

**Comment Response Document
Regarding the Nitrogen and Phosphorus TMDLs for Worton Creek
Kent County, MD**

Introduction

The Maryland Department of the Environment (MDE) has conducted a public review of the proposed Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus loadings in Worton Creek. The public comment period was open from October 11, 2001 to November 9, 2001. MDE received one set of written comments.

Below is a list of commentors, their affiliation, the date comments were submitted, and the numbered references to the comments submitted. In the pages that follow, comments are summarized and listed with MDE's response.

List of Commentors

Author	Affiliation	Date	Comment Number
James Stuhltrager	Mid-Atlantic Environmental Law Center, on behalf of the Maryland Chapter of the Sierra Club and the American Littoral Society	November 9, 2001	1 through 3

Comments and Responses

1. The commentor stated that the proposed TMDLs establish only monthly and annual limits, thereby contravening the Clean Water Act by failing to establish a total maximum daily load.

Response: The U.S. Environmental Protection Agency (EPA) provides in its regulations (40 CFR 130.2(i)) that "TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure." Accordingly, no explicit time period is required. In this case, monthly or annual loads make more sense than daily loads. From a technical standpoint, nutrient loads are highly variable. Thus, it is essentially infeasible to establish a meaningful daily load for nutrients. To do so, in view of the large daily variability, would require the daily loading caps to be very large to accommodate the large natural peak in loading events. More importantly, nutrients do not have an impact on the temporal scale of a day; rather, they act over long periods of time. It does not matter if a large quantity of nutrients goes in one day, and a small amount goes in the next; rather, it is the accumulation over a time scale of weeks that is significant. For these reasons, the Department has elected to establish the nitrogen and phosphorus TMDLs on the timeframe that it has.

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2. The commentor stated that the proposed TMDLs fail to allocate the nonpoint source load among individual sources or categories of sources. The commentor recommended that the proposed TMDLs include individual load allocations.

Response: The calculated nonpoint source (NPS) allocation is implicitly the sum of the individual load allocations. The sub-allocation of the allowable NPS load to individual sources is a detailed implementation issue, which is beyond the scope of the TMDL. Neither the Clean Water Act nor current EPA regulations require states to develop a detailed implementation plan as part of the TMDL development and approval process. Maryland's rationale for not including a detailed implementation plan within the TMDL documentation is to allow flexibility for those other government programs and stakeholders currently developing mechanisms to reduce nutrient loads to Worton Creek and other waters of the state. See also response to Comment 3.

3. The commentor stated the proposed TMDLs do not consider or recommend the implementation of any best management practices (BMPs) to support the goal of reducing annual nitrogen and phosphorus loads by 27 percent. The commentor recommended that MDE include enforceable implementation plans that can be used to achieve individual load allocations.

Response: The nutrient reductions in the proposed TMDL are challenging but not impossible. These are long-term goals that will be addressed in an iterative manner. The purpose of a TMDL analysis is limited to determining the maximum loading limit that meets existing water quality standards. Neither the Clean Water Act nor current U.S. EPA regulations direct states to develop a detailed implementation plan as part of the TMDL development and approval process. Although formal implementation planning is currently beyond the scope of the TMDL development process, Maryland is committed to enforcing applicable laws and supporting voluntary initiatives necessary to implement this and other TMDLs. To this end Maryland has several well-established programs to draw upon as part of future implementation efforts. These include the State Water Quality Improvement Act of 1988, the federal Clean Water Action Plan framework, and the State's Chesapeake Bay Agreement Tributary Strategies for Nutrient Reduction. Additionally, Maryland has adopted procedures to assure that future evaluations are conducted for all TMDLs that are established.

Reference

Code of Federal Regulations, 40 CFR 130.2(i)