



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

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

JUL 2 2009

Rich
Dear Dr. Eskin:

The U.S. Environmental Protection Agency (EPA), Region III, has reviewed the report "Water Quality Analysis of Zinc in Middle Patuxent River, Howard County, Maryland," which was submitted by the Maryland Department of the Environment (MDE) for final review on July 29, 2008.

EPA agrees with MDE that current data show that a zinc Total Maximum Daily Load (TMDL) is not necessary for Middle Patuxent River. Middle Patuxent River was listed by Maryland on its Section 303(d) list as impaired by zinc (1996), nutrients (1996), sediments (1996), and impacts to biological communities (2004).

The monitoring data collected demonstrated that zinc concentrations consistently remained below its water quality criterion. Zinc concentrations ranged from 5.09 $\mu\text{g/L}$ to non-detected levels. For all samples, hardness ranged from 50 mg/L to 119 mg/L. Zinc concentrations were well below the associated freshwater aquatic life chronic Hardness Adjusted Criteria (HAC). Furthermore, bottom sediment samples used for bioassay toxicity tests showed that there is no toxicity in the sediment as a result of zinc.

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

Sincerely,

Jon M. Capacasa, Director
Water Protection Division

cc: Melissa Chatham, MDE-TARSA

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SUBJECT: Approval of the Water Quality Analysis (WQA) of Zinc in Middle Patuxent River Watershed, Howard County, Maryland

FROM: Helene Drago, TMDL Program Manager *Helene Drago*
Office of Standards, Assessment and TMDLs (3WP30)

TO: Jon M. Capacasa, Director *JK*
Water Protection Division (3WP00)

THRU: Larry Merrill, Acting Associate Director
Office of Standards, Assessment and TMDLs (3WP30)

1. The Water Quality Analysis (WQA) for Middle Patuxent River documented that the impairment of zinc no longer exists. As such, TMDLs for this impairment are no longer necessary.
2. The WQA for Middle Patuxent River (Basin code 02-13-11-06) documented that the zinc impairment no longer exists since the concentrations remained below its water quality criterion. In addition, toxicity testing showed that zinc does not significantly lessen the survival or reproduction of aquatic life.
3. There were no comments received by Maryland Department of the Environment during the public review period.