Project Description - The Elk Creek, Lake Erie Healthy Watershed Project stabilized a severely eroding 20-foot streambank cliff along Elk Creek at the Western Pennsylvania Conservancy's (WPC) Lower Elk Creek Nature Reserve in Girard Township, Erie County. The project constructed an engineered 10-foot-high x 600-foot-long tiered-stone wall and eight in-stream bendway weirs to redirect flow toward the creek's center and protect CSX railroad culverts. A one-acre riparian buffer was also planned for post-construction planting.

This restoration was vital to reduce 31 tons of sediment, 292 lbs. of nitrogen, and 59 lbs. of phosphorus entering Elk Creek annually, preserving its high-quality, coldwater habitat and improving safety at a popular fishing site.

Project Timeframe – December 31, 2020 through December 31, 2022

Project Results

- Installed a 600-foot tiered-stone wall, five stone keyways, and eight bendway weirs to stabilize the streambank and center channel flow.
- Reduces an estimated 31 tons of sediment, 292 lbs. nitrogen, and 59 lbs. phosphorus from entering Elk Creek annually.
- Eliminated severe erosion threatening nearby infrastructure and habitat.
- Fostered collaboration among WPC, CSX, WSP USA, ROCK of WNY, and agencies including DEP, USACE, DCNR, PFBC, and Erie County Conservation District.
- Strengthened public safety and enhanced habitat for steelhead trout and native aquatic species.

Project Costs - $300,000.00 EPA Section 319(h) plus $520,340.72 in matching funds

Summary - Despite weather delays and cost increases, the project was completed successfully, stabilizing the streambank, reducing pollutant loads, and improving watershed health. WPC and partners will continue maintenance for at least 20 years and complete the one-acre riparian planting in spring 2023. Results will be shared via the WPC website, partner meetings, and educational workshops to promote similar stream restoration efforts across the Lake Erie watershed.