



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

07 DEC 2005

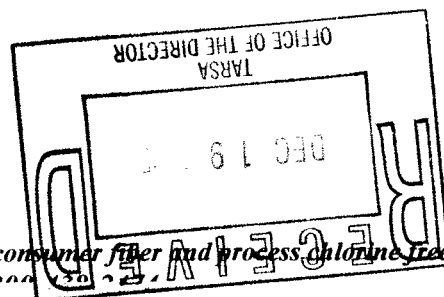
Dr. Richard Eskin, Ph. D., Director  
 Technical and Regulatory Services Administration  
 Maryland Department of the Environment  
 1800 Washington Boulevard, Suite 450  
 Baltimore, MD 21230

Dear Dr. *Rich* Eskin:

The U.S. Environmental Protection Agency Region III (EPA) has reviewed the report, "Water Quality Analysis of Zinc for the Northeast River, Cecil County, Maryland," which was submitted by the Maryland Department of the Environment (MDE) for final Agency review on July 29, 2005.

EPA agrees with MDE's determination that the recent data show that a zinc Total Maximum Daily Load (TMDL) is not necessary for the Northeast River. The Northeast River (basin code 02-13-06-08) was first listed by Maryland on its 1996 Section 303(d) list of water quality-limited segments as impaired by nutrients, suspended sediments, zinc and lead. The 2002 listing identified impacts to biological communities as stream impairments. All impairments were listed for the tidal waters except for impacts to biological communities, which are listed for the non-tidal region. The water quality analysis addresses only the zinc impairment. The listings for suspended sediments, lead, and impacts to biological communities will be addressed separately at a future date. A TMDL for nutrients was completed in 2004.

The monitoring data collected demonstrated that zinc concentrations consistently remained below the zinc water quality criterion. Zinc concentrations ranged from Not Detected to 8.09 µg/L. The detection limit was 0.08 µg/L. For all samples, hardness ranged from 17.55 mg/L to 36.9 mg/L. The zinc concentration range was well below the zinc fresh water aquatic life chronic hardness adjusted criteria. Furthermore, bottom sediment samples used for bioassay toxicity tests inferred that it is unlikely that zinc impacts survival and reproduction. If future evidence suggests that zinc deriving from the Northeast River watershed is contributing to water quality problems, then MDE will need to readdress the zinc impairment.



If you should have any questions regarding these reports, please contact Mr. Thomas Henry, TMDL Program Manager, at (215) 814-5752.

Sincerely,



Jon M. Capacasa, Director  
Water Protection Division

cc: Melissa Chatham, MDE-TARSA

