SUMMARY

Millersville University’s Drs. Nanette Marcum-Dietrich and John Wallace collaborated to create the Watershed Education Training Institute (WETi). The Institute partners with Lancaster Conservancy and Stroud Water Research Center to create and conduct watershed educational programs and educator training. This facility is located at Creek Lodge on the Conestoga River. Water is one of our most valued natural resources, and conserving water quality is an issue of increasing importance for all of us in the Chesapeake Bay Watershed area. The Institute teaches Lancaster County students, MU undergraduates and educators how to monitor water quality in our communities. The institute works with Millersville University faculty and students to raise awareness and advocacy for watershed conservation.

CHALLENGE

Within the Chesapeake Bay watershed, Millersville University lies inside the Conestoga River catchment. This region has been impacted by land-use changes for centuries. To ensure the conservation and protection of this watershed and others in Pennsylvania, students in the region must better understand personal and policy options for driving positive change. WETi faces the challenge of promoting an increased environmental literacy among today’s youth and broadening the participation of Lancaster youth in watershed conservation. Increasing communal environmental literacy, watershed stewardship and student/faculty research for the region also presented the challenge of developing innovative science-based programs that address the impact of historically destructive land-use practices and policies across multiple watersheds. To overcome these challenges, WETi set out to host camps and school programs, each requiring a lead educator (from the Stroud Water Research Center), an MU student co-educator, and a limited amount of disposable laboratory materials.

FUNDING

Grant Award: $2,500.00
Match: $2,500.00
Total Project Cost: $5,000.00

PARTNERSHIP IS KEY

Our partnership with Stroud Water Research Center’s Education Department allows us to plan and offer the highest quality watershed curriculum and instruction (PA Association of Environmental Educators, Outstanding Program Awardee). Stroud Educators lead the programs assisted by Millersville University Science and Science Education students.
WETi partnered with Stroud Center to develop higher quality curriculums filled with hands-on activities for incoming groups. In 2017, Weti hosted 8 programs focused on promoting watershed education among Lancaster’s youth. This included 4 camps for TechGYRLS, a program from the Lancaster YWCA aimed at empowering girls aged 9-14 to engage in and pursue STEM related careers and activities. Migrant Communities, an educational program for migrant and refugee students in grades 7-11 also participated in 3 days of camp at WETi. This provided under represented students with the opportunity to experience STEM driven activities in relation to watershed conservation. WETi also hosted one day of camp for the local Lego League Robotics club field camp, and even held 3 sessions of the Stream to Sky program, an early childhood education teacher workshop aimed at integrating STEM education in K-12 students.

RESULTS

Many of the events hosted by WETi in 2017 were so successful that they can be seen again on the upcoming 2018 schedule of events. Groups such as the TechGYRLS and Migrant Communities will be returning to WETi in the summer of 2018 for more stimulating camp experiences. In fact, following TechGYRLS’ 2017 visit at WETi, camp counselor Katie Nordhoff reached out with these sentiments: “Our trip to Millersville was hands-down our campers’ favorite, so I’m hopeful we can provide them with this opportunity again.” In evaluations handed out to participants of the Stream to Sky event, nearly all responses indicated that the program was, “very useful”, “interesting,” and capable of being integrated in the early childhood classroom. Evaluation methods are also observed during the programs. For example, during the Migrant Communities workshop, students created several K-W-L charts to log what they learned before, during and after the program. Evaluation methods such as group participation, questioning, and verbal assessments were also used during programs to ensure students are grasping the information being articulated.