

Phosphorus in Tom's Creek

From Dr. Jeffrey A. Simmons, Mount St. Mary's University

Faculty and students at Mount St. Mary's University (MSMU) are spending the summer looking for sources of phosphorus (P) in Tom's Creek watershed. "Phosphorus is one of the leading causes of water pollution in Maryland and is one of the main causes of the decline in water quality in Chesapeake Bay," according to Dr. Jeffrey Simmons, Associate Professor of Environmental Science at MSMU, who is leading the study. The study began in December 2007 and will wrap-up at the end of this year.

Erin Arentz, a sophomore, and Dana Young, a junior, are both Environmental Science majors and are working in Dr. Simmons' Environmental Laboratory this summer. The three researchers are monitoring water quality at 15 sites throughout the watershed with special attention to phosphorus.

"As the data come in we can see what streams are carrying the greatest phosphorus loads," says Simmons. In general, phosphorus concentrations in Tom's Creek generally increase as one moves downstream. Most of the phosphorus inputs seem to be from wastewater.

This research project will culminate in a State of the Watershed report that will be available free to the public. Funders and other partners in this outreach effort are Mount St. Mary's University, Chesapeake Bay Trust, The New Forest Society, Emmitsburg Elementary School, Mother Seton School and the Frederick County Division of Public Works.