



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029  
11/7/2008

Ms. Cathy Curran Myers  
Deputy Secretary for Water Management  
Pennsylvania Department of Environmental Protection  
Rachel Carson State Office Building  
P.O. Box 2063  
Harrisburg, Pennsylvania 17105

Dear Ms. Myers:

The U.S. Environmental Protection Agency (EPA) is pleased to approve the *Unnamed Tributary to the Monongahela River Watershed TMDL, Allegheny County, For Acid Mine Drainage Affected Segments*, dated November 1, 2007, submitted by the Pennsylvania Department of Environmental Protection (PADEP) and received by EPA for review and approval on June 19, 2008. The TMDLs were established and submitted in accordance with Sections 303(d)(1)© and 303(d)(2) of the Clean Water Act. The TMDLs were established to address impairment of water quality as identified in Pennsylvania's 1996 Section 303(d) List of impaired waters requiring TMDLs for metals associated with abandoned mine drainage.

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 uncertainties in the relationship between pollutant loads and instream water quality); and (7) be subject to public participation. 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 permits must be consistent with the TMDL's wasteload allocation pursuant to 40 CFR §122.44(d)(1)(VII)(B). Please submit all such permits to EPA for review as per EPA's letter dated October 1, 1998.

If you have any questions, please call me or have your staff contact Ms. Jennifer Sincock at 215-814-5766.

Sincerely,

/Signed/

Jon M. Capacasa, Director  
Water Protection Division

Enclosure

cc: Bill Brown -- PADEP  
Donald Barnes -- Cambria District Office



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1650 Arch Street  
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**Decision Rationale**  
**Total Maximum Daily Loads**  
**Unnamed Tributary to the Monongahela River**  
**For Acid Mine Drainage Affected Segments**  
**Allegheny County, Pennsylvania**

/Signed/

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

**Date:11/7/2008**

**Decision Rationale**  
**Total Maximum Daily Loads**  
**Unnamed Tributary to the Monongahela River Watershed**  
**For Acid Mine Drainage Affected Segments**  
**Allegheny County, Pennsylvania**

## **I. Introduction**

The Clean Water Act (CWA) requires that Total Maximum Daily Loads (TMDLs) 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. 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.

The Pennsylvania Department of Environmental Protection (PADEP) Bureau of Watershed Management electronically submitted the *Unnamed Tributary (UNT) to the Monongahela River Watershed TMDL, Allegheny County, For Acid Mine Drainage Affected Segments* (TMDL Report), dated November 1, 2007, to the U.S. Environmental Protection Agency (EPA) for final Agency review on June 19, 2008. This report includes the TMDLs for the three primary metals associated with acid mine drainage (AMD); i.e., iron, manganese, and aluminum, and addresses one segment on Pennsylvania's 1996 Section 303(d) List of impaired waters.

EPA's rationale is based on the TMDL Report and information contained in the enclosures to the report. EPA's review determined that the TMDL meets the following seven regulatory requirements pursuant to 40 CFR Part 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 the nonpoint sources can be reasonably met.

## **II. Summary**

Table 1 presents the 1996, 1998 and 2002 Section 303(d) List; and the 2004 and 2006 Integrated Report listing for the impaired segment first listed in 1996.

**Table 1. 303(d) Listed Segments – State Water Plan (SWP) Subbasin 19C**

<b>HUC: 05020005 Lower Monongahela River</b>										
<b>Year</b>	<b>Miles</b>	<b>Use Designation</b>	<b>Assessment ID</b>	<b>Segment ID</b>	<b>DEP Stream ID</b>	<b>Stream Name</b>	<b>Designated Use</b>	<b>Data Source</b>	<b>Source</b>	<b>EPA Cause</b>
1996	0.5	Aquatic Life			39422	UNT Monongahela	WWF	SWMP	AMD	Metals
1998	0.71	Aquatic Life		5309	39422	UNT Monongahela	WWF	SWMP	AMD	Metals
2000	4.41	Aquatic Life		5305		UNT Monongahela	WWF	SWMP	AMD	Metals
2004	0-1.12	Aquatic Life	2002042 6-1300- GJK	*	39421	UNT Monongahela	WWF	SWMP	AMD	Metals
2004	1.12- 2.08	Aquatic Life	2002042 6-1400- GJK	*	39421	UNT Monongahela	WWF	SWMP	AMD	Metals
2004	0-2.67	Aquatic Life	2002050 1-1200- GJK	*	39422	UNT Monongahela	WWF	SWMP	AMD	Metals
2004	0-.48	Aquatic Life	2002051 -1201- GJK	*	39423	UNT Monongahela	WWF	SWMP	AMD	Metals
2006	0.25	Aquatic Life	3484	*	39421	UNT Monongahela	WWF	SWMP	AMD	Metals
2006	0-1.88	Aquatic Life	3485	*	39421	UNT Monongahela	WWF	SWMP	AMD	Metals
2006	2.67	Aquatic Life	3518	*	39422	UNT Monongahela	WWF	SWMP	AMD	Metals
2006	0.48	Aquatic Life	3519	*	39423	UNT Monongahela	WWF	SWMP	AMD	Metals

\*Not applicable in the listing year.

Resource Extraction = RE

Warm Water Fish = WWF

Surface Water Monitoring Program = SWMP

Abandoned Mine Drainage = AMD

See Attachment D, Excerpts Justifying Changes Between the 1996, 1998, and 2002 Section 303(d) Lists and the 2004 and 2006 Integrated Water Quality Report. The use designations for the stream segments in this TMDL can be found in PA Title 25 Chapter 93.

Pennsylvania’s 1996, 1998, 2002 and 2004 Section 303(d) Lists were approved by EPA. The 1996 Section 303(d) List provides the basis for measuring progress under the 1997 lawsuit settlement of *American Littoral Society and Public Interest Group of Pennsylvania v. EPA*.

See Attachment D of the TMDL Report, *Excerpts Justifying Changes Between the 1996, 1998, 2002, and 2004 Section 303(d) Lists*. The use designations for the stream segments in this TMDL can be found in PA Title 25 Chapter 93.9v. Section IV, Table 3, shows the TMDLs for the UNT Monongahela River Watershed.

In 1997, PADEP began utilizing the Statewide Surface Waters Assessment Protocol to assess Pennsylvania's waters. This protocol is a modification of EPA's 1989 Rapid Bioassessment Protocol II and provides for a more consistent approach to conducting biological assessments than previously used methods. The biological assessments are used to determine which waters are impaired and should be included on the State's Section 303(d) List.

The TMDLs in this report were developed using a statistical procedure to ensure that water quality criteria are met 99 percent of the time as required by Pennsylvania's water quality standards at Pennsylvania Code Title 25, Chapter 96.3c. Table 3 of the TMDL Report lists the TMDLs for the UNT Monongahela River Watershed, addressing metals in the stream segments listed as PADEP stream code 39422.

TMDLs are defined as the summation of the point source WLAs plus the summation of the nonpoint source LAs plus a MOS and are often shown as follows:

$$\text{TMDL} = \sum \text{WLAs} + \sum \text{LAs} + \text{MOS}$$

The TMDL is a written plan and analysis established to ensure that a waterbody will attain and maintain applicable water quality standards. The TMDL is a scientifically-based strategy which considers current and foreseeable conditions, utilizes the best available data, and accounts for uncertainty with the inclusion of a MOS value. Since conditions, available data, and the understanding of natural processes can change more than anticipated by the MOS, there exists the option of refining the TMDL for resubmittal to EPA.

### **III. Background**

The Unnamed Tributary to the Monongahela River (39422) is part of the Monongahela River Basin, situated in West Mifflin Borough, Allegheny County, and flows to the mainstem of the Monongahela River near Coal Valley, Pennsylvania. The northeast watershed border is along Camp Hollow Road (SR2043), Old Elizabeth Road to the North, and Clariton Road to the West and South. The northern watershed area is residential and the southern area is forestland with homes dotted along the roads. The watershed is expected to have more residential home development in the future.

The watershed area is located in the Pittsburgh Low Plateau Physiographic Province. The Amity Anticline passes through the northern tip of the watershed running in a north-northeast direction. The Duquesne Syncline passes through the southeastern watershed area going in a north-northeast trend. The Pittsburgh Coal Seam has been deep mined in the watershed and outcrops along all the larger tributary branches. The Redstone Coal Seam also lies throughout the watershed approximately 60 feet above the Pittsburgh seam. The Redstone also crops along the larger stream branches. The entire watershed is 2.79 square miles (1,781 acres) in size.

PADEP treats each segment on the Section 303(d) List and Integrated Reports as a separate TMDL and expresses each TMDL as a long-term average loading. (See the *Unnamed*

*Tributary to the Monongahela River Watershed TMDL Report, Attachment C, for the TMDL calculations.)*

The Surface Mining Control and Reclamation Act of 1977 (SMCRA, Public Law 95-87) and its subsequent revisions were enacted to establish a nationwide program to, among other things, protect the beneficial uses of land or water resources, protect public health and safety from the adverse effects of current surface coal mining operations, and promote the reclamation of mined areas left without adequate reclamation prior to August 3, 1977. SMCRA requires a surface mining permit for the development of new, previously mined, or abandoned sites for the purpose of surface mining. Permittees are required to post a performance bond that will be sufficient to ensure the completion of reclamation requirements by the regulatory authority in the event that the applicant forfeits. Mines that ceased operating by the effective date of SMCRA (often called “pre-law” mines) are not subject to the requirements of SMCRA.

The Unnamed Tributary to the Monongahela River Watershed was on the 1996 Section 303(d) List of impaired waters and counts toward the twelfth year (2009) TMDL milestone commitment under the requirements of the 1997 TMDL lawsuit settlement agreement. The twelfth year milestone is the development of TMDLs, or delisting, for all remaining waters listed as impaired by AMD impacts on Pennsylvania’s 1996 Section 303(d) List of impaired waters.

### ***Computational Procedure***

The TMDLs were developed using a statistical procedure to ensure that water quality criteria are met 99 percent of the time as required by Pennsylvania’s water quality standards. A two-step approach was used for the TMDL analysis of impaired stream segments.

The first step used a statistical method for determining the allowable instream concentration at the point of interest necessary to meet water quality standards. An allowable long-term average instream concentration was determined at each sample point for metals and acidity. The analysis was performed using Monte Carlo simulation to determine the necessary long-term average concentration needed to attain water quality criteria 99 percent of the time, and the simulation was run assuming the dataset was log normally distributed. Using @RISK<sup>2</sup>, each pollutant source was evaluated separately by performing 5,000 iterations of the model where each iteration was independent of all other iterations. This procedure was used to determine the required percent reduction that would allow the water quality criteria to be met instream at least 99 percent of the time. A second simulation that multiplied the percent reduction by the sampled value was run to ensure that criteria were met 99 percent of the time. The mean value from this dataset represents the long-term average concentration that needs to be met to achieve water quality standards.

The second step was a mass balance of the loads as they passed through the watershed. Loads at these points were computed based on average flow. Once the allowable concentration

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<sup>2</sup>@RISK – Risk Analysis and Simulation Add-in for Microsoft Excel, Palisade Corporation, Newfield, NY.

and load for each pollutant was determined, mass-balance accounting was performed starting at the top of the watershed and working downstream in sequence. This mass balance, or load tracking through the watershed, utilized the change in measured loads from sample location to sample location as a guide for expected changes in the allowable loads.

The existing and allowable long-term average loads were computed using the mean concentration from @RISK multiplied by the average flow. The loads were computed based on average flow and should not be taken out of the context for which they are intended. They are intended to depict how the pollutants affect the watershed and where the sources and sinks are located spatially in the watershed. A critical flow was not identified, and the reductions specified in this TMDL apply at all flow conditions.

In addition to the above analysis, the WLAs for the National Pollutant Discharge Elimination System (NPDES) permitted pit water treatment ponds were determined. Typically, surface mining operations include an open pit where overburden material has been removed to access the underlying coal, and this pit can accumulate water primarily through direct precipitation and surface runoff. The pit water is pumped to a nearby treatment pond where it is treated to the level necessary to meet effluent limitations. However, precipitation events allow intermittent discharges from the treatment pond. If accurate flow data are available for a treatment pond, they can be used to quantify the WLA by multiplying the flow by the best available technology (BAT) effluent limitations for treatment ponds. However, these flow data are typically not available. Alternatively, PADEP calculated a total average flow for the water draining to the pit using average annual precipitation, the area of the pit, and a runoff factor. Utilizing this value and BAT treatment pond effluent limits, the WLAs were determined.

#### **IV. Discussions of Regulatory Requirements**

EPA has determined that these TMDLs are consistent with statutory and regulatory requirements and EPA policy and guidance.

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

Water quality standards are State regulations that define the water quality goals of a waterbody. Standards are comprised of three components: (1) designated uses; (2) criteria necessary to protect those uses; and (3) antidegradation provisions that prevent the degradation of water quality. The Unnamed Tributary of Monongahela River has been designated by Pennsylvania as a warm water fishery with criteria to protect the aquatic life use, and the designation can be found at Pennsylvania Title 25 §93.9v. To protect the designated use, as well as the existing use, the water quality criteria shown in Table 2 apply to all evaluated segments. The table includes the instream numeric criterion for each parameter and any associated specifications.

**Table 2. Applicable Water Quality Criteria**

<b>Parameter</b>	<b>Criterion Value (mg/l)</b>	<b>Duration</b>	<b>Total Recoverable/Dissolved</b>
Aluminum (Al)	0.75	Maximum	Total Recoverable
Iron (Fe)	1.5	30-day Average	Total Recoverable
	0.3	Maximum	Dissolved
Manganese (Mn)	1	Maximum	Total Recoverable
pH	6.0 - 9.0	Inclusive	N/A

The pH values shown will be used when applicable. In the case of freestone streams with little or no buffering capacity, the TMDL endpoint for pH will be the natural background water quality.

Pennsylvania Title 25 §96.3c requires that water quality criteria be achieved at least 99 percent of the time, and TMDLs expressed as long-term average concentrations are expected to meet these requirements. That is, the statistical Monte Carlo simulation used to develop TMDL WLAs and LAs for each parameter resulted in a determination that any required percent pollutant reduction would assure that the water quality criteria would be met instream at least 99 percent of the time. The Monte Carlo analysis performed 5,000 iterations of the model where each iteration was independent of all other iterations and the dataset was assumed to be log normally distributed.

EPA finds that these TMDLs will attain and maintain the applicable narrative and numeric water quality standards.

The pH values shown in Table 2 were used as the endpoints for these TMDLs. In the case of freestone streams with little or no buffering capacity, the allowable TMDL endpoint for pH may be the natural background water quality, and these values can be as low as 5.4 (Pennsylvania Fish and Boat Commission). However, PADEP chose to set the pH standard between 6.0 to 9.0, inclusive, which is presumed to be met when the net alkalinity is maintained above zero. This presumption is based on the relationship between net alkalinity and pH, on which PADEP based its methodology to addressing pH in the watershed (see the *Unnamed Tributary to the Monongahela River Watershed TMDL Report*, Attachment B.)

PADEP also has an alkalinity standard. Alkalinity (of a minimum 20 mg/l calcium carbonate except where natural conditions are less) is related but not identical to pH. Alkalinity is a measure of the buffering capacity of the water. Adequate buffering prevents large swings in pH with additions of small amounts of acid. Although many of the AMD-impacted streams are naturally low in alkalinity, available monitoring data does not always include upstream waters not impacted by AMD. As PADEP does not list waters for inadequate alkalinity, TMDLs are not being developed for alkalinity but PADEP should monitor the waters for alkalinity; and if, after these TMDLs are implemented, alkalinity is less than 20 mg/l or natural conditions, PADEP should list the waters for alkalinity and develop TMDLs.

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

For purposes of these TMDLs only, point sources are identified as permitted discharge points or discharges having responsible parties, and nonpoint sources are identified as any pollution sources that are not point sources. Abandoned mine lands were treated in the allocations as nonpoint sources. As such, the discharges associated with these land uses were assigned LAs (as opposed to WLAs). The decision to assign LAs to abandoned mine lands does not reflect any determination by EPA as to whether there are unpermitted point source discharges within these land uses. In addition, by approving these TMDLs with mine drainage discharges treated as LAs, EPA is not determining that these discharges are exempt from NPDES permitting requirements.

To determine the WLAs for the NPDES permitted pit water treatment ponds, PADEP first calculated a total average flow for the water draining to the pit using average annual precipitation, the area of the pit, and a runoff factor. The WLAs were then calculated using this value and the BAT treatment pond effluent limits and were included in the mass balance along with the LAs.

Once PADEP determined the allowable concentration and load for each pollutant, a mass balance accounting was performed starting at the top of the watershed and working downstream in sequence. Load tracking through the watershed utilizes the change in measured loads from sample location to sample location as a guide for expected changes in the allowable loads.

PADEP used two basic rules for the load tracking between two ends of a stream segment: (1) if the measured upstream loads are less than the downstream loads, it is indicative that there is an increase in load between the points being evaluated, and no instream processes are assumed; and (2) if the sum of the measured loads from the upstream points is greater than the measured load at the downstream point, it is indicative that there is a loss of instream load between the points, and the ratio of the decrease shall be applied to the allowable load being tracked from the upstream point.

Tracking loads through the watershed provides a picture of how the pollutants are affecting the watershed based on the available information. The analysis is performed to ensure that water quality standards will be met at all points in the stream. EPA finds this approach reasonable.

Table 3 presents a summary of the allowable loads, LAs, and WLAs for the Unnamed Tributary to the Monongahela River Watershed.

**Table 3. Unnamed Tributary to the Monongahela River Watershed Summary Table**

Parameter	Existing Load (lbs/day)	TMDL Allowable Load (lbs/day)	WLA (lbs/day)	LA (lbs/day)	NPS Load Reduction (lbs/day)	NPS % Reduction
<b>MONG 3</b>						
Aluminum	1.15	0.08	0	0.08	1.07	93%
Iron	1.02	0.14	0	0.14	0.88	86%
Manganese	0.04	0.04	0	NA	NA	NA
Acidity	-66.3	NA	0	NA	NA	NA
<b>MONG 1</b>						
Aluminum	13.69	1.51	0.28	1.51	12.18	89%
Iron	4.37	4.37	1.13	4.37	0	0%
Manganese	1.94	1.94	0	1.94	0	0%
Acidity	-62.21	NA	0	NA	NA	NA
<b>MONG 2</b>						
Aluminum	3.46	3.46	0	NA	NA	NA
Iron	2.08	2.08	0	NA	NA	NA
Manganese	0.35	0.35	0	NA	NA	NA
Acidity	-976.29	NA	0	NA	NA	NA

NA= not applicable, ND = not detected

Neiswonger Construction, Inc. (NPDES PA0251275) is a proposed operation that will have one discharge requiring treatment. These discharges have the following effluent limits assigned to the treatment operation and allocated to the sampling point MONG1. (See Table 4 for limits and flow characteristics.)

**Table 4. Wasteload Allocations at Neiswonger Guili Mine Site**

Parameter	Monthly Average Allowable Conc. (mg/l)	Average Flow (MGD)	Allowable Load (Lbs/day)
Mine Drainage Treatment Facility #PA0251275	-	-	-
Aluminum	0.75	0.045	0.28
Iron	3	0.045	1.13

Where there are active mining operations, Federal regulations require that point source permitted effluent limitations be water quality-based subsequent to TMDL development and approval<sup>3</sup>. In addition, PA Title 25, Chapter 96, Section 96.4d requires that WLAs serve as the basis for determination of permit limits for point source discharges regulated under Chapter 92 (relating to NPDES permitting, monitoring, and compliance). Therefore, no new mining may be permitted within the watershed without reallocation of the TMDL.

<sup>3</sup>It should be noted that technology-based permit limits may be converted to water quality-based limits according to EPA's *Technical Support Document for Water Quality-based Toxics Control*, March 1991, recommendations.

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

The TMDLs were developed using instream data, which account for existing background conditions.

**4. *The TMDLs consider critical environmental conditions.***

The reductions specified in these TMDLs apply at all flow conditions. A critical flow condition was not identified from the available data.

**5. *The TMDLs consider seasonal environmental variations.***

The dataset included data points from all seasons, thereby accounting for seasonal variation implicitly.

**6. *The TMDLs include a Margin of Safety.***

The CWA and Federal regulations require TMDLs to include a 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.

PADEP used an implicit MOS in these TMDLs by assuming that the treated instream concentration variability was the same as the untreated stream's concentration variability. This is a more conservative assumption than the general assumption that a treated discharge has less variability than an untreated discharge. By retaining variability in the treated discharge, a lower average concentration is required to meet water quality criteria 99 percent of the time than if the variability of the treated discharge is reduced.

Additionally, calculations were performed using a daily average for iron rather than the 30-day average, thereby, incorporating a MOS.

**7. *The TMDLs have been subject to public participation.***

Public notice of the draft TMDL was published in the *Pennsylvania Bulletin* on January 12, 2008, to foster public comment on the allowable loads calculated. The public comment period on this TMDL was open from January 12 to March 19, 2008. A public meeting was held on January 22, 2008, at the Greensburg District Mining Office to discuss the proposed TMDL. No comments were received on the Unnamed Tributary to the Monongahela River TMDL.

**V. Discussion of Reasonable Assurance**

The Recommendations section of the TMDL Report highlights what can be done in the Unnamed Tributary to the Monongahela River Watershed to eliminate or treat pollutant sources. Aside from PADEP's primary efforts to improve water quality in the Unnamed Tributary to the Monongahela River Watershed through reclamation of abandoned mine lands and through the NPDES permit program, additional opportunities for reasonable assurance exist. PADEP expects that activities such as research conducted by its Bureau of Abandoned Mine Reclamation, funding from EPA's §319 Grant program and Pennsylvania's Growing Greener program will help remedy abandoned mine drainage impacts. PADEP also has in place an initiative that aims to maximize reclamation of Pennsylvania's abandoned mineral extraction lands. Through Reclaim PA, Pennsylvania's goal is to accomplish complete reclamation of abandoned mine lands and plugging of orphaned wells. Pennsylvania strives to achieve this objective through legislative and policy land management efforts and activities described in the TMDL Report.

Currently, there is no watershed organization interested in the Unnamed Tributary to the Monongahela River Watershed. It is recommended that agencies work with local interests to form a watershed group that will be dedicated to the remediation and preservation of these watersheds through public education, monitoring and assessment, and improvement projects. Information on formation of a watershed group is available through websites for the PADEP ([www.dep.state.pa.us](http://www.dep.state.pa.us)); the AMR Clearinghouse ([www.amrclearinghouse.com](http://www.amrclearinghouse.com)); the EPA ([www.epa.gov](http://www.epa.gov)); the Susquehanna River Basin Commission ([www.srbc.net](http://www.srbc.net)), and others. In addition, each DEP Regional Office (6) and each District Mining Office (5) have watershed managers to assist stakeholder groups interested in restoration in their watershed. Most Pennsylvania County conservation districts have a watershed specialist who can also provide assistance to stakeholders (see [www.pacd.org](http://www.pacd.org)). Potential funding sources for AMD projects can be found at [www.dep.state.pa.us/dep/subject/pubs/water/wc/FS2205.pdf](http://www.dep.state.pa.us/dep/subject/pubs/water/wc/FS2205.pdf).

Although not specifically stated in the TMDL Report, PADEP routinely posts the approved TMDL Reports on their website: [www.dep.state.pa.us/watermanagementapps/tmdl/](http://www.dep.state.pa.us/watermanagementapps/tmdl/).