

February 12, 2003

Mr. Chuck Yingling
Office of Water Management
Pennsylvania Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 8555
Harrisburg, PA 17105-8555

**Re: Proposed Total Maximum Daily Load (TMDL) for Mahanoy Creek
Watershed, 32 Pa. Bull. 6208 (December 14, 2002)**

Dear Mr. Yingling:

Citizens for Pennsylvania's Future (PennFuture) thanks the Department of Environmental Protection (DEP) for the opportunity to submit the following comments on the Proposed Total Maximum Daily Load (TMDL) for the Mahanoy Creek Watershed. Several of these comments are similar to, but not identical to, comments we presented in a letter to you dated February 7, 2003 concerning the draft TMDL for the Catawissa Creek Watershed.

1. "Abandoned" Mine Discharges

The draft TMDL report for the Mahanoy Creek watershed states that "[a]ll impairments resulted from acid drainage from abandoned coal mines" (p. 1), and later explains that only those "discharges that are permitted or have a responsible party . . . are considered point sources." (p. 21) The description of all of the sources of metals and pH impairments as "abandoned" coal mines with no associated "responsible party" appears to be inaccurate here for at least two, and as many as four, reasons.

First, the draft report itself identifies the discharge that is pumped and (partially) treated by the City of Philadelphia, Girard Estate as a permitted, point source discharge. Although the Girard Estate is pumping mine drainage from a mine pool to which abandoned mines contribute, the discharge of that wastewater is part of an active, permitted mining activity and is properly classified as a point source discharge.

Second, the draft report improperly fails to classify the Gilberton pump discharge as a point source discharge. Even if the Gilberton pump is activated automatically by a device linked to the mine pool level, the discharge occurs at that location only because of active human intervention. The fact that the pumping of the mine pool at that location is intended to protect public health and welfare does not change the fact that the discharge is a point source discharge, just as the Girard Estate's discharge of pumped mine pool drainage is a point source discharge. The operator of the Gilberton pump – presumably DEP's Bureau of Abandoned Mine Reclamation – therefore should have a National Pollutant Discharge Elimination System

(NPDES) permit authorizing the discharge, and any contaminant load should be assigned to it through a Wasteload Allocation rather than a Load Allocation.

Third, the draft TMDL report identifies sixty active mining operations in the Mahanoy Creek watershed, most of which the report identifies as coal refuse reprocessing operations. (pp. 6-7 & Table 2) If a particular mine is hydrologically connected to one of the mine drainage discharge points identified in the draft TMDL report, the mine operator might be responsible for treating that discharge. See 35 P.S. §§ 691.307(a), 691.315(a), 691.316; C&K Coal Co. v. DER, 1987 EHB 786, 789 (“liability for the treatment or abatement of an off-permit, pre-existing discharge may be imposed under § 315(a) of the Clean Streams Law where there is a hydrologic connection between the mining operation and the off-permit discharge”). A significant qualification, however, is that all coal refuse reprocessing operations should be protected by the standards of 25 Pa. Code Chapter 88, Subchapter G. PennFuture neglected to mention this significant qualification in our comments on the draft Catawissa Creek TMDL, but it applies with equal force there. Given the obvious aesthetic and safety benefits and possible water quality benefits of reclaiming the abandoned coal waste piles (Draft TMDL report, p. 7), these “bank reclamation” operations should be encouraged. For other regulated mining operations, however, the TMDL report should show that active operations are not causing or contributing to one of the discharge points identified in the report as abandoned, nonpoint source discharges.

Fourth, the Department should not assume that all of the various tunnels, boreholes, and entries that discharge mine drainage in the Mahanoy Creek watershed are properly classified as abandoned. For example, the successor in interest to the person that originally built a particular tunnel or an owner(s) of record of the tunnel or a larger interest in real property that includes it might be responsible for the tunnel’s discharge. See 33 U.S.C. §§ 1311(a), (g)(2), 1342(a), (b), 1362(14); 35 P.S. §§ 691.307(a), 691.315(a), 691.316; 25 Pa. Code § 92.3. See also Commonwealth v. Barnes & Tucker Co., 371 A.2d 461 (Pa. 1977). As in the Catawissa Creek watershed, the Department should conduct an exhaustive search for potentially responsible parties before characterizing all of these mine drainage sources as “abandoned.”

2. Instream Water Quality Criteria for Iron

The “TMDL Endpoints” (p. 8) appropriately include the instream water quality criteria for both total recoverable iron and dissolved iron. These two criteria are not substitutable, “either/or” standards. They are legally independent in that each of them must be satisfied at least 99 percent of the time. See 25 Pa. Code §§ 93.7(a), 96.3(c). If a stream satisfies the total iron instream criterion but not the dissolved iron criterion, it is impaired, and the TMDL must determine the load reductions necessary to ensure compliance with the dissolved iron criterion.

DEP has reason to believe that some if not all of the impaired segments do not meet the instream criterion for dissolved iron. EPA’s TMDL guidance provides that “[a] TMDL must identify the loading capacity of a waterbody for the applicable pollutant.” (EPA “Guidelines for Reviewing

TMDLs under Existing Regulations Issued in 1992,” May 20, 2002, p. 2) Nevertheless, the draft TMDL report does not address dissolved iron loads or indicate whether achieving the load reductions necessary to attain the total iron instream criterion also would result in attainment of the instream criterion for dissolved iron.

The draft report explains that “[t]he iron TMDLs are expressed as total recoverable as the iron data used for this analysis was reported as total recoverable.” (p. 8) This statement appears to mean that because the monitoring data do not include dissolved iron concentrations, DEP is treating total recoverable iron as the only applicable iron parameter and the only iron criterion that must be satisfied. The statement also could be read to mean that dissolved iron monitoring data exist, but DEP chose not to run the Monte Carlo simulation analysis using that data. Whatever the explanation, however, it does not excuse DEP from addressing dissolved iron. The TMDL must demonstrate the load reductions necessary to satisfy all applicable water quality criteria. By impermissibly eliding over the regulatory independence of the dissolved and total iron criteria, and by failing to demonstrate what load reductions are necessary to achieve the instream criterion for dissolved iron, the draft TMDL report does not adequately address all applicable water quality standards.

It may be that through other monitoring data or documented relationships between the concentrations of total and dissolved iron in mine drainage (like the relationship between pH and net alkalinity shown in Attachment C to the draft TMDL report), DEP can demonstrate, with a reasonable degree of confidence, that the necessary reductions in total iron loads identified in the draft TMDL report will result attainment of the dissolved iron instream criterion. Perhaps DEP cannot make this demonstration without further monitoring in the Mahanoy Creek watershed that includes analysis of dissolved iron concentrations. One way or another, however, DEP must show what must be done in order to ensure that the impaired streams are no longer impaired by a well-known constituent of mine drainage, dissolved iron. As it stands, the draft TMDL report simply does not make this required showing.

3. Failure to Provide Reasonable Assurance of Attainment

As in the draft report for the Catawissa Creek watershed, the “Recommendations” section of the draft TMDL report for the Mahanoy Creek watershed cites “[t]wo primary programs that provide reasonable assurance for maintenance and improvements of the water quality in the watershed”: the NPDES permitting program and DEP’s “efforts to reclaim abandoned mine lands.” (p.11) But something more is required here. For watersheds like this one that include both Load Allocations to nonpoint sources and Wasteload Allocations to point sources, EPA’s TMDL guidance states that “the TMDL should provide reasonable assurances that nonpoint source control measures will achieve expected load reductions in order for the TMDL to be approvable.” (EPA May 20, 2002 Guidelines, p. 4)(emphasis added) The draft TMDL report falls far short of providing reasonable assurance that the required load reductions from nonpoint sources will be realized.

The draft TMDL report classifies all but one of the loading sources in the Mahanoy Creek

watershed as nonpoint sources. (The lone exception is the Girard Estate's "Centralia Treated Discharge at Centralia2," but as noted in Section 1, above, the Gilberton pump discharge also must be classified as a point source discharge.) The NPDES permitting program, however, is limited to point source discharges. See 25 Pa. Code § 92.3. It is incongruous, if not disingenuous, to rely on a program that does not apply to nonpoint source discharges for the purpose of achieving reductions in loads from sources DEP has classified in the same document as nonpoint sources. Cf. EPA May 20, 2002 Guidelines, p. 4 ("When a TMDL is developed for waters impaired by point sources only, the issuance of a National Pollutant Discharge Elimination System (NPDES) permit(s) provides the reasonable assurance that the wasteload allocations contained in the TMDL will be achieved.")(emphasis added).

As for the various efforts to reclaim abandoned mine lands, the draft TMDL report gives no assurance that the programs will be able to make a significant dent in the watershed's reclamation problem. The report does not estimate the percentage of the abandoned mine lands in the watershed that have been reclaimed through Abandoned Mine Land Fund projects or other reclamation incentive programs. It also does not indicate the number of acres of abandoned mine land remaining in the watershed or the approximate cost of reclaiming those lands. It is well known that Pennsylvania annually receives about \$20-25 million for reclamation of abandoned mines from the federal AML Fund, but needs about \$15 billion to complete all the remaining reclamation work in the state. Even when these federal AML Funds are augmented by Growing Greener grants and funding from other sources, as well as the reclamation being achieved through refuse bank reclamation operations or other remaining activities, it seems likely that it will be a long time before the reclamation of the abandoned mine lands in the watershed is substantially completed. Overall, the draft TMDL report does not demonstrate that the second "primary program" will contribute significantly in the foreseeable future to achieving the necessary load reductions.

The Mahanoy Creek Watershed Association and (once again) Mr. Wytovich surely are to be commended for their tremendous efforts in designing, installing, and expanding "The Swamp," and in developing the larger series of projects of which it is a part. But these volunteer mine drainage treatment projects face intense statewide competition for funding. Moreover, the draft TMDL report does not suggest that the planned passive treatment systems will achieve the load reductions necessary to attain water quality standards in any identified stream segment, much less in the entire watershed. In short, as laudable and well planned as they are, these grant-funded treatment projects do not provide the reasonable assurance of load reductions that is needed for EPA to approve this TMDL. Only by including a more extensive implementation plan that explains how and when the necessary load reductions will be achieved can the TMDL report provide that needed assurance.

PennFuture recognizes that given all of the practical difficulties, DEP may not be able to provide reasonable assurance that the necessary load reductions actually will occur. But it is misleading to suggest that the NPDES and abandoned mine land reclamation programs will, even as supplemented by government-funded and/or volunteer projects, take care of the contaminant loading problems in the Mahanoy Creek watershed within any reasonable time frame. If the problem is simply too big for DEP to provide the required reasonable assurance, the TMDL report should say so.

4. Methodology Used in Allocation for “Centralia Treated Discharge at Centralia2”

The “AMD Methodology” section of the draft TMDL report (pp. 21-22) explains that DEP uses two approaches when determining TMDLs for AMD-affected stream segments. One approach applies where all of the impact results from nonpoint sources. A different approach applies where the impacts are from point sources alone or from a combination of point and nonpoint sources, in which case the impacts of the point source(s) is determined by performing a mass balance with the receiving stream. (p. 21) The set of example calculations for Lorberry Creek includes the application of the mass balance approach to a point source discharge (the Shadle Discharge).

Like the Shadle Discharge into Lorberry Creek, the “Centralia Treated Discharge at Centralia2” (Centralia2 Discharge) is a point source discharge. The method used to determine the allocation for the Centralia2 Discharge, however, does not resemble the calculations applied to the Shadle Discharge. It appears that despite classifying the Centralia2 Discharge as a point source discharge, DEP applied the analytical approach for nonpoint sources to it. The draft TMDL report does not justify that apparent deviation from the standard methodology.

There are two obvious differences between model calculations for the Shadle Discharge (pp. 26-30) and the allocation made at the Centralia2 Discharge (pp. 37-38). First, the Shadle Discharge allocation involves a multi-step mass balance analysis, but the draft TMDL report does not indicate that DEP performed any similar mass balance analysis with respect to Centralia2. The draft TMDL report does not explain this apparent deviation from the model. Second, despite the absence of an applicable Best Available Technology (BAT) effluent limit in both cases, DEP calculated a Wasteload Allocation for aluminum for the Shadle Discharge but not for the Centralia2 Discharge. The draft report states that a “WLA was not computed for aluminum, since the [Girard Estate’s NPDES] permit did not have a BAT limit for aluminum.” (p. 37) But the absence of a BAT limit for aluminum did not prevent DEP from determining a Wasteload Allocation for aluminum for the Shadle Discharge. In the calculations for the Shadle Discharge, DEP explained that because of the absence of an applicable BAT limit for aluminum, “the starting concentration for the modeling was arbitrary.” (p. 30) The draft TMDL report does not explain why, if DEP was able to plug an aluminum concentration value into the model for the Shadle Discharge, it was unable to take a similar approach for the Centralia2 Discharge.

5. Failure to Address All Identified Pollution Sources

A. Siltation in “Unnamed Tributary to Mahanoy Creek at Unt.MC”

The draft TMDL report states that the 2002 Section 303(d) list has added “siltation” as a cause of impairment of the unnamed tributary to Mahanoy Creek associated with allocation point “Unt.MC,” which is also impaired by metals from acid mine drainage. (p. 41) Based on the mention of “coal fines” in the description of the siltation problem, it seems likely that unreclaimed mine lands cause or contribute to this impairment. The draft report explains that the TMDL does not address this siltation impairment because “[i]t is assumed that this impairment will be remediated by the use of best

management practices implemented to remediate AMD.” (p. 41)

This assumption, however, is not justified by the draft report. The draft report does not identify the “best management practices” to which it refers. In light of the fact that “[t]he only known discharges that affect this stream are the Potts Discharges” (p. 41), the likely strategy for alleviating the metals impairment by “remediat[ing] AMD” in this sub-watershed would be collection and treatment of the Potts Discharges. But it is extremely unlikely that treatment of these discharges would alleviate the impairment caused by the deposition of coal fines (and perhaps other silt) in the stream. Because the draft TMDL report provides no basis for concluding that treatment of the Potts Discharges would by itself eliminate the observed siltation impairment, its assumption that the siltation impairment will be remediated through the application of the same “best management practices” that are adopted to alleviate the metals contamination is unjustified. The TMDL therefore must separately address the siltation impairment of this unnamed tributary to Mahanoy Creek.

B. Agricultural Impairment of Crab Run

The 2002 Section 303(d) report lists Crab Run as being impaired by “Organic Enrichment/ Low Dissolved Oxygen” and “Siltation” resulting from “Grazing Related Agriculture.” The draft TMDL report explains that no TMDL will be done for Crab Run for impairment by mine drainage because recent studies show that the only impairment to Crab Run results from agricultural sources. (p. 42) The draft report does not explain, however, why it does not include a TMDL addressing the documented agricultural impairment of Crab Run. It makes sense to complete the TMDL for the entire Mahanoy Creek watershed now by including a TMDL addressing the impairments of this 1.4 mile long segment caused by agricultural activities. At a minimum, the report should indicate when the watershed TMDL will be amended to include a TMDL for Crab Run.

Please feel free to contact me at 717-214-7920 if you have any questions about our comments.

Sincerely,

Kurt J. Weist
Senior Attorney
Harrisburg Office