

**Pennsylvania Coldwater Heritage Partnership
Implementation Grant Final Report
2018 Kish Park Stream Improvement Project
Mifflin County Conservation District**

Public Meeting

A public meeting was held at Kish Park on June 28, 2018 to inform the public and conservation partners about the proposed stream improvement project at Kish Park. This meeting covered the reasons for the project, project goals, the implementation plans for fish habitat structures and a riparian forest buffer planting, the funding sources, etc. This meeting was led by the Mifflin County Conservation District and Brian S. Auman/Landscape Architecture. The meeting was attended by Derry Township personnel, Kish Park staff, Penn's Creek Chapter of Trout Unlimited, PA Game Commission, and members of the community.

Before and After Photos



Project Summary:

Kish Park is a community park located in Derry Township of Mifflin County. Formerly known as “Derry Community Park”, Kish Park is owned and maintained by Derry Township. The park has a rich history of land uses and the property has undergone several major transformations in its lifetime. From an electric trolley car park, to a privately owned amusement park, to the current existence as a public park, Kish Park has seen a rich variety of uses. The Mifflin County Conservation District (MCCD) has been involved in several conservation efforts at Kish Park including the “*Lower Kishacoquillas Creek Watershed Assessment*” completed in 2005 through a DEP Growing Greener Grant and more recently, an effort to re-establish canopy trees at the park through a Department of Conservation and Natural Resources (DCNR) Tree Vitalize grant. The MCCD remained involved with Kish Park and Derry Township while applying for a DCNR riparian buffer grant to fund riparian forest buffer establishment across the county. The MCCD was awarded the grant in 2016 and met with Derry Township and the Derry Township Tree Committee in March 2017. At this meeting a larger proposal was suggested by the MCCD to include fish habitat and bank stabilization improvements in addition to the riparian buffer as part of a comprehensive restoration effort.

Kishacoquillas Creek (Kish Creek) runs along the eastern boundary of Kish Park and is designated as a High Quality Coldwater Fishery and Migratory Fishery (HQ-CWF, MF) this reach is also classified as a Class A Wild Trout stream by the PA Fish and Boat Commission. There are approximately 3,700 linear feet of stream bank along the main channel of Kish Creek and another 1,400 feet of an unnamed tributary that parallels Kish Pike along the south western edge of the park. Several efforts were completed to assess the water quality and habitat at Kish Park as part of the “*Lower Kishacoquillas Creek Watershed Assessment*” completed by the MCCD and the Lewistown Area High School for the Penn’s Creek Chapter of Trout Unlimited in 2005. The parameters assessed included; water chemistry, habitat conditions, and biological assessments.

To build on past data, and to give a snapshot of the current surface water conditions, several additional assessments were conducted between 2016 and 2017. Macro-invertebrate sampling was conducted as part of the Mifflin County High School “Ecology of Mifflin County” class in 2016 and 2017. Habitat assessments were also completed, and indicated that the existing habitat conditions were suboptimal. Stream bank erosion pins were also installed in early October 2017, at several locations. Pins were monitored for 2 years and revealed an erosion rate of approximately 8-10” per year.

To address these issues the Pennsylvania Fish and Boat Commission was contacted to design a fish habitat enhancement plan to help improve habitat and also stabilize eroding stream banks at Kish Park. In the fall of 2018 and the spring of 2019 thirteen fish habitat enhancement structures were installed along Kishacoquillas Creek. The CHP implementation grant covered material for this project, while the additional costs for the installation was covered by a National Fish and Wildlife Foundation grant.

Project Outcomes:

The specific outcome for this project was the installation of 13 fish habitat enhancement structures, along 1,300 feet of Kishacoquillas Creek. These structures provide; 1.) enhancement for fish habitat, 2.) access for recreation and 3.) stabilized stream banks. Additional outcomes of the project, funded by other sources (DCNR grant), will include approximately 4 acres of newly established/enhanced forested riparian buffer along the Kishacoquillas Creek and its associated tributaries.

Project Sustainability

Derry Township, as well as the Mifflin County Conservation District and Penn's Creek Chapter of TU, are committed to the success of this project. Structures are expected to require little to no maintenance, but will be regularly evaluated as outlined in the District Landowner Agreement between Derry Township and the Mifflin County Conservation District.

Next phase or future projects

Additional riparian buffer plantings will be completed during 2019-2020.

Partners and Volunteers

- Mifflin County Conservation District – submitted applications for grants, completed permitting, contract documentation, project oversight and coordination
- PA Fish and Boat Commission – habitat improvement plan, structure installation, and donated materials
- Flyway Excavating – structure installation
- Derry Township/Kish Park – project coordination, donated labor, structure installation
- Penn's Creek Chapter of Trout Unlimited – volunteers
- Brian S. Auman/ Landscape Architecture – meeting facilitator
- National Fish and Wildlife Foundation – grant provider
- PA Department of Conservation and Natural Resources – grant provider

Accomplishments and Outputs

Major accomplishments of this project are the multiple environmental benefits afforded by the comprehensive restoration effort. The natural resource of concern was Kishacoquillas Creek which will directly benefit from instream habitat enhancements, stabilized stream banks, and a restored riparian corridor. Several additional benefits were also achieved through this project including improved access to Kish Creek for recreation, improved aesthetics through intentional riparian buffer plantings, and water quality improvements (through nutrient and sediment reductions).