

Hosensack Creek Conservation Plan – Executive Summary

The Hosensack Creek is a tributary to the Perkiomen Creek, the largest sub-watershed within the Schuylkill River network. The Upper Perkiomen Creek includes communities in western Montgomery County, portions of western Lehigh County and southern Berks County. The region is largely rural but the historic villages tell the story of longstanding agrarian communities and a deep connection to the land. Well-maintained properties illustrate a strong stewardship ethic among the residents. The abundance of undeveloped natural areas is a reflection of this stewardship ethic, as well as the local geology and the general distances to larger economic centers.

The Hosensack Creek rises primarily in Lower Milford Township, Lehigh County but includes headwaters areas in Upper Milford Township and a named tributary, Indian Creek, that also rises in Upper Milford Township, Lehigh County. The Hosensack Creek passes through a short section of Upper Hanover Township in Montgomery County before it joins the Perkiomen Creek at the village of Palm.

The Hosensack Creek watershed is a well-vegetated landscape that protects local water quality from the impacts of excess erosion, stormwater impacts, agricultural run-off and the other non-point source pollutants that have impacted many other areas of the Perkiomen Creek.

The goal of the Hosensack Creek Conservation Action Plan is to establish a guidance document that can be used by municipal officials, businesses and residents to ensure that the natural areas, lawns and agricultural lands are managed in ways that protect water quality in the Hosensack Creek.

The Hosensack Creek Conservation Action Plan has been funded by Coldwater Heritage Foundation, a collaborative effort between the PA Fish & Boat Commission, the PA Department of Conservation and Natural Resources, Western PA Watershed Protection Program and Pennsylvania Trout Unlimited. Special thanks to Lower Milford Township for hosting the public meetings and the Lehigh County Conservation District.

The Hosensack Creek Conservation Plan contains background information about the quality of the water and terrestrial resources in the Hosensack watershed from numerous sources including the Upper Perkiomen Creek Watershed Conservation Plan, The Stroud Water Research Center, the Montgomery and Lehigh County Natural Areas Inventories and regional natural resources summaries compiled by Natural Lands Trust. In addition, stream evaluations were conducted at 8 locations by Perkiomen Watershed Conservancy staff.

Available data indicates that the Hosensack Creek's water quality is excellent, perhaps the best within the entire Perkiomen Creek watershed. The aquatic insect research completed by Stroud indicates good water quality. In addition, the landscapes that surround the creek's many small tributaries are generally well vegetated with native trees and forests that include few invasive tree species. Invasive plants of note are primarily multi-flora rose which exists in some very large stands throughout the watershed. Overall, the biodiversity of the area was good and will provide the appropriate seed stock for ongoing regeneration of the local forests.

In stream cover and flow patterns are generally varied and sedimentation, while present in most areas, was not excessive. Many streambed areas were free of silt and contained an appropriate mix of gravel and larger rocks.

The stream side vegetation, known as riparian buffers, were largely intact and consisted mainly of native species. However, there are areas property owners have reduced or replaced the native trees with lawn and pasture grasses.

The table below summarizes the conservation issues and implementation options presented in the plan.

Conservation Issues	Implementation Options
Streambank maintenance Private property management Public information Demonstration projects	<ul style="list-style-type: none"> • Provide public information in brochures, websites and at public meetings. • Pursue streambank restoration projects where they are most visible. • Develop voluntary guidelines for private property maintenance along streambanks and present annual acknowledgements of property owners' efforts. • Conservation easements along riparian areas
Invasive Plant Controls Private property management Public information Guidelines for development	<ul style="list-style-type: none"> • Provide public information in brochures, websites and at public meetings. • Include subdivision and land development ordinance regulations requiring invasive removals and restoration with native plants as part of the land development process.
Property owner information Streambank vegetation Septic system maintenance	<ul style="list-style-type: none"> • Provide public information in brochures, websites and at public meetings. • Establish local ordinances requiring periodic pumping of septic tanks.
Headwater and wetland protections	<ul style="list-style-type: none"> • Provide public information in brochures, websites and at public meetings. • Develop voluntary guidelines for private property maintenance in headwater and wetland areas and present annual acknowledgements of property owners' efforts. • Conservation easements in sensitive headwaters and wetland areas
Stormwater issues	<ul style="list-style-type: none"> • Identify all privately maintained stormwater facilities. • Provide guidance pertaining to stormwater issues and appropriate maintenance techniques for privately owned facilities.
Zoning and subdivision/land development protections	<ul style="list-style-type: none"> • Continue strengthening municipal regulations and emphasizing the importance of maintaining the environmental integrity of the Hosensack Creek resource base.

RECOMMENDATIONS

Most of the Hosensack Creek runs through private property, therefore many of the recommendations will pertain to private property management. Municipal governments can help provide the leadership and information that will help citizens understand the issues and how different types of property management techniques can help protect the creek's water quality and the habitats that it nourishes.

Streambank Maintenance

Streambank Management Information for Property Owners

A watershed-wide information program, with information distributed through municipal newsletters or websites can be a powerful tool to help increase local understanding of issues impacting the health of the Hosensack Creek. Specific maintenance techniques to address erosion and invasive plants can be provided in this manner.

The principle issues that should be explained are the need for native vegetation in riparian buffers, the damage done by lawn grasses and mowing to the stream bank's edge and appropriate stormwater management. The principle objective should be to help property owners understand the connection between non-point source pollutants and stormwater run-off, how stormwater run-off impacts overall water quality as well as streambank stability and the ability of native plants to reduce the pollutants in stormwater run-off before it reaches local creeks.

Potential Demonstration Projects

There are many locations along the Hosensack Creek that would make excellent demonstration projects for streambank reconstruction efforts. It is likely that grant funds would be necessary to design and implement these projects. Property owner agreements would also be necessary to ensure long-term maintenance protocols. Other sites would provide locations for stormwater demonstration projects that illustrate how native plants and slower stormwater release rates can improve water quality and reduce erosion.

Demonstration projects allow other property owners to see firsthand what can be done to protect and restore creek banks and water quality. Local non-profit organizations with an emphasis on creeks and waterways may be able to assist with project identification, grant seeking and project implementation.

Headwaters and riparian zone protections

All three municipalities have enacted policies and ordinances designed to protect waterways and other natural features. While these ordinances are quite progressive, they cannot protect against all practices that can negatively impact the Hosensack Creek. They do provide a baseline by which all land use actions are measured.

Municipal Regulations

Municipal regulations that protect forests, wetlands and other natural features are critical to protecting water quality and the habitats of the Hosensack Creek. Municipal regulations should be reviewed periodically to ensure that the greatest protections possible are included. Again, presenting information to the residents of the area about the need for waterways protections and how the municipal ordinances implement those protections is important to avoiding unintentional actions that negatively impact the creek.

Conservation Easements

Both streambank maintenance issues and the protection of headwaters and wetlands can be strengthened through the use of conservation easements. A conservation easement is a legally binding agreement between a landowner and a qualified conservation organization or government agency that places certain restrictions on a property's use in order to protect its conservation values. The easement carries forward with any deed transfers and permanently protects the land from future development. The landowner continues to own, use, and live on the land. Land can be sold or passed on to heirs.

Conservation easements can be tailored to focus on specific aspects of a property and can be limited to certain areas such as riparian zones or wetland areas.

Invasive plant controls

Reducing and eliminating invasive plants in the larger landscape is a very difficult task. These are generally either very labor-intensive efforts or require extensive use of herbicides and heavy equipment. They also require a long-term management plan.

Property Owner Information

Again, a watershed-wide information program can provide property owners with important management information about eradication techniques and what types of plants can be used to replace invasives in the landscape. Additionally, there are conservation organizations that specialize in management techniques that focus on invasives removal and replacement with native plants.

Municipal Regulations

Municipal subdivision and land use regulations should provide requirements and/or incentives for removing invasives from riparian areas and replanting with a mix of appropriate native plants.

Subdivision regulations should specify that landscaping plant species should be native and appropriate for the local climate and soils. Specifically, planting plans for stormwater basins should include native plants only and should avoid lawn grasses that require regular mowing during the growing season.

CONCLUSIONS

The Hosensack Creek was chosen because of the natural resources and naturally clean water that abound in that watershed. The Conservancy's selection was based upon the concept that it is easier to protect existing resources than to recreate them once they have been consumed or diminished. This report is not an exhaustive review of available data but is a broad reflection of the natural resource base within the Hosensack Creek watershed.

The Hosensack Creek exhibits good water quality and healthy physical characteristics. Much of the watershed is forested which provides critical protections to creek banks and water quality. Issues affecting the overall health of the Creek are generally minor in nature. However, the Hosensack Creek is an important headwaters creek in the Perkiomen Creek network. Protection of these smallest streams is very important since small incidents can have large overall impacts.

The recommendations of the plan are general in nature and leave room for developing a broad public information campaign with numerous demonstration projects. The primary issues that should be addressed are streambank maintenance and invasive plant controls on privately owned property and consistent land use and zoning regulations.

Numerous agencies and non-profit organizations can assist with preparing materials for the public and with identifying locations, designs and funding sources for streambank restoration projects. These partnerships can provide critical assistance to local landowners and public officials as projects are developed and implemented.