**Decision Rationale**
**Total Maximum Daily Load**
**of Nutrients for**
**Canonsburg Lake**
**Washington County, Pennsylvania**

## I. Introduction

This document will set forth the Environmental Protection Agency's (EPA) rationale for approving the Total Maximum Daily Load (TMDL) for nutrients (phosphorus) for Canonsburg Lake. The document was submitted by the Pennsylvania Department of Environmental Protection (PADEP) for final Agency review on July 12, 2004. Our rationale is based on the TMDL document and supporting information contained in Appendices to determine if the TMDL meets the following eight regulatory conditions as set forth in 40 CFR §130:

1. The TMDL is designed to implement applicable water quality standards.
2. The TMDL includes a total allowable load as well as individual wasteload allocations (WLA) and load allocations (LA).
3. The TMDL considers the impacts of background pollutant contributions.
4. The TMDL considers critical environmental conditions.
5. The TMDL considers seasonal environmental variations.
6. The TMDL includes a margin of safety (MOS).
7. There is reasonable assurance that the TMDL can be met.
8. The TMDL has been subject to public participation.

## II. Summary

Canonsburg Lake, encompassing approximately 76 acres, is located in north-central Washington County, Pennsylvania. Canonsburg Lake was built in 1941 and was used by the Alcoa Company as a manufacturing water supply. In 1958, the lake was donated to the Pennsylvania Fish Commission who managed it as a trout-stocked lake. Its dam, which is approximately 525 feet long and 45 feet high, impounds water coming from the 46-$mi^2$ Little Chartiers Creek Basin. From the dam, water from Canonsburg Lake flows northward before its confluence with Chartiers Creek. The watershed landuse percentages are as follows: forested land (54%), agriculture (39%), and development (7%). The entire watershed is designated as a High Quality Warm Water Fishery (HQWWF) for the sole purpose of protecting the lake.

Canonsburg Lake functions somewhere between a lake and a slowly moving stream, based on Pennsylvania's hydraulic residence time criteria. Pennsylvania uses a detention time of 14 days to distinguish between lakes and free flowing streams, and Canonsburg Lake's detention time is approximately 6 days.

Canonsburg Lake was identified on Pennsylvania's 1996 Section 303(d) list as not supporting its aquatic life use and impaired by nutrients due to agricultural sources, following a phosphorus study conducted in 1987. The Lake Phosphorus Study conducted by PADEP had determined that the overwhelming majority of the phosphorus load to the lake was delivered from nonpoint sources. Since Pennsylvania does not currently have numeric water quality criteria for nutrients, the overall goal of this TMDL is to improve the trophic status of Canonsburg Lake by addressing the elevated nutrient concentrations in the lake. At the time of the study, average total phosphorus (TP) concentrations to Canonsburg Lake were 0.12 mg/l, resulting in a hyper-eutrophic classification. Due to the lake's short detention time, the lake experiences decreased settling rates due to higher advective flow velocities, flushing algae from the lake before nuisance algal growths can develop. As such, the water quality target to address the stated impairments has been set at 20 ug/l of chlorophyll-a, resulting in a mildly eutrophic classification. Pennsylvania believes this classification to be consistent with water quality standards for the Lake, given the natural progression of all lakes and the fact that Canonsburg Lake is 63 years old. The impairments addressed in this TMDL are listed in Table 1.

**TABLE 1. 1996, 1998, 2002 AND 2004 SECTION 303(D) LISTINGS FOR CANONSBURG LAKE (SWP 20-F)**

| Waterbody | Stream Code/ Station ID | Year Listed | Acres Affected | Cause | Source |
|---|---|---|---|---|---|
| Canonsburg Lake | 36943 | 1996 | 76 acres | nutrients | agricultural |
| Canonsburg Lake | 36938 | 1998 | 76 acres | nutrients | agriculture |
| Canonsburg Lake | 861001-0000-LAK | 2002 | 76 acres | nutrients | agriculture |
| Canonsburg Lake | 19861001-0000-LAK | 2004* | 76 acres | nutrients | agriculture |

* Pennsylvania's 2004 Integrated Report has not yet been approved by EPA.

Section 303(d) of the Clean Water Act (CWA) and its implementing regulations require a TMDL to be developed for those waterbodies identified as impaired by the state, where technology-based and other controls will not provide for attainment of water quality standards. The TMDL was developed to address the impairments caused by excess loading of nutrients to Canonsburg Lake.

According to Federal regulations at 40 CFR §130.2(g), load allocations are best estimates of nonpoint or background loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Table 2 summarizes the elements of the TMDL for nutrients developed by PADEP. Despite the fact that EPA believes that annual loads are an appropriate measure for this TMDL, for the sake of consistency, we are breaking the annual TMDL load into daily loads.

**TABLE 2. SUMMARY OF TMDLS FOR CANONSBURG LAKE**

| Parameter | WLA | LA | MOS[1] | TMDL | | Existing Load | Percent Reduction |
|---|---|---|---|---|---|---|---|
| | kg/yr | kg/yr | kg/yr | kg/yr | kg/day | kg/yr | |
| **Phosphorus** | 1008 | 2876 | 432 | 4316 | 11.8 | 7424 | 42%[2] |

[1] The TMDL explicitly assigns a MOS value of 10%.
[2] The TMDL report identifies a 48% reduction in existing phosphorus loading (Table 7); this is the percent reduction after subtracting the MOS from the TMDL.

The TMDL is a written plan and analysis established to ensure that a waterbody will attain and maintain water quality standards. The TMDL is a scientifically-based strategy which considers current and foreseeable conditions, the best available data, and accounts for uncertainty with the inclusion of a margin of safety (MOS) value. Conditions, available data, and the understanding of natural processes can change more than is anticipated by the MOS. If this occurs, the option is always available to refine the TMDL for resubmittal to EPA for approval.

## III. Discussion of Regulatory Conditions

EPA finds that Pennsylvania has provided sufficient information to meet all of the eight basic requirements for establishing a phosphorus TMDL for Canonsburg Lake. EPA therefore approves the TMDL and information contained in the appendices for nutrients in Canonsburg Lake. EPA's rationale is set forth according to the regulatory requirements listed below.

*1. The TMDL is designed to implement the applicable water quality standards.*

Water Quality Standards consist of three components: designated and existing uses; narrative and/or numerical water quality criteria necessary to support those uses; and an antidegradation statement. The designated uses of all waters in the Commonwealth include: warm water fishes, potable water supply, industrial water supply, livestock water supply, wildlife water supply, irrigation, boating, fishing, water contact sports, and aesthetics.[1] Pennsylvania currently does not have specific numeric water quality criteria for nutrients, the cause of impairment identified on Pennsylvania's 303(d) list. However, as mentioned above, general water quality criteria under PA Code, Title 25, Chapter 93 provide for the interpretation of an acceptable water quality endpoint. EPA finds that PADEP appropriately selected nutrients (phosphorus) as the focus of this TMDL in order to address the Lake's eutrophication status.

Pennsylvania currently does not have numeric water quality criteria for nutrients (nitrogen or phosphorus). Therefore, Pennsylvania utilized its general water quality criterion, which states "water may not contain substances attributable to point or non-point source waste

[1] Pennsylvania Code, Title 25, Environmental Protection, Chapter 93. Water Quality Standards, Section 93.4.

discharges in concentrations or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant, or aquatic life"[2], to establish an endpoint for phosphorus such that the designated uses of Canonsburg Lake are attained and maintained. A TMDL was established for only phosphorus since Pennsylvania determined phosphorus to be the limiting nutrient. Phosphorus is often the limiting nutrient in lakes and is frequently a prime determinate of the total biomass.[3] Phosphorus can also be more effectively controlled than nitrogen using existing engineering technology and landuse management. EPA finds this to be a reasonable determination.

Existing phosphorus concentrations indicate that Canonsburg Lake is hyper-eutrophic. PADEP determined that managing the Lake at a mildly eutrophic state will attain applicable water quality criteria for a designated HQWWF use. Therefore, the TMDL was developed with the goal of restoring the Lake to an improved trophic status, reducing eutrophication. Multiple processes drive lake eutrophication, but the principal stimulant is an excess level of nutrients.[4] As a useful tool to gauge lake productivity and monitor changes over time, PADEP utilized chlorophyll-a as an indicator of water quality. Chlorophyll-a is easy to measure, a valuable surrogate for algal biomass that contribute to organic enrichment, and either the direct (nuisance algal blooms) or indirect (high/low dissolved DO, pH, and high turbidity) cause of most problems related to excessive enrichment.[5]

PADEP selected chlorophyll-a as the water quality endpoint or target for nutrients so as to numerically express an endpoint consistent with the general water quality criteria. An in-lake concentration of 20 ug/L of chlorophyll-a was selected as the value consistent with the desired trophic status of Canonsburg Lake. PADEP believes that achieving an in-lake chlorophyll-a level at or below 20 ug/L through the control of phosphorus loading to the lake is consistent with applicable water quality standards for Canonsburg Lake. EPA agrees with this numeric target, especially when considering the current hyper-eutrophic status, short detention time, and age of the Lake.

Pennsylvania has not identified Canonsburg Lake on any Section 303(d) List for having impairments due to low dissolved oxygen (DO). However, observed dissolved oxygen levels in the hypolimnion were below the current water quality criteria for a HQWWF, which requires a minimum DO to be met throughout the lake. This TMDL does not directly address DO, as Pennsylvania's HQWWF DO criterion is currently undergoing revisions to apply only to the epilimnion (finalization expected by Fall 2004). In the case that revisions to the DO criteria are

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[2] Pennsylvania Code, Title 25, Environmental Protection, Chapter 93. Water Quality Standards, Section 93.6(a).

[3] U.S. EPA. 1980. Modeling Phosphorus Loading and Lake Response under Uncertainty: A Manual and Compilation of Export Coefficients. EPA 440/5-80-011

[4] Modeling Phosphorus Loading and Lake Response under Uncertainty: A Manual and Compilation of Export Coefficients, 1980, EPA 440/5-80-011

[5] U.S. EPA. 1999. Protocol for Developing Nutrient TMDLs. First Edition. Office of Water. Washington, DC. EPA 841-B-99-007

not finalized and approved, EPA recommends that Canonsburg Lake be listed on a future Section 303(d) List for DO impairments, or that PADEP address these impairments in a future TMDL.

*Computational Procedure*

In order to develop the TMDL to meet the water quality endpoint for nutrients, PADEP used the ArcView Generalized Watershed Loading Function (AVGWLF)[6] model in combination with the BATHTUB water quality model. AVGWLF is able to interface the Geographic Information System (GIS) software in order to facilitate the model setup, and the model provides monthly streamflow, soil erosion, and sediment yield values and includes both surface runoff and groundwater sources as well as nutrient loads from point and nonpoint sources and septic systems. The BATHTUB model is intended for lake and reservoir water quality assessment and management, and was thus selected by PADEP as the water quality model to simulate the fate and transport of nutrients and water quality conditions in response to nutrient loads to Canonsburg Lake. BATHTUB performs steady state water and nutrient balance calculations in a spatially-segmented hydraulic network that accounts for advective and diffusive transport and nutrient sedimentation.[7]

Using the AVGWLF model, PADEP ran a 10-year simulation for data spanning from 1993 to 1998 for existing nutrient loading conditions to the Canonsburg Lake Watershed. As previously mentioned, AVGWLF has the ability to estimate dissolved and total monthly nutrient loads to waterbodies from watersheds including surface runoff, groundwater sources, point sources, septic systems, monthly streamflow, soil erosion, and sediment yield values. In order to make these estimates, AVGWLF requires daily precipitation and temperature data, runoff sources, and transport and chemical parameters. The AVGWLF model is a combined distributed/lumped parameter watershed model. In terms of surface loading, this means that the model allows the user to distribute multiple landuse/cover scenarios in the watershed. However, the loads originating from the watershed are lumped and spatial routing of nutrient and sediment loads is not available. In terms of subsurface loading, the load contributions from subsurface areas are not distinct and are considered lumped using a water balance approach. The AVGWLF model relies on the Soil Conservation Service Curve Number (SCS-CN) method to estimate surface runoff and the Universal Soil Loss Equation (USLE) to estimate erosion and sediment yield. Monthly estimates of nutrient loadings are generated by using watershed-specific local daily weather inputs and USLE factors. Additional overview of the AVGWLF model and model outputs are contained in the Appendices B and C of the TMDL report.

[6] Haith, D.A., R. Mandel and R.S. Wu, Generalized Watershed Loading Functions, Version 2.0, Cornell University, Dec. 15, 1992.

[7] Walker W.W. 1999. Simplified Procedures for Eutrophication Assessment and Prediction: Users Manual. U.S. Army Corps of Engineers Instruction Report W-96-2. 239p.

Following the use of the AVGWLF model to estimate the amount of nutrient loading to the Canonsburg Lake Watershed from all point and nonpoint sources, PADEP then used the BATHTUB model to predict and control the in-lake chlorophyll-a concentration within the Lake. The resulting total phosphorus and flow outputs from AVGWLF were used as inputs to the lake water quality model, BATHTUB, under various total phosphorus loading scenarios and management alternatives. To estimate the required loading reductions from each source, the total phosphorus loadings as determined by the AVGWLF model were reduced systematically until predicted chlorophyll-a levels in the Lake were consistent with the water quality target of 20 ug/l.

Specifically, the AVGWLF and BATHTUB models were used to determine the in-lake phosphorus concentration and loading that would be expected with the TMDL target chlorophyll-a concentration of 20 ug/l. The simulated annual nonpoint source total phosphorus loads were included in Appendix C of the TMDL report. Appendix D of the TMDL report contains calibration and reduction/TMDL scenario screens from the BATHTUB model. The final load reduction identified through BATHTUB was determined when the simulated in-lake chlorophyll-a concentration matched the target of 20 ug/L, which resulted in a 42% overall reduction from the expected baseline load of 7424 kg/yr. The total phosphorus baseline load for nonpoint sources was computed for each landuse category within the watershed by multiplying the area of each landuse by the watershed loading coefficients from the AVGWLF model. In addition to the nonpoint sources contribution, a total of 1008 kg/yr of point source loadings (based on the design flow and effluent limits of 6 mg/L total phosphorus) were incorporated.

EPA finds that the TMDL submitted by PADEP has been appropriately designed to determine the acceptable level of nutrient loading to Canonsburg Lake, while ensuring that the applicable water quality standards are attained and maintained.

*2. The TMDL includes a total allowable load as well as individual WLAs and LAs.*

Table 2 shows the total allowable loads for phosphorus as determined using the AVGWLF watershed model and BATHTUB water quality model.

A. Waste Load Allocations (WLAs)

Pennsylvania indicates there are twelve known point source dischargers of phosphorus to the Canonsburg Lake, and these facilities are listed in Table 3. Individual wasteload allocations were determined by using design flows and effluent limitations of 6 mg/l for total phosphorus (TP). PADEP assigned such effluent limits, as nonpoint source contributions to the lake were identified as the primary source of lake pollution in the original Lake Phosphorus Study and are still believed to be the nutrient source dictating water quality in Canonsburg Lake. Further, the largest discharger in the watershed is permitted at 0.035 mgd. The TMDL states that dischargers greater than 0.02 mgd will be required to monitor and report monthly TP concentrations for one year. In the event that the WLA is exceeded, PADEP states that steps will be taken through the

permitting process to meet the TMDL requirements. Federal regulations at 40 CFR 122.44(d)(1)(vii)(B) require NPDES permit effluent limits to be consistent with the assumptions and requirements of the approved WLA. Individual wasteload allocations of TP for Canonsburg Lake are listed in Table 3.

Table 8 of the TMDL report shows that the permitted design flow of the twelve point sources range from 0.0003 mgd to 0.035 mgd. This equates to a total of 0.1216 mgd for the sum of discharges at design flow. EPA agrees with PADEP's determination that current point source loadings are less signficant than current nonpoint source loadings, and further recommends that the TMDL and WLAs be revisited in the case that the WLAs are not achieved and the appropriate actions are not taken through the NPDES program.

**TABLE 3. POINT SOURCE FACILITIES WITH WLAS IN THE CANONSBURG LAKE WATERSHED**

| Facility Name | NPDES Permit Number | Design Flow (MGD) | Total Phosphorus (mg/l) | WLA (kg/yr) |
|---|---|---|---|---|
| **Canon-MacMillan School District** | PA0030651 | 0.0088 | 6 | 97 |
| **Ametek, Inc.** | PA0034818 | 0.0015 | 6 | 17 |
| **Smith Machine STP** | PA0042579 | 0.0015 | 6 | 17 |
| **MLM Enterprises STP** | PA0042587 | 0.025 | 6 | 276 |
| **North Strabane Twp MSA/Eighty Four Industrial Park STP** | PA0091413 | 0.035 | 6 | 387 |
| **Industrial LEasing Systems/BethEnergy Mines Division STP** | PA0093262 | 0.002 | 6 | 22 |
| **William Barnes STP** | PA0094960 | 0.0023 | 6 | 25 |
| **Lawrence and Brian Watson/Wasthington KOA Campgrounds STP** | PA0097691 | 0.01 | 6 | 111 |
| **R.P. Woodhouse STP** | PA0098663 | 0.009 | 6 | 100 |
| **84 Lumber Company STP** | PA0203955 | 0.025 | 6 | 276 |
| **Washington Penn Plastics STP** | PA0203963 | 0.012 | 6 | 13 |
| **Encotech Incorporated STP** | PA0217883 | 0.0003 | 6 | 3 |

B. Load Allocations (LAs)

The TMDL includes a LA for nonpoint sources. According to Federal regulations, 40 CFR §130.2(g), load allocations are best estimates of the nonpoint and background loading, which may range from reasonably accurate estimates to gross allotments, depending on the variability of data and appropriate techniques for predicting the loading. The AVGWLF process enables the LA to be distributed to sources based on landuse type.

The process of allocating total phosphorus loads to distinct landuses in the Canonsburg Lake Watershed begins by subtracting 10% from the TMDL value for the margin of safety. That is, the TMDL load of 4316 kg/yr was reduced by 10% (432 kg/yr) to 3884 kg/yr. After subtracting the WLA portion from the TMDL load, a remaining annual phosphorus load of 2876 kg was divided among land-based sources.

The determination of how LAs are distributed is at the discretion of PADEP. To determine the distribution of phosphorus load allocation among contributing land-based sources, PADEP used a method called the Equal Marginal Percent Reduction (EMPR).[8] The EMPR method assigns equal percent reductions to all baseline loads after adjusting any landuse loads which individually exceed the total load allocation. This process is established on a site-specific basis and considers several factors regarding ability to affect the pollutant loading processes. According to PADEP's analysis, cropland runoff is the major source of phosphorus loading to the lake, followed by pasture. Table 4 shows the load allocations, and overall average reductions per landuse, of phosphorus in the Canonsburg Lake Watershed. Existing phosphorus loads to the Lake were determined by PADEP utilizing a simple landuse area/loading coefficient method, where the loadings were computed based on landuse type and watershed loading values taken from the AVGWLF model.

**TABLE 4. LOAD ALLOCATIONS VALUES FOR CANONSBURG LAKE**

| Landuse | Existing Load (kg/yr) | Allocated Load (kg/yr) | Percent Reduction |
|---|---|---|---|
| Cropland | 2662 | 1156 | 57 |
| Pasture | 325 | 141 | 57 |
| Groundwater | 678 | 294 | 57 |
| Streambank Erosion | 144 | 63 | 57 |
| Transitional Land | 2509 | 1089 | 57 |
| Point Sources | 973* | 1008 | - |
| Other Sources | 133 | 133 | - |

* Represents point source load at the time of data collected and used in model calibration.

[8] Pennsylvania Department of Environmental Protection. June 1986. Implementation Guidance for the Water Quality Analysis Model 6.3. Document 391-2000-007.

*3. The TMDL considers the impacts of background pollutant contributions.*

Pennsylvania has included natural background as a component of the load allocations, as required by 40 CFR §130.2(g). Both modeling analyses consider background pollutants within the context of this TMDL. The AVGWLF model adequately considers background pollutants by including nutrient contributions from groundwater as well as natural and forested areas. The BATHTUB model used observed nutrient concentrations from water quality modeling data in order to set up initial conditions in the lake.

*4. The TMDL considers critical environmental conditions.*

EPA regulations at 40 CFR §130.7(c)(1) require TMDLs to take into account critical conditions for streamflow, loading, and water quality parameters. The intent of this requirement is to ensure that the water quality of Canonsburg Lake is protected during times when it is most vulnerable.

Critical conditions are important because they describe the factors that combine to cause a violation of water quality standards and will help in identifying the actions that may have to be undertaken to meet water quality standards.[9] Critical conditions are the combination of environmental factors (*e.g.*, flow, temperature, etc.) that result in attaining and maintaining the water quality criterion and have an acceptably low frequency of occurrence. In specifying critical conditions in the waterbody, an attempt is made to use a reasonable "worst-case" scenario condition. The AVGWLF model appropriately considers critical conditions.

In terms of loading, wet periods are considered critical because wet weather events can transport significant quantities of nonpoint source loads to lakes. However, because there is generally a significant lag time between the introduction of sediment and nutrients to a lake during wet weather events, and the resulting impact lakes in the form of algae blooms in the drier summer months, establishing the TMDL using annual loads that take into account both storm loads and dry weather loads is protective. In order to effectively consider these critical conditions, PADEP used the loading coefficients from AVGWLF and adjusted for characteristics specific to the Canonsburg Lake Watershed. Loading coefficients were derived on a yearly basis and are indicative of loadings experienced over an entire year, including any high-flow events.

*5. The TMDL considers seasonal environmental variations.*

Seasonal variations involve changes in streamflow as a result of hydrologic and climatological patterns. In the continental United States, seasonal high flow normally occurs during the colder period of winter and in early spring from snow melt and spring rain, while

[9] EPA Memorandum regarding EPA Actions to Supporting High Quality TMDLs from Robert H. Wayland III, Director, Office of Wetlands, Oceans, and Watersheds to the Regional Water Management Division Directors, August 9, 1999.

seasonal low flow typically occurs during the warmer summer and early fall drought periods.[10] The AVGWLF watershed modeling analysis was run over a ten-year period and appropriately considers seasonal environmental variations. As discussed in Section 4 above, the ten-year simulation period of the model appropriately considers seasonal variations in precipitation and temperature conditions. The model considers seasonal changes requiring specifications of the growing season, hours of daylight for each month, the months in which manure is applied to the land, and by using daily time steps for weather data and water balance calculations. Furthermore, consistent with the discussion above regarding critical conditions, expressing the load allocations as an annual basis using field-derived or accepted loading coefficients also account for seasonal variations. EPA finds that PADEP's TMDL analysis effectively considers seasonal environmental variations.

*6. The TMDL includes a MOS.*

The MOS requirement is intended to add a level of safety to the modeling process to account for any uncertainty. A MOS may be implicit, built into the modeling process, or explicit, taken as a percentage of the waste load allocation, load allocation, or the TMDL. PADEP reserved 10% of the total TMDL value for phosphorus as the MOS to account for uncertainty in the data and computational methodology used in the analysis. Whereas the TMDL is 4316 kg/yr, the MOS was computed as 432 kg/yr. EPA finds this explicit MOS acceptable.

An additional factor, providing for an implicit MOS for the Canonsburg Lake TMDL, is that all of the point sources were modeled as discharging at their maximum design flow.

*7. There is reasonable assurance that the TMDL can be met.*

EPA requires that there is reasonable assurance that TMDLs can be implemented. Regarding the Canonsburg Lake TMDL for phosphorus, there exists several programs that can be utilized to help implement TMDL. For point sources, Federal regulations require effluent limitations for an NPDES permit to be consistent with the assumptions and requirements of any available WLA for the discharge prepared by the state and approved by EPA. That is, the WLAs listed in Table 8 of the TMDL report should be reflected as NPDES permit requirements for the facilities identified. With regard to load allocations for nonpoint sources, numerous state programs, such as CWA Section 319 and Pennsylvania's Growing Greener programs, are available.

The Canonsburg Lake TMDL identifies the necessary overall load reductions for phosphorus and distributes those reduction goals to the appropriate nonpoint sources. PADEP believes that the reduction goals established by these TMDLs will be achieved through changes in current land use practices, including the incorporation of Best Management Practices (BMPs). As phosphorus is typically sediment-bound, BMPs that reduce phosphorus delivery to

[10] Section 2.3.3 of the Technical Guidance Manual for Developing Total Maximum Daily Loads, Book 2, Part 1 (EPA 823-B-97-002, 1997).

waterbodies will often provide the added benefit of also reducing sediment eroded from the ground and delivered to downstream waters. Determining the most appropriate BMPs, where they should be installed, and actually putting them into practice, could require the development and implementation of a comprehensive watershed restoration plan.

EPA agrees with PADEP that the reduction goals specified in this TMDL help to set the stage for local citizens to design and implement watershed restoration plans, correct current use impairments. PADEP has already established a single-point contact in its Southwest Regional Office to serve as the Watershed Coordinator. This individual is charged with supporting local efforts for developing and implementing watershed restoration plans for Canonsburg Lake.

*8. The TMDL has been subject to public participation.*

Pennsylvania published a notice of availability for the Canonsburg Lake TMDL for public review and comment in the *Pennsylvania Bulletin* with a 30-day comment period that ended July 6, 2004. The draft TMDL was posted on PADEP's website. A public meeting was held on June 22, 2004 at the Peters Township Municipal Building to address outstanding concerns regarding the draft TMDL.

The Department received written comments from EPA, and these comments together with PADEP's written response are contained in Appendix G of the TMDL report. EPA finds that PADEP has sufficiently addressed the comments received and adequately conducted the public participation process.

Although not specifically stated in the TMDL Report, PADEP routinely posts the approved TMDL report on their website: www.dep.state.pa.us/watermanagement.apps/tmdl