

Category 4b Demonstrations: Answers to Frequently Asked Questions

What is Category 4b?

Section 303(d) of the Clean Water Act and supporting regulations require states to develop lists of “impaired waters” that are not attaining water quality standards. These 303(d) listed waters require states to develop Total Maximum Daily Loads (TMDLs), which establish pollution reduction goals and load allocations for a water to attain water quality standards. The U.S. Environmental Protection Agency (EPA) regulations also acknowledge other pollution control requirements that may obviate the need for a TMDL, including technology-based effluent limitations, more stringent effluent limitations, or other pollution control requirements (e.g. best management practices) that are stringent enough to achieve water quality standards (see 40 CFR 130.7(b)(1)) within a reasonable period of time. These situations where a TMDL is not required are commonly referred to as “Category 4b” waters, as described in EPA Integrated Reporting (IR) guidance. The 4b categorization occurs during the assessment and listing process, when impaired waters are identified and the need for a TMDL is evaluated.

Where is 4b included in the reporting categories that states use to report on water quality?

EPA established guidance in November 2001 that provided states with a recommended reporting format and suggested content that would satisfy the reporting requirements to Congress as set forth in sections 305(b) and 303(d) of the Clean Water Act (referred to as the Integrated Report (IR)). EPA guidance establishes five reporting categories. States can establish additional subcategories to best represent water body use assessment decisions.

Categories used by the Minnesota Pollution Control Agency (MPCA) are as follows:

- Category 1: Waters which meet all designated uses (i.e. safe for aquatic life, recreation and consumption).
- Category 2: Waters where some uses are being met, but there is insufficient data to assess all the uses.
- Category 3: Waters where there is insufficient data to make an assessment determination
- Category 4: Waters that are impaired or threatened but a Total Maximum Daily Load (TMDL) is already completed or not required. This includes:
 - 4a: Impaired or threatened but all needed TMDLs have been completed; or
 - 4b: *Impaired or threatened but all water quality standards are expected to be attained within a reasonable period of time*
 - 4c: Impaired or threatened but the impairment is not caused by a pollutant; or
 - 4d: Impaired or threatened but a TMDL is not required because the impairment is solely the result of natural sources.
- Category 5: Waters that are impaired and a TMDL is required (303(d) list of impaired waters) for each pollutant causing an impairment (Category 5 includes three subcategories).

As the above categories show, waters assigned Category 4 are impaired, but other conditions exist that make a TMDL unnecessary and therefore those waters are not included on a state's 303(d) list (Category 5) of impaired waters.

As of the most recent survey of 4b demonstrations, which was completed in 2009 by EPA,¹ 400 impaired waters are currently assigned to Category 4b in 26 states, compared to the completion of 39,000 TMDLs nationwide. In Region 5, which includes Minnesota and other Great Lakes States, Ohio, Michigan and Indiana have collectively placed 46 assessment units in category 4b, although none of these are located in Minnesota.

What are the MPCA's expectations for 4b waters?

The MPCA's basic assumption when considering the appropriateness of placing a water body in Category 4b is that a TMDL will not provide any additional value because another control mechanism is in place that will bring the impaired water back to meeting standards within a reasonable period of time.

According to EPA 2008 IR guidance², to place an impaired water body in category 4b States must demonstrate the following:

- 1) Identification of water body segment(s) and statement of problem causing the impairment(s);
- 2) Description of the pollution controls and how they will achieve water quality standards, including a description of the pollutant loads needed to meet water quality standards and a description of the requirements under which the controls will be implemented;
- 3) An estimate or projection of the time when water quality standards will be met based on the implementation of existing control requirements;
- 4) Schedule for implementing pollution controls;
- 5) Monitoring plan to track effectiveness of pollution controls;
- 6) Commitment to revise pollution controls, as necessary.

The MPCA has supplemented EPA's guidance to explain Minnesota's process and priorities for submitting a 4b demonstration. This document is located at (link to be inserted).

Most importantly, a 4b demonstration must include calculations (show the "math") of how proposed practices for point and nonpoint sources will meet standards. In other words, what is the loading capacity of the water body in order to meet water quality standards, what is the needed load reduction for sources contributing to the impairment to achieve standards, what is the corresponding reduction achieved by implementing pollution controls with regard to the contributing sources and over what time period? Models and other analysis tools must be technically rigorous enough to make this assessment. The level of rigor necessary will vary depending on the complexity of the impairments and

¹ <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/11A.pdf>

² http://www.epa.gov/owow/tmdl/2008_ir_memorandum.html

corresponding implementation strategies. Assurances that implementation will occur and consequences for lack of successful implementation need to also be demonstrated.

What is the process for a Third Party to request that MPCA place an impaired water in Category 4b?

Details of MPCA's process and procedures for submitting a 4b request can be found at (link to be inserted). The following are some important highlights from this guidance:

- a. Third-party requests to MPCA can be submitted at any time, but to be considered in time for the next 303(d) list, they must be submitted by February 1 of odd-numbered years. For 2011, however the MPCA will extend the submittal deadline until June to accommodate public agencies who have expressed interest in submitting a 4b request to have an opportunity to review this guidance and prepare their requests accordingly.
- b. The MPCA will make a final decision on whether a 4b demonstration will be submitted to EPA because the demonstration must ultimately be submitted by the State. Prior to development of a 4b request, therefore, requesters are encouraged to contact MPCA to discuss whether a 4b is an appropriate option for a specific waterbody.
- c. The 4b demonstration must be a stand-alone document that will be presented to the public during MPCA's public notice and comment period for the draft 303(d) list (impaired waters list). Currently the 303(d) list is submitted by States to EPA for approval on even-numbered years.
- d. Progress reports on reaching milestones are required every two years (sequenced with the 303(d) listing cycle) and if progress is found to be inadequate, the water body is placed back in Category 5 and a TMDL is required.

Other information and questions regarding Category 4b

- ***What is a "reasonable period of time"?***

According to EPA guidance (EPA. 2006.), the estimated time for the controls to attain water quality standards (WQS) will be evaluated on a case-by-case basis. Factors that can be considered by EPA in defining what constitutes a reasonable time include:

- Initial severity of the impairment
- Cause(s) of the impairment
- Riparian condition
- Channel condition
- Nature and behavior of the specific pollutant
- Size and complexity of the impaired water body
- Nature of the control action(s)
- Costs associated with the control action(s)
- Public interest.

A 4b demonstration should provide a time estimate for WQS attainment, appropriate interim milestones if phased implementation and adaptive management is expected to be used to attain WQS, and the rationale supporting all time periods associated with WQS attainment and interim milestones.

For point sources, including NPDES stormwater, a schedule must be established under the NPDES permit program demonstrating that the program requirements will be sufficient to bring about attainment of WQS in a reasonable time; possible time frames could be the next listing cycle or the life of the permit. (EPA. 2003.)

- ***Should current NPDES permit requirements be used in making a 4b demonstration that includes point sources?***

Yes. Existing wastewater permit limitations, conditions and compliance schedules, as well as stormwater management practices and stormwater pollution prevention programs should be used to demonstrate attainment of water quality standards. If any changes, revisions or modifications to these existing limitations, conditions, compliance schedules or stormwater management practices are needed to demonstrate attainment of water quality standards, then a 4b is not appropriate until those revisions are made.

- ***When is a water removed from Category 4b?***

When a water attains its designated use and applicable water quality standards, the water can be removed from category 4b and placed in either Category 1 or 2 of Minnesota's Integrated Report. According to EPA policy, a water can be removed from category 4b and placed in category 5 (TMDL required) if the original 4b demonstration can no longer be supported (EPA. 2005.) MPCA will rely on the progress reports submitted by third parties on a biennial basis to determine if the original 4b demonstrations can still be supported.

- ***What is the level of technical rigor for a 4b demonstration compared to a TMDL?***

The technical analysis needed to meet 4b requirements – proving that water quality standards can be attained within a reasonable period of time – will likely have at least the same level of rigor and cost as completing a TMDL and an accompanying implementation plan. A 4b demonstration generally requires the same level of technical rigor as a TMDL, particularly in analyzing loading capacity of a water body and determining pollutant reductions needed to meet water quality standards. Also, a 4b demonstration requires technical analysis showing how pollution control measures will reduce loadings to attain water quality standards and how long that process will take—essentially the same technical components of a TMDL implementation plan. One administrative aspect worth noting regarding TMDL implementation plans vs. 4b demonstrations is that TMDL implementation plans are only reviewed by the state, whereas 4b demonstrations are reviewed by both the state and EPA. For these and other reasons, it is strongly encouraged that

interested parties discuss their interest in a 4b demonstration with MPCA well in advance of developing a proposal.

References

EPA. 2001. 2002 Integrated Water Quality Monitoring and Assessment Report Guidance, November 19, 2001.

EPA. 2003. Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, TMDL-01-03, July 21, 2003.

EPA. 2005. Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act, July 29, 2005.

EPA. 2006. Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions, October 12, 2006.