

September 26, 2005

Sent Via Telecopier: 772-3249

Mr. Frederick Marrocco
Bureau of Water Standards and Facility Regulation
Water Management Program
Pennsylvania Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 8467
Harrisburg, PA 17105-8467

Re: Total Maximum Daily Load (TMDL) for Mahanoy Creek Watershed

Dear Mr. Marrocco:

Attached to this letter is a message I sent on September 21, 2005 to Dino Agustini, P.E., Chief of the Permits Section in the Water Management Program in the Department's Northeast Regional Office, which was copied to Assistant Regional Counsel Joseph Cigan. Earlier that same day, Mr. Agustini had informed me that the TMDL for the acid mine drainage affected segments of Mahanoy Creek had been approved by the Environmental Protection Agency (EPA) in April 2005. Despite the fact that PennFuture had submitted comments on the draft TMDL to the Department on February 12, 2003 and November 15, 2004, Mr. Agustini's call to me was the first anyone at PennFuture had been notified of the approval.

According to EPA's "Decision Rationale" document, the Department amended the October 2002 draft TMDL and resubmitted it to EPA on November 3, 2004. The November 2004 revised draft was not made available to the public for comment. In fact, as of this morning, the amended TMDL approved more than five months ago still is not available on either the Department's web page or EPA Region 3's web page. EPA Region 3 provides links only for EPA's Decision Rationale and an approval letter from EPA Regional Division Director Jon Capacasa to DEP Deputy Secretary Cathy Myers. The Mahanoy Creek TMDL report appears to be the only Pennsylvania TMDL report approved by EPA in 2005 that is not available on EPA Region 3's web page.

The attached message to Mr. Agustini addresses one fundamental problem with the approved TMDL: the failure to provide a waste load allocation for a point source of mine drainage pollutants (Gilberton Power Company, NPDES Permit No. PA0061697). As explained in the attached message, the failure of the approved Mahanoy Creek TMDL to account for that source of mine drainage contaminants presents a Kaiser Refractories problem that requires the Department either to include non-detect limits for iron, manganese, and aluminum in Gilberton Power's NPDES permit, or to amend the Mahanoy Creek TMDL to properly account for the Gilberton Power point source discharge.

Assuming that Table 4 on page 10 of EPA's Decision Rationale document accurately reproduces the figures in the approved TMDL, the Mahanoy Creek TMDL suffers from a second, and perhaps more significant problem. At Station MC2 (Mahanoy Creek above UNT to Mahanoy Creek), the TMDL assigns an allowable aluminum load (TMDL) of 18.1 pounds per day, but a higher wasteload allocation (WLA) of 78.4 pounds per day to the permitted point source "Centralia2" (City of Philadelphia, NPDES Permit No. PA0223719). This assignment of a WLA that exceeds the TMDL obviously is impermissible.

The well known formula for a TMDL is:

$$\text{TMDL} = \text{WLA} + \text{LA} + \text{MOS}$$

where WLA is the total Wasteload Allocation to all of the point sources in the segment, LA is the total Load Allocation to all of the nonpoint sources in the segment, and MOS is the margin of safety. The margin of safety here is implicit and therefore is assigned a value of zero. Substituting the values from EPA's Table 4 into the formula and solving for LA yields:

$$18.1 = 78.4 + \text{LA} + 0$$

$$18.1 - 78.4 = \text{LA}$$

$$-60.3 = \text{LA}$$

So, the Load Allocation for aluminum at station MC2 works out to negative 60.3 pounds per day. (This figure is missing from EPA's Table 4, which leaves the relevant cell blank.) In other words, the nonpoint sources of mine drainage in the segment of Mahanoy Creek between Stations MC1 and MC2 are expected to cause a net reduction of 60.3 pounds of aluminum per day from that segment of the stream.

For the reasons explained in PennFuture's February 15, 2005 comments on the draft Bear Run TMDL, it would be unjustifiable to assume that 100% of the nonpoint source loadings of aluminum in the MC1-MC2 segment of Mahanoy Creek will be eliminated. But here the assumption goes farther, to the realm of the bizarre or fanciful: a negative aluminum loading from nonpoint sources of mine drainage.

The bottom line is, the WLA may not exceed the TMDL. As a result, the WLA for aluminum to the Centralia2 discharge must be no more than 18.1 pounds per day, which would require an effluent limit of 0.46 mg/l as a monthly average in the City of Philadelphia's NPDES permit. In fact, because it is completely unrealistic to assume that the nonpoint source loadings of aluminum will be completely eliminated from this section of the stream, it would be indefensible to assign the entire allowable load of 18.1 pounds per day (and none of the required load reductions) to the permitted point source while assigning zero pounds per day of allowable load (and all of the required load reductions) to the nonpoint sources. Therefore, under an equitable allocation of the total allowable load between the point and nonpoint sources, the WLA of aluminum to the Centralia2 discharge should be considerably less than 18.1 pounds per day.

PennFuture had no opportunity to comment on this problem of the negative aluminum Load Allocation to the nonpoint sources at Station MC2, which was not present in the initial, October 2002 draft of the Mahanoy Creek TMDL. The October 2002 draft did not assign any WLA for aluminum to the City of Philadelphia's Centralia2 discharge. That initial failure to include an aluminum WLA for the Centralia2 discharge, which was based on the absence of an aluminum effluent limit from the City of Philadelphia's NPDES permit, was a Kaiser Refractories type of error. When revising the TMDL in November 2004, the Department apparently corrected that error by assigning the Centralia2 discharge a WLA for aluminum. But in doing so, the Department committed a new error by setting the WLA at a level (78.4 lb/day) that exceeds the aluminum TMDL at Station MC2 (18.1 lb/day) by roughly 333%. The Department must correct that new, glaring error.

As noted above, the analysis presented in this letter and in the attached message is based on EPA's Decision Rationale document, not on the approved Mahanoy Creek TMDL itself, which inexplicably has not been posted by either the Department or EPA in the more than five months since its approval. Although listing the other Pennsylvania TMDLs approved in 2005, EPA Region 3 also inexplicably omitted the Mahanoy Creek TMDL from its list of "Recently Approved TMDL" on its web page. We hope that in the future, the Department will make approved TMDLs available in a more timely fashion, and that it will notify parties who took the time to submit comments that the TMDL on which they commented has been approved.

Please feel free to contact me at 717-214-7920 if you have any questions about the matters discussed above or in the attached message.

Sincerely,

Kurt J. Weist
Senior Attorney
Harrisburg Office

Attachment

cc: Michelle M. Moses, Assistant Counsel (via telecopier)

Attached Electronic Mail Message

From: Kurt Weist
Date: Wednesday, September 21, 2005 4:07 PM
To: dagustini@state.pa.us
Cc: jcigan@state.pa.us
Subject: Gilberton Power NPDES: Mahanoy Creek TMDL

Dino,

I still have not been able to track down a copy of the Mahanoy Creek TMDL as revised in November 2004. Although the list of "Recently Approved TMDL" on the EPA Region 3 web page (which includes a batch of Pennsylvania TMDLs approved in April 2005, and which is where I had been checking for the Mahanoy Creek TMDL) does not list Mahanoy Creek, the list of approved TMDLs for Pennsylvania does include Mahanoy Creek. It provides a link for EPA's Decision Rationale document, as well as an undated cover letter to Dep. Sec. Myers.

Based on the EPA Decision Rationale document, only two Wasteload Allocations for two point sources have been included in the approved TMDL: 1) the City of Philadelphia/ Girard Estate Continental Mine discharge; and 2) the West Cameron Mining discharge. The Decision Rationale makes no reference to a WLA for the Gilberton Power Company's NPDES permitted discharge of the mine drainage contaminants covered by the TMDL -- iron, manganese, and aluminum. The approved TMDL therefore does not account for any loading of these metals from the Gilberton Power Company discharge.

The Environmental Hearing Board's recent decision in Mountain Watershed Association and PennFuture v. DEP and Kaiser Refractories, EHB Docket No. 2004-102-R (Opinion and Order on Motion for Partial Summary Judgment dated June 23, 2005), establishes that Gilberton Power's NPDES permit must be consistent with the Mahanoy Creek TMDL and its assumption that Gilberton Power's discharge adds zero load of the three metals to Mahanoy Creek. To be consistent with the TMDL as approved, the NPDES permit would have to establish non-detect limits for the three metals. Failure to include such limits would make the permit vulnerable to exactly the same kind of challenge presented in the Kaiser Refractories case, where DEP conceded that the failure to include an aluminum limit in Kaiser Refractories' NPDES permit was inconsistent with the TMDL for Laurel Run, which included no aluminum WLA for Kaiser's discharge. Alternatively, DEP may choose to revise the Mahanoy Creek TMDL to include a WLA for Gilberton Power, and then issue a NPDES permit that is consistent with the revised TMDL. (DEP is in the process of doing this for Laurel Run/Kaiser Refractories.)

I note that I tried to head off this situation through the November 15, 2004 supplemental TMDL comments I submitted to DEP's central office, which specifically referenced the Gilberton Power NPDES discharge as a possible source of mine drainage contaminant loads that had not been mentioned or accounted for in the draft TMDL for Mahanoy Creek.

Kurt Weist
PennFuture