

## Response to Public Comments

### Re: Proposed Total Maximum Daily Load for Zinc in the White Clay Creek, Delaware

#### I. Introduction

The Delaware Department of Natural Resources and Environmental Control (DNREC) has proposed to establish a Total Maximum Daily Load (TMDL) for zinc in the White Clay Creek. The proposed TMDL was published in the Delaware Register of Regulations, Vol. 3, Issue 2, Sunday, August 1, 1999. A Public Hearing was held on Tuesday, September 7, 1999 to gather formal public comment on the proposed TMDL. The hearing record was kept open for public comment until the close of business Tuesday, September 14, 1999.

#### II. Commenters

The table below identifies the individuals who submitted comments prior to the deadline, the affiliation of the commenter, the date the comment, and the DNREC-assigned comment numbers. Those numbers will be used in Section III of this document to organize DNREC's responses.

Commenter	Affiliation	Date of Comment	Comment Number
Chris Brown	Delaware Nature Society (DNS)	9-7-99	1
Debbie Heaton	Delaware Chapter of the Sierra Club	9-14-99	2 - 3

#### III. Response to Comments

The specific comments received on the proposed TMDL and the DNREC's responses appear below.

1. The Delaware Nature Society strongly encourages the State to continue to reduce the loading of pollutants from identified sources through the TMDL process. It is our (DNS's) belief that the proposed target for zinc loading is reasonable and entirely necessary to reverse the degradation of White Clay Creek.

**Response:** DNREC acknowledges the support provided by the DNS for the proposed TMDL. The proposed TMDL is designed to meet the goals of the Clean Water Act.

2. The Sierra Club generally agrees with the proposed TMDL for the White Clay Creek but is concerned about the increased loading based on the higher flow of this Creek. This region of New Castle County and Southern Chester County are in the midst of a significant development surge. We feel that the flow of the Creek should be measured regularly and the load adjusted when the flow is found to be reduced.

**Response:** DNREC acknowledges the Sierra Club's general agreement with the proposed TMDL. With regard to the Sierra Club's concern, DNREC notes that the proposed TMDL is designed to *reduce* the mass loading of zinc to the White Clay Creek, not *increase* it. The design flows used in the TMDL calculation, namely the 1Q10 for the acute aquatic life criterion, and the 7Q10 for the chronic aquatic life criterion, are consistent with the critical flows specified in the State of Delaware Surface Water Quality Standards for these two criteria, respectively. The DNREC's Technical Background and Basis Document (TBBD) describes how the 1Q10 and 7Q10 flow statistics were derived for the White Clay Creek in the vicinity of Paper Mill Road. With regard to the commenter's final point, the flow in the White Clay Creek is monitored regularly (every 15 minutes) at two gages in Delaware. One gage is located directly upstream from Paper Mill Road and the other gage is located near the Delaware Race Track. DNREC will continue to monitor water quality in all State waters, including the White Clay Creek. If we find that the current TMDL does not result in water quality standards attainment for zinc, then adjustments will occur as necessary.

3. The Sierra Club feels that the Margin of Safety might be considered too low when the increasing development of this area and the cumulative degradations these activities bring to a watershed are considered.

**Response:** Aside from the general feeling that the Margin of Safety is too small, the commenter offers no specific quantitative recommendation or justification for a different Margin of Safety. DNREC believes that the 0.16 pounds per day Margin of Safety developed for this TMDL is appropriate for two primary reasons as presented in DNREC's Technical Background and Basis Document. First, the need for a large margin of safety to account for uncertainties between loading and in-stream zinc concentration is not justified in this case since there are very few zinc criteria exceedances currently being observed in the White Clay Creek, even before a TMDL is implemented. Second, there is an environmental cleanup underway at the NVF Newark facility, which DNREC believes will further reduce existing criteria exceedances. This cleanup is being performed in conjunction with a "brownfields" redevelopment plan for the site that will convert the property from industrial use to non-industrial uses. DNREC believes that the cleanup and non-industrial use of the property will result in much lower mass loading of zinc to the White Clay Creek. Therefore, the commenter's conclusion that increased development equates to increased pollution is not always true.