



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

Richard Eskin, Ph.D., Director
Science Services Administration
Maryland Department of the Environment
1800 Washington Blvd., Suite 540
Baltimore, Maryland 21230-1718

MAY 18 2012

Dear Dr. ^{Rich}Eskin:

The U.S. Environmental Protection Agency (EPA), Region III, has reviewed the report *Water Quality Analysis of Total Phosphorus for the Lower Gunpowder Falls Watershed, Baltimore County, Maryland*, which was submitted by the Maryland Department of the Environment (MDE) for final review on December 16, 2011. The Lower Gunpowder Falls watershed (MD-02130802) has been identified on Maryland's 2010 Section 303(d) list as impaired by nutrients (1996) and impacts to biological communities (2006). The 1996 nutrients listing was refined on Maryland's 2010 Section 303(d) list to indicate that phosphorus (total) is the impairing pollutant. This water quality analysis (WQA) addresses only the nutrients/phosphorus impairment. The listing for impacts to biological communities will be addressed separately at a future date.

EPA agrees with MDE that current data indicates that a phosphorus Total Maximum Daily Load (TMDL) is not necessary for the Lower Gunpowder Falls watershed. As described in the WQA report, MDE recently used its biological stressor identification (BSID) methodology to identify the most probable cause(s) of impairment to aquatic life in the watershed based on readily available physical, chemical, and land use data collected from 1996 through 2010. The BSID analysis identified sediment, instream habitat, and water chemistry (e.g., high chlorides, sulfates and conductivity) as potential biological stressors. Phosphorus was not identified as a potential biological stressor in the BSID analysis.

Additionally, a review of the Maryland Department of Natural Resources's CORE/TREND biological monitoring data confirmed that observed dissolved oxygen levels, which can be an indicator of excessive nutrient levels, show no violation of Maryland's dissolved oxygen water quality criterion in the Lower Gunpowder Falls. Therefore, the results of the BSID study, combined with the dissolved oxygen analysis, indicate that the Lower Gunpowder Falls watershed is not impaired by phosphorus, and that a phosphorus TMDL is not needed at this time.



Thank you for the opportunity to review the Water Quality Analysis. If you should have any questions, please contact Helene Drago, TMDL Program Manager, at 215-814-5796.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon M. Capacasa", written over a circular stamp or seal.

Jon M. Capacasa, Director
Water Protection Division

cc: Melissa Chatham, MDE-SSA