

Water quality standards and beneficial uses are described as well as applicable narrative criteria. The narrative criteria are translated into numeric targets for sediment (siltation). The sediment target is established in Phase I. An aquatic life target is to be established later, and linked to the sediment target. WQS attainment will be determined with the Statewide Biological Sampling Plan protocol in Phase II.

Link Between Numeric Target(s) and Pollutant(s) of concern

An explanation and analytical basis for expressing the TMDL through surrogate measures (e.g., parameters such as percent fines and turbidity for sediment impairments, or chlorophyll-a and phosphorus loadings for excess algae) is provided, if applicable. For each identified pollutant, the submittal describes analytical basis for conclusions, allocations and margin of safety that do not exceed the load capacity.

The sediment numeric target will be linked to an aquatic life target in Phase I. The aquatic life target will link directly to the narrative WQS.

Source Analysis

Important assumptions made in developing the TMDL, such as assumed distribution of land use in the watershed, population characteristics, wildlife resources, and other relevant information affecting the characterization of the pollutant of concern and its allocation to sources, are described. Point, non point and background sources of pollutants of concern are described, including magnitude and location of the sources. Submittal demonstrates all significant sources have been considered.

All significant sources of sediment have been described. Primary sources of sediment in the watershed are from sheet and rill, gully, shoreline, and streambank/streambed erosion delivered to the lake.

Allocation

Submittal identifies appropriate wasteload allocations for point, and load allocations for nonpoint sources. If no point sources are present the wasteload allocation is zero. If no nonpoint sources are present, the load allocation is zero.

There are no point sources of sediment. The entire allocation is non-point source.

WLA Comment

The WLA is established as zero.

LA Comment

The LA is established in a table with specific numeric loads allocated to specific sub-watersheds. The total sediment load allocation to the lake is established as 6,921 ton/yr.

Margin of Safety

Submittal describes explicit and/or implicit margin of safety for each pollutant. If the MOS is implicit, the conservative assumptions in the analysis for the MOS are described. If the MOS is explicit, the loadings set aside for the MOS are identified and a rationale for selecting the value for the MOS is provided.

The margin of safety is implicit. The calculations were made using conservative estimates. The development and linking of an aquatic life target will assure that WQS are attained. The margin of safety is reasonable.

Seasonal Variation and Critical Conditions

Submittal describes the method for accounting for seasonal variation and critical conditions in the TMDL(s).

After considering seasonal variation, the TMDL establishes an annual load.

Public Participation

Submittal describes public notice and public comment opportunity, and explains how the public comments were considered in the final TMDL(s).

Public meetings were held in Des Moines January 14, 2002 and in Corning on January 29, 2002. The draft was available through public notice from November 14 through December 6, 2002. Copies of the draft TMDL were also posted on the IDNR website for public review.

Monitoring Plan for TMDL(s) Under Phased Approach

The TMDL identifies the monitoring plan that describes the additional data to be collected to determine if the load reductions required by the TMDL lead to attainment of WQS, and a schedule for considering revisions to the TMDL(s) (where phased approach is used).

Monitoring will be part of the Iowa Lakes Survey. In-lake water will be monitored three times per year for 2000 - 2004. A fishery assessment will be conducted.

Reasonable assurance

Reasonable assurance only applies when reduction in nonpoint source loading is required to meet the prescribed waste load allocations.

Reasonable assurances are not required in the TMDL because there are no point sources contributing to the impairment in the watershed.
