regulatory Background

In July 2005, EPA issued guidance for integrating the development and submission of the 2006 CWA Section 305(b) water quality reports and CWA Section 303(d) lists of impaired waters.⁸ This guidance, and subsequent EPA guidance, recommends that states develop an IR of the quality of their waters by placing all waters into one of five assessment categories. By following this guidance, Category 5 of the IR is the state’s CWA Section 303(d) list. EPA’s action is the review and approval of Category 5 that comprises the CWA Section 303(d) list within the IR.

Section 303(d)(1) of the CWA directs states to identify those waters within its jurisdiction for which effluent limitations required by CWA Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The CWA Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA’s long-standing interpretation of CWA Section 303(d).

EPA regulations implementing CWA Section 303(d) require states to identify water quality limited segments (WQLSs) that still require TMDLs. 40 C.F.R. § 130.7(b). WQLSs are defined in regulation as segments “where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the Act.” 40 C.F.R. § 130.2(j). Thus, states do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the CWA; (2) more stringent effluent

⁶ Page 127. Existing Conditions Summary and Beneficial Use Assessment for the Middle Segment of Gallatin River, 2023 Addendum to the 2020 IR.

⁷ *Id.*

⁸ <https://www.epa.gov/sites/production/files/2015-10/documents/2006irg-report.pdf>

limitations required by State or local authority; and (3) other pollution control requirements required by State, local, or federal authority. (40 C.F.R. § 130.7(b)(1)).

EPA Action

EPA examined the “Existing Conditions Summary and Beneficial Use Assessment for the Middle Segment of Gallatin River” assessment rationale and response to comments that describe MDEQ’s rationale for identifying the middle segment of the Gallatin River as impaired because the applicable narrative water quality standard is violated based on excess algal growth. EPA based its analysis on whether the State reasonably considered all existing and readily available data and information and reasonably concluded whether the middle segment of the Gallatin River should be listed as impaired for aquatic life and recreational use support because the applicable narrative water quality standard is violated based on excess algal growth. Based on this analysis, EPA has determined that the 2023 Addendum meets the requirements of CWA Section 303(d) and EPA's implementing regulations and approves Montana’s 2023 Addendum.

In its response to comments and the conclusion of its assessment for the Gallatin River, MDEQ affirmed that nutrients, along with other factors, will be evaluated as possible causes contributing to excessive algal growth:

- “DEQ will continue to monitor algae and determine conditions that contribute to excessive growth, including total nitrogen and total phosphorus, dissolved nutrients, temperature, shade, discharge, and water clarity.”⁹
- “Montana DEQ will investigate nutrient, discharge, stream channel structure, turbidity/light penetration, stream shading and temperature conditions to further determine appropriate TMDL development and identify the factors causing the impairment for future 303d listing.”¹⁰

EPA acknowledges that, as a general matter, identifying the pollutant(s) causing or expected to cause exceedance of the applicable narrative or numeric water quality standards (WQS) can be an iterative process that may span both the CWA Section 303(d) listing and TMDL development process. States and authorized tribes may reassess and make refinements to the pollutant(s) causing or expected to cause a WQS exceedance each CWA Section 303(d) reporting cycle or as more data and information is gained through the TMDL development process. As additional monitoring is conducted and pollutant(s) causing or expected to cause the excess algal growth are identified, EPA expects any pollutants identified to be included on the State’s CWA Section 303(d) list as required by 40 CFR 130.7(b)(4). EPA also expects any subsequent TMDL process that addresses excess algal growth will evaluate total nitrogen and/or total phosphorus as potential pollutants. MDEQ may also want to evaluate whether revised site-specific total nitrogen, total phosphorus and/or benthic chlorophyll-a criteria for the Gallatin River are warranted.¹¹

⁹ Page 86. Response to Comments, 2023 Addendum to the 2020 IR.

¹⁰ Page 127. Existing Conditions Summary and Beneficial Use Assessment for the Middle Segment of Gallatin River, 2023 Addendum to the 2020 IR.

¹¹ Pages 2-3. EPA’s Comments on Montana’s 303(d) Listing for the Middle Segment of the Gallatin River.

EPA appreciates MDEQ's work to produce the 2023 Addendum to Montana's 2020 CWA Section 303(d) list. If you have any questions, please contact Tina Laidlaw at (406) 457-5016 or laidlaw.tina@epa.gov.

Sincerely,

Stephanie DeJong, Manager
Clean Water Branch

Enclosure: MT 2020 IR Approval Letter

cc: Darrin Kron, MDEQ
Andy Ulven, MDEQ