

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III 1650 Arch Street Philadelphia, Pennsylvania 19103-2029 2/27/2003

Richard Eskin, Deputy Director Technical & Regulatory Services Administration Maryland Department of the Environment 1800 Washington Boulevard, Suite 540 Baltimore, Maryland 21230-1718

Dear Mr. Eskin:

The U.S. Environmental Protection Agency (EPA), Region III has reviewed the Draft Final report entitled, "Water Quality Analysis of Eutrophication of the St. Mary's Lake, St. Mary's County, Maryland," submitted by the Maryland Department of the Environment (MDE) for final Agency review on December 20, 2002.

EPA concurs with MDE's determination that the recent data show that a nutrient total maximum daily load (TMDL) is not necessary for St. Mary's Lake. St. Mary's Lake was first listed by Maryland on its 1998 303(d) list of water quality-limited segments as impaired by nutrients, with sources identified as non-point.

The monitoring data collected show that Maryland's dissolved oxygen (DO) criterion, as interpreted for thermally stratified lakes, is being met for this lake based on its trophic classification. St. Mary's Lake has been classified as meso/eutrophic according to the "Maryland Water Quality Assessment Report, 1997." According to the interpreted DO criterion, the minimum hypolimnetic DO saturation should be 10% for this trophic status. The 2001-2002 data show that surface DO concentrations do not violate Maryland's DO criterion of 5 mg/l and hypolimnetic DO concentrations do not generally fall below 10% saturation, with few exceptions at the 4-5 meter depths. However, excursions of the DO criterion occur in less than ten percent of samples, which is acceptable per EPA-approved guidance, provided there are no indications that the designated use is impacted due to the parameter of interest.

Supporting data from 2001–2002 for nutrients and chlorophyll-*a* show total phosphorus concentrations ranging from 0.01 mg/l to 0.02 mg/l, total nitrogen ranging from 0.4 mg/l to 0.8 mg/l, and chlorophyll-*a* less than 8 ug/l. If in the future evidence suggests that nutrients from St. Mary's Lake watershed are contributing to water quality problems, then action will have to be taken.

If you have any questions, please contact me at (215)814-5715 or Mr. Larry Merrill at (215)814-5452.

Sincerely,

/S/

Joseph Piotrowski Office of Watersheds Water Protection Division

cc: James George, MDE