



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029
8/27/2009

Mr. Scott Mandirola, Acting Director
Division of Water and Waste Management
West Virginia Department of Environmental Protection
601 57th Street SE
Charleston, West Virginia 25304-2345

Dear Mr. Mandirola:

The U.S. Environmental Protection Agency (EPA), Region III, is pleased to approve the Total Maximum Daily Loads (TMDLs) for iron, aluminum, pH, fecal coliform and/or biological impairments on ten waterbodies in the Youghiogheny River Watershed. The TMDL report *Total Maximum Daily Loads for Streams in the Youghiogheny River Watershed, West Virginia*, was submitted by the West Virginia Department of Environmental Protection on July 29, 2009. EPA commends West Virginia on completion of these TMDLs, developed under the Watershed Management Framework of the West Virginia TMDL program. We recognize the significant effort and dedication of you and your staff in developing these TMDLs.

In accordance with Federal regulations at 40 CFR §130.7, a TMDL must comply with the following requirements: (1) be designed to attain and maintain the applicable water quality standards; (2) include a total allowable loading and as appropriate, wasteload allocations for point sources and load allocations for nonpoint sources; (3) consider the impacts of background pollutant contributions; (4) take critical stream conditions into account (the conditions when water quality is most likely to be violated); (5) consider seasonal variations; (6) include a margin of safety (which accounts for any uncertainties in the relationship between pollutant loads and instream water quality); and (7) be subject to public participation. The TMDLs for the Youghiogheny River Watershed satisfy each of these requirements. In addition, these TMDLs considered reasonable assurance that the TMDL allocations assigned to nonpoint sources can be reasonably met. A copy of EPA's Decision Rationale for approval of these TMDLs is included with this letter.

As you know, any new or revised National Pollutant Discharge Elimination System permit must be consistent with the TMDL's wasteload allocations pursuant to 40 CFR 122.44(d)(1)(vii)(B). Please submit all such permits to EPA for review as per EPA's letters dated October 1, 1998, and July 7, 2009.

If you have any questions concerning these TMDLs, please contact Mr. Kuo-Liang Lai, at (215) 814-5473 or Ms. Helene Drago at (215) 814-5796.

Sincerely,

V. Binetti for

Jon M. Capacasa, Director
Water Protection Division

Enclosure

cc: Mr. Patrick Campbell, WVDEP
Mr. David Montali, WVDEP



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**Decision Rationale
Total Maximum Daily Loads
For Streams in the Youghiogheny River Watershed
West Virginia**

V.Binetti for

**Jon M. Capacasa, Director
Water Protection Division**

Date: 8/27/2009

Decision Rationale
Total Maximum Daily Loads
For Streams in the Youghiogheny River Watershed
West Virginia

I. Introduction

The Clean Water Act (CWA) requires a Total Maximum Daily Load (TMDL) to be developed for those waterbodies identified as impaired by a state where technology based and other controls did not provide for attainment of water quality standards. A TMDL is a determination of the amount of a pollutant from point, nonpoint, and natural background sources, including a Margin of Safety (MOS), which may be discharged to a water quality limited waterbody.

This document will set forth the U.S. Environmental Protection Agency's (EPA) rationale for approving the TMDLs for iron, aluminum, pH, fecal coliform bacteria and/or biological impairments on selected waterbodies in the Youghiogheny River watershed. The TMDLs were developed to address impairment of water quality as identified in West Virginia's 2008 Section 303(d) Lists of impaired waters. EPA's rationale is based on the determination that the TMDLs meet the following seven regulatory conditions pursuant to 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 (WLAs) and load allocations (LAs).
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 MOS.
7. The TMDL has been subject to public participation.

In addition, these TMDLs considered reasonable assurance that the TMDL allocations assigned to nonpoint sources can be reasonably met.

From this point forward, all references in this approval rationale are found in West Virginia's TMDL Report *Total Maximum Daily Loads for Streams in the Youghiogheny River Watershed, West Virginia* (TMDL Report dated July 2009), unless otherwise noted.

II. Summary

Table 1 of the TMDL Report presents the waterbodies and impairments for which TMDLs have been developed for the Youghiogheny River watershed by the West Virginia Department of Environmental Protection (WVDEP). The ten waterbodies were identified on West Virginia's 2008 Section 303(d) List. TMDLs were developed for total iron, dissolved aluminum, pH, fecal coliform bacteria and/or biological impairments.

Table 1: Waterbodies and Impairments for TMDLs that have been Developed for Youghiogheny River Watershed

TMDL Watershed	Stream Name	Code	Trout	Fe	Al	pH	FC	Bio
Buffalo Run	Buffalo Run	WV-MY-123				X	X	
Snowy Creek	Snowy Creek	WV-MY-169	Yes	X			X	X
Snowy Creek	North Branch/Snowy Creek	WV-MY-169-I	Yes	X			X	
Snowy Creek	Laurel Run	WV-MY-169-A		X	X	X		
Snowy Creek	Little Laurel Run	WV-MY-169-A-3				X		
Snowy Creek	Wardwell Run	WV-MY-169-I-3		X			X	X
Snowy Creek	South Branch/Snowy Creek	WV-MY-169-J					X	
Rhine Creek	Rhine Creek	WV-MY-179	Yes				X	
Maple Run	Maple Run	WV-MY-184	Yes				X	X
Maple Run	UNT/Maple Run RM 5.22	WV-MY-184-F					X	

Note:

UNT = Unnamed Tributary; RM = river mile

FC indicates fecal coliform bacteria impairment

BIO indicates a biological impairment

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 MOS value explicitly or implicitly. Conditions, available data, and the understanding of the natural processes can change more than anticipated by the MOS. The option is always available to refine the TMDLs for resubmittal to EPA for approval.

A TMDL formula presents applicable TMDLs (sum of individual wasteload allocations, plus sum of load allocations, plus margin of safety) for iron, aluminum, and fecal coliform. Allocation spreadsheets also provide applicable TMDLs, wasteload allocations to individual point sources, and load allocations to categories of nonpoint sources. A Technical Report provides descriptions of the detailed technical approaches used throughout the TMDL development process. West Virginia developed an interactive ArcExplorer Geographic Information System (GIS) project that shows the spatial relationships between source assessment data for streams in the Youghiogheny River watershed.

III. Background

The Youghiogheny River watershed is located in Western West Virginia, and lies entirely within Preston County (Figure 3-1). In West Virginia, the watershed drainage area encompasses nearly 72.3 square miles. The Youghiogheny River watershed is comprised of Maple Run, Rhine Creek and Snowy Creek, as well as some of their tributaries listed in Table 1. The total population living in the watershed is estimated to be about 5,000 people. The Youghiogheny

River watershed is dominated by forest land use (72.0 %), with some grassland (4.1 %), cropland (7.6%), pasture (2.5 %), urban/residential (10.4 %), mining (0.0 %), and AML (0.01 %) land uses. Individually, other identified land uses compose less than five percents of the total watershed area.

West Virginia conducted extensive water quality monitoring from July 2005 through June 2006 in the Youghiogheny River watershed. The results of this effort were used to confirm the listing of waterbodies not meeting applicable water quality criteria and to identify impaired waterbodies that were not previously listed. Table 1 presents the ten waters for which TMDLs are developed. The TMDLs were developed for iron, aluminum, pH, fecal coliform bacteria and/or biological impairments, including 16 TMDLs (waterbody/pollutant combinations).

WVDEP utilized the Watershed Management Framework cycle approach for TMDL development. The framework divides the state into 32 major watersheds and operates on a five-year, five-step process. The watersheds are divided into five hydrologic groups (A-E). Each group is assessed once every five years and waters are placed on the Section 303(d) List of impaired waters, as necessary. The TMDL process begins in the first year of the cycle with pre-TMDL sampling and public meetings in the affected watersheds. The data is compiled and TMDL development begins in year two of the cycle. In the third year, TMDL development continues and the TMDL is drafted. The TMDL is finalized in the fourth year. In the fifth year of the cycle, TMDL implementation is initiated through the National Pollutant Discharge Elimination System (NPDES) permitting process and efforts toward limiting nonpoint source loading. Throughout the TMDL development process, there are numerous opportunities for public participation and input. The Youghiogheny River watershed is in hydrologic group E. Further information on West Virginia's TMDL development process is provided in Section 2.1 of the TMDL report.

Computational Procedures

Sections 5, 6, 7 and 8 of the TMDL Report discuss metals, pH, fecal coliform bacteria and sediment source assessment while Section 4 describes biological impairments and stressor identification (SI) methods. Sources for metals and sediment in the Youghiogheny River watershed include mining, non-mining, forestry, oil and gas, roads, agriculture, streambank erosion, and other land disturbance activities. The pH impairments in the Youghiogheny River watershed have been attributed to historic mining activities. There are two non-mining NPDES permitted facilities within the TMDL watersheds addressed in this report. There are no active construction sites operating under West Virginia's Construction Stormwater General Permit. Fecal coliform bacteria sources are point sources, including individual sources covered under the NPDES program such as: wastewater treatment plants and general sewage permits; and unpermitted sources, including onsite treatment systems, stormwater runoff, agriculture, and natural background (wildlife). There is currently one publicly owned treatment work (Terra Alta POTW), one sewage treatment plant (Alpine Lake STP), and one General Sewage Permit within the watershed. No sanitary sewer overflows (SSOs) have been identified in the watershed. Stressor identification (Section 4.0 of the TMDL report) indicated that biological impairments were caused by organic enrichment, metals and pH toxicity, and sedimentation. The Technical Report has expanded details of the pollutant source assessment discussed in Sections 5 and 6.

Biological integrity/impairment is based on a rating of the stream's benthic macroinvertebrate community using the multimetric West Virginia Stream Condition Index (WVSCI). Biological impairments were addressed by developing TMDLs for specific stressors. West Virginia utilized a stressor identification process to determine that organic enrichment, metals and pH toxicity, and sedimentation were the causative stressors for biologically impaired streams addressed in this TMDL study.

Where the stressor identification process identified organic enrichment as the cause of biological impairment, data also indicated violations of the fecal coliform water quality criteria. The predominant sources of both organic enrichment and fecal coliform bacteria in the watershed are inadequately treated sewage and runoff from pasture land use. WVDEP determined that implementation of fecal coliform TMDLs would remove untreated sewage and reduce agricultural runoff thereby reducing the organic and nutrient loading causing the biological impairment in these streams. Therefore, fecal coliform TMDLs will serve as a surrogate where organic enrichment was identified as a stressor. Likewise, where metals and/or pH toxicity were identified as the cause of biological impairment, data also indicated violations of metals and/or pH water quality criteria, and the metals and pH TMDLs will thus serve as a surrogate for the biological impairment.

To address the sedimentation biological stressor, WVDEP initially pursued the development of sediment TMDLs for these streams using a reference watershed approach. However, all of the sediment impaired streams are also impaired pursuant to total iron water quality criteria, and TMDL assessment of iron included representation and allocation of iron loadings associated with sediment. In each stream, the sediment loading reduction necessary for attainment of the water quality criteria for iron exceeds that which was determined necessary using the reference watershed approach for sediment. Therefore, the iron TMDLs are acceptable surrogates for biological impairments from sedimentation. Implementation of the iron TMDLs will address the biological impairment caused by sedimentation.

Section 8.0, of the TMDL report, describes the modeling processes employed during TMDL development with further details provided in the Technical Report. The Mining Data Analysis System (MDAS) was used to represent the source-response linkage in the Youghiogheny River watershed TMDL study area for iron, aluminum, sediment and fecal coliform. MDAS is a comprehensive data management and modeling system that is capable of representing loads from nonpoint and point sources in the watershed and simulating instream processes. MDAS is used to simulate watershed hydrology and pollution transport, as well as stream hydraulics and instream water quality. It is capable of simulating different flow regimes and pollutant loading variations. A customized Microsoft Excel spreadsheet tool was used to determine the fecal loading from failing septic systems identified during source tracking efforts by WVDEP. West Virginia's numeric and water quality criteria, and an explicit MOS were used to identify the TMDL endpoints.

EPA has determined that these TMDLs are consistent with statutory and regulatory requirements and EPA's policy and guidance. EPA's rationale for establishing these TMDLs is set forth according to the regulatory requirements listed below.

1. The TMDLs are designed to implement the applicable water quality standards.

The applicable numeric water quality criteria is shown in Table 2-1, of the TMDL report. The applicable designated uses for all the waters subject to this report include: propagation and maintenance of aquatic life in warmwater fisheries and trout waters, water contact recreation, and public water supply. Most of the streams addressed by this TMDL Report are designated as warmwater fisheries; however, there are four impaired streams designated as trout waters.

All West Virginia waters are subject to the narrative criteria in Section 3 of the Standards. That section, titled *Conditions Not Allowed in State Waters*, contains various provisions relative to water quality. The narrative water quality criterion at, 46 CSR1-3.2.i, prohibits the presence of wastes in State waters that cause or contribute to significant adverse impacts on the chemical, physical, hydrologic, and biological components of aquatic ecosystems. This provision is the basis for the “biological impairment” determinations. Biological impairment signifies a stressed aquatic community. WVDEP determines the biological integrity of each stream based on a rating of the stream’s benthic macroinvertebrate community using the multimetric WVSCI.

2. The TMDLs include a total allowable load as well as individual wasteload allocations and load allocations.

A TMDL is the total amount of a pollutant that can be assimilated by the receiving water while still achieving water quality standards. TMDLs can be expressed in terms of mass per time or by other appropriate measures. TMDLs are comprised of the sum of individual WLAs for point sources, LAs for nonpoint sources, and natural background levels. In addition, the TMDL must include an MOS, either implicitly or explicitly, that accounts for the uncertainty in the relationship between pollutant loads and the quality of the receiving stream. Conceptually, this definition is denoted by the following equation:

$$\text{TMDL} = \text{Summation of WLAs} + \text{Summation of LAs} + \text{MOS}$$

For purposes of these TMDLs only, wasteload allocations are given to NPDES permitted discharge points and load allocations are given to discharges from activities that do not have an associated NPDES permit, such as bond forfeiture sites, Abandoned Mine Lands (AMLs), failing septic systems and straight pipes. The decision to assign LAs to these sources does not reflect any determination by WVDEP or EPA as to whether there are, in fact, unpermitted point source discharges. In addition, by establishing these TMDLs with failing septic systems and straight pipes treated as load allocations, WVDEP and EPA are not determining that these discharges are exempt from NPDES permitting requirements.

Section 8.5, of the TMDL Report, presents applicable TMDLs for iron, aluminum, and fecal coliform bacteria. Allocation spreadsheets also provide applicable TMDLs, WLAs to individual point sources and load allocations to categories of unpermitted sources. The Metals Allocation Spreadsheet presents detailed iron and aluminum TMDLs, LAs, and WLAs. The Fecal Coliform Bacteria Allocation Spreadsheet presents detailed fecal coliform TMDLs, LAs, and WLAs. The TMDLs are presented as average annual loads in pounds per year, or counts per

year, because they were developed to meet TMDL endpoints under a range of conditions observed throughout the year. The TMDLs are also presented as equivalent average daily loads in pounds per day, or counts per day.

Sources for metals, sediment and pH in the Youghiogheny River watershed are: point sources, including mining, non-mining, and construction stormwater permits; and unpermitted sources of mine drainage from AMLs and bond forfeiture sites; as well as sediment sources including forestry, oil and gas, roads, agriculture, streambank erosion, and other land disturbance activities. There are no mining related NPDES permits with associated outlets within the TMDL study area. There are two non-mining NPDES permitted facilities in the watershed that have effluent limits for metals and pH. There are no active construction stormwater permits. The TMDL does not prescribe pollutant reduction from the existing non-mining point sources or construction stormwater sources. A complete list of the permits and outlets is provided in the appendices of the Technical Report. The discharges from construction activities that disturb more than one acre of land are legally defined as point sources. Though the sediment introduced from such discharges can contribute metals, they are generally considered to be negligible because of their minimal discharge flows. For these TMDLs, these minor discharges are assumed to operate under their current permit limits and were given WLAs based on their current permit limits. LAs for metals were assigned to AMLs, and sediment sources including forestry, oil and gas, roads, agriculture, and other land disturbance areas. The assignment of LAs to AML or bond forfeiture sites does not reflect any determination by EPA or WVDEP as to whether there are, in fact, unpermitted point source discharges within these landuses. Likewise, by establishing these TMDLs with AML discharges treated as LAs, EPA and WVDEP are not determining that these discharges are exempt from NPDES permitting requirements.

The final TMDL Report contained iron TMDLs for two trout waters in which the pollutant reductions associated with the prescribed LAs and WLAs do not assure complete attainment of the trout-water, chronic aquatic life protection criterion. The affected trout waters are Snowy Creek (WV-MY-169); and North Branch Snowy Creek (WV-MY-169-I). For informative purposes, the iron reduction of Wardwell Run (WV-MY-169-I-3) was identified by modeling to meet its downstream trout water iron criterion. Note that Wardwell Run was not designated as a trout-water on WV Section 303(d) List. Non-attainment is predicted when large precipitation events elevate instream total suspended sediments (TSS) concentrations and has been attributed to the relatively high iron content of the soils in these watersheds. The magnitudes of the predicted exceedances under TMDL conditions are not extreme, but exceedances are predicted more often than the once per three years average frequency prescribed by the criterion.

A letter submitted to EPA on July 10, 2009, provided further clarification of WVDEP's plans to address predicted nonattainment in these trout waters and calculations of TMDLs necessary for attainment of the currently effective criteria. The allocations associated with all of the trout-water iron TMDLs reflect pollutant reductions for existing sources to the maximum practical extent. WLAs for permitted discharges and AML seeps are set at the value of the trout water criterion. LAs for precipitation-induced upland nonpoint sources are commensurate with background loadings from undisturbed forest and LAs for bank erosion are set equal to loadings associated with the best observed conditions in the watershed. Even with these stringent

reductions, the model indicates that the iron TMDLs, for the two trout-waters, do not result in complete attainment of the currently effective trout water iron criteria. Predicted criterion exceedances of the TMDL condition appear to be attributable to natural conditions (high iron content in soils) and, given the presence and apparent viability of trout, may indicate that the existing trout-water iron criterion may be overly conservative in relation to the protection of the trout-water designated uses in these waters. WVDEP plans an adaptive implementation approach under which the prescribed trout-water iron TMDLs contained in the final TMDL Report will be implemented as an interim goal concurrently with reassessment of the trout-water iron criterion for these streams. The July 10, 2009, letter included tables (as shown in Tables 9-3 and 9-4 of the final TMDL report) displaying calculations of the trout-water iron TMDLs that will result in attainment of the currently effective trout-water iron criterion.

Fecal coliform bacteria sources are point sources, including individual sources covered under the NPDES program such as wastewater treatment plants and general sewage permits; and unpermitted sources, including onsite treatment systems, precipitation runoff, agriculture, and natural background (wildlife). Fecal coliform bacteria TMDLs were developed in eight streams, and will affect permits, including one POTW, one privately owned sewage treatment plant, and one General Sewage. No SSOs, CSOs and MS4-areas have been identified in the watershed. The TMDLs allowed fecal coliform NPDES permits to remain at 200 counts/100 ml (monthly geo mean) and 400 counts/100 ml (daily maximum). LAs were assigned to pasture/cropland, onsite sewer systems including failing septic systems and straight pipes, residential land uses including urban/residential runoff, and background and other nonpoint sources, including wildlife sources from forested land and grasslands in non-MS4 areas. Fecal coliform reductions will require elimination of illicit discharges, straight pipes, and leaking septic systems, which would substantially reduce organic and nutrient loadings.

The TMDL development methodologies prescribe allocations that achieve water quality criteria throughout the watershed. Various provisions attempt equity between categories of sources and the targeting of pollutant reductions from the most problematic sources.

3. The TMDLs consider the impacts of background pollutant contributions.

The TMDL considers the impact of background pollutant contributions by considering loadings from background sources like wildlife. MDAS also considers background pollutant contributions by modeling all land uses.

4. The TMDLs consider critical environmental conditions.

According to EPA's regulation 40 CFR §130.7 (c)(1), TMDLs are required to take into account critical conditions for stream flow, loading, and water quality parameters. The intent of this requirement is to ensure that the water quality of the impaired waterbody 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. Critical conditions for waters impacted by land

based sources generally occur during periods of wet weather and high surface runoff. In contrast, critical conditions for non-land-based point source dominated systems generally occur during low flow and low dilution conditions.

High and low flow stream conditions and all point and nonpoint source loads were included in the development of these TMDLs, by using a long period of weather data that represented wet, dry, and average flow periods. Accordingly, the TMDL considers critical conditions.

5. The TMDLs consider seasonal environmental variations.

Seasonal variations were considered while considering critical conditions, by running the daily simulation model for six years, from 1998 to 2003, for MDAS. Continuous simulation (modeling over a period of several years that captures precipitation extremes) inherently considers seasonal hydrologic and source loading variability.

6. The TMDLs include a Margin of Safety.

The CWA and Federal regulations require TMDLs to include an MOS to take into account any lack of knowledge concerning the relationship between effluent limitations and water quality. EPA guidance suggests two approaches to satisfy the MOS requirement. First, it can be met implicitly by using conservative model assumptions to develop the allocations. Alternately, it can be met explicitly by allocating a portion of the allowable load to the MOS.

An explicit MOS of five percent was included to counter uncertainty in the modeling process (Section 9.6.1). West Virginia did not include a discussion regarding an implicit MOS, but did use conservative model assumptions (such as assuming all point sources continually discharge at permit limits) to develop the allocations.

7. The TMDL has been subject to public participation.

Section 12.0, of the TMDL report, describes the public participation process which included two informational meetings prior to allocation of pollutant loads and another public meeting to present the draft TMDLs. The draft TMDLs were advertised in various local newspapers and subject to a 30-day public comment period. The 30-day public comment period was from February 2, 2009 to March 3, 2009, and the public meeting to present the draft TMDLs was held February 10, 2009, in Wayne, West Virginia. West Virginia did not receive any comments from the public.

IV. Discussion of Reasonable Assurance

EPA requires that there be a reasonable assurance that a TMDL can be implemented. Section 11.1 of the TMDL report addresses “Future Growth” to ensure the reasonable assurance of implementations of Iron and Aluminum. Section 11.2 of the report discusses the implementation of Fecal Coliform TMDLs for future growth.

There are a few primary programs in effect which provide reasonable assurance that the TMDLs will be implemented. Section 13.1, of the TMDL report, discusses NPDES permit reissuance by WVDEP's Division of Water and Waste Management and Division of Mining and Reclamation. NPDES permitting has been synchronized with TMDL development through West Virginia's Watershed Management Framework.

Section 13.2 discusses the Watershed Management Framework process and the West Virginia Watershed Network. The Watershed Management Framework includes a management schedule for integration and implementation of TMDLs and identifies a six-step process for developing integrated management strategies and action plans for achieving West Virginia's water quality goals. Step 3 includes development of TMDLs or other source management strategies. Steps 5 and 6 provide for the preparation, finalization and implementation of a watershed-based plan to improve water quality. In addition, the West Virginia Watershed Network is an informal association of state and federal agencies, and nonprofit organizations and coordinates watershed-based plans. The Network evaluates restoration potential of watersheds within specific hydrologic groups, including a review of TMDLs and development of watershed-based plans.

Sections 13.3 and 13.4, of the TMDL report, discuss ongoing public sewer and AML projects. As mentioned in the TMDL report, the Office of Abandoned Mine Lands and Reclamation manages the reclamation of lands and waters affected by mining prior to the passage of the Surface Mining Control and Reclamation Act (SMCRA) in 1977. Funding for reclamation activities is derived from fees placed on mined coal, which is placed in a fund and annually distributed to state and tribal agencies. Various abandoned mine land reclamation activities are addressed by the program as necessary. In December 2006, Congress passed legislation amending SMCRA and the Title IV program, and in November 2008, the Office of Surface Mining finalized rules to implement the amendments. After an initial ramp-up period, AML&R will realize significant increases in its annual reclamation funding and the flexibility to direct a larger portion of those funds to address water resource impacts from abandoned mine drainage (AMD). Title IV now contains a "30 percent AMD set-aside" provision that allows a state to use up to 30 percent of its annual grant to address AMD problems. In regard to water resource impacts, project prioritization will consider treatment practicability and sustainability and will be accomplished under a methodology that provides for the efficient application of funds to maximize restoration of fisheries across AML impacted areas of the State.

Section 14.0, of the TMDL report, discusses monitoring activities including NPDES compliance, nonpoint source project monitoring, and TMDL effectiveness monitoring.