Information Sheet for Canonsburg Lake TMDLs

What is being proposed?

Total Maximum Daily Load (TMDL) plans have been developed to improve water quality in Canonsburg Lake.

Who is proposing the plans? Why?

The Pennsylvania Department of Environmental Protection (PADEP) is proposing to submit the plans to the U.S. Environmental Protection Agency (U.S. EPA) for review and approval as required by federal regulation. In 1995, U.S. EPA was sued for not developing TMDLs when Pennsylvania failed to do so. PADEP has entered into an agreement with U.S. EPA to develop TMDLs for certain specified waters over the next several years. These TMDLs have been developed in compliance with the state/U.S. EPA agreement.

What is a TMDL?

A TMDL sets a ceiling on the pollutant loads that can enter a waterbody so that it will meet water quality standards. The Clean Water Act requires states to list all waters that do not meet their water quality standards even after pollution controls required by law are in place. For these waters, the state must calculate how much of a substance can be put in the water without violating the standard, and then distribute that quantity to all sources of the pollutant on that water body. A TMDL plan includes waste load allocations for point sources, load allocations for nonpoint sources, and a margin of safety. The Clean Water Act requires states to submit their TMDLs to U.S. EPA for approval. Also, if a state does not develop the TMDL, the Clean Water Act states that U.S. EPA must do so.

What is a water quality standard?

The Clean Water Act sets a national minimum goal that all waters are to be "fishable" and "swimmable." To support this goal, states must adopt water quality standards. Water quality standards are state regulations that have two components. The first component is a designated use, such as "warm water fishes" or "recreation." States must assign a use, or several uses to each of their waters. The second component relates to the instream conditions necessary to protect the designated use(s). These conditions or "criteria" are physical, chemical, or biological characteristics such as temperature and minimum levels of dissolved oxygen, and maximum concentrations of toxic pollutants. It is the combination of the "designated use" and the "criteria" to support that use that make up a water quality standard. If any criteria are being exceeded, then the use is not being meet and the water is said to be in violation of water quality standards.

What is the purpose of the plans?

Canonsburg Lake is impaired by excess nutrients. These TMDL plans include a calculation nutrient loading reductions necessary to meet water quality objectives.

Why was the Canonsburg Lake selected for TMDL development?

In 1996, Pa. DEP listed Canonsburg Lake under Section 303(d) of the federal Clean Water Act as impaired due to excess nutrient loading from agricultural activities.

What pollutants do these TMDLs address?

Based on an evaluation of the concentrations of nutrients in Canonsburg Lake, phosphorus is the cause of nutrient impairment to the stream.

Where do the pollutants come from?

The nutrient related impairments in the Canonsburg Lake come from nonpoint sources (NPS) of pollution, primarily overland runoff from agricultural land uses, development activities and stream bank erosion.

How was the TMDL developed?

There currently are no state or federal numerical water quality criteria for nutrients. Therefore, the Department utilized a chlorophyll-a endpoint to address the lake eutrophication problem. The proposed TMDL sets allowable loadings of phosphorus to the lake such that the chlorophyll-a endpoint is met in the lake. Phosphorus was chosen as the TMDL endpoint for nutrient impairments due to it being the limiting nutrient in the lake. The phosphorus loading(s) were allocated among all land use categories present in the watershed. Data used in establishing these TMDLs were generated using a watershed loading model (AVGWLF) designed by the Pennsylvania State University and a lake model (BATHTUB) developed by the United States Army Corps of Engineers.

How much pollution is too much?

The allowable amount of pollution in a water body varies depending on several conditions. TMDLs are set to meet water quality standards at the critical flow condition. For a lake, the TMDL is expressed as a yearly loading. This accounts for all flow conditions.

How will the loading limits be met?

Best Management Practices (BMPs) will be encouraged throughout the watershed to achieve the necessary load reductions.

How can I get more information on the TMDL?

The data and all supporting documentation used to develop the proposed TMDL are available from the Department. The proposed TMDL and information on the TMDL program can be viewed on the Department's web site at www.dep.state.pa.us (DEP Keyword: TMDL).

To request a copy of this TMDL, contact Joseph Boylan at Department of Environmental Protection, Water Quality Management Program, Planning Section, 400 Waterfront Drive, Pittsburgh, PA 15222.

How can I comment on the proposal?

Written comments will be accepted at the above address and must be received by close of business on July 6, 2004.

How can I comment on the proposal?

You may provide e-mail or written comments postmarked no later than July 6, 2004 to the above addresses.