Interdisciplinary Consortium for Applied Research in the Environment

National Science Foundation Research Training Grant

Broadening Participation Across the Environmental Sciences in & around Baltimore Harbor

ICARE
Ecology • Engineering • Social Science • Policy

NSF

UMBC

Project Title: Evaluation of stream temperature data from Baltimore City to detect illicit discharges to the storm sewer system

UMBC mentor name & department: Dr. Claire Welty, Chemical Biochemical, and Environmental Engineering

Partner mentor name & institution: Kim Grove, P.E., Baltimore City Department of Public Works

Brief project description:

Baltimore City DPW is in the process of replacing the gages of their existing flood monitoring system throughout the city. As part of this network, ambient air temperature sensors and stream temperature sensors will be deployed. The goal of this project is to evaluate the collected data, to pinpoint stream temperature anomalies that may be indicate illicit discharges to the storm sewer system and to track down those sources for repair and removal from the storm drain system. These discharges may include water main breaks and sanitary sewer cross-connections or exfiltration. The potential impact is to enhance the current illicit discharge detection and elimination program.