

A CASE FOR PROTECTION OF THE UPPER PERKIOMEN CREEK WATERSHED

The Perkiomen Creek rises in Hereford Township, Berks County on the south-facing slopes of a wooded ridge near Seisholtzville. The major tributaries of the upper portion of the Perkiomen Creek, the Northwest Branch, Indian Creek, and Hosensack Creek also have their source along this ridge, which includes Blackhead Hill, Furnace Hill and South Mountain. The Perkiomen flows for over 15 miles to the southeast, through Green Lane Reservoir and over its impoundment, before reaching the confluence with the Unami Creek. This upper segment of the Perkiomen is fed by literally dozens of miles of headwaters tributaries. For the purpose of this Conservation Plan, the southern limits of the Deep Creek and Unami Creek subwatersheds form the southern limit of the Upper Perkiomen Creek watershed. The communities of the Upper Perkiomen Creek watershed are home to an estimated 48,000 residents, within a politically complex landscape that includes portions of 26 municipalities (7 boroughs and 19 townships) located within four counties. **(see Figure 1 – Location map)**

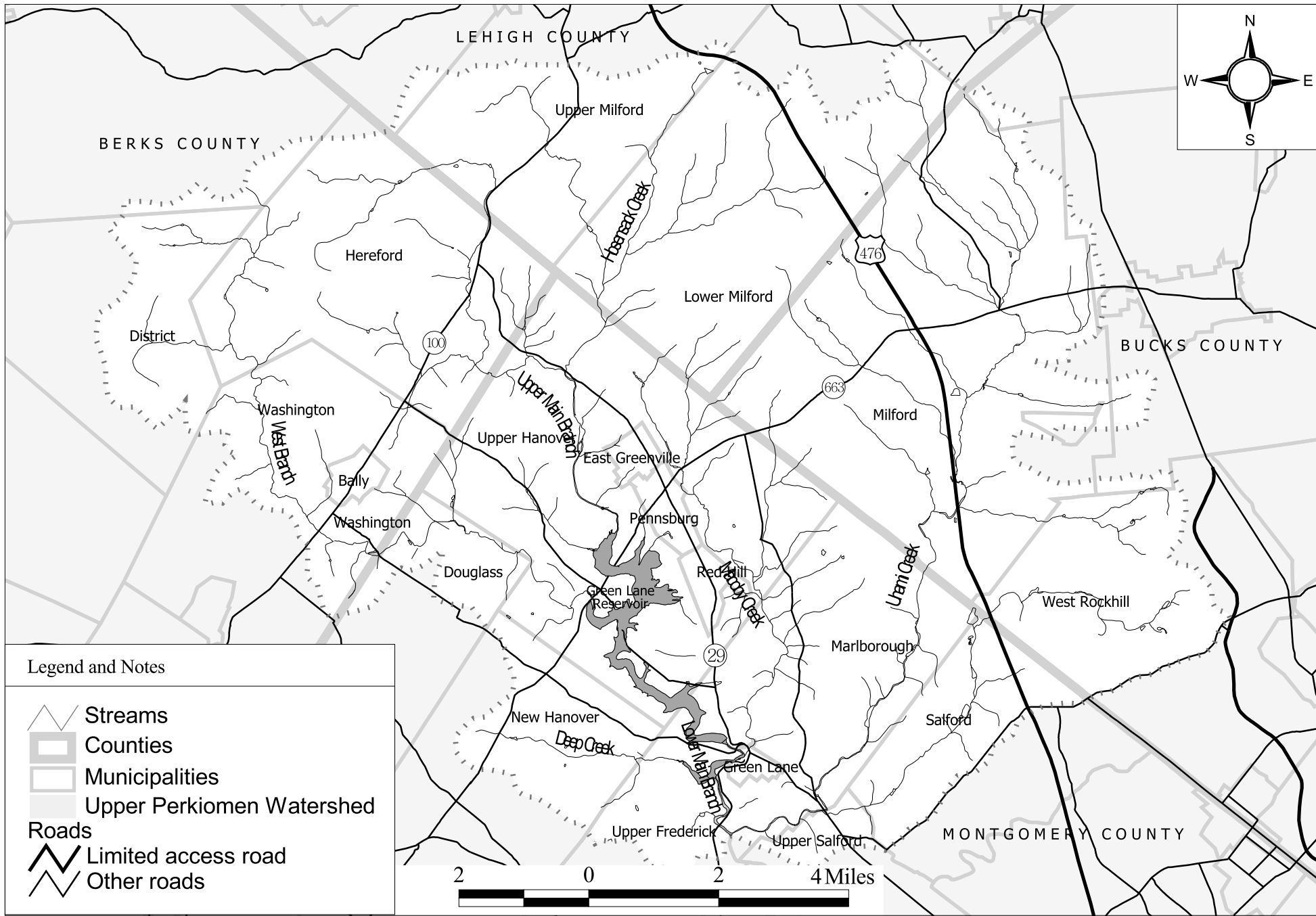
The Perkiomen Creek and its tributaries meander through the communities of the Upper Perkiomen Valley, connecting many places and people, and weaving together a local story of ecology, agriculture, industry and changing land use. The living history of the Upper Perkiomen Valley can be read in the deep woods of the Unami Hills, the productive farms of Hereford Township, historic villages such as East Greenville, Pennsburg, and Red Hill, and the expanding water supply system of the Green Lane Reservoir. The stewardship ethic of local residents is evident in the well-maintained farmsteads, liveable towns, and rich natural areas that define the landscape. It is also evident in the growing awareness among local residents, businesses, municipalities and organizations that the quality and quantity of ground water and surface water are important and integral to a healthy living environment, and the emergence of organizations such as the Upper Perkiomen Watershed Coalition.

However, the last 300 years of land use in the Upper Perkiomen Valley have left a legacy of serious degradation among certain streams, wetlands, groundwater – a legacy in which the quality and quantity of water, and the health of the living environment for people, plants and animals have been compromised. Several hazardous waste sites in the watershed have polluted local aquifers. Numerous wetlands in the Upper Perkiomen have been drained and filled to support agriculture and development, and their vital natural functions as water purifiers, flood control devices, and rich habitat for flora and fauna have been lost. The quality of many streams in the watershed has been degraded due to combinations of tree clearing along banks, floodplains and slopes, unrestricted livestock access, construction of dams and ponds, runoff carrying pollutants from roads, parking lots, lawns, crop fields and construction sites, discharges from

industrial and sewage treatment plants, and ongoing problems such as failing septic systems. All of these stream quality impacts are exacerbated by reduced baseflows resulting from increased stormwater runoff and pumping of groundwater. Breeding populations of native brook trout, an important indicator of stream health once common throughout the Upper Perkiomen stream network, are today limited to only a small number of remote tributaries.

The *Upper Perkiomen Creek Watershed Conservation Plan* provides an overview of these key natural and cultural elements and water quality and quantity concerns, while also foreshadowing major land use changes with the potential to seriously alter the health of the watershed and the quality of life of its residents. Although water is a vital resource, it is not infinitely available and it is vulnerable to pollution. Trends in the ownership of land, the body of laws that govern land use, the pattern and density of development, demands for water supply, wastewater treatment and stormwater management, and the eternal natural cycles of flooding and drought are all critical factors influencing the future of the Upper Perkiomen Valley as a desirable place to live and work.

For many communities in the Upper Perkiomen Valley, the pattern and intensity of development over the next 20 years will decide the fate of the land and water resources that make up the watershed. The *Major Issues for the Upper Perkiomen Creek Watershed Conservation Plan* represent an effort by residents of the watershed, municipal officials, local watershed organizations, local and regional land trusts, and County agencies to identify major issues affecting water quality and quantity, and the living environment for local residents. These issues, ranging from land development to the need for environmental education, are accompanied by a series of Implementation Recommendations contained in the Action Plan.



UPPER PERKIOMEN CREEK WATERSHED CONSERVATION PLAN

The communities of the Upper Perkiomen Creek watershed are fortunate in that they have managed to retain their rural landscapes and historic villages and high quality streams and aquifers that have provided a healthy living environment for people, plants and animals. With population projections for many municipalities estimated at increases of over 50% in the next two decades, the rapid and widespread suburban development pattern that has altered much of the land and water resources of southeastern Pennsylvania threatens to forever alter the Upper Perkiomen Valley. Along with the increasing population and consumption of land, our lifestyles are demanding more water. Between 1900 and 2000, the human population of Pennsylvania more than doubled, while its consumption of water has increased over 1,000% from 5 gallons per person per day to 62 gallons per day (Pennsylvania DEP, 2000).

The concluding Action Plan section of this Conservation Plan is based on the recognition that the communities of the Upper Perkiomen watershed have reached an important crossroads – the irreversible impacts of suburban sprawl are just now beginning to be felt in the still-rural landscape of farms, woodlands and older towns, villages and hamlets. Now is the time to plan wisely and guide that growth in a way that preserves, restores and maintains key land areas and the quality and quantity of water in the streams and aquifers that sustain life for the people, plants and animals that inhabit the watershed. The Action Plan provides a road map for guiding growth in the watershed, and an important avenue for funding watershed conservation projects.

This Plan is an important step toward addressing the following challenge: to understand the water quality and quantity of the Upper Perkiomen watershed -- the “water budget” -- so we may guide future growth, development, land use and conservation in a way that respects the natural carrying capacity of the land -- the “water balance”.

PRINCIPLES OF THE CONSERVATION PLAN

The Upper Perkiomen Creek Watershed Conservation Plan is prepared with the guidance of the following principles. Throughout the document, more specific goals, objectives and recommendations developed from these primary principles are described:

- **General Awareness.** The Upper Perkiomen Creek watershed should come to be widely understood by those who live and work in the area as an interrelated natural system of land and water on which humans, plants and animals depend. This awareness should include the recognition that the issues affecting water quality and quantity in the Upper Perkiomen also affect the ability of the watershed to support all forms of life.
- **Coordinated Action within the Watershed.** Through the coordinated actions of all parties – municipalities, agencies, landowners, citizens, institutions, businesses and private groups – the ecology and scenic beauty of the Upper Perkiomen Creek, its tributaries and watershed should be preserved and, where possible, restored.
- **Coordinated Action with other Watersheds.** Groups and individuals involved with the planning and implementation of the *Upper Perkiomen Creek Watershed Conservation Plan*, the *Lower Perkiomen Creek Conservation Plan* and the *Schuylkill River Watershed Conservation Plan* should be cognizant of the importance of coordination between each plan and the resources, issues and implementation strategies they identify.
- **Central Role of Municipalities.** Municipalities and organizations active in watershed planning and conservation should pursue the implementation recommendations found in this Watershed Conservation Plan, using matching funding sources such as the Pennsylvania Rivers Conservation Program.