

# 2020 MWEE Award Winners

## High School Student Designs Pennsylvania MWEE Logo

### Caris Daneker Conestoga Valley High School

The NOAA-funded PA Watershed Education Task Force is proud to unveil a new graphic logo that will be used statewide for MWEE programming, awards, certifications, and more! The graphic designer behind the logo is Caris Daneker. Caris is a junior at Conestoga Valley High School, one of three recipients of the 2020 MWEE School of Excellence Award. She has taken a variety of technology education classes, including Graphics and TV Studio, which aided her in her design process. When she is not studying for classes, Caris participates as a leader in Scouts BSA, Venture Crew, and National Youth Leadership Training. She is also an active member in National Honors Society, Tri-M Honors Music Society, Science National Honors Society, and Technology Student Association. You can also find her on the field playing lacrosse as a goalie. Caris loves finding new ways to get involved in her school and community.



Meaningful Watershed  
Educational Experience



## 2020 MWEE SCHOOL OF EXCELLENCE AWARD



### Carmichaels Area Middle and Senior High School

Carmichaels Area Middle and Senior High School is recognized for their outstanding MWEE implementation in western PA through their "Habitat Restoration at the Ferncliff Peninsula at Ohiopyle State Park" programming. In partnership with the California University of Pennsylvania, Ohiopyle State Park, Chestnut Ridge Chapter of Trout Unlimited, and PA Fish and Boat Commission, and with funding from the Greene County Community Foundation EITC, Toyota Tapestry, Pennsylvania American Water, and Project Learning Tree, 6th-12th grade students participate in hands-on, investigative watershed education activities built around the Youghiogheny (Yough) River.

These watershed educational experiences include environmental STEM career exposure during expert-led plant identification hikes, herbaceous vegetation data collection, aquatic macroinvertebrate kick-net sampling, water chemistry measurements, and electrofishing surveys. In 2014, students' in-depth,

# 2020 MWEE SCHOOL OF EXCELLENCE AWARD

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research-based learning experiences culminated in a student-led stewardship and civic action project to restore habitats affected by invasives and deer both on the school nature trail and Ohiopyle State Park's Ferncliff Peninsula. Students began by propagating a variety of native trees and perennials from seeds in the school's Native Plant Greenhouse, followed by a tree planting at Ferncliff Peninsula and perennial pollinator garden planting at the Ohiopyle State Park Visitor Center. The schools continue to provide exceptional and inclusive MWEE programming for the next generation of watershed stewards. Special thanks to Fred Morecraft, superintendent; Lisa Zdravecky, high school principal; Ronald Gallagher, middle school principal; Kevin Willis, conservation biology teacher; Megan Patton, 6th grade science teacher; Justin Allen, 8th grade science teacher; and Ken Perkins, 7th grade science teacher.

## 2020 MWEE SCHOOL OF EXCELLENCE AWARD



### Halifax Middle School

Halifax Middle School is recognized for their outstanding MWEE implementation in central PA through their "Halifax Middle School Environmental Field Day" programming. Located in a rural farming community, the school has a demonstrated commitment to creatively engaging students in hands-on career exposure and watershed education. Following several single-day student field experiences with the Chesapeake Bay Foundation (CBF), seventh-grade students were inspired to share their field experiences school-wide. By the fall of 2017, students and 7th-grade science teacher Jessica McGuire

collaboratively planned and led the first Halifax Middle School Environmental Field Day in partnership with environmental professionals from across the mid-state region.

The organizations, including CBF, DCNR-Bureau of State Parks, the Ned Smith Center, Trout Unlimited, Pennsylvania State University Extension, and the US Department of Agriculture, led interactive sessions about various natural and environmental topics. With powerful connections to year-round MWEE programming, the multi-grade, multidisciplinary field day provided unique engagement for all students in environmental careers and their backyard natural resources. Passionate 6th-12th graders in the Student Environmental Action Club, meanwhile, continue to participate in all four elements of the MWEE, survey the student body on topics they'd like represented at future field days, and take leadership in the field day's continued implementation for years to come. In May 2020, Halifax Middle School looks forward to its third Environmental Field Day in 2020, with student leaders at the helm.

# 2020 MWEE SCHOOL OF EXCELLENCE AWARD

## Conestoga Valley High School

Conestoga Valley High School (CVHS) is recognized for their outstanding MWEE implementation in eastern PA through their “CV Recycles” programming. With efforts led by assistant principal Dr. Matt Fox and science and technology education department teachers Mrs. Kerrie Snavelly and Mr. Tom Care, CVHS students formed a “CV Green Team” to improve on-campus recycling, in addition to constructing a 6-foot tall environmental art and awareness sculpture on school property. The story begins with Freshwater Biology students, who identify issues in the local watershed during year-round MWEE programming.



Students became deeply interested in the lack of a recycling program at CVHS, leading Fox to institute student-led special services who collect recyclables: the “CV Green Team.” To spark student interest in the CV Green Team, Freshwater Biology and Metal 2 students and teachers collaborated on an innovative action project – 6-foot tall wire letters spelling “CV RECYCLES” and filled with recyclable materials. Funded by the Pennsylvania Association of School Retirees, the project was no simple feat. First, the letters were designed by students on a Computer Aided Design (CAD) program and cut from metal with the Plasma CAM (an automated plasma cutting machine). The letters were then covered with expandable mesh, painted, installed in the center of the traffic circle in front of the school, and filled with recyclable materials collected by students, indicating to the community that the high school “RECYCLES.” The project remains a resounding success for the students and the “CV Green Team,” boosting the CV Green Team’s collection of recycled materials so greatly that CVHS was nationally ranked in the PepsiCo Recycle Rally. Conestoga Valley School District remains proud of the students’ efforts and continued enthusiasm in growing local watershed stewardship and awareness.

# 2020 MWEE PARTNER OF EXCELLENCE AWARD



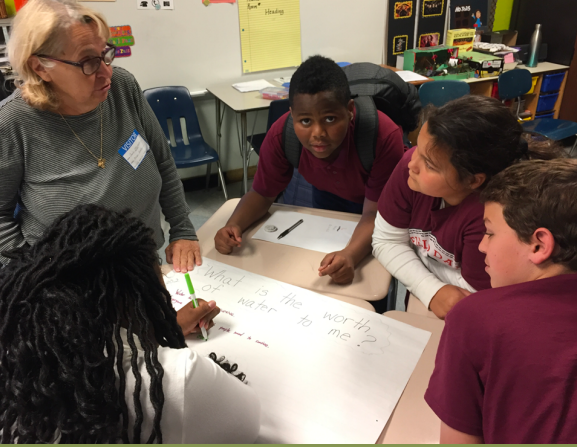
## Little Sewickley Creek Watershed Association

Little Sewickley Creek Watershed Association (LSCWA) is recognized for their outstanding MWEE partnership with Quaker Valley High School in western PA through the “Amphibian Wetland Restoration Project.” The partnership dates back to 2009, when LSCWA began their ongoing sponsorship of the QV Creekers High School Environmental Science Internship program, a two-year appointment that allows high school students to work alongside environmental professionals to biologically and chemically monitor the health of the Little Sewickley Creek watershed.

Throughout the decade-long partnership, LSCWA has actively engaged the young “Creekers” in all four MWEE elements with a special emphasis on stewardship and civic action projects, including wildlife habitat restorations, riparian tree plantings, creek trash clean-ups, and fish diversity inventories,

to both benefit the watershed and provide project-based learning opportunities for the interns. One of the most meaningful projects occurred in 2015 at a local sewage plant, where a breeding pond for a population of the rare Jefferson salamander had inadvertently been destroyed. In partnership with LSCWA, volunteers, and multiple community partners (Bell Acres Borough, Fern Hollow Nature Center, Sewickley Heights Borough, Western PA Conservancy, Allegheny County Conservation District, Creek Connections, Robert Morris University, and the Bell Acres Municipal Authority), the LSCWA-sponsored interns acted as the “boots on the ground” to construct two new wetlands for the rare amphibians.

## 2020 MWEЕ PARTNER OF EXCELLENCE AWARD



### Fairmount WaterWorks

Fairmount Water Works (FWW) is recognized for their outstanding MWEЕ partnership with the School District of Philadelphia in eastern PA through the "Understanding the Urban Watershed Curriculum Project." The project was launched in 2014 with generous support from the William Penn Foundation. Since opening in 2003 as the education center for the Philadelphia Water Department (PWD), FWW has become a hub for STEAM and environmental education, scientific research, and community engagement. The partner is uniquely positioned to serve teachers and schools equitably throughout Philadelphia's urban watershed, connecting each school with locally relevant watershed projects in and around their neighborhoods.

This highly engaging, cross-disciplinary standards-driven curriculum is a collaborative effort of FWW/PWD, the School District of Philadelphia, and the district's GreenFutures Sustainability Plan. As of 2019, it has been implemented by 54 teachers to serve more than 2,250 students district-wide. Six units completed in the classroom combine with hands-on outdoor field experiences to engage middle schoolers in real-world, place-based, and learner-centered watershed education. Locally based lessons and field trips empower students to become active participants in 21st-century solutions to urban water issues in their own neighborhoods and communities. FWW also provides robust professional development workshops, during which teachers model MWEЕs during watershed field experiences, on-the-water experiences, and engineer-led explorations of drinking water and wastewater treatment facilities. The curriculum and related high-quality MWEЕ programming by FWW continues to engage an expanding number of teachers and schools across the district.

## 2020 MWEЕ PARTNER OF EXCELLENCE AWARD

### Lackawanna and Nescopeck State Parks

Lackawanna and Nescopeck State Parks are recognized for their outstanding MWEЕ partnership with 16 high schools representing thirteen school districts in eastern PA through their "Community Connections to Our Watershed" Environmental Forum program. Since 2000, the two parks have collaboratively engaged 2,000 9th-12th grade students in MWEЕs while utilizing the DCNR-Bureau of State Park's Watershed Education curricula as a guide. From the local ridges of the watershed divides to the valley floors, teams of five students and their advisor participate in seven outdoor field experiences throughout the school year with hands-on investigations and citizen science opportunities in the Susquehanna River and Delaware River watersheds.



Students learn about local environmental topics like abandoned mine drainage, climate change, natural gas drilling, stormwater runoff, drinking and wastewater treatment, and sustainable systems to name a few. Participants meet many professionals from the environmental community and are exposed to a variety of careers. MWEЕs don't end when students head back to the classroom; each team designs and completes a culminating stewardship and action project. Over 100 students from both parks present their projects at a final spring session. Previous projects include riparian plantings, illegal dumpsite clean-ups, habitat enhancement, educational campaigns, leaf pack studies, recycling projects, alternative energy installations, and rain garden installations. All projects benefit students' local communities for memorable and meaningful watershed experiences. To wrap up the year, the entire group is invited to participate in a kayak experience on the Susquehanna River. This on-the-water experience acts as a capstone to solidify this most meaningful watershed year.