Frequently Asked Questions about Total Maximum Daily Load (TMDL) Water Quality Recovery Plans

Q1: What is a Total Maximum Daily Load (TMDL) Water Quality Recovery Plan?

A1: A TMDL identifies the amount of a pollutant that a waterbody can assimilate and maintain compliance with water quality standards.

A TMDL is the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant. In other words, a TMDL is a pollution cap. A TMDL determines a pollutant reduction target and allocates load reductions necessary to the source(s) of the pollutant.

Pollutant sources are characterized as either point sources that receive a wasteload allocation (WLA), or nonpoint sources that receive a load allocation (LA). For purposes of assigning WLAs, point sources include all sources subject to regulation under either the Alaska Pollutant Discharge Elimination System (APDES) program. For purposes of assigning LAs, nonpoint sources include all remaining sources of the pollutant as well as natural background sources. TMDLs must also account for seasonal variations in water quality, and include a margin of safety (MOS) to account for uncertainty in predicting how well pollutant reductions will result in meeting water quality standards.

Q2: What are water quality standards and designated uses?

A2: Water Quality Standards are either numeric or narrative standards used to define the goals for a waterbody by designating its uses, setting criteria to protect those uses, and establishing provisions to protect waterbodies from pollutants. Designated uses specify appropriate water uses to be achieved and protected. Appropriate uses are identified by taking into consideration the use and value of the waterbody for public water supply, for protection of fish, shellfish, and wildlife, and for recreational, agricultural, industrial, and navigational purposes. In designating uses for a waterbody, States and Tribes examine the suitability of a waterbody for the uses based on the physical, chemical, and biological characteristics of the waterbody, its geographical setting and scenic qualities, and economic considerations.

Q3: How are TMDLs implemented?

A3: A TMDL is designed to be easily implementable with common-sense best management practices that will reduce water pollution.

The mechanisms used to address water quality problems after the TMDL is developed can include a combination of best management practices (BMPs) and/or effluent limits and monitoring required through Alaska Pollutant Discharge Elimination System (APDES) permits. Municipalities and other stakeholders can apply for grants to assist in funding projects to help reduce water pollution. Using a TMDL approach for waterbodies does not replace existing water quality control programs or standard treatment technologies. It provides a framework for evaluating all possible water quality control efforts and promotes closer coordination of local, state, and federal efforts to better guarantee that we collectively meet water quality goals.

Q4: How does a TMDL affect my property?

A4: A TMDL is not designed to act as a permitting tool but rather as a tool for assessing the various sources of pollution associated with a waterbody that cause the waterbody not to meet Alaska Water Quality Standards and when implemented, provides a path towards water quality recovery. Municipal and State zoning and ordinances apply as they would in any other permitting situation. However, permitting requirements and enforcement may be stricter for properties adjacent to a TMDL waterbody depending on the type, duration, and extent of water quality discharge(s) that take place. Point source permits must be consistent with approved TMDLs.

Q5: How is the local community involved in restoring water quality?

A5: Improving water quality typically requires efforts by multiple parties to design and implement BMPs. DEC supports the use of a watershed approach to address nonpoint source pollution (load allocation). A watershed approach is based on the premise that water quality restoration and protection are best addressed at the community level using a defined geographic area (drainage area). Municipalities, non-governmental organizations, and other interested partners can develop watershed plans and/or water quality restoration plans that best fit their community needs. The Alaska Clean Water Actions (ACWA) grant program provides community grants to develop and implement watershed plans.

Q6: What happens if the TMDL implementation does not restore water quality?

A6: After TMDL implementation, follow-up water quality monitoring typically occurs to measure progress towards meeting water quality criteria. If the water quality monitoring indicates that water quality criteria are not being achieved, DEC may conduct a formal evaluation to determine if:

1. The implementation of new and improved management practices are necessary;

2. Water quality is improving but more time is needed to comply with water quality standards; or
3. Revisions to the plan are necessary to meet water quality standards.

DEC recognizes that some water quality problems will not be resolved quickly or without expense.

Q7: How can the public comment on a TMDL?

A7: Alaska has a 30-day public comment period during TMDL development in which anyone is welcome to comment on the draft TMDL. When a TMDL is available for public comment, it will be listed on the State's public notice website. DEC will respond to comments in a "Response to Comments" document prior to submitting the final TMDL to EPA for approval.