2008 Pennsylvania Integrated Water Quality Monitoring and Assessment Report

PREFACE

For 2008, the Department of Environmental Protection (DEP) is using the integrated format for Clean Water Act Section 305(b) reporting and Section 303(d) listing. This report is entitled the "2008 Pennsylvania Integrated Water Quality Monitoring and Assessment Report" and satisfies the requirements of both Sections 305(b) and 303(d). The narrative report contains summaries of various water quality management programs including water quality standards, point source control and nonpoint source control. It also includes descriptions of programs to protect lakes, wetlands and groundwater quality. A summary of the use support status of streams and lakes is also presented in the narrative.

View the Narrative Report

The DEP has an ongoing program to assess the quality of waters in Pennsylvania and identify streams and other bodies of water that are not attaining designated and existing uses as "impaired." Water quality standards are comprised of the uses (including antidegradation) that waters can support and goals established to protect those uses. Uses include, among other things, aquatic life, fish consumption, recreation, and potable water supply, while the goals are numerical or narrative water quality criteria that express the in-stream levels of substances that must be achieved to support the uses.

Section 303(d) of the Act requires states to list all impaired waters not supporting uses even after appropriate and required water pollution control technologies have been applied. For example, a waterbody impacted by a point source discharge that is not complying with its effluent limits would not be listed on the 303(d) list. The Department would correct the water impairment by taking a compliance action against the discharger. If the waterbody still did not meet water quality standards after achieving compliance with its permit requirements, it would be included on the 303(d) list of impaired waters. The 303(d) list includes the reason for impairment, which may be one or more point sources (like industrial or sewage discharges), or non-point sources (like abandoned mine lands or agricultural runoff).

View the Integrated List

States or the U.S. Environmental Protection Agency (EPA) must determine the conditions that would return the water to a condition that meets water quality standards. As a follow-up to listing, the state or EPA must develop a Total Maximum Daily Load (TMDL) for each waterbody on the list. A TMDL identifies allowable pollutant loads to a waterbody from both point and non-point sources that will prevent a violation of water quality standards. A TMDL also includes a margin of safety to ensure protection of the water.

A TMDL is designed to reduce pollutant loads to impaired waters and enable these waters to meet water quality standards. Pennsylvania has committed to developing TMDLs for all impaired waterbodies and will use both traditional and new approaches

to correct water quality problems. Public participation is an important part of TMDL development. DEP publishes notice of the availability of each TMDL and provides a comment period as well as a public meeting. All comments are considered before the TMDL is submitted for EPA's approval.

Waterbody assessment and data evaluation is a continuous process. The 2008 Integrated Report was developed using information from stream and lake surveys and other sources, including DEP's Statewide Surface Water Assessment Program, the Non-point Source Program, and when available existing and readily available data submitted by external groups and agencies.

II. Distribution of Waterbodies into Use Attainment Categories

The water quality status of Pennsylvania's waters is summarized using a five-part categorization of waters according to their use attainment status. The categories represent varying levels of use attainment, ranging from Category 1, where all designated water uses are met, to Category 5, where impairment by pollutants requires a TMDL to correct. These category determinations are based on consideration of data and information consistent with the methods outlined in the <u>Assessment Methodology</u>. Each waterbody segment is placed in one of these categories. Different segments of the same stream may appear on more than one list if the attainment status changes as the water flows downstream. The listing categories are as follows:

Category 1: Waters attaining all designated uses.

Category 2: Waters where some, but not all, designated uses are met. Attainment status of the remaining designated uses is unknown because data are insufficient to categorize a water body consistent with the state's listing methodology.

Category 3: Waters for which there are insufficient or no data and information to determine, consistent with the State's listing methodology, if designated uses are met.

Category 4: Waters impaired for one or more designated use but not needing a TMDL. States may place these waters in one of the following three subcategories: *Category 4A:* TMDL has been completed.

Category 4B: Expected to meet all designated uses within a reasonable timeframe. *Category 4C:* Not impaired by a pollutant.

Category 5: Waters impaired for one or more designated uses by any pollutant. Category 5 includes waters shown to be impaired as the result of biological assessments used to evaluate aquatic life use even if the specific pollutant is not known unless the State can demonstrate that non-pollutant stressors cause the impairment or that no pollutant(s) causes or contribute to the impairment. Category 5 constitutes the Section 303(d) list that EPA will approve or disapprove under the CWA.

100 Miles April 2006

8-Digit Hydrologic Unit Codes (HUCs) in Pennsylvania

III. List Overview

The table below provides the links to the different lists. The <u>Assessment Methodology</u> is an overview of the methods used to collect, analyze, and evaluate the stream and lake assessment information. Lists one through five are as described in the previous section. The stream and lakes are listed separately. The Appendices document some of the associated administrative functions, including the solicitation of information from outside the Department. All lists are sorted by Hydrologic Unit Codes (HUC) shown in Figure 1. After grouping and sorting by HUC codes, the records are sorted alphabetically by stream name. The "unt" abbreviation in the stream name column stands for unnamed tributary and the number is a code which identifies the specific unnamed tributary. List 5 includes the sources and causes of the problems, the date the problem first appeared on List 5, and the projected date of TMDL completion. Designated use will be Aquatic Life, Fish Consumption, Recreation, or Potable Water Supply.

IV. Using the Lists

The lists are long so they can be difficult to use. List 5 is over 900 pages. As a result, the use of eMapPa on the Department's website is recommended. The site provides the user with an interactive map making it easier to find waterbodies and geographic areas of interest. A link to eMapPa appears at the bottom after the table.

To find records in the lists, use the Adobe Acrobat "Find" function. For example, search on a stream name. However, some common stream names such as Pine Creek may appear many times so again eMapPa is recommended in such cases. The best way to find a specific entry on the lists is to first locate the waterbody on eMapPa and note the Assessment_ID in the data table window. Type this Assessment_ID into the appropriate list's Adobe Acrobat "Find" command and it will jump to the record of interest.

When commenting to the Department on a record, please include the Assessment_ID as this uniquely identifies the data record.