GENERAL INFORMATION

Program sponsor: Princeton Environmental Institute

Position number: W1TWI2

Project title: Water Quality Study of Delaware Watershed Tributaries

Organization/research group: The Watershed Institute - Department of Science and Stewardship

Primary location(s) of internship: Pennington, NJ

Additional cities and/or countries to be visited (if applicable): n/a

Note: If this internship is located in a country with an International SOS risk rating of High or Extreme, final candidates must participate in a travel review process overseen by the Travel Oversight Group (TOG), and obtain safety guidance prior to departure. The University reserves the right to revoke support and funding for travel at any time there has been a significant deterioration in the safety and security conditions surrounding travel arrangements, or in the sector of the country, or countries, where travel is to occur.

FACULTY SPONSOR(s)/HOST INFORMATION

Name(s): Steven Tuorto, PhD - Director of Science and Stewardship

University Department(s): The Watershed Institute - Department of Science and Stewardship

E-mail: stuorto@thewatershed.org  Phone: 609-737-3735

Website: thewatershed.org

INTERNSHIP/RESEARCH PROJECT INFORMATION

Internship/project description:

In the summer of 2017, The Watershed Institute launched a series of comprehensive water quality monitoring studies that are aimed at better understanding the timing and magnitude of water quality and hydrological phenomena with respect to land usage, land change, and evolving climate. This started with Jacob’s Creek in Hopewell Twp. in 2017, representing a tributary sub-watershed of the Upper Delaware Watershed that is mostly rural with interspersed suburban development and agricultural land; with a comparison urban study being started in the Assunpink watershed in 2018. Baseline field sampling for chemical and biological indicators, as well as continuous monitoring by data-loggers is ongoing. Maintenance and expansion of the study as well as the beginning of data analysis is planned for the summer of 2019.

Student’s role and responsibilities:

The 2018 PEI intern would continue the field monitoring and maintenance of sites and data loggers; design and perform a targeted sampling regime based on timing of weather events; collect field data as part of a cooperation with Stroud Water Research Center to create stream discharge ratings curves using Mayfly Data Loggers; compile and analyze data w/r/t weather events and land usage adjacent sites; begin planning the startup of a comparison stream study targeting a variation in land-use types around the site.
Internship/project learning objectives:
The student should gain a general knowledge of watershed science and health. They will gain the skills of monitoring biological, chemical and bacterial water quality, and how to use the associated field and lab equipment. They will become experienced in communicating their knowledge to a broad constituency that the Watershed Institute interacts with including: residents at farmers markets and tabling events; high school age watershed summer academy students; adult learners in the watershed summer teachers academy.

PROGRAM REQUIREMENTS

Academic background and any course pre-requisites:
Introductory biology or environmental science or equivalent.

Technical skills:
None; experience in the field helpful.

Additional training(s):
n/a

Equipment:
n/a

Physical demands:
Hiking and wading in streams, carrying light equipment as well as outdoor work in summer climate will be required.

Language abilities/competencies (if applicable):

Additional information about the internship/project:
The Intern may be called upon to assist with other science projects at the organization or public education programs such as assisting with the annual Watershed Butterfly Festival.

INTERNATIONAL TRAVEL REQUIREMENTS (if applicable)

Visa(s) required?
Yes □ No □

Research permit/pass required?
Yes □ No □

Immunizations required?
Yes □ No □

INTERNERSHIP/PROJECT SUPERVISOR(S)

Name and title of primary supervisor: Steven Tuorto, PhD - Director of Science and Stewardship
Email: stuorto@thewatershed.org  Phone: 609-737-3735

Name and title of additional supervisor, if applicable: n/a

E-mail:  Phone: 

PROGRAM DATES AND FUNDING INFORMATION

Weekly Stipend: $500

Number of Positions Available: 2

Tentative Start Date (mm/dd/yyyy): 05/27/2019

Number of Weeks: 12 (flexible)

Tentative End Date (mm/dd/yyyy): 08/16/2019

Note: PEI funding is for full-time work, 35 hours per week minimum, and for a period of at least 8 continuous weeks.

Application Deadline: January 11, 2019