



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

JAN 18 2005

Richard Eskin, Ph.D., Director
Technical and Regulatory Services Administration
Maryland Department of the Environment
1800 Washington Boulevard, Suite 450
Baltimore, Maryland 21230-1718

Dear Dr. Eskin:

The U.S. Environmental Protection Agency (EPA) Region III has reviewed the Maryland Department of Environment's (MDE's) reports entitled "Water Quality Analyses [WQA] for Lead in the Inner Harbor/Northwest Branch and Zinc in the Inner Harbor/Northwest Branch and Bear Creek Portion of Baltimore Harbor in Baltimore City and Baltimore County, Maryland" and "Water Quality Analyses of Chromium in the Inner Harbor/Northwest Branch and Bear Creek Portions of Baltimore Harbor in Baltimore City and Baltimore County, Maryland," dated September 22, 2004 and August 23, 2004, respectively. At our request, EPA's Office of Research and Development, Atlantic Ecology Division (ORD) has also reviewed these reports. The Baltimore Harbor (basin code 02-13-09-03) was listed for toxic substances (and nutrients and suspended sediments) on the 1996 Section 303(d) list. Maryland refined the toxics listings in 1998 and listed the Inner Harbor/Northwest Branch for chromium, zinc, lead and polychlorinated biphenyls (PCBs) plus fecal coliform. Also, Bear Creek was listed in 1998 for chromium, zinc, and PCBs. The Baltimore Harbor was also listed for biological impairments in 2002.

EPA believes that MDE has used the best available science and an appropriate methodology to determine whether a water quality impairment exists for these metals (i.e., chromium, lead and zinc), given the levels of these metals in the bottom sediments in portions of Baltimore Harbor and Bear Creek and the exhibited toxicity to marine amphipods. We do not dispute the results or MDE's conclusions contained in these WQAs. However, we do recognize the efforts that are being undertaken by MDE in the form of a larger stressor identification study in the Baltimore Harbor system, in an attempt to resolve the biological impairment and proceed with total maximum daily load development (TMDL) for the appropriate pollutant(s). Thus, we feel that the best course of action at this point is to defer the 303(d) delisting decision until this study is completed, hopefully during the 2006 303(d) listing cycle. Accordingly, we agree that MDE may suspend its TMDL development activities for chromium, lead and zinc in the Baltimore Harbor and resume TMDL development if and when the classes or individual pollutants that are causing or contributing to sediment toxicity are identified. EPA would

support the removal of the chromium, lead and zinc impairments if MDE's stressor identification supports, to EPA's satisfaction, elimination of these constituents, or metals in general, as a cause of toxicity.

These water quality analyses for Baltimore Harbor and Bear Creek were conducted within the context of the toxics TMDL development as part of MDE's ongoing efforts pursuant to the Memorandum of Understanding between the State of Maryland and the EPA Region III, regarding Sections 303(d) and 303(e) of the Clean Water Act ("MOU"). It is important, however, to remember that Sections 303(d) and 303(e) are part of an overall system of water quality management created by the Clean Water Act. In this instance, the analysis performed by MDE in anticipation of establishing a TMDL has highlighted a potential inconsistency between the listed impairments and the suspected causes of sediment toxicity, as well as questioned the appropriateness of MDE's current listing methodologies for toxics in sediments. Accordingly, MDE has suggested and EPA agrees that the stressor identification study would be the most appropriate use of MDE's resources with respect to the Baltimore Harbor. We hope that this study will advance the science sufficiently for MDE and EPA to determine whether and which pollutant(s) are causing or contributing to sediment toxicity in Baltimore Harbor, such that TMDL(s) can be developed and MDE's 303(d) listing methodology for toxics in sediments can be revised as appropriate.

MDE has committed to conducting the stressor identification study for Baltimore Harbor, which has commenced and is expected to continue through 2005. This commitment and the technical analysis provided in MDE's WQAs for chromium, lead and zinc are consistent with MDE's 2004 commitments under the current MOU for addressing the metals impairments for waters in the Baltimore Harbor and Bear Creek contained on the 1998 Section 303(d) list. Although the water quality analyses will not at this time resolve the impairments identified on Maryland's Section 303(d) list, we agree that MDE's efforts are consistent with Maryland's obligations under the MOU. We expect that MDE's stressor identification study will be completed by the end of December 2005, and that following the study, MDE will commit to a schedule for completing the appropriate TMDLs for these waters as part of its MOU workplan commitments under Section II.G of the MOU.

We appreciate MDE's commitment in addressing this issue. If you have any questions, please contact Ms. Susan Sciarratta at 215-814-5733.

Sincerely,



Jon Capacasa, Director
Water Protection Division

cc: Melissa Chatham, MDE -TARSA