



NEWRnet

Delaware • Rhode Island • Vermont



*North East Water
Resources Network*

Undergraduate Research Symposium

Saint Michael's College
Colchester, VT

August 11, 2015





Grace Lowe

Examining Stakeholders' Decisions Related to Water Quality:

Are we blinded by the status quo?



SOCIAL ECOLOGICAL SIMULATION OF FARMER'S DECISION TO FERTILIZE FIELD BASED ON WEATHER UNCERTAINTY

The background image shows a river with a rocky bed in the foreground. In the middle ground, there is a small concrete dam or weir with water flowing over it. The river is surrounded by dense green trees and foliage. The sky is clear and blue.

Water Quality of Brandywine Creek and Urban Runoff Sources in Wilmington, Delaware

Shawn DelPercio



Managing Urban Runoff

Kaitlynn Ritchie

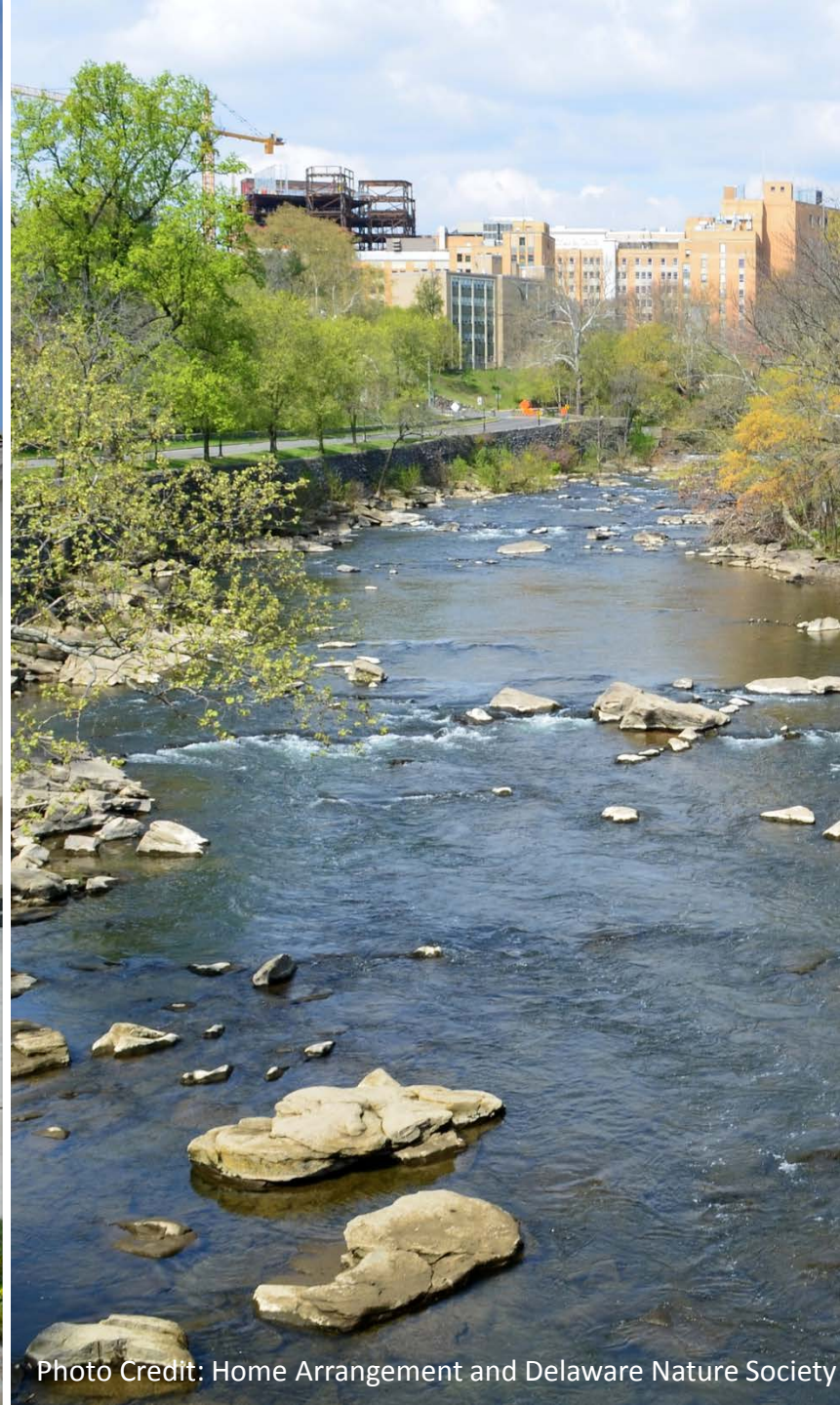
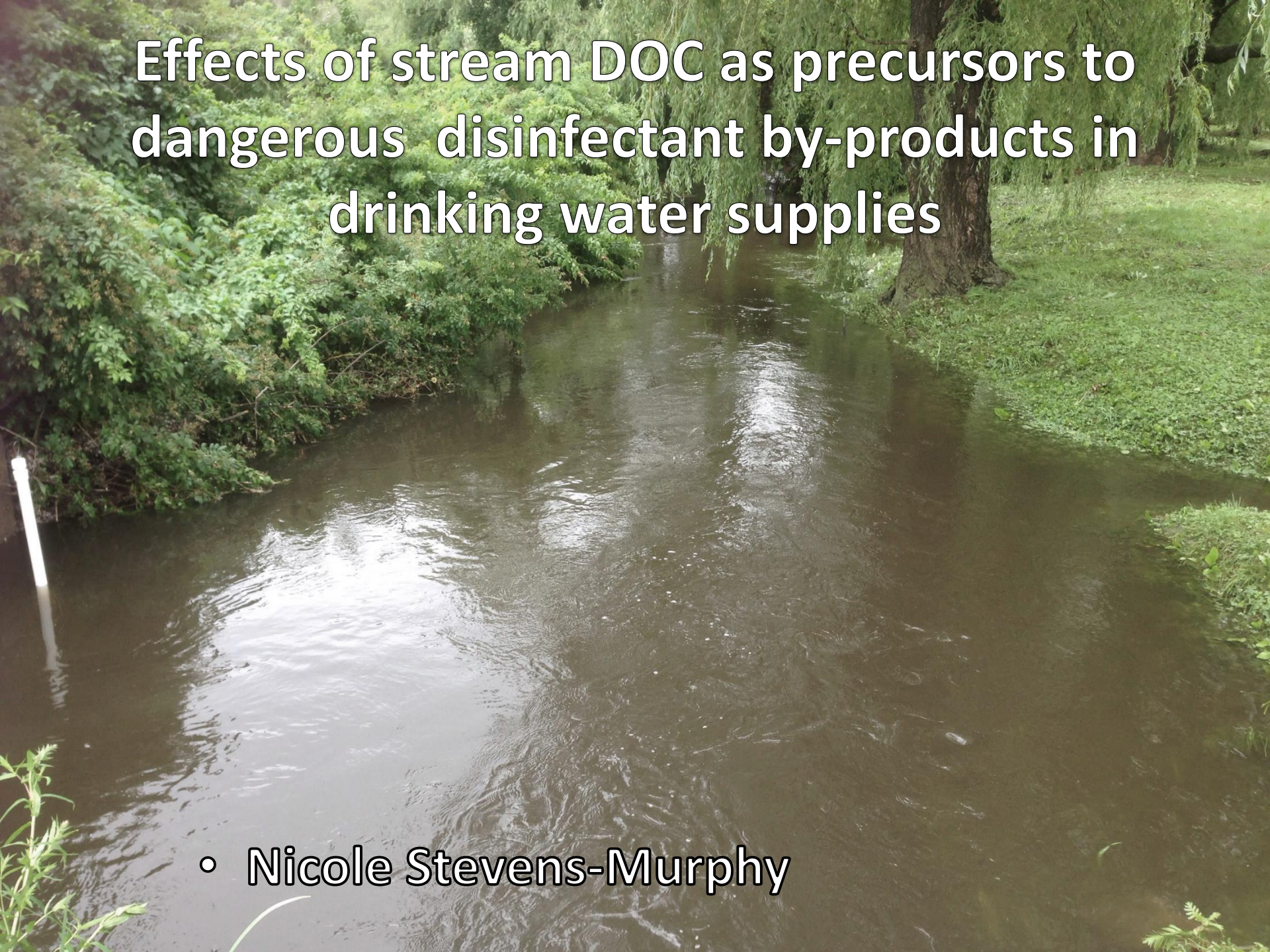
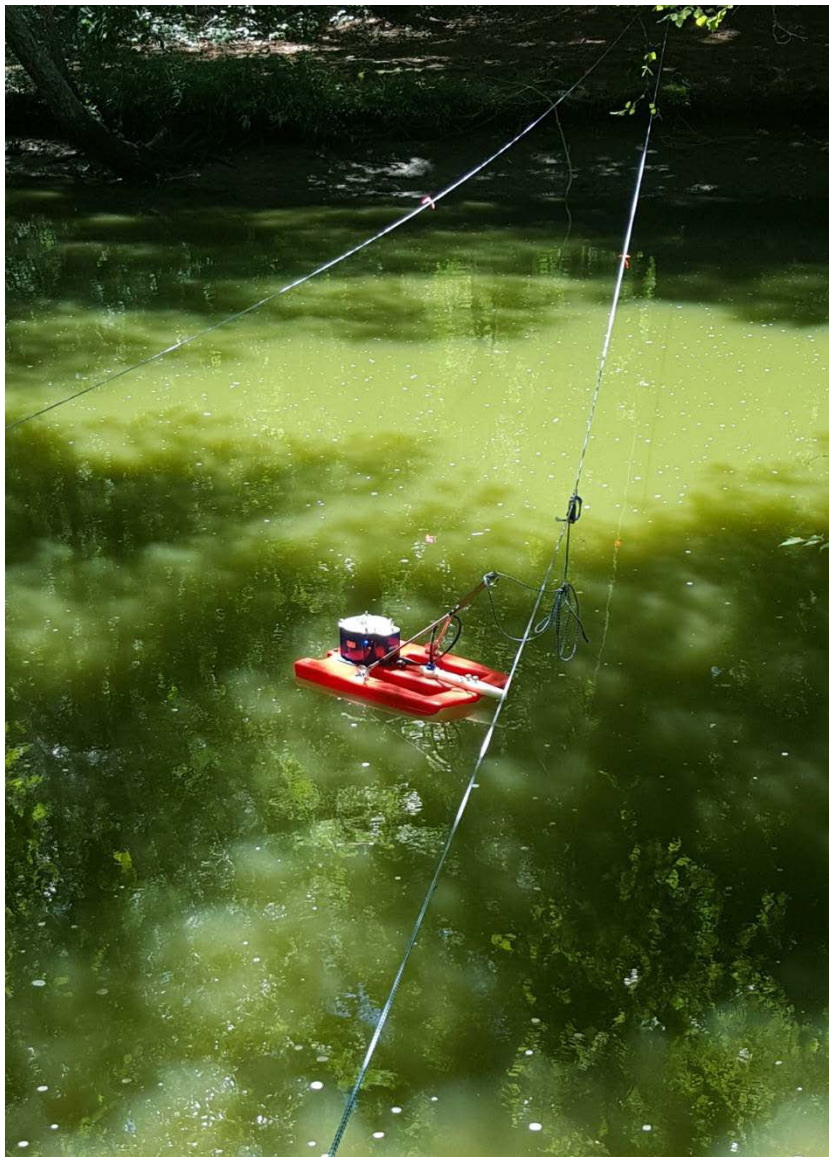


Photo Credit: Home Arrangement and Delaware Nature Society



Effects of stream DOC as precursors to dangerous disinfectant by-products in drinking water supplies

- Nicole Stevens-Murphy



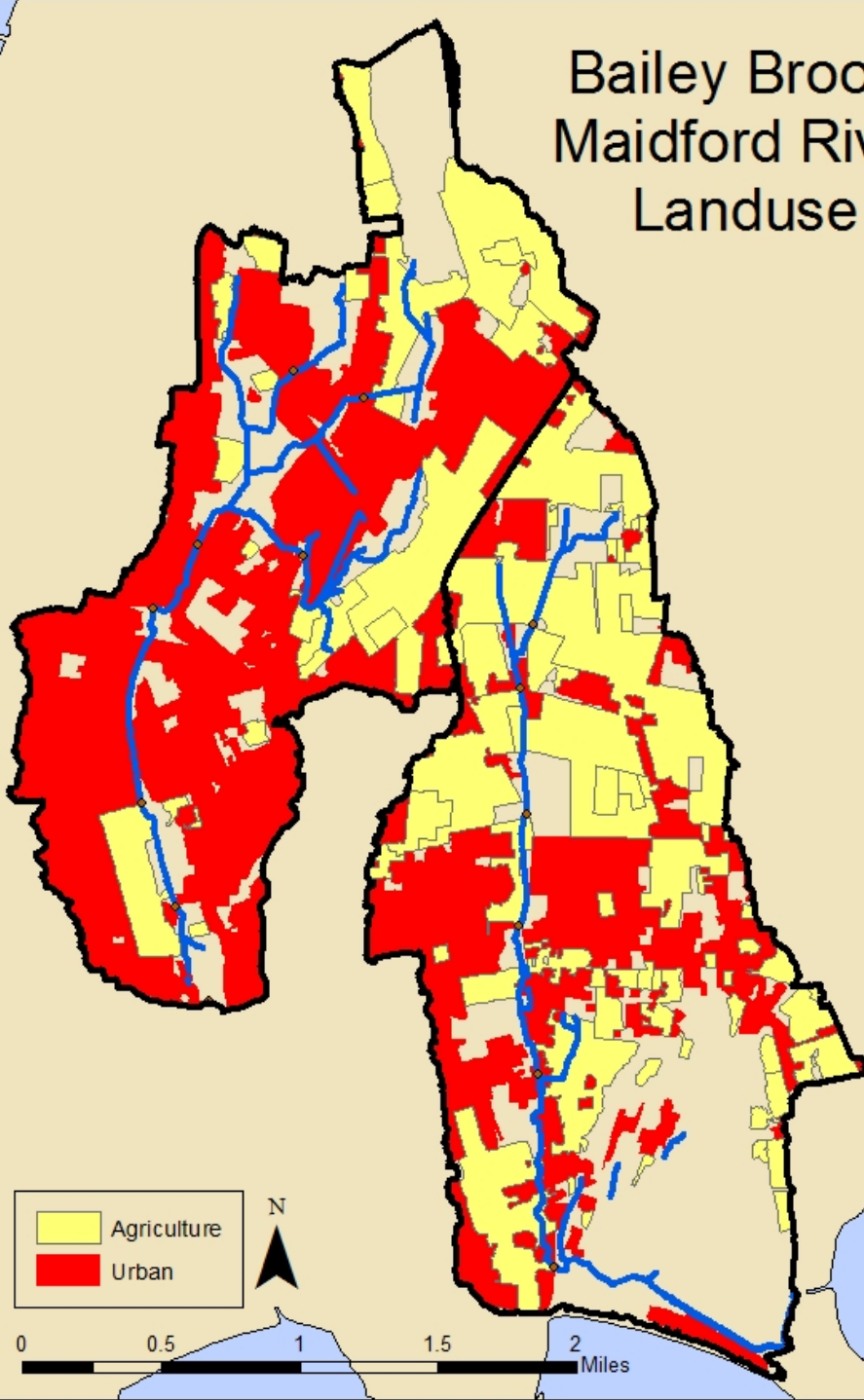


Regional Variation in American Beech Leaf Leachate

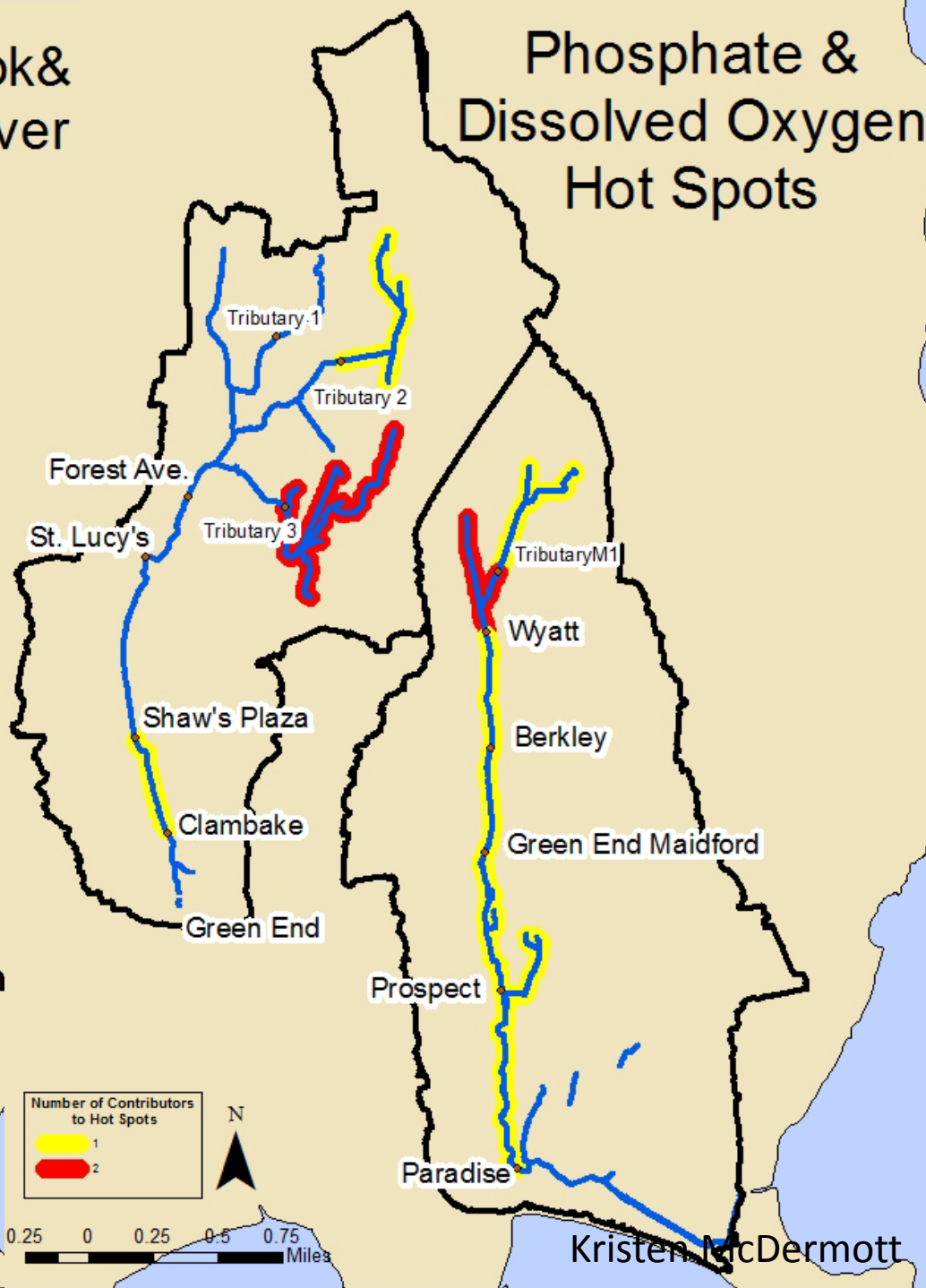
Kathryn Wheeler
University of Delaware



Bailey Brook & Maidford River Landuse



Phosphate & Dissolved Oxygen Hot Spots



Blue-Green Algae Blooms

- **Algae blooms**
 - **Organic matter**
 - **Watersheds**
 - **Particulate organic matter (POM)**
 - **Storms**
 - **Dissolved organic matter (DOM)**
 - **Algae blooms**
 - **POM quantity & quality**
 - **Importance**

Caraline Canning

Picture Source: Zwick, J. (2009, September 11). In Chesapeake Bay, It's The EPA Vs. Federalism. Retrieved August 10, 2015.

Using Rhodamine Dye to Quantify Incoming Solar Radiation Along Streams with Heterogeneous Canopy Cover



Kristen McCarthy

A close-up photograph of a person's face, focusing on their nose and mouth as they drink from a clear plastic bottle. A clear straw is inserted into the bottle, and the person's lips are around it. The bottle contains a light-colored liquid with some small, dark specks. The background is blurred, showing more of the bottle and the person's hand holding it.

Behavioral Responses to Arsenic and Lead Exposure: A Field Study

Daniel Awokuse

Dr. Kent Messer, Dr. Maik Kecinski, Walker Jones

Modeling BDOC using senor data

by Harrison Miller

-Problem: Pollution runs into the lake from the watershed above

- Project: Create a model that predicts BDOC from sensor readings.

- Benefits of project:
Gives more descriptive data on pollution in the lake.





Water Quality Monitoring using an Autonomous Surface Vehicle



Resident Decision Making on Lawn Care Practices

How you manage your lawn can affect the watershed!

Using an evaluation survey as a tool for this project

What Incentives can be offered?

- Money?
- Warm glow?
- Beating your neighbor?



Using Experimental Economics to understand decision-making processes in relation to fertilizer use, revenue, and vegetative

