



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

8/10/2006

Dr. Richard Eskin, Ph.D., Director  
Technical and Regulatory Services Administration  
Maryland Department of the Environment  
1800 Washington Boulevard, Suite 450  
Baltimore, MD 21230

Dear Dr. Eskin:

The U.S. Environmental Protection Agency (EPA) Region III has reviewed the report, "Water Quality Analysis of Eutrophication for Town Creek, Allegany County, Maryland," which was submitted by the Maryland Department of the Environment (MDE) for final Agency review on July 19, 2006.

EPA agrees with MDE's determination that the recent data demonstrates a nutrient Total Maximum Daily Load (TMDL) is not necessary for the Town Creek. Town Creek (basin code 02-14-05-12) was first listed by Maryland on its 1996 Section 303(d) list of water quality-limited segments as impaired by sediments and nutrients. Evidence of biological impacts to the river resulted in 2002 and 2004 listings. This water quality analysis addresses only the nutrient impairment. TMDLs to address sediment impairments and impacts to biological communities will be addressed at a future date.

Although Maryland's water quality standards do not impose a limit on the concentration of nutrients in the water column, its general water quality criteria prohibit water pollutants in amounts that create nuisance or interfere with designated uses. Therefore, elevated chlorophyll *a* and low dissolved oxygen (DO) are used as indirect indicators of nutrient impairments. For this water quality analysis, MDE used routine monitoring data collected from 1998 to 2004. They compared the data to the DO criteria of 5mg/L and also assessed chlorophyll "a", phosphorus, and nitrogen concentration levels. The monitoring data demonstrated that DO concentrations in Town Creek adhere to Maryland's standards. Although the observed DO concentrations fell below 5 mg/l on one occasion, overall, the number of violations did not trigger MDE's "rule-of-thumb." The rule allows up to 10% of samples to exceed a specific water quality criterion before the body of water is considered to be impaired. Phosphorus, nitrogen, and chlorophyll levels also indicated that they do not cause eutrophication-related water quality impairments. Since the DO criterion applicable to the designated use is being met in Town Creek, a TMDL for nutrients is not necessary to achieve water quality standards in this watershed. If future evidence suggests that DO concentrations in Town Creek are contributing to water quality problems, then MDE will need to readdress the nutrient impairment.



If you have any questions or comments regarding this report, please contact Mr. Thomas Henry, TMDL Program Manager, at (215) 814-5752.

Sincerely,

*Signed*

Jon M. Capacasa, Director  
Water Protection Division

cc: Melissa Chatham, MDE-TARSA  
Nauth Panday, MDE-TARSA

