

BACKGROUND FOR THE PLAN

This part of the Plan summarizes major findings in the following subject areas:

- Regional Influences
- Brief History
- Natural Features
- Government Profile
- Population Housing and Employment
- Existing Land Use
- Community Facilities and Services
- Circulation

REGIONAL INFLUENCES

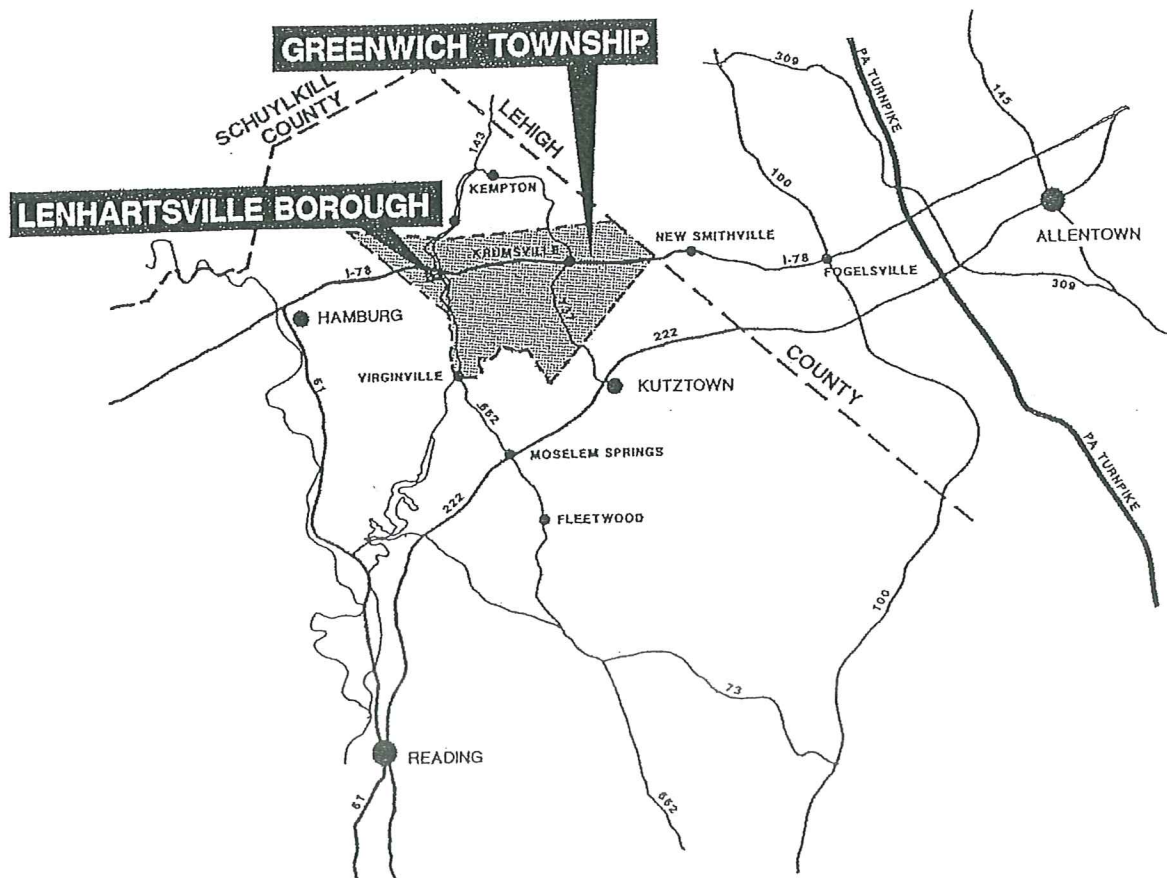
- *A community's regional setting is a prominent influence on its growth and development. Greenwich Township and Lenhartsville Borough are located in northern Berks County, a rural area at present but one likely to be in the path of future development steadily approaching from the Lehigh Valley, Kutztown and Reading areas.*

Greenwich Township and Lenhartsville Borough are situated in northern Berks County in southeastern Pennsylvania. Berks County lies along the edge of the Delaware Valley region, which is part of a growing urban corridor between New York and Washington D.C. and one of the leading industrial and trade regions of the United States.

Greenwich Township surrounds Lenhartsville, which lies within the northwest corner of the Township. Greenwich Township, in turn is bordered by Albany Township to the north, Weisenberg Township (Lehigh County) to the northeast, Maxatawny Township to the southeast, Richmond Township to the south, and Perry and Windsor Townships to the west. The Township and Borough together comprise 30.9 square miles, 30.8 square miles in Greenwich Township and 0.1 square mile in Lenhartsville. Greenwich Township is the fourth largest municipality in Berks County and Lenhartsville is the smallest.

Greenwich Township and Lenhartsville Borough are influenced by their close proximity to the growing Lehigh Valley, Kutztown and Reading areas. The western edge of the rapidly developing Lehigh Valley at the intersection of Interstate 78 and Route 100 is just 6 miles to the east of the Greenwich Township border. Reading is situated approximately 12 miles to the south of the Greenwich-Lenhartsville area. Kutztown and the growing Route 222 corridor are located within a mile of Greenwich Township's southern border. Direct and easy access to and through the Greenwich-Lenhartsville area via Interstate 78, Route 143 and Route 737 further increases the likelihood of future development in the area, especially in Greenwich Township which has an abundance of vacant developable land.

REGIONAL LOCATION



Greenwich Township is a picturesque, rural community of rolling farmland dotted with small villages, crossroad hamlets, single-family homes, a few suburban developments and limited commercial activity. The Township is one of the County's least densely developed municipalities. Winding roads, hilly terrain, farmland and scenic creek corridors are the primary features of Greenwich's landscape. Historic one-room schoolhouses, churches, farmsteads and other remnants of the area's unique heritage are found throughout the Township.

In contrast, Lenhartsville Borough is a small, mature community with residential and commercial uses mixing freely along the main streets. Of the small amount of undeveloped land within the Borough, most has steep slopes and is not suitable for development. Developing underutilized property and appropriate in-fill uses are the Borough's primary opportunities for future growth. The Borough's housing stock is a mix of attached and detached housing types. Lenhartsville's historic one-room schoolhouse, hotel and homes reflect the Borough's prosperous past as a manufacturing and trade center in northern Berks County.

PRESENCE OF THE PAST

- *Local history helps explain why communities look and function the way they do today. The role of farming, trade and commercial villages along Old Route 22 and the availability of*

water to power mills were the strongest influences on the Greenwich-Lenhartsville area's formative growth and development.

Lenhartsville Borough and Greenwich Township share a long and interesting history. The Borough and Township lie within the Hardyston Jasper Archaeological District. This District is eligible for the National Register of Historic Places and is characterized by the intensive use of jasper in lithic tool production dating back 10,000 years. The District is divided into two zones: a quarry zone where the jasper was quarried, and a wider activity zone where jasper was typically used more than other lithic forms for tools. The Greenwich-Lenhartsville Area lies within the activity zone of the district.

Early Inhabitants

The Delaware or Lenni Lenape Indians were the area's earliest known inhabitants. The Delaware were a meek and docile tribe whose ancient symbol was the turtle. The tribe was comprised of smaller clans. Of these clans, the Minsi (or wolf) Clan inhabited the Greenwich-Lenhartsville Area. The largest Minsi settlement in Berks County was located at present day Virginville on the Township's southern border.

The first European settlers came to the area in the early 1700's. These settlers were mostly Germans, although some were descendants of French Huguenots. They came to America primarily from the German Province of Pfalz (or Palatinate). The Palatinates settled the area as farmers, building family farmsteads and clearing the land for agriculture.

The years 1755 to 1758 brought Indian raids to the frontier lands of the colonies, including northern Berks County. A system of forts and blockhouses were constructed along the frontier as Indian massacres struck fear into the hearts of settlers.

Churches and Schools

In 1744, a reformed congregation known as the High Dutch was organized on what is now the site of Dunkels Church in the Township. The original log structure was replaced by a second log structure in 1790 and by a brick building in 1859. The brick building is still standing and considered structurally sound, although it has been vacant since 1971. Two other churches of historical significance are the Bethel Lutheran Church (now known as Mount Zion Lutheran Church), which was organized in 1761 at Grimville, and the Friedens Church, which was erected in 1856 between Lenhartsville and Klinesville along the old Allentown State Road (Old 22). Between 1923 and 1925 the brick church in Grimville was replaced by the existing stone church.

These early churches probably doubled as schools until the Township adopted the public school system in 1851. By 1923, there were 11 one-room school houses in the Greenwich-Lenhartsville area. Some of these were still in use as late as 1944.

Inns, Public Houses and Trading Routes

Many trading routes crossed the Greenwich-Lenhartsville Area. The most prominent and influential of these was the Allentown State Road now known as Old 22. Early inns and public-houses emerged along this important route, around which small hamlets and other commerce grew.

One of the earliest inns was owned and operated by John and Samuel Lenhart, and was one of the first structures built in the village of Lenhartsville. Lenhartsville's location along the Allentown State Road and the Maiden Creek, which was the main creek in the area, made it an ideal commercial center. In 1842, the Washington Hotel was erected and operated on the same site until it was destroyed by fire in 1913. It was rebuilt and stands today as the Deitsch Eck Hotel. William Reis built the Farmers and Drovers Hotel in 1856. The hotel, which had been converted to three apartments, was severely damaged by fire in February of 1995. Mills, blacksmith shops, wagon shops, and a paint factory flourished here with the arrival of the Berks County Railroad in 1874.

Three smaller villages grew up around inns along what is now Old Route 22 in the Township. These were Klinessville, Krumsville and Grimville. Klinessville was founded by Peter Kline, who built a large log structure that served as an inn and a store.

Krumsville, earlier known as Smithville, was first settled by Reuben Smith who built a tavern there along the State Road. Mrs. Wilson P. Krum purchased most of Smith's property in 1885 and the village became known as Krumsville. Grimville is named after Col. David Bertolet Grim, who built a brick inn known as the Golden Lamb along this important cattle driving route in 1836. The cattle driving route was one of the two main cattle driving routes in Pennsylvania and allowed Grimville to prosper. In the years to follow, a store, tannery and distillery were added to the town to accommodate all the livestock traffic. In 1844 this thriving livestock town had a large cattle auction, three stores and seven taverns to serve the needs of the drovers.

Further south in the Township, an area known as Liscum emerged around the Three Mile House. Jacob Stein established this tavern in 1850, and nearby lies Stein's distillery and an old stone cabin believed to be the oldest structure in Greenwich Township. While several distilleries were operating in the area, Stein's producing fine quality rye whiskey, was probably the largest and best known. The old stone cabin was used by Adam Stein as a warehouse for the distillery.

Both Lenhartsville and Greenwich Township were originally part of Albany Township. Greenwich Township separated from Albany Township and incorporated as a township in 1755. The Township was named by English settlers after Greenwich, England. Lenhartsville separated from Greenwich and incorporated as a borough in 1887. Lenhartsville was named for the Borough's early inn owners, John and Samuel Lenhart.

Mills

With three substantial water sources in the Township, numerous mills were built and an excellent goods and services support system was established for what has been historically and remains today the Township's major industry--farming. The first mill in the Township was probably that of Peter Conrad, operating at an unknown location until being burned and destroyed by Indians around 1755. John Lenhart operated the Pioneer Mill in 1799 on the Maiden Creek near Lenhartsville, John Kremer's Mill (later Heffner's) was built around 1800 near the mouth of the Sacony, and Kistler's Mill (later Daniel Deitrick's) operated at an early date on Mill Creek. Milling operations at Dreibelbis Station, started by the Sunday family in the days of the American Revolution and carried on into the Twentieth century, served an important role in the economics of the community.

The American industrial revolution, occurring after the Civil War, brought little change to the mills. Some of the original saw or grist-mills were still operating and several new mills were established between the late 1850's to 1880's. All but Zettlemoyer's steam powered saw and grist-mill operated in the traditional water-powered manner. Dreibelbis had added clover milling and cider pressing to their operations. In 1901 a steam-powered apple butter cookery was added. Steam generated by the cooking process was used to drive a boring machine that would put the holes into fence posts. While the other operations were closed over the years, the cookery continued until 1962. Merkel's Mill, outside of Lenhartsville, with a succession of owners and some modernization, has the longest history of service for the area, operating as Kershner's Mill until 1972. All other mills had stopped production by the 1920's.

The Role of the Railroad

A new dimension in commercial trade was introduced when the Berks County Railroad established a passenger and freight station in Lenhartsville in 1874. In particular, the Maiden creek Furnace, operating since 1854 outside of Lenhartsville, was able to increase its production as the iron from the Moselem mines could now be shipped by rail rather than the slower wagon route. Other non-farming related industries developed around the Lenhartsville area. The Greenwich Manufacturing Company (known locally as the Paint Works) and Fisher's Shirt Factory are two businesses that depended on the railroad. Dreibelbis served as a flag station for the railroad as late as 1925 and was important in the settlement pattern of the Township and Borough. The railroad was used by students for commuting to school and by workers to commute to the city of Reading. Passenger service continued until 1949 and freight service until 1972.

The Early Role of Farming in the Township

The Greenwich/Lenhartsville's major industry has been and continues to be farming. The Pennsylvania Germans that settled the area had a reputation as excellent farmers. Abandoned limekilns on many farms are evidence of an early farming practice that helped them earn this reputation. Lime has many uses on the farm: as mortar, plaster, whitewash, disinfectant, but most importantly, as a crop fertilizer. Several large kilns in the Township were built to convert the crushed limestone into lime by a high temperature burning process.

Many farmers built small kilns in different places on their land so that they could supply their fields with the valuable fertilizer. A walk in the woods and fields will often turn up an abandoned kiln or two.

Farming has maintained the rural character of the Township. Ironically, the very industry that has preserved the rural, slow-to-change atmosphere has itself undergone revolutionary changes.

Before 1840 the only tools available to the farmer were the plow, harrow, sickle, scythe and rake. The next 50 years brought dramatic changes as horse-powered machines took over tasks previously done by men, and in 1925 the introduction of the light-weight gas-powered tractor had a revolutionary impact on the industry. The next twenty-five years brought important changes to the Greenwich-Lenhartsville area. Actual visual changes to the landscape resulted as newer farming techniques and modernization occurred in the community. Some roads were paved to accommodate the automobile and electric and telephone lines were added to the scenery. Though electricity was available in the more populated areas as early as 1925, it was not installed in most farm homes until the late 1940's.

The Later Role of Farming in the Township

Farming has long been a primary source of local income, and farmland continues to be predominant in the Township. The following tabulation of the number of farms and acres by size of farm was done in 1971.

<u>FARM SIZE</u>	<u>NO. OF FARMS</u>	<u>TOTAL ACRES</u>
5 - 19 Acres	50	497
20 - 49 Acres	42	1,360
50 - 99 Acres	63	4,617
100 Acres and Over	<u>61</u>	<u>9,349</u>
	216	15,823

Architecture and Historic Structures

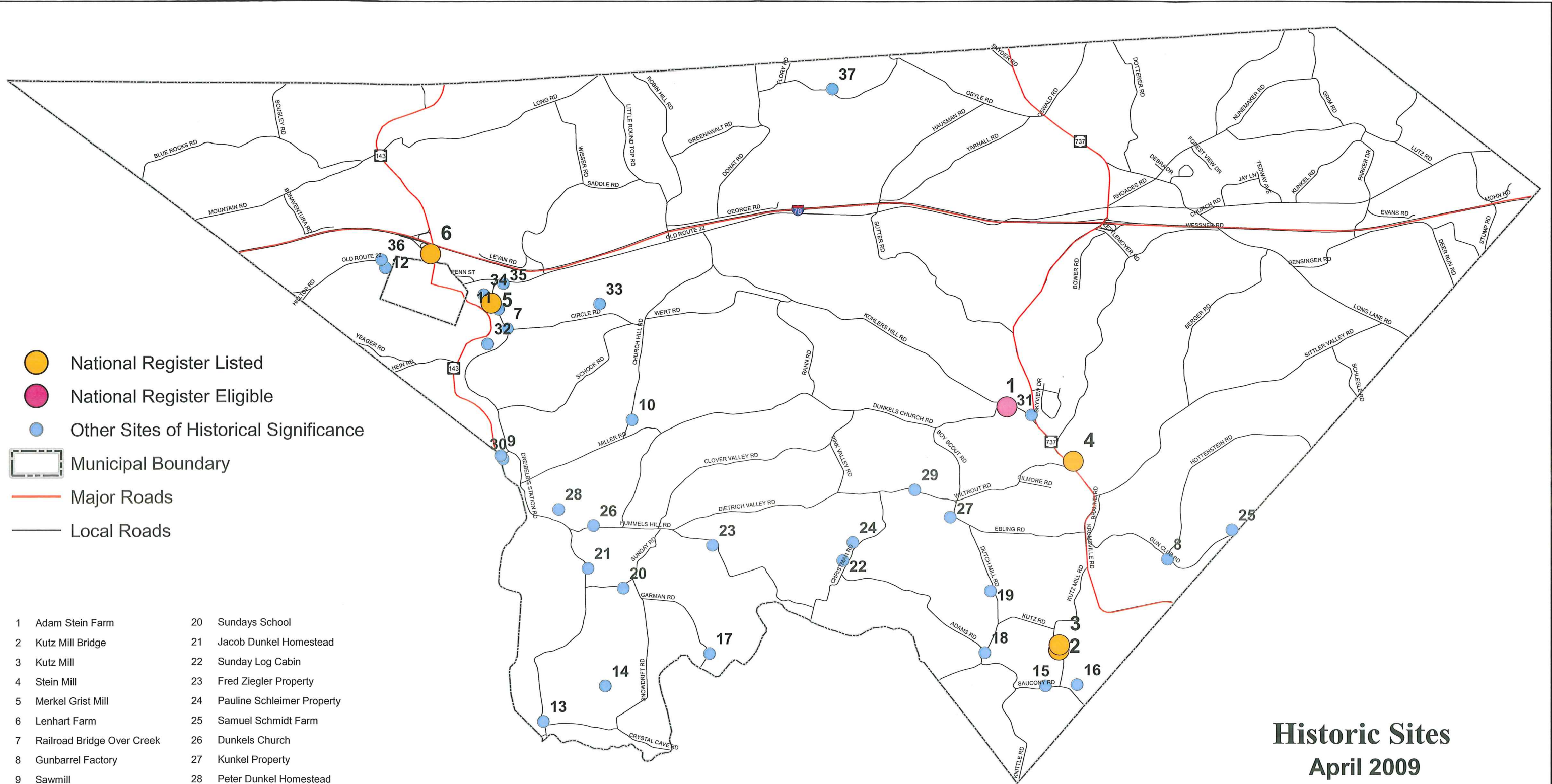
A variety of architectural styles and periods are represented in Lenhartsville Borough and the Township's villages. Many excellent examples of Pennsylvania German architecture in the farmhouses and barns also exist throughout the area. Equally as interesting are the numerous summer kitchens, smokehouses, butcherhouses, limekilns and other structures, very many still in use, that are a physical, recorded history of farm culture in the Township.

The stone cabin on the Stein Property is a excellent example of early Pennsylvania German architecture. Thought to be one of the oldest buildings in the Township, it was originally built by Henry Kohler, one of Greenwich's earliest settlers.

In 1986 the Berks County Conservancy conducted a historical survey of structures in the Township. Two hundred and sixty sites were surveyed based on locations supplied by county HELP maps. The following period structures were still standing:

Pre 1750	1	1850 - 1874	114
1750 - 1799	4	1875 - 1899	56
1780 - 1799	2	1900 - 1924	10
1800 - 1824	32	1924 - 1949	1
1825 - 1849	22	*later structures were not included in the survey	

Six sites in the Township appear on the National Register of Historic Sites in 1995. They include Kutz Mill Covered Bridge, Stein's Mill, Merkel's Mill, Kutz Mill, Dreibelbis Station Covered Bridge, and the Donald Kershner property (or Lenhart Farmstead) at the I-78 exit ramp at Route 143. Additional sites in the Greenwich-Lenhartsville area may be eligible for the Register.



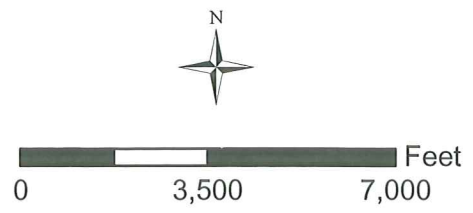
- National Register Listed
- National Register Eligible
- Other Sites of Historical Significance
- Municipal Boundary
- Major Roads
- Local Roads

- | | |
|----------------------------------|----------------------------------|
| 1 Adam Stein Farm | 20 Sundays School |
| 2 Kutz Mill Bridge | 21 Jacob Dunkel Homestead |
| 3 Kutz Mill | 22 Sunday Log Cabin |
| 4 Stein Mill | 23 Fred Ziegler Property |
| 5 Merkel Grist Mill | 24 Pauline Schleimer Property |
| 6 Lenhart Farm | 25 Samuel Schmidt Farm |
| 7 Railroad Bridge Over Creek | 26 Dunkels Church |
| 8 Gunbarrel Factory | 27 Kunkel Property |
| 9 Sawmill | 28 Peter Dunkel Homestead |
| 10 Dunkels School | 29 Spohn-Dietrich Homestead |
| 11 Iron Company Building | 30 Dreibelbis Station |
| 12 Grims Gristmill | 31 Steins Tavern |
| 13 Berks County Railroad Tunnel | 32 Hunter Forge |
| 14 Heffner Farm | 33 Kermit Heeps Property |
| 15 Frederick Quellmaltz Property | 34 Maiden Creek Charcoal Furnace |
| 16 Kohler Farm | 35 Friedens UCC Church |
| 17 Heffner Hotel | 36 Robert Ensminger Farm |
| 18 Shofers Mill | 37 J.H. Jarrett Property |
| 19 Kutz Homestead | |

The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.

Historic Sites April 2009

Greenwich Township Berks County, Pennsylvania



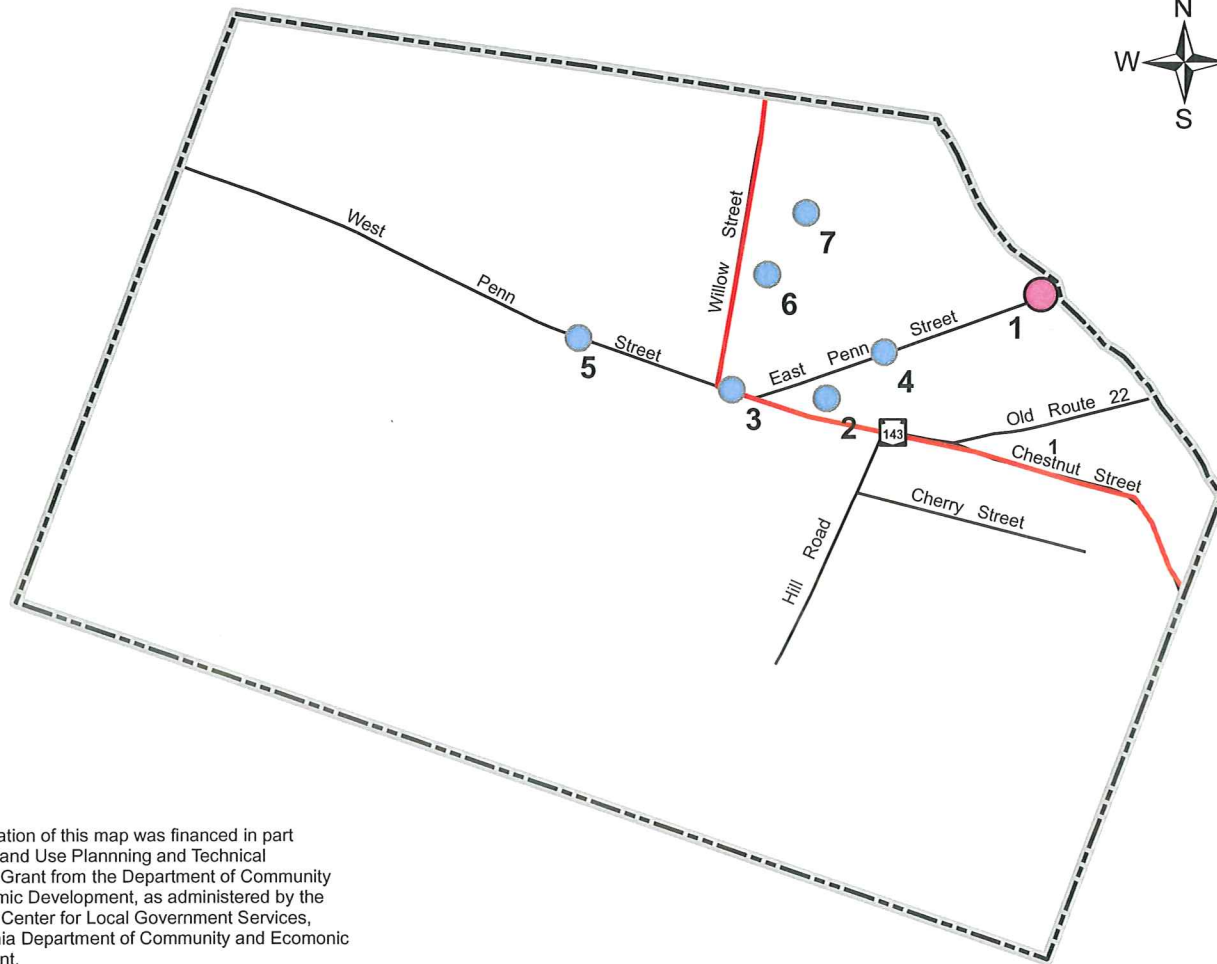
Source Data: Berks County Planning Commission, Urban Research & Development Corporation, PHMC, George Meiser IX

Historic Sites

April 2009



Lenhartsville Borough

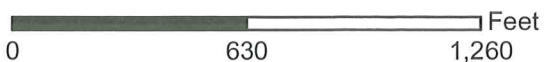
Berks County, Pennsylvania



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- 1 Penn Street Bridge
- 2 Farmers & Drovers Hotel
- 3 Lenhartsville Borough
- 4 Lenhartsville - Penn Street Sect
- 5 Lenhartsville - Old Route 22
- 6 Lenhartsville School / Lodge
- 7 Pennsylvania Dutch Folk Culture

-  National Register Listed
-  National Register Eligible
-  Other Sites of Historical Significance
-  Lenhartsville Boundary
-  Major Roads
-  Local Roads



NATURAL FEATURES

The use of the land is influenced by several types of natural features such as hydrology, steep slopes, woodlands and soil characteristics, among others. This section describes how natural features can influence the ways in which the Greenwich-Lenhartsville area can be developed and preserved.

Hydrology

Hydrology refers to the water-related features such as streams, floodprone areas and drainage characteristics. These features are important for the following reasons:

- Streams and creeks provide potential recreational areas, water sources and valuable aquatic habitats,
- Knowledge of drainage basins is necessary in designing sanitary sewers and storm sewers,
- Alluvial soils and floodplains denote areas prone to flooding; development in these areas may result in loss of property and lives and worsen flood conditions.
- Alluvial soils, hydric soils and wetlands indicate land where chronic or occasional wetness may weaken foundations or otherwise constrain construction, and
- Wetlands are important aquifer recharge areas, support a uniquely sensitive environment and are protected by both state and federal law.

The Maiden Creek and Sacony Creek are the two largest waterways in the Greenwich-Lenhartsville area. Each stream drains approximately one-half of the study area with a major watershed boundary running diagonally across Greenwich from the Township's northeast corner to its southwest corner. The Maiden Creek and the Sacony Creek converge in the southwest corner of Greenwich near the village of Virginville. Mill Creek and other tributaries of the Maiden Creek or Sacony Creek form several minor drainage basins in the Greenwich-Lenhartsville area, as shown on the accompanying Hydrology Map.

The Pennsylvania Department of Environmental Protection (DEP) considers Mill Creek, Sacony Creek and Furnace Creek within the Greenwich-Lenhartsville area to be Trout Stocking Fisheries. These are streams whose water quality should be protected to allow continued maintenance and propagation of trout and warm water flora and fauna. The Maiden Creek and its unnamed tributaries in the Greenwich-Lenhartsville area are cold water fisheries, according to DEP. These fisheries are streams that should be protected to remain as habitats for fish species and additional fauna and flora indigenous to cold water.

The entire Greenwich-Lenhartsville area drains into Lake Ontelaunee. The Lake Ontelaunee reservoir is the water supply for the City of Reading. A number of actions can help maintain the quality of this water supply such as limiting development along stream corridors, strictly controlling erosion and sedimentation, and identifying and improving septic systems which leach into waterbodies.

The accompanying maps show other hydrological features including the 100-year flood-plains, hydric soils and wetlands. One-hundred year flood-plains are flooded at least once every 100 years, as

determined by the Federal Insurance Administration. Many communities limit development within the 100-year floodplain to prevent the loss of lives and property. Development in the floodplain also worsens flooding conditions along creeks and rivers. In Greenwich and Lenhartsville, the most significant 100-year floodplains are found along the Maiden Creek, Sacony Creek, Furnace Creek and Mill Creek.

Wetlands are important to recharge groundwater and to support wildlife, fish and other aquatic life. The National Wetland Inventory Maps show the approximate locations of many of the most prominent wetlands, however, those maps do not include all wetlands. The National Inventory Maps do not identify any wetlands within Lenhartsville, but do identify wetlands in Greenwich along many stream corridors and other low-lying areas.

Hydric soils, which may indicate the presence of wetlands, are soils with high water tables. Hydric soils are found along streams, creeks and other low-lying locations throughout the Greenwich-Lenhartsville area.

Steep Slopes

Steep slopes and rolling farmland are prevalent throughout the area. The accompanying Topography Map shows two categories of slopes within the Borough and Township: land between a 15 percent and 25 percent grade (moderately steep slopes) and land over a 25 percent grade (very steep slopes). Knowledge of steeply sloping areas is important in planning for future development because:

- Construction and maintenance of roads and buildings on steep slopes is costly, and
- Steep slopes are susceptible to erosion when soil and vegetation are disturbed.

Both Lenhartsville and Greenwich include extensive steeply sloped areas. Almost the entire portion of Lenhartsville south of West Penn Street/Chestnut Street has moderately steep and very steep grades. A small area of moderately steep slopes is also located along the north side of West Penn Street. The remainder of Lenhartsville is relatively flat.

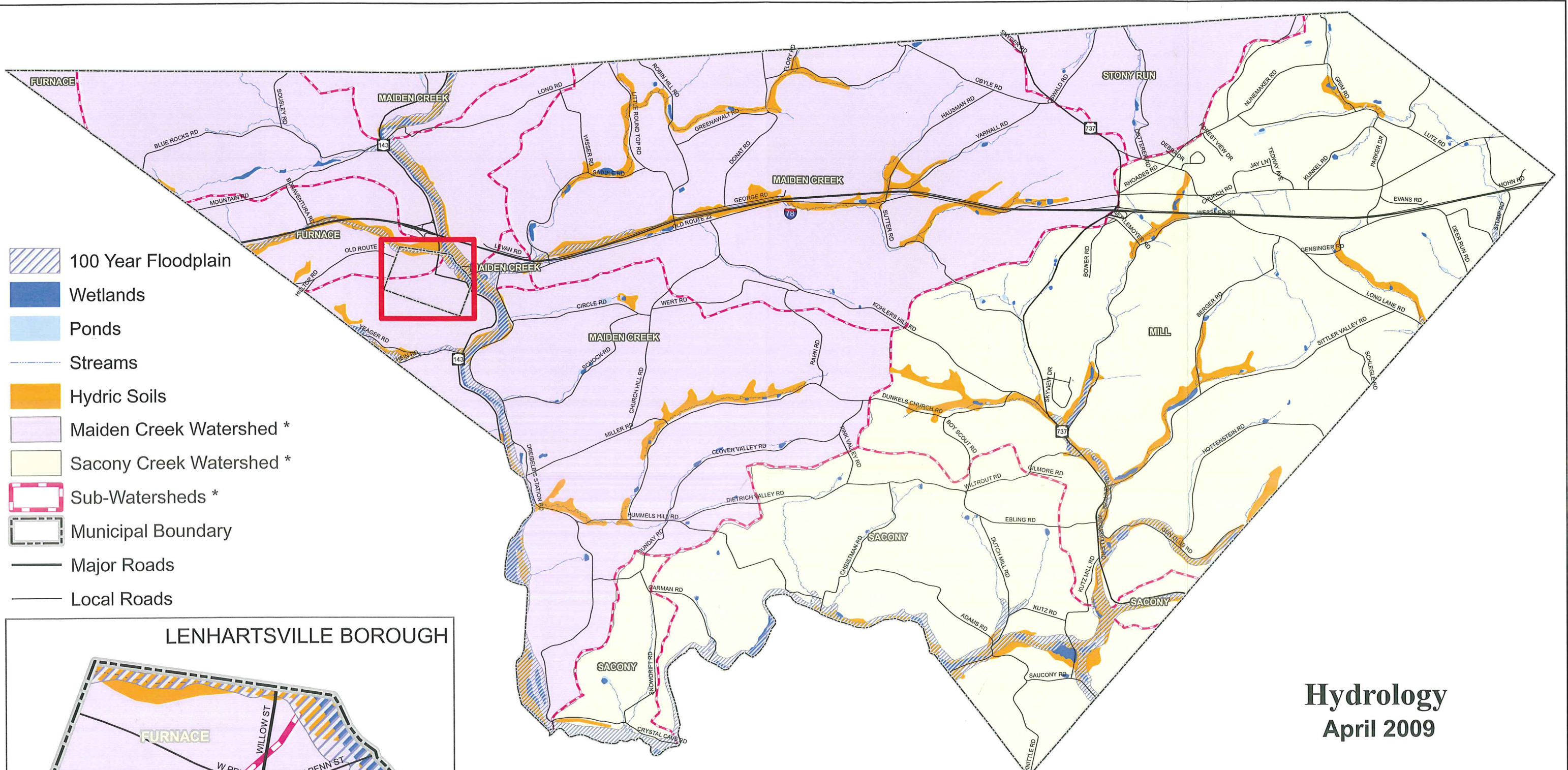
Steep slopes are extensive in every part of Greenwich and an important part of the Township's natural character. Both moderately steep and very steep grades are widespread throughout the Township, as illustrated on the accompanying map showing the area's topographic characteristics.












Woodlands

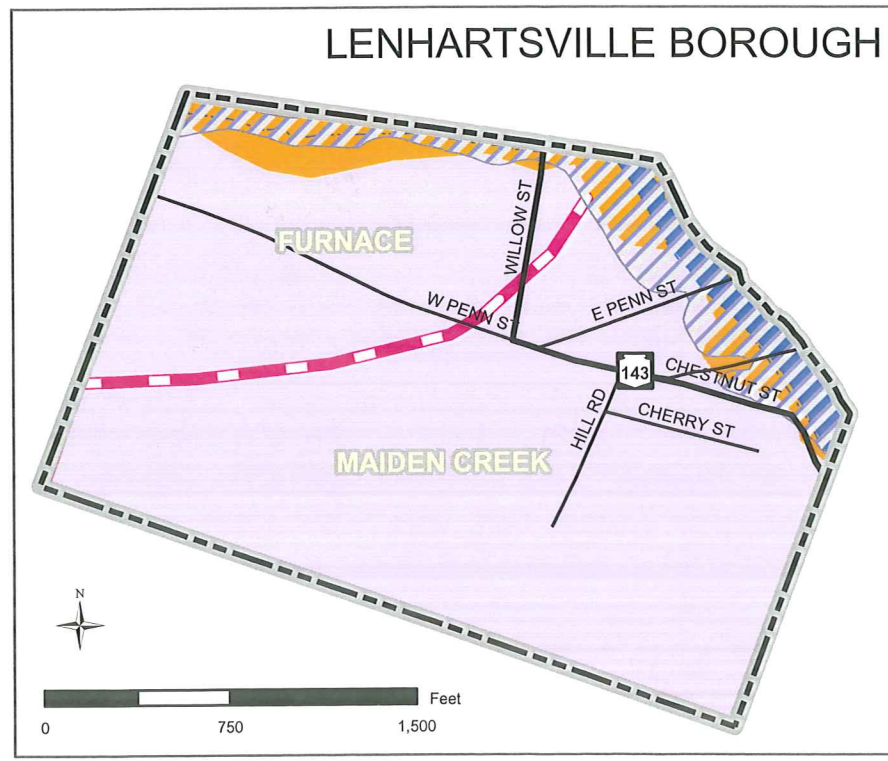
Woodlands are areas which contain primarily second and third generation forests. Knowledge of woodland areas are important for the following reasons:

- Woodlands are a scenic resource which provide visual relief, softening views of the landscape,
- Woodlands provide unique wildlife habitats which, once destroyed, take decades to recover, and
- Vegetation cover and root systems of the forest ecosystem protect against erosion and stabilize the soil.

The developed parts of Lenhartsville have no remaining concentrations of significant wooded areas. However, the steep hills located in the Borough's undeveloped southern sector contain some woodlands. Greenwich Township has many significant stands of woodlands located throughout the Township. Many of these woodlands are found in areas that are unsuitable for farming such as areas with rocky soil, steep slopes, floodplains and along streambanks and drainageways.

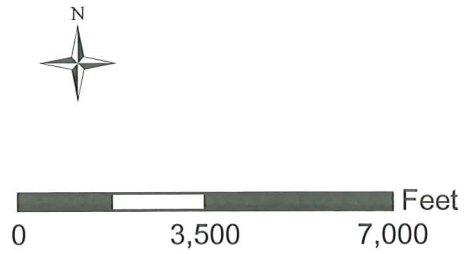


-  100 Year Floodplain
-  Wetlands
-  Ponds
-  Streams
-  Hydric Soils
-  Maiden Creek Watershed *
-  Sacony Creek Watershed *
-  Sub-Watersheds *
-  Municipal Boundary
-  Major Roads
-  Local Roads



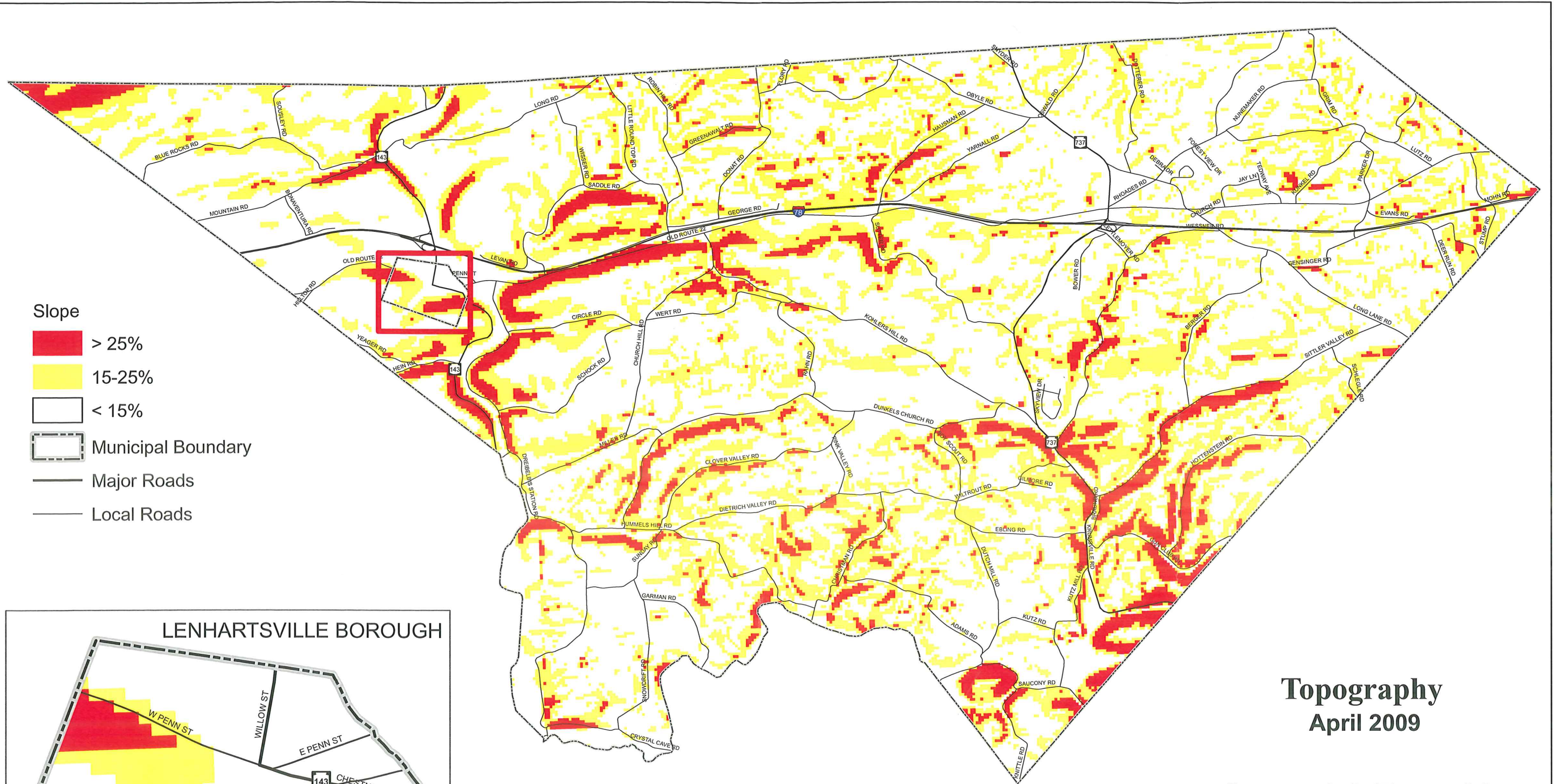
The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.

* Watershed boundaries are for planning purposes only. Refer to Act 167 plans for engineering and official boundaries.

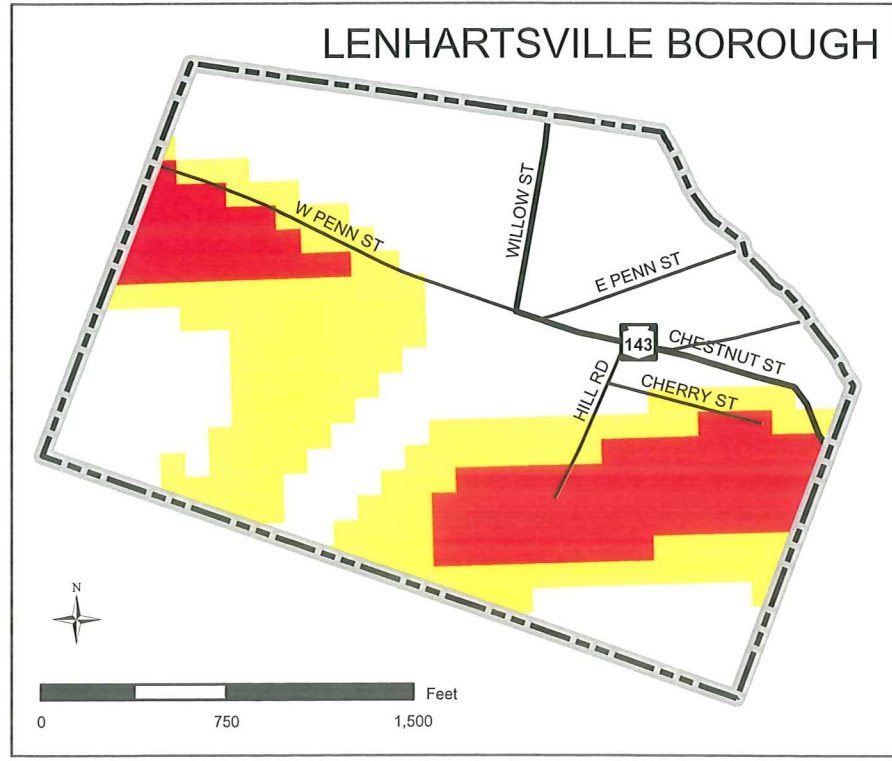


Hydrology April 2009

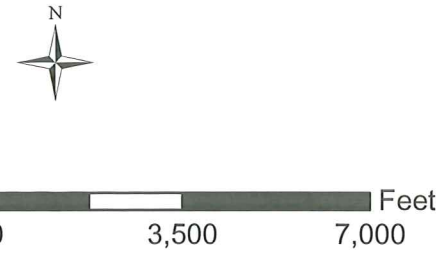
Greenwich Township & Lenhartsville Borough Berks County, Pennsylvania



- Slope**
- > 25%
 - 15-25%
 - < 15%
 - Municipal Boundary
 - Major Roads
 - Local Roads



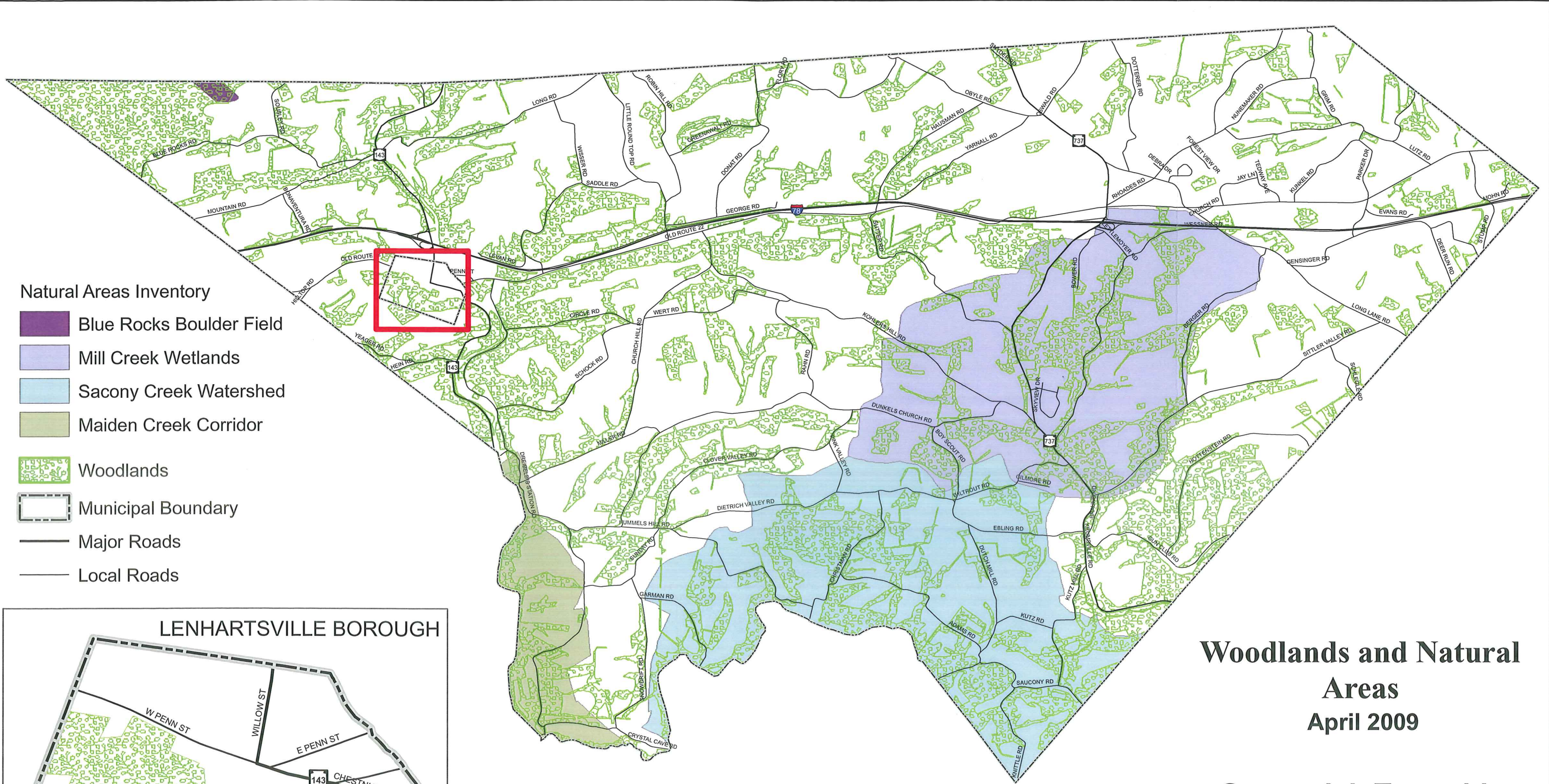
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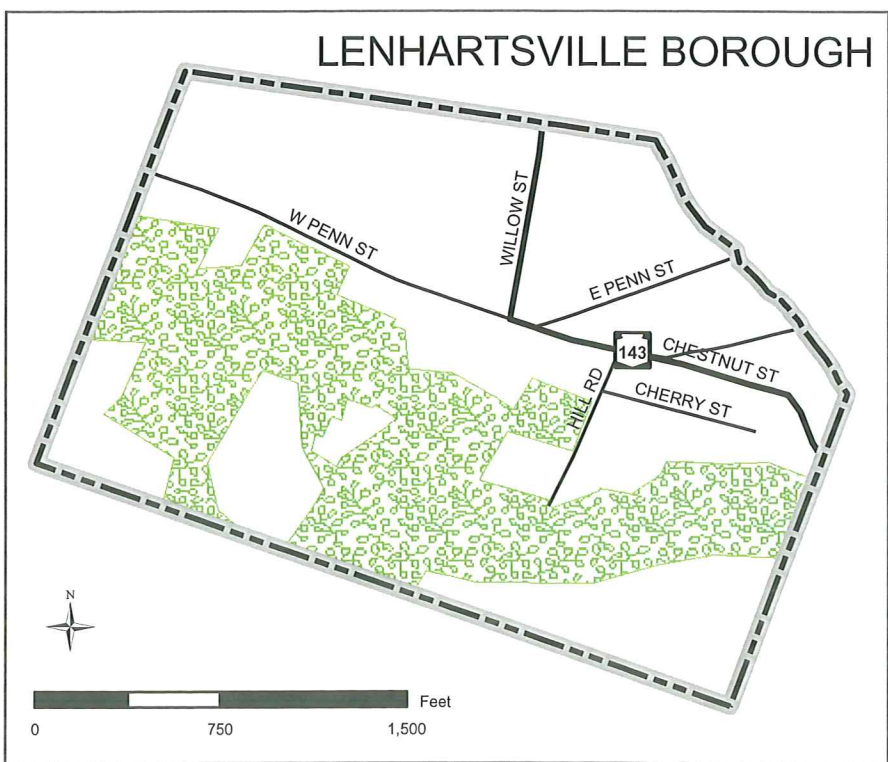
Topography
April 2009

Greenwich Township & Lenhartsville Borough
Berks County, Pennsylvania

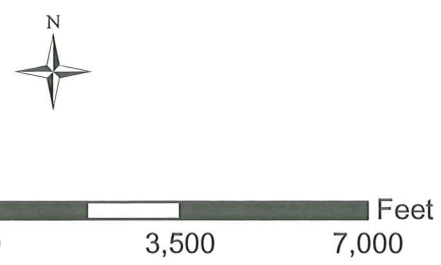
Source Data: Berks County Planning Commission, Urban Research & Development Corporation



- Natural Areas Inventory**
- Blue Rocks Boulder Field
 - Mill Creek Wetlands
 - Sacony Creek Watershed
 - Maiden Creek Corridor
 - Woodlands
 - Municipal Boundary
 - Major Roads
 - Local Roads



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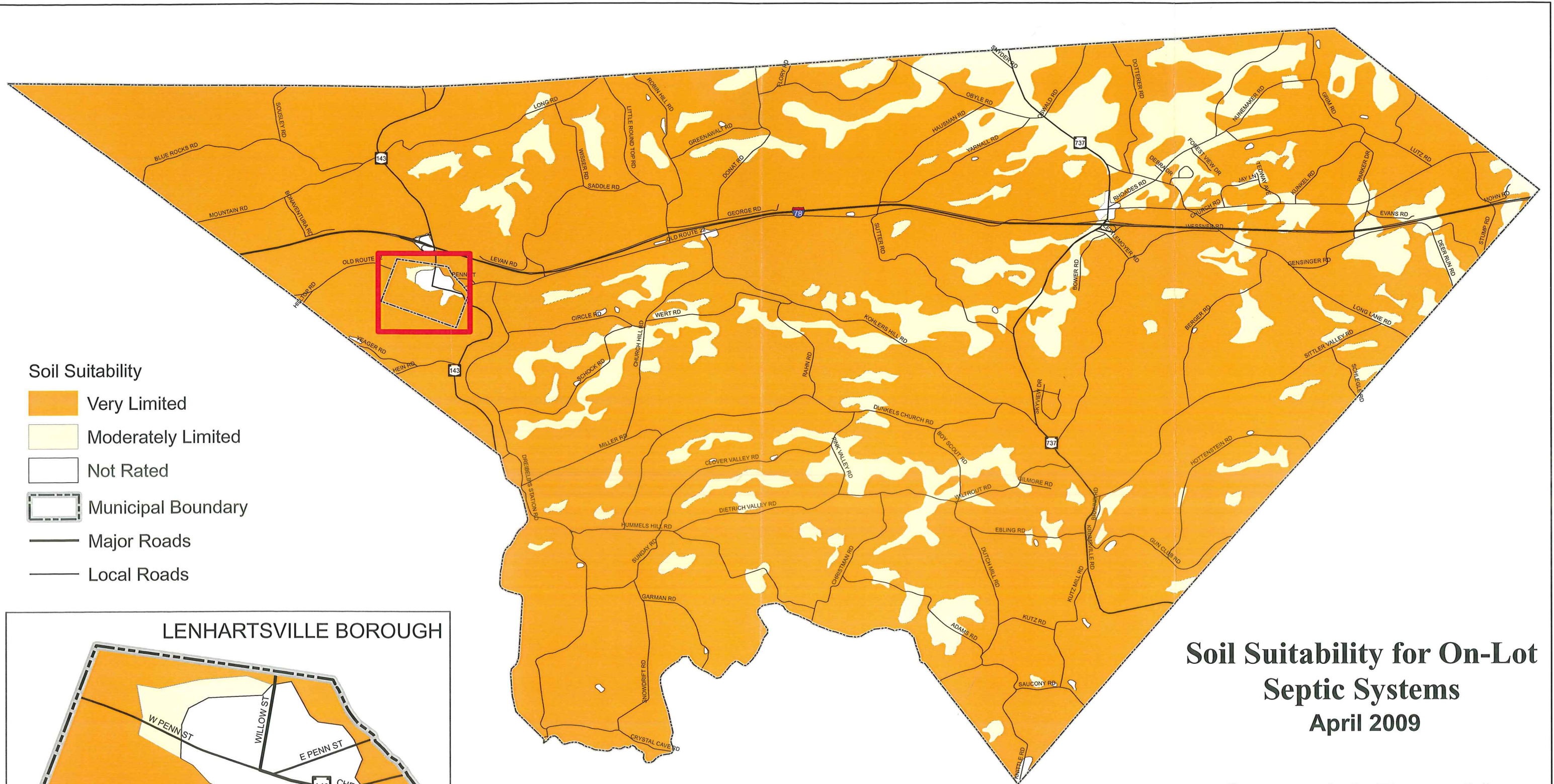


Woodlands and Natural Areas

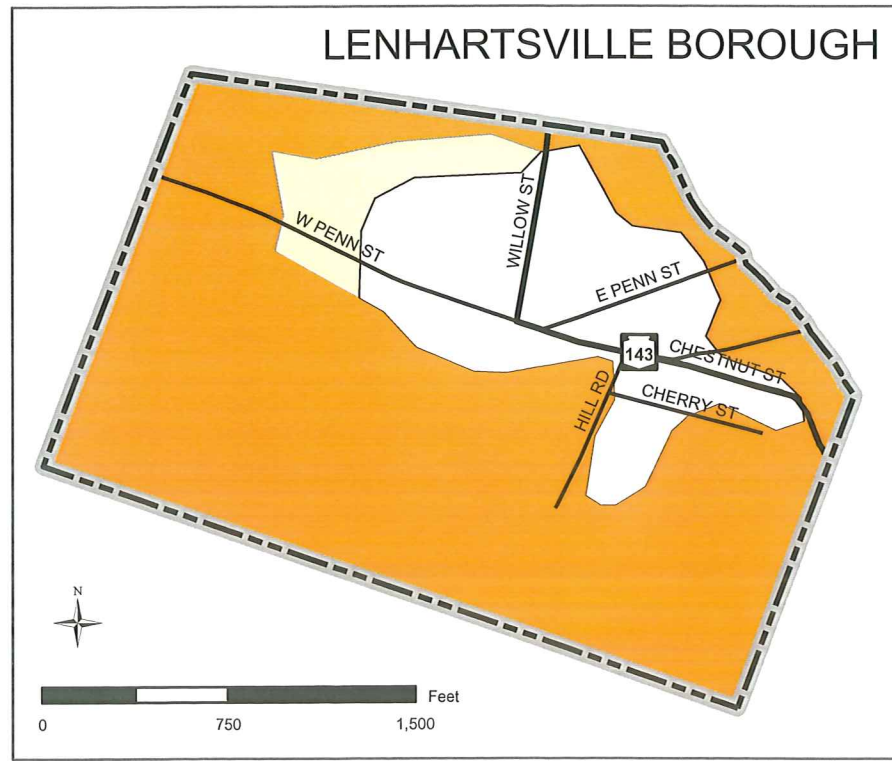
April 2009

**Greenwich Township
& Lenhartsville Borough**
Berks County, Pennsylvania

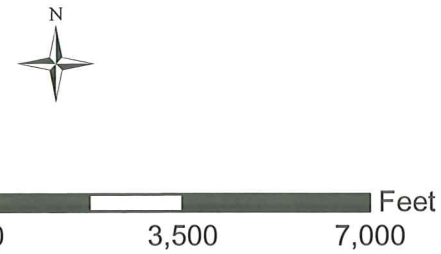
Source Data: Berks County Planning Commission, Urban Research & Development Corporation, The Nature Conservancy



- Soil Suitability**
- Very Limited
 - Moderately Limited
 - Not Rated
 - Municipal Boundary
 - Major Roads
 - Local Roads



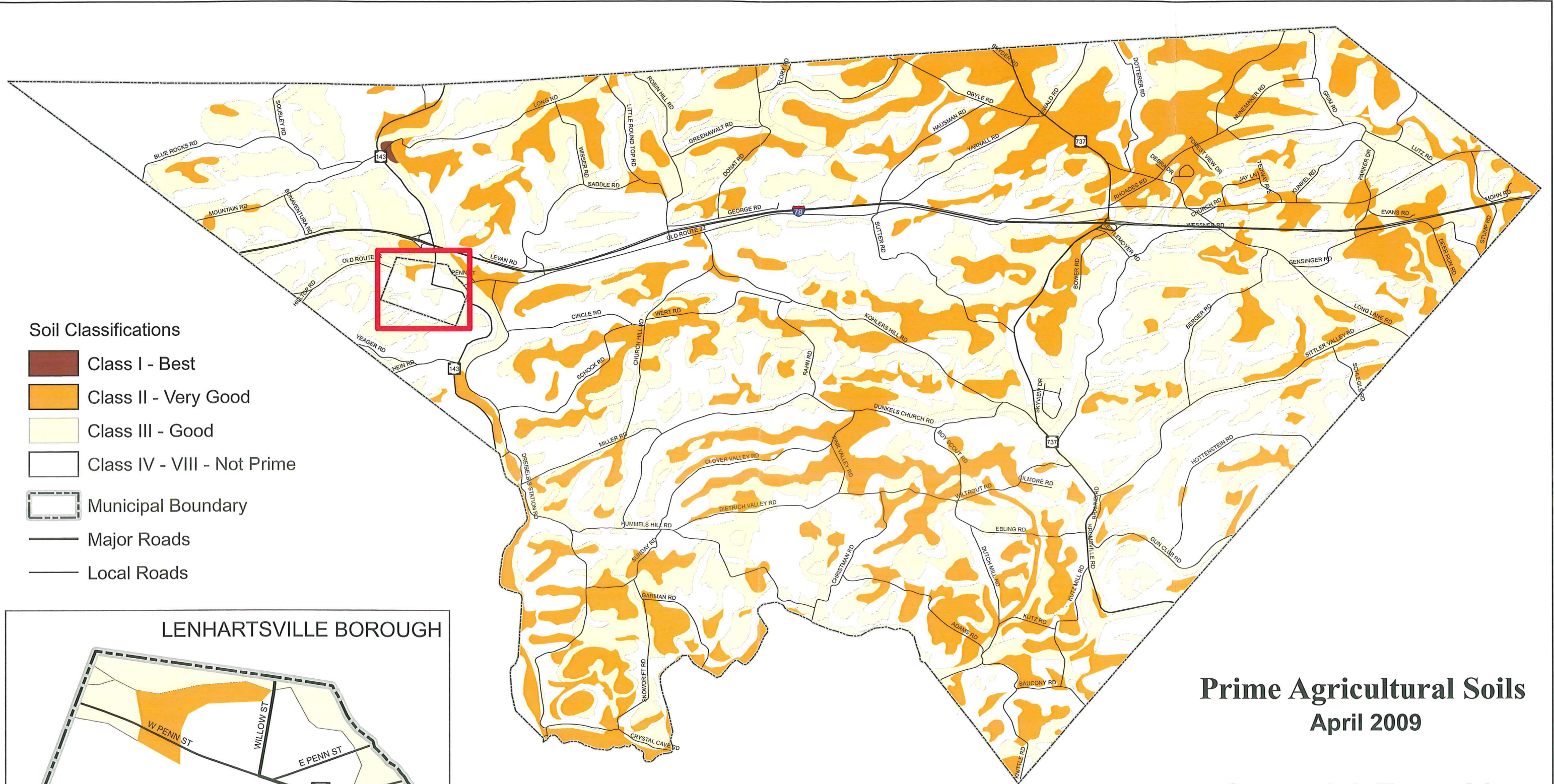
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**Soil Suitability for On-Lot
Septic Systems
April 2009**

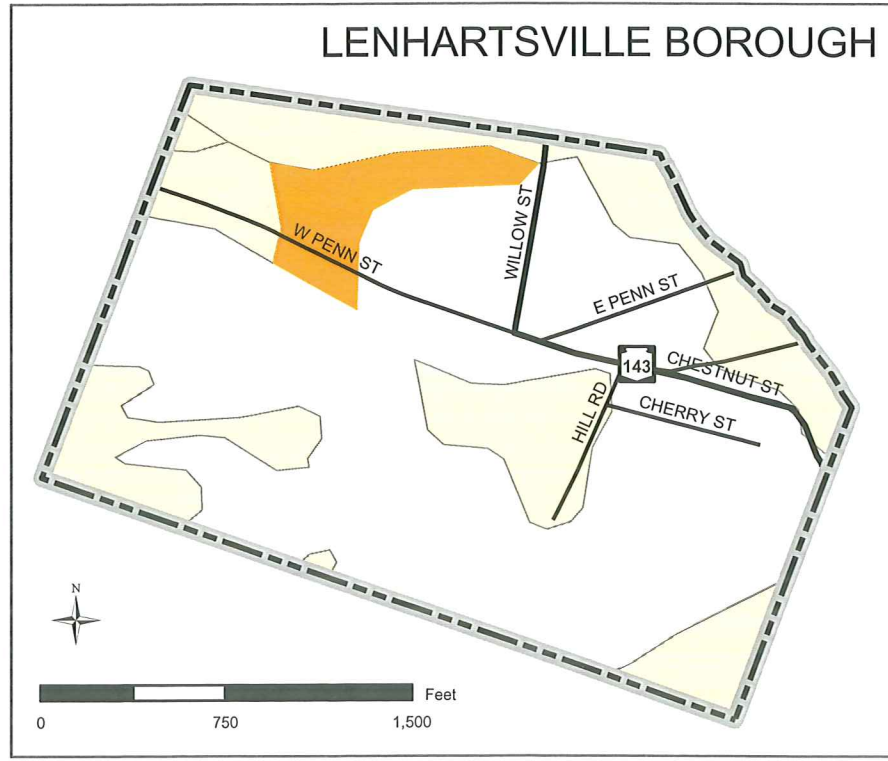
**Greenwich Township
& Lenhartsville Borough**
Berks County, Pennsylvania

Source Data: Berks County Planning Commission, Urban Research & Development Corporation, USDA Natural Resources Conservation Service

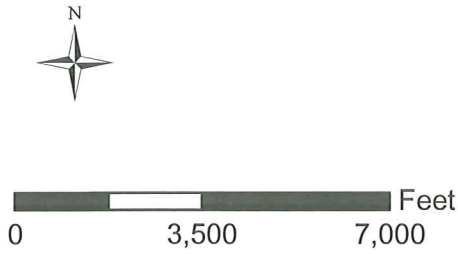


Soil Classifications

- Class I - Best
- Class II - Very Good
- Class III - Good
- Class IV - VIII - Not Prime
- Municipal Boundary
- Major Roads
- Local Roads



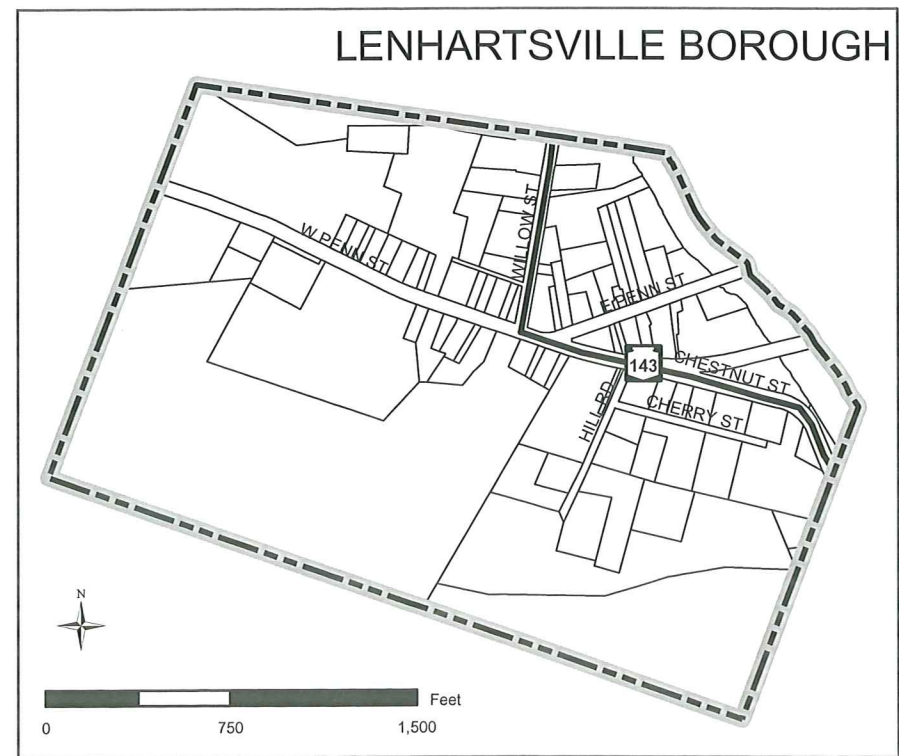
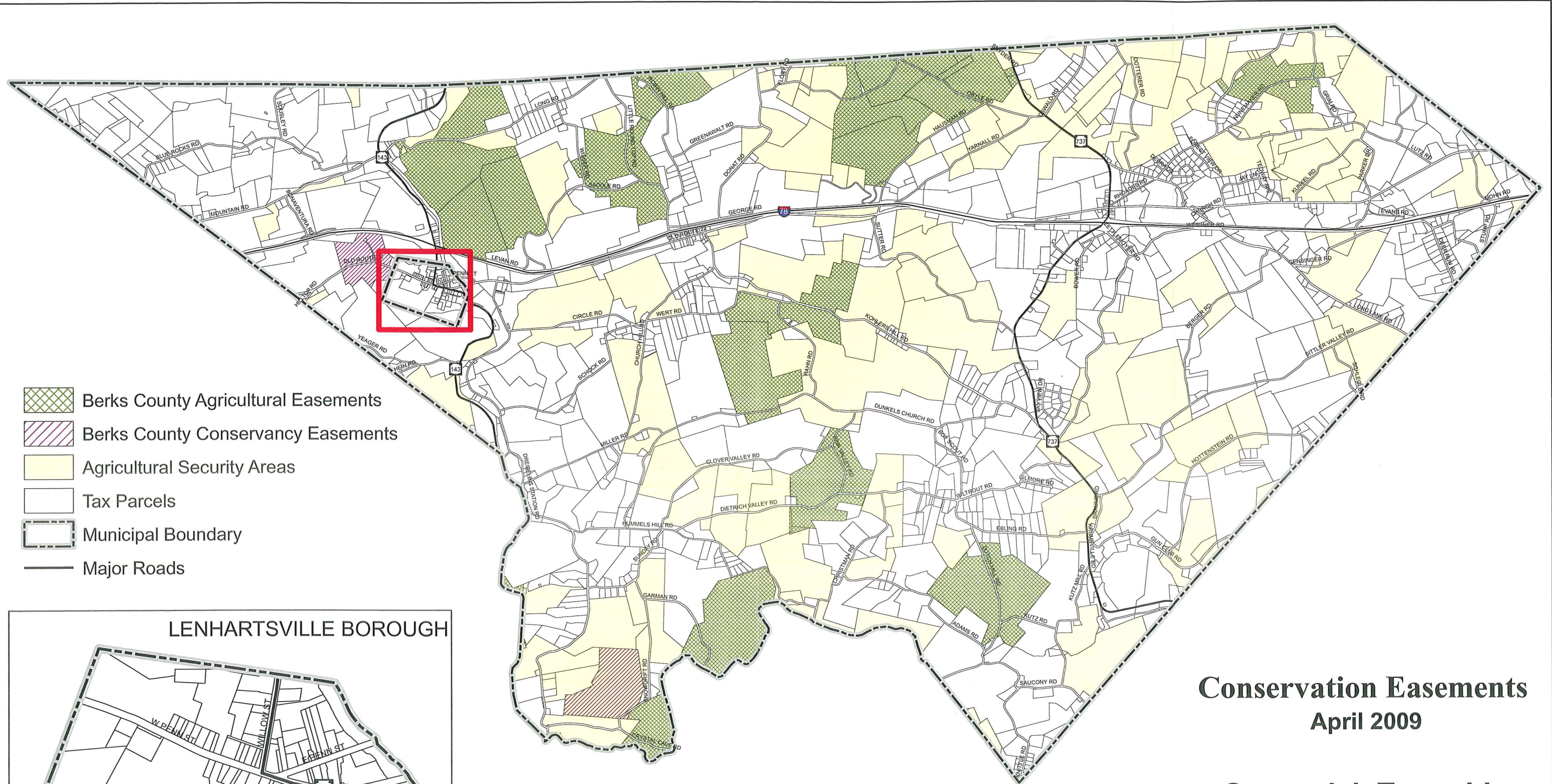
The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.



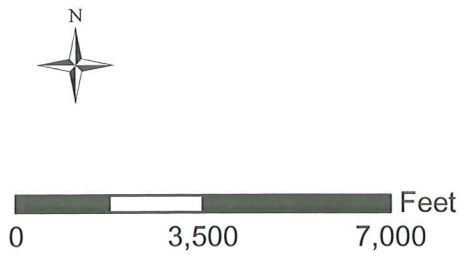
**Prime Agricultural Soils
April 2009**

**Greenwich Township
& Lenhartsville Borough
Berks County, Pennsylvania**

Source Data: Berks County Planning Commission, Urban Research & Development Corporation, USDA Natural Resources Conservation Service



The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.



Conservation Easements April 2009

Greenwich Township & Lenhartsville Borough Berks County, Pennsylvania

Geology and Groundwater

Geology and the availability of groundwater need to be considered when planning for future development. Greenwich Township and Lenhartsville Borough are both located within the Valley and Ridge Province. The geology of this region was formed during the Ordovician Age and consists primarily of Martinsburg Shale. Ordovician Age formations are considered to yield small to moderate amounts of groundwater.

Martinsburg Shale is a dark-gray shale, which is sandy toward the top. Martinsburg Shale is the parent material and forms the base of the Berks-Weikert-Bedington soil association. The Berks-Weikert-Bedington soil association contains shallow to deep well-drained, rolling soils formed in material weathered mainly from shale and siltstone. The following section further describes the area's soil characteristics.

Radon

Radon gas is an invisible, odorless and radioactive gas whose presence is related to geology. Radon is thought to increase health risks when persons are exposed to concentrations of the radon over a period of time. Concentrations occur when enclosed areas (such as basements) accumulate these natural gases.

The Greenwich-Lenhartsville area's close proximity to the Reading Prong increases the likelihood of the presence of radon gas. (Several homes in the area have been tested and reported high levels of radon.) The Reading Prong is a geologic area which produces a very high level of radon from Reading to the Lehigh Valley along the South Mountain corridor.

In the siting of new residential construction, builders would like to be able to predict the potential for radon problems associated with each building site. Unfortunately, at present there are no reliable methods for correlating the results of radon soil tests at a building site with subsequent indoor radon levels in a house built on that site. Houses vary significantly in their ability to resist radon entry. This is true even among houses where controlling radon entry was not considered during construction. Determining where high levels of radon are located can thus be difficult. Radon could be found at high levels in one home and be virtually non-existent next door.

Soils

Many different soil types with a variety of soil features exist within the Greenwich-Lenhartsville area. Typically, soils are analyzed for the following two important qualities:

- the ability of the soil to support septic systems, and
- the ability of the soil to support agriculture.

Soils are classified according to their ability to support on-site septic systems. Soils which are considered unsuitable for on-lot systems are shallow, stony, poorly drained or on steeply sloped land. Soil suitability for on-site septic systems is not an important issue in areas served by public or private community sewage systems, such as Highland Estates in Greenwich Township. However, soil suitability for on-site septic systems is a critical issue for existing and future development within most of the Greenwich-Lenhartsville area.

As shown on the Soil Suitability for On-Lot Septic Systems Map, soil suitability varies considerably within the Greenwich-Lenhartsville area. West of the Maiden Creek and in large portions of central and southern Greenwich, there is virtually no land suitable for on-site septic systems. Bands of soils with only moderate to slight limitations for on-site waste treatment run through all parts of the Township east of the Maiden Creek. The heaviest concentrations of soils best suited for on-site septic systems are in the northeastern quadrant of the Township and in parts of Greenwich's central sector.

As seen on the Prime Agricultural Soils Map, soils are also classified according to their ability to support agriculture. Class I and Class II agricultural soils are considered prime agricultural soils and indicate where the best farmland is located. Class III soils have limitations in their ability to support certain crops and require additional conservation practices. Classes IV-VII are considered the least favorable for agricultural use because of their very severe limitations to farming.

No Class I agricultural soils are located within Greenwich or Lenhartsville. Many Class II and III agricultural soils are found through the Township and the Borough. Class IV through Class VIII soils are found throughout the Greenwich-Lenhartsville area, especially areas that are on steep slopes, rolling hills, creek bluffs and along the Blue Mountain.

Animals and Plants of Special Concern

The Pennsylvania Natural Diversity Inventory (PNDI) provides information on unique and endangered plants, animals and geological features in the State. PNDI sites in the Greenwich-Lenhartsville area include a habitat for the Bog Turtle and a habitat for a wildflower known as Blue Curl. The Bog Turtle (*Clemmys muhlenbergii*) is the rarest of North American Turtles and may be found in a small pond and tributary of the Sacony Creek along the east side of Kutz Mill Road between Sacony Road and the Sacony Creek in the southeast corner of the Township. The wildflower named Blue Curl or "Trichostema setaceum" can reportedly be found along the bluffs overlooking the Sacony Creek between Crystal Cave Road and Garman Road.

In addition, the Pennsylvania Science Office of the Nature Conservancy completed the Berks County Natural Areas Inventory. This Inventory notes the importance of the Blue Mountain and the Appalachian Trail. The Blue Mountain is the largest forested area in Berks County and an important recreational resource. Blue Mountain is also home to four animal species of special concern because of the dwindling populations.

The Appalachian Trail is a well known, multi-state hiking path that passes through northern Greenwich Township.

POPULATION, HOUSING AND EMPLOYMENT

- *Local population, housing and employment trends illustrate how an area's residents, housing stock and economy are changing over time. These trends help determine planning and zoning policies such as how much land to set aside for commerce, industry and different types of residential uses. In particular, there has been an increase throughout the nation in the number of non-traditional households, including single person households, divorced persons, and larger numbers of senior citizens.*

Total Population

Greenwich Townships 2000 population was 3,386, an increase of 409 persons (13.7%) since 1990. When compared to Berks County's growth, the Township was slightly higher from 1990 to 2000, which was more in comparison when compared to the growth experienced from 1980 to 1990 with a difference of 14.7%.

Lenhartsville Borough has experienced a loss in population since 1970, with the period between 1990 and 2000 having the largest drop in population at 22 people (-11.3%). Lenhartsville still remains one of the least populated in the region.

TOTAL POPULATION Greenwich Township, Lenhartsville Borough, and Berks County 1970-2000

YEAR	GREENWICH TOWNSHIP			LENHARTSVILLE BOROUGH			BERKS COUNTY		
	Persons	Number Change	Percent Change	Persons	Number Change	Percent Change	Persons	Number Change	Percent Change
1970	1,404	-	-	220	-	-	296,382	-	7.6
1980	2,432	1,028	73.2	200	- 20	- 9.7	312,509	16,127	5.4
1990	2,977	545	22.4	195	- 5	- 2.5	336,523	24,014	7.7
2000	3,386	409	13.7	173	- 22	- 11.3	373,638	37,115	11.0

Source: U. S. Census

The U.S. Census has recently completed estimates for 2006. Greenwich Township is estimated to include 3,541 persons, an increase of 155 (4.6%) from 2000. Lenhartsville Borough is estimated to have experienced a decrease, by 2 people to a total of 171 persons.

According to the Berks County Planning Commission, the population projections for the years 2010, 2020 and 2030 show increases in population for both Greenwich Township and Lenhartsville Borough.

Greenwich is expected to grow to 3,587 in 2010, 3,801 in 2020, and 4,030 in 2030. Lenhartsville, over the same time periods is expected to grow to 183 in 2010, 194 in 2020, and 206 in 2030. The increase in population for Lenhartsville can be related to the installment of a Borough sewage system.

The following table shows total population increases and decreases for the surrounding municipalities of Greenwich Township and Lenhartsville Borough. Greenwich, in population, is average in total population when compared to the surrounding municipalities, while Lenhartsville remains significantly lower. Maxatawny Township remains the leading regional municipality for total population with 5,982 people in 2000, according to the U.S. Census.

TOTAL POPULATION
Greenwich Township, Lenhartsville Borough,
Adjacent Municipalities and Berks County
1970-2000

MUNICIPALITY	1970	1980	1990	2000
Albany Township	1,109	1,381	1,547	1,662
Greenwich Township	1,404	2,432	2,977	3,386
Lenhartsville Borough	220	200	195	173
Maxatawny Township	4,640	5,269	5,724	5,982
Perry Township	2,112	2,420	2,516	2,517
Richmond Township	2,745	3,204	3,439	3,500
Windsor Township	2,108	2,199	2,101	2,392
BERKS COUNTY	296,382	312,509	336,523	373,638

Source: U. S. Census

Gender

Gender refers to the number of males and females in a population. There are no special conditions in either Greenwich Township or Lenhartsville Borough that have altered the traditional 50/50 balance between total males and total females.

GENDER
Greenwich Township, Lenhartsville Borough, and Berks County
2000

AREA	TOTAL POPULATION	MALES		FEMALES	
		Number	Percent	Number	Percent
Greenwich Township	3,386	1,733	51.2	1,653	48.8
Lenhartsville Borough	173	85	49.1	88	50.9
BERKS COUNTY	373,638	182,956	49.0	190,682	51.0

Source: U. S. Census

Persons By Age

Information on age trends with a population is helpful in assessing existing and projected needs for housing, schools, recreation programs and other municipal services. Age trends also provide clues to whether an area is likely to gain or lose population in coming years.

Greenwich Township and Lenhartsville Borough had a very distinct change in age cohorts from 1990 to 2000. With children ages 9 and under, Lenhartsville increased its population by 90% from 1990 to 2000, while Greenwich experienced a 15.3 decrease in the same age cohort and time period. Age groups between 10-21 years of age experienced a reversal, in both municipalities, when compared to the children of 9 years old and under. Greenwich increased in this age cohort by 13.5% while Lenhartsville decreased by 55%. Greenwich saw an increase of adults in the 45-54 category by 95.3% while Lenhartsville decreased by 21.4%.

When comparing the different age groupings to the County, the percentage in increases and decreases in all the various groups differ. The 22-34 year olds are the only consistent age cohort that have decreased in Greenwich, Lenhartsville and Berks County, between 1990 and 2000. Greenwich's largest age cohort growth was in the 45-54 year olds, consistent with Berks County.

PERSONS BY AGE
Greenwich Township, Lenhartsville Borough and Berks County
1990 - 2000

AGE	GREENWICH TOWNSHIP			LENHARTSVILLE BOROUGH			BERKS COUNTY		
	2000 Population		% Change 1990-2000	2000 Population		% Change 1990-2000	2000 Population		% Change 1990-2000
	%	Number		%	Number		%	Number	
0 - 9	13.1	442	- 15.3	11.0	19	90.0	13.3	49,606	10.1
10 - 21	16.8	572	13.5	10.6	18	- 55.0	16.1	59,960	12.1
22 - 34	15.7	527	- 17.8	22.4	39	- 7.1	16.8	62,834	- 7.2
35 - 44	19.0	642	18.7	13.3	23	- 4.2	16.2	60,489	21.8
45 - 54	17.1	580	95.3	12.7	22	- 21.4	13.7	51,035	47.3
55 - 64	9.2	310	27.3	13.3	23	43.8	8.9	33,254	- 0.6
65 - 74	5.8	196	31.5	6.9	12	- 36.8	7.7	28,766	- 3.1
75+	3.5	117	46.3	9.8	17	6.3	7.3	27,424	20.2
Total	100.0	3,386	13.7	100.0	173	- 11.3	100.0	373,638	11.0

Source: U. S. Census

Race

Outside of Reading, Berks County has a relatively small non-white population. Non-whites were 6.5% of Berks County's population in 1990, but only 0.4% of all residents in Greenwich Township and 3.5% in Lenhartsville. Non-whites grew as a percentage of all people in Berks County during the 1990's. This trend was evident in both Greenwich and Lenhartsville.

RACIAL CHARACTERISTICS
Greenwich Township, Lenhartsville Borough, and Berks County
1990-2000

AREA	1990		2000	
	All Persons	Non-White Persons	All Persons	Non-White Persons
Greenwich Township	2,977	12 (0.4%)	3,386	51 (1.5%)
Lenhartsville Borough	195	7 (3.5%)	173	0
BERKS COUNTY	336,523	21,962 (6.5%)	373,638	44,178 (11.8%)

Source: U. S. Census

Population Density

Greenwich Township has approximately 30.8 square miles of land. This means the Township has a population density of 109.9 persons per square mile based on a 2000 population of 3,386. Lenhartsville has a much higher population density of 1,730 persons per square mile due to the Borough's small size of 0.1 square miles.

Lenhartsville has a considerably higher population density than any of the surrounding townships. Greenwich Township has a lower density when compared to the adjacent townships. Population increases since 1980 suggest the area's future will be characterized by more development. Berks County as a whole has a population density of 431.8 persons per square mile, as of 2000.

Household Size

Households refer to all persons living in a housing unit whether related or not. Reflecting a national trend, the area's and the County's households became smaller during the last decade. Later marriages, more divorces, fewer children and more elderly families contributed to this trend across the U.S. The typical Greenwich Township household had 2.7 persons in 2000. This was slightly higher than the average household in Lenhartsville (2.2) and Berks County (2.5).

A large average household size is typical of growing areas with many young families. Smaller households are characteristic of older communities with more singles and elderly persons.

AVERAGE PERSONS PER HOUSEHOLD
Greenwich Township, Lenhartsville Borough and Berks County
1990-2000

AREA	AVERAGE PERSONS PER HOUSEHOLD	
	1990	2000
Greenwich Township	2.9	2.7
Lenhartsville Borough	2.4	2.2
BERKS COUNTY	2.6	2.5

Source: U. S. Census

Income and Education

Median income is the income level at which half an area's households earn more and half earn less. Greenwich Township's 1999 median annual household income of \$51,250 was higher than the Berks County average of \$44,714. However, 1999 median annual income in Lenhartsville (\$36,071) was significantly lower than the County's median.

According to the 2000 Census, Greenwich Township had 4.1% of its population living below poverty level in 1999, compared to 9.8% in Lenhartsville and 9.4% in Berks County overall. The poverty rate dropped in Greenwich Township but increased in both Lenhartsville (1.0% to 9.8%) and Berks County (7.8% to 9.4%), from 1989 to 1999.

Since 1964, the federal government has computed annual income levels that represent the threshold of poverty. These figures are adjusted to account for family size, age, gender of family-head, farm or non-farm residence and other considerations. The poverty threshold is intended to measure the minimum income necessary to maintain healthy living conditions.

Education is often related to a person's ability to get and keep a good job. The percentage of all adults in Greenwich Township that graduated from high school increased from 76.4% to 80.6% but college graduates dropped from 20.2% to 18.8%, from 1990 to 2000. Lenhartsville's high school graduation rate significantly rose from 59.6% to 78.5% and college graduates rose from 7.8% to 9.2%, in the same time period. Both Greenwich and Lenhartsville had a higher percentage of high school graduates than the County (78.0%) but Greenwich was just over the County's average of college graduates (18.5%).

INCOME AND EDUCATION CHARACTERISTICS Greenwich Township, Lenhartsville Borough and Berks County 1990-2000

AREA	MEDIAN ANNUAL HOUSEHOLD INCOME		PERCENT OF PERSONS IN POVERTY		PERCENT COLLEGE GRADUATES		PERCENT HIGH SCHOOL GRADUATES	
	1989	1999	1989	1999	1990	2000	1990	2000
Greenwich Township	\$36,550	\$51,250	5.9	4.1	20.2	18.8	76.4	80.6
Lenhartsville Borough	\$24,167	\$36,071	1.0	9.8	7.8	9.2	59.6	78.5
BERKS COUNTY	\$32,048	\$44,714	7.8	9.4	15.1	18.5	70.0	78.0

Source: U. S. Census

Total Housing Units

Trends in total housing units usually mirror changes in total persons. However, even areas losing population tend to add housing units to accommodate the new households being created by singles, divorced people and the elderly. Greenwich added 252 housing units during the 1990's, an increase of 23.4%. This growth rate was significantly higher than both Lenhartsville's 3.5% decrease and the 11.7% gain experienced County-wide.

Housing unit density for 2000 reflects the 2000 population density discussed earlier. Greenwich Township, with its large land area, has a density of 43.2 housing units per square mile. This figure reflects the large areas of undeveloped land within the Township. In comparison, Lenhartsville has a housing unit density of 820 housing units per square mile. The Borough's small land area, smaller lot sizes and relatively small amounts of remaining undeveloped land contribute to this higher density.

TOTAL HOUSING UNITS
Greenwich Township, Lenhartsville Borough, and Berks County
1990-2000

AREA	TOTAL HOUSING UNITS		1990-2000 CHANGE	
	1990	2000	Number	Percent
Greenwich Township	1,078	1,330	252	23.4
Lenhartsville Borough	85	82	- 3	- 3.5
BERKS COUNTY	134,482	150,222	15,740	11.7

Source: U. S. Census

Housing Type

Households tend to demand various types of housing as they mature. The cycle begins with young adults and family starters who often need smaller, less expensive housing. Households with children tend to prefer larger, single-family homes. As the household grows older and divides, housing preferences and needs often return full-circle to apartments, townhouses and other small units such as mobile homes.

Lenhartsville as an older community and Greenwich as a municipality more oriented to young families will each face different types of housing markets in the near and longer term future.

In 2000 single-family detached homes comprised 72.0% of the housing stock in Greenwich Township. Single-family attached units, such as twins, row homes and townhouses, accounted for only 2.8% of the Township's housing. These statistics are typical of a rural township, except Greenwich had a high percentage of mobile homes (22.5%) due to the large mobile home park of Highland Estates.

In Lenhartsville, single-family homes were 58.4% of all Borough housing in 2000, compared to 13.0% for single-family attached units. Lenhartsville has more single-family homes than is typically found in an older, established borough. Berks County's overall housing profile, more closely resembles Lenhartsville than Greenwich due to the significant effect of Reading on County-wide totals.

HOUSING TYPE
Greenwich Township, Lenhartsville Borough, and Berks County
2000

TYPE	GREENWICH TOWNSHIP		LENHARTSVILLE BOROUGH		BERKS COUNTY	
	Number	Percent	Number	Percent	Number	Percent
Single Family Detached	897	72.0	45	58.4	78,946	55.8
Single Family Attached	35	2.8	10	13.0	32,377	22.9
2-4 Unit Structure	30	2.4	15	19.5	12,458	8.8
5+ Unit Structure	4	0.3	5	6.5	12,542	8.9
Mobile Home & Others	280	22.5	2	2.6	5,247	3.7
Total	1,246	100.0	77	100.0	141,570	100.0

Source: U. S. Census

Housing Ownership and Value

The amount of rental housing in an area compared to owner-occupied homes affects housing affordability and an area's ability to respond to the life cycle changes in housing demand described earlier. More rental units usually means less expensive housing, more affordable to singles, young families and older people. Areas with high rates of owner-occupied housing can be less accessible to singles, starter families and the elderly.

Owner-occupied homes account for 86.1%, up from 80.1% in 1990, of Greenwich Township's housing, compared to 62.8% in Lenhartsville and 74.0% County-wide. Typically, more owner occupied homes exist in townships and more rental housing is found in boroughs.

The high percentage of rental units in Lenhartsville is primarily the result of a long history of residential conversions within the Borough. Many rental units were converted from single family homes. Continued conversions will negatively affect the overall housing quality of the community.

Berks County's 2000 vacancy rate of 5.8% was higher than that recorded in Lenhartsville Borough (4.9%) but not in Greenwich Township (6.4%). Vacancy rates of 3% to 5% are usually considered desirable to offer sufficient choice for households moving into an area. Greenwich's slightly higher vacancy rate appears to be characteristic of a more active housing market that features both new, unoccupied housing and many job transfers, while Lenhartsville's reflects a more stable population.

HOUSING OWNERSHIP AND VALUE
Greenwich Township, Lenhartsville Borough and Berks County
2000

OWNERSHIP	GREENWICH TOWNSHIP		LENHARTSVILLE BOROUGH		BERKS COUNTY	
	Number	Percent	Number	Percent	Number	Percent
Owner-Occupied	1,072	86.1	49	62.8	104,719	74.0
Renter-Occupied	173	13.9	29	37.2	36,851	26.0
Vacant	85	6.4	4	4.9	8,652	5.8
Total	1,330	100.0	82	100.0	150,222	100.0
MEDIAN VALUE OF OWNER-OCCUPIED UNIT	\$ 140,300		\$ 84,600		\$ 104,900	

Source: U. S. Census

The 2000 median value for owner-occupied homes in Greenwich Township was \$140,300. This was significantly higher than the Berks County average of \$104,900. Lenhartsville's median (\$84,600) was significantly lower than either the Greenwich Township or County-wide values for the same year. Greenwich's owner-occupied homes are typically larger and situated on more acreage than those found in Lenhartsville Borough and other more urbanized locations.

In 2000, Greenwich Township had a rental vacancy rate of 7.0% and median monthly rental rate of \$574. By comparison, Lenhartsville had a rental vacancy rate of 6.5% and median monthly rental rate of \$518 in 2000.

Housing Age and Condition

Age can be a valuable indicator of housing quality when viewed in conjunction with other characteristics such as housing value and housing condition. Lenhartsville's housing stock is considerably older than housing in Greenwich Township and Berks County overall. In Lenhartsville, 72.7% of the housing units were built before 1940, compared to 25.8% in the Township and 31.3% County-wide.

Overcrowded units comprise 2.3% throughout Berks County, and 0.9% in Greenwich Township.

HOUSING AGE AND CONDITION
Greenwich Township, Lenhartsville Borough, and Berks County
2000

	GREENWICH TOWNSHIP	LENHARTSVILLE BOROUGH	BERKS COUNTY
Percent Overcrowded (1.01 or more persons per room)	0.9	0.0	2.3
Percent Built Before 1940	25.8	72.7	31.3
Total Housing Units	1,246	77	141,570

Source: U. S. Census

Employment

Historically, agriculture has been the prime employer in Greenwich Township while in the Lenhartsville Borough it has been retail and manufacturing trades. The largest employment sectors for Township residents consist of the following; Manufacturing (22.2%); Education, health and social services (21.1%); and Retail Trade (10.8%). In Lenhartsville, education, health and social services (19.5%) and professional services (10.3%) have grown to become two of the top three employment sectors, while manufacturing (14.9%) is still important to Borough residents.

EMPLOYMENT BY INDUSTRY
Greenwich Township and Lenhartsville Borough
2000

	GREENWICH TOWNSHIP		LENHARTSVILLE BOROUGH	
	Number	%	Number	%
Agriculture, Forestry & Fisheries	77	4.0	4	4.6
Construction	134	6.9	6	6.9
Manufacturing	429	22.2	13	14.9
Wholesale Trade	63	3.3	2	2.3
Retail Trade	209	10.8	5	5.7
Transportation, warehousing & utilities	105	5.4	8	9.2
Information	16	0.8	3	3.4
Finance, Insurance & Real Estate	116	6.0	1	1.1
Professional Services	139	7.2	9	10.3
Education, health and social services	407	21.1	17	19.5
Arts, entertainment, recreation, food services	145	7.5	7	8.0
Other Services (except public admin)	74	3.8	7	8.0
Public Administration	17	0.9	5	5.7
TOTAL	1,931	100.0	87	100.0

Source: U.S. Census

GOVERNMENT PROFILE

Each community operates an efficient local government that relies largely on volunteers with only a minimum of municipal staff.

Greenwich is a township of the second class governed by a three-person Board of Supervisors. The Supervisors are elected at large for six-year terms. Lenhartsville is a borough governed by a seven-person Borough Council and a Mayor. The Borough Council and Mayor are elected at large for four-year terms. Only Greenwich Township has a planning commission. Both municipalities have a zoning hearing board.

Greenwich and Lenhartsville each retains a solicitor and a consulting municipal engineer. Lenhartsville's municipal offices are located in the one-room school house on Willow Street in the Borough. Greenwich Township operates a municipal building and garage along Old Route 22 between Klinesville and Krumsville.

EXISTING LAND USES

Concern for the use of land is the essence of comprehensive planning. Lenhartsville includes several businesses, with single-family homes occupying almost all remaining developed area in the Borough. Steep, unbuildable land covers much of Lenhartsville south of Old Route 22, which bisects the community in an east-west direction.

Greenwich is a rural, largely undeveloped area. Farming and scenic wooded hillsides still dominate the Township, although newer residential subdivisions are now also found in various areas throughout the municipality. There is very little commerce and industry in Greenwich outside of a small cluster of businesses located near the Route 737 interchange with Interstate 78 and along Old 22.

Residential Land Uses

Residential land uses are by far the predominant use of developed land in both the Township and Borough.

Farmsteads and single-family detached homes are the two main housing types in Greenwich. Farmsteads are located along major and minor roads in every part of the Township. Single-family detached homes have developed in unplanned fashion throughout the community. There are some unified residential subdivisions in Greenwich, complete with loop roads and suburban style cul-de-sacs. Glendale Farms North on Old Route 22 and Meadow View Farm off Route 737 are two prominent examples of this residential development type in the Township. There is virtually no multi-family or attached housing in Greenwich.

Like Greenwich, Lenhartsville's housing stock is largely single-family detached homes. However, the Borough does have some attached housing, as shown on the accompanying Existing Land Use Map. There are also apartments in Lenhartsville on the upper floors of the Deitsch Eck Inn.

Commercial Land Uses

Only a small proportion of land in the Greenwich/Lenhartsville area is in commercial use. Greenwich contains approximately 70 acres of commerce, 0.4% of the Township. Lenhartsville has approximately 3 acres devoted to commercial use, 4.7% of all Borough land.

The largest concentration of commerce related uses in Greenwich is found in and around the village of Krumsville at the Route 737 interchange of Route 22. This area includes a gas station/convenience store, an inn, a restaurant and auto-related uses. There are assorted commercial uses grouped along Old Route 22 in the eastern sector of the Township. A recreational vehicle business, a motel and a firewood business are located on Old Route 22 just east of Lenhartsville. The remainder of Greenwich's commercial land uses are isolated in scattered locations throughout various parts of the community in otherwise residential areas.

Lenhartsville's small commercial sector mainly consists of a two restaurants, an appliance store and a gas station. These uses are all concentrated within one block of where Willow Street, Old Route 22 and East Penn Street converge in the center of the Borough.

Industrial Land Uses

Industry accounts for only a small proportion of all land use in the Greenwich/Lenhartsville area: 14 acres in the Township, 0.1% of total land and 12 acres in the Borough, 18.8% of total land area.

There are only a few major industrial land uses in Greenwich. There is a welding fabrication shop on Hottenstein Road and an engineering operation at the intersection of Route 737 and Rhoades Road.

A trucking and meat processing operation is the only industrial land use in Lenhartsville. This business occupies a significant part of that quadrant of the Borough north of West Penn Street and west of Willow Street.

Public/Semi-Public Land Uses

Public/semi-public uses comprise 60 acres in Greenwich, 0.3% of the Township's total land area. Public/semi-public uses occupy 0.3 acres in Lenhartsville, 0.5% of all land in the Borough.

Public/semi-public uses in Greenwich include the Township Garage on Old Route 22 and a PaDOT salt and stone storage area on Route 737. Three active churches are located in Greenwich: one at Old Route 22 and Long Lane, one on Route 737 and another along Old Route 22 just east of Lenhartsville. There is also an unoccupied church building with a cemetery on Dunkels Church Road. Greenwich-Lenhartsville Elementary School on Route 737 is the only school site in the Greenwich-Lenhartsville area.

The Borough Hall on Willow Street and the Lenhartsville Post Office on West Penn Street are the Borough's only public/semi-public land uses.

Public Recreation and Open Space Land Uses

Play fields at the Greenwich Elementary School and the State Gamelands in the far southern portion of the Township are the only Public Recreation and Open Space properties in Greenwich.

The Borough community park is the single recreation site in Lenhartsville. The Borough's community park, while publicly-accessible, is owned and maintained by a private resident.

Private Recreation Uses

Greenwich Township includes the following private recreation uses:

- Blue Rocks Campground - Sousley Road
- Camp Edmar - Boy Scout Road
- Grace Evangelical Congregation Church Campground - Boy Scout Road
- Kutztown Rod & Gun Club - Gun Club Road
- Pine Hill Campground - Old Route 22
- Old Dutch Mill Camp Sites - Saucony Road
- Robin Hill Camping - Robin Hill Road
- Highland Estates Recreation Area - Highland Estates Mobile Home Park

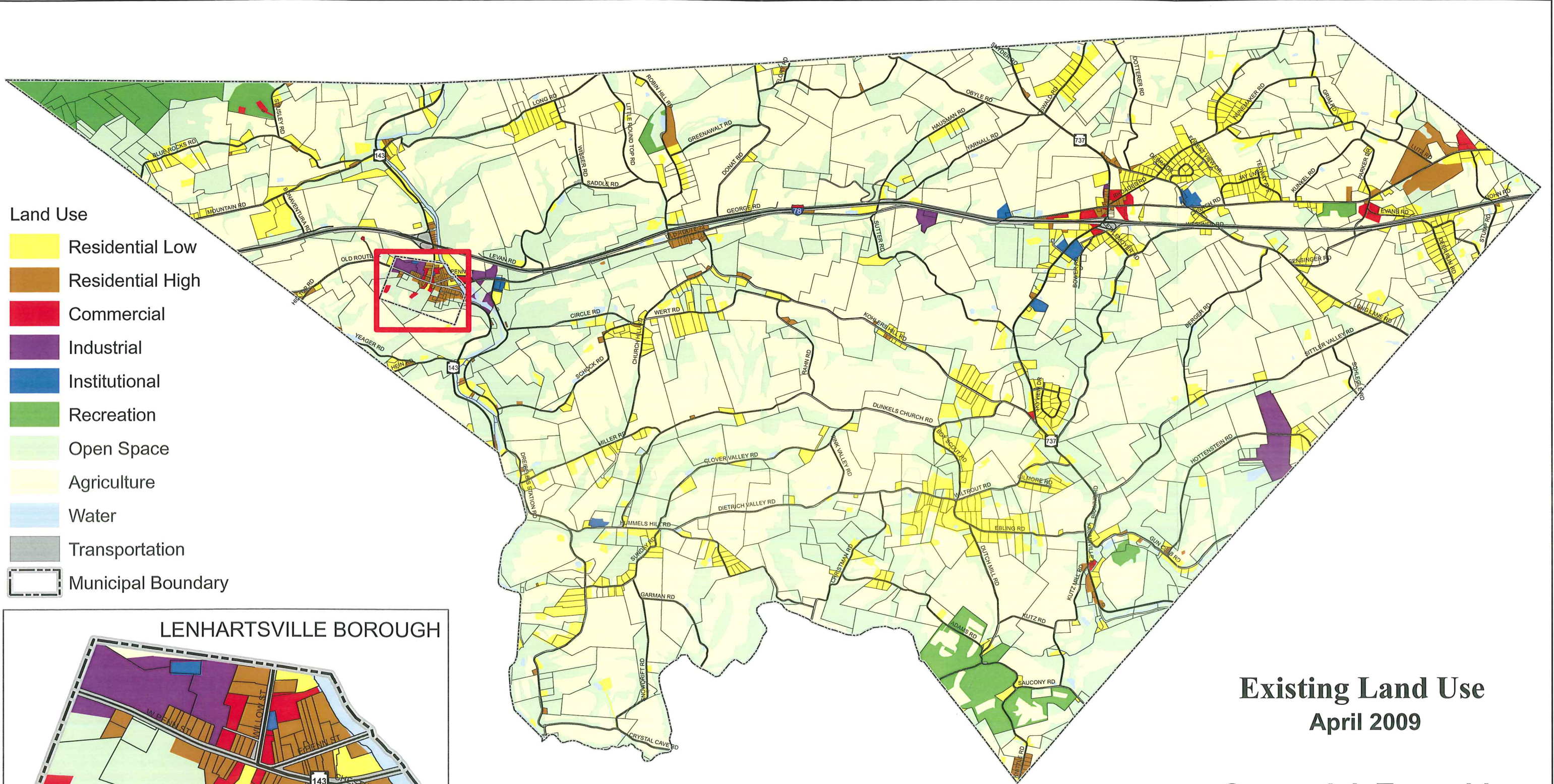
Agricultural and Other Undeveloped Land

Agricultural and other undeveloped lands comprise the largest proportion of land in both Greenwich and Lenhartsville. Greenwich has approximately 17,000 acres in this land use category, or about 88% of the Township. Lands in this category comprise approximately 32 acres in Lenhartsville, 50% of the Borough's total land.

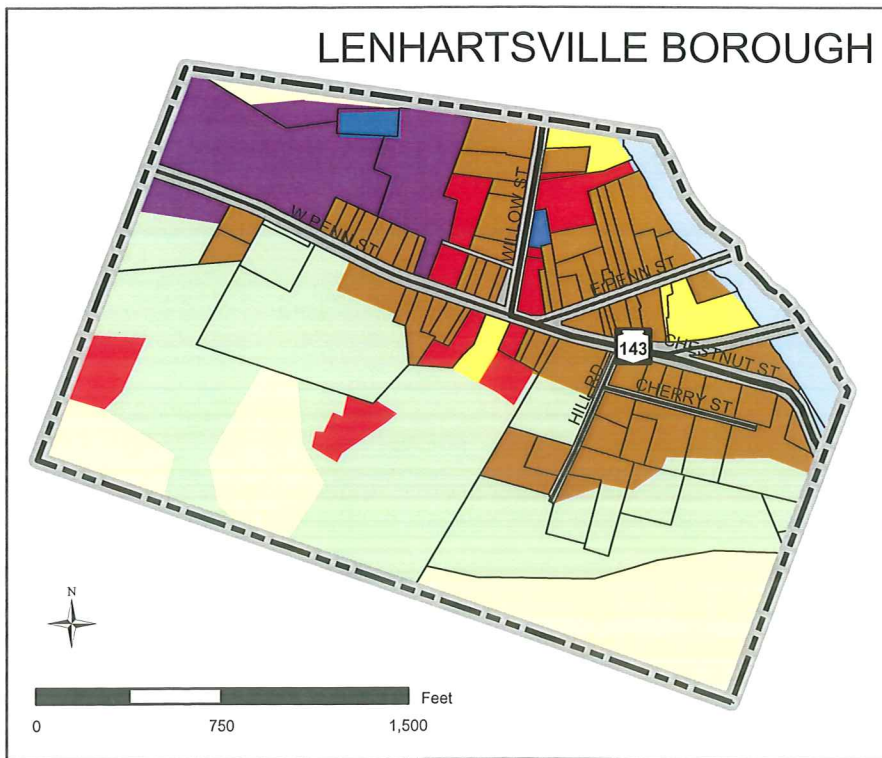
Undeveloped property in Greenwich Township includes wooded areas, steep slopes, floodprone land, farmland and assorted vacant parcels. Wooded areas, steep slopes and floodprone land are discussed in the Natural Features section of this plan. Farming is the predominant land use in the Township. Vast areas of contiguous farmland, consisting of both large and smaller properties, are found in every sector of Greenwich.

Greenwich Township has taken an important step to preserve farmland by establishing an Agricultural Security Area under State Act 43 of 1981. These areas, as shown on an accompanying map, encompass over 6,000 acres. Farms within the Agricultural Security Area are protected against certain regulations that constrain farming and are eligible to have Berks County purchase their development rights. Within Agricultural Security Areas, Township Supervisors agree to support agriculture by not passing laws which would restrict normal farming operations, limitations are placed on the municipality's ability to condemn farmland for schools, parks, roads, etc., and landowners can apply to sell conservation easements to the County.

Steeply sloped land not suited for construction comprises a large portion of the Borough south of West Penn Street/Chestnut Street. There are also sizeable vacant parcels in the Borough, as shown on the accompanying Existing Land Use Map.



- Land Use**
- Residential Low
 - Residential High
 - Commercial
 - Industrial
 - Institutional
 - Recreation
 - Open Space
 - Agriculture
 - Water
 - Transportation
 - Municipal Boundary



The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.



**Existing Land Use
April 2009**

**Greenwich Township
& Lenhartsville Borough
Berks County, Pennsylvania**

COMMUNITY FACILITIES AND SERVICES

Municipalities and other community-orientated entities provide a wide variety of facilities and services, including for recreation, education, public utility and emergency service purposes.

Education

Greenwich and Lenhartsville belong to the Kutztown Area School District, which also includes Albany Township, Maxatawny Township, Lenhartsville Borough, Lyons Borough and Kutztown Borough. The Kutztown Area School District includes the schools described on the following table:

SCHOOLS IN THE KUTZTOWN AREA SCHOOL DISTRICT

NAME	LOCATION
Kutztown Area High School	Kutztown Borough
Kutztown Area Middle School	Kutztown Borough
Albany Elementary School	Albany Township
Greenwich Elementary School	Greenwich Township
Kutztown Elementary School	Kutztown Borough
Maxatawny Elementary School	Maxatawny Township

Unlike many neighboring school districts, the Kutztown Area School District has been experiencing decreases in enrollment in recent years. The total enrollment as of 2009 was approximately 1,609 students. This was a decrease of 200 students from 6 years previous. The Pennsylvania Department of Education projects small decreases in total enrollment over the next decade. However, actual enrollments can vary greatly depending upon housing construction rates, local employment levels and birth rates.

The School District as of 2009 was discussing changes in the grade alignments, which may possibly involve the closing of the Albany and Maxatawny Elementary Schools.

Local students attend a number of private and parochial schools that are located outside of the two municipalities.

Library

Residents are served by the Kutztown Public Library and the Reading Public Library Bookmobile. The Rohrbach Library of Kutztown University is also used by many residents, particularly for research.

Water and Sewer Services

Lenhartsville is served by a public sewage system, and individual wells. Greenwich Township is not served by public water or public sewage treatment. Residents in each municipality use private wells for their water and depend upon on-lot septic systems to treat wastewater, with one exception: the Highland Estates Mobile Home Park, which has private central water and private central sewage treatment systems. Problems with on-lot septic system failures have been concentrated on the smaller properties

prevalent in the Krumsville village and Klinesville village areas, particularly on properties with older systems.

Emergency Services

Police Protection

The Pennsylvania State Police (Hamburg Station) provide police service to Greenwich and Lenhartsville. Neither municipality has its own police.

Fire Companies

Three volunteer fire companies primarily provide fire protection and rescue services in the Greenwich-Lenhartsville area:

- Kempton Fire Company, Kempton
- Kutztown Fire Company, Kutztown
- Community Fire Company, Virginville

These three companies are assisted, as necessary, by the Union Fire Company No. 1 of Hamburg.

Emergency Medical Services

Three organizations provide ambulance services (Basic Life Support): Hamburg Area Ambulance Service, Fleetwood Fire Company Ambulance Service, and the Kutztown Area Transport Service. The latter service is a private, for-profit organization.

A paramedic unit from Northeastern Berks provides advanced life support services to the area. Emergency medical helicopters use the Kutztown Airport, but that location is in doubt because the airport property may be redeveloped into a new use.

Recreation and Open Space

A private resident owns and maintains Lenhartsville's 1.2-acre community park, the only publicly-accessible recreation area in the Borough. While no public parks are in Greenwich, three commercial campgrounds, a Boy Scout camp, a church-owned camp, a rod and gun club and one neighborhood-serving common open space exist in the Township. These privately-owned recreation areas are listed in the Existing Land Use section of this plan.

Recreation Programming

Recreation programs offered in adjacent communities serve the Greenwich-Lenhartsville area. The Kempton Recreation Center and the Kutztown Youth Athletic Association each offer baseball and softball programs for youth. The Kutztown Soccer Club provides soccer programs for area youth ages 8 to 18 years. The Optimist Club provides a variety of recreation programs, the most popular being the basketball league that is open to young Kutztown School District students. Kutztown Borough offers a summer recreation program at the Borough Park.

Regional Recreation Sites

A wide variety of regionally-serving public recreation sites exist within a 25-mile radius of the Greenwich-Lenhartsville area, including federal, state, county and other properties. Major facilities include Hawk Mountain Sanctuary and the Blue Marsh Lake Recreation Area.

CIRCULATION

- *Circulation refers to the movement of people and goods. The system of roads and the availability of public transportation are important to understand in planning for future land uses and other circulation improvements in Greenwich and Lenhartsville. The overall objective is to maintain a system that allows efficient circulation, while maintaining a high level of safety. In addition, we need to protect residential areas from higher speed traffic and auto/truck-related noise.*

Existing Roads

Interstate-78 is the major thoroughfare through the Greenwich-Lenhartsville area. Interstate 78 is a limited-access highway that connects New Jersey and the Lehigh Valley with Harrisburg. Interstate-78 has two complete interchanges within the Greenwich and Lenhartsville area, one to the north of Lenhartsville and the other in the village of Krumsville. The access provided to nearby employment centers brings significant commercial and "bedroom" residential development pressures to both communities. These development pressures will continue and increase as the highway becomes more traveled and employment centers expand toward the Greenwich-Lenhartsville area.

U.S. 222 south of the Greenwich-Lenhartsville area connects the Allentown and Reading areas.

Three other major routes cross the Greenwich-Lenhartsville area: Old Route 22 (T975), Route 143 (SR0143) and Route 737 (SR0737). Old Route 22 runs parallel to Interstate 78 and provides good east-west access through the Greenwich-Lenhartsville area.

Route 143 is a major north-south route which runs along the west bank of the Maiden Creek, and passes through the center of Lenhartsville, connecting the Area to the north with Virginville.

Route 737 is the Area's other major north-south connector. Route 737 begins near Kempton and travels south into and through the eastern half of Greenwich Township, passing through Krumsville and continuing on to Kutztown.

Road Classifications

Roads have various functions; some roads are designed to expedite through traffic while others mainly provide access to local residential areas. Classifying roads by their intended function is important to decide how access onto a road should be allowed, including number of access points and how the access is designed. Functional classifications can also assist in prioritizing roads for future improvements. This functional classification of roads has other important implications as well. Rights-of-way should be wider and front yard setbacks greater on roads that carry higher traffic volumes. High volume roads should have more lanes and higher speed limits than local secondary streets. The Greenwich-

Lenhartsville area's roads can be classified as follows:

Major Arterial - Multi-laned limited access highways designed to rapidly connect distant regions, such as the Lehigh Valley and Harrisburg.

- *Interstate 78*

Arterials - Roads that provide a rapid connection between local population centers, such as between Lenhartsville and Kutztown.

- *Old Route 22 (T975)*
- *Route 143 (SR0143)*
- *Route 737 (SR0737)*

Collectors - Roads that collect traffic from local areas and funnel it onto arterials.

- *Rhoades Road (T826)*
- *Long Lane (SR1024)*
- *Lutz Road (T802)*
- *Kohlers Hill Road (SR1015)*

Locals - Roads that provide direct access to residential areas.

- *All other roads in Greenwich and Lenhartsville*

Greenwich has 113.6 miles of roads, second only to Exeter Township in number of miles of roadway in Berks County. This mileage is comprised of 33.2 miles of state-owned roads and 80.4 miles of Township-owned roads. State-owned roads in Greenwich include Interstate 78, Route 143, Route 737, Crystal Cave Road, Donat Road, Dunkels Church Road, Kohlers Hill Road, Long Lane and Mountain Road. Lenhartsville has 1.0 miles of roadway: .42 miles of state roads (Route 143) and .58 miles of borough roads.

Road Conditions

Road conditions are very different in Greenwich than those found in Lenhartsville. Greenwich's rural character and varying topography create many situations not prevalent in the Borough. For instance, the Township has 27 miles of unpaved roads. The following are concerns regarding to several of Greenwich's roads including both state-owned and township-owned roads.

- Areas of poor sight distance, with buildings, slopes, curves, fences, parked vehicles or trees obstructing views of on-coming traffic.
- Roads intersecting at awkward angles, which obstructs sight distance and may encourage drivers to not come to a complete stop at intersections.
- Areas of sharp curves, which limits sight distance and may cause a driver to lose control.
- Intersections that are not aligned on both sides of a road, causing confusion to drivers making turns.
- Areas of steep slope, which are especially slippery during rainy, snowy or icy weather.
- Areas of narrow roads and/or bridges, which may not be wide enough to accommodate two-way traffic.

Greenwich Township identifies and prioritizes improvements based on available funding. While PennDOT has been making improvements to Route 737, narrow bridges, poor sight distances and poor alignment issues still need to be addressed. PennDOT also has plans to upgrade the Interstate 78 and Route 737 intersection and access ramps.

Lenhartsville's traffic and roadway issues focus around Route 143 at the intersection of Willow Street and Old Route 22. Borough officials and other residents have indicated the need for a flashing light or traffic signal to reduce speeds in town and permit safer access from Willow Street onto Old Route 22. Other concerns reflect the current poor condition of the Penn Street Bridge over the Maiden Creek. While little traffic uses the bridge costly work will be needed in the future to keep the bridge open.

Proliferation of driveway curb cuts for individual residences and businesses along major routes create unsafe traffic movements and patterns in both the Borough and the Township. Limiting development and/or controlling access points through common drives are ways to help manage access points along these busy corridors.

Public Transportation

The Reading Regional Airport and the Lehigh Valley International Airport are the two major airports closest to the Greenwich-Lenhartsville area. The Kutztown Airport recently closed. No fixed route bus or passenger rail lines currently serve either Greenwich or Lenhartsville. Recreational excursion trips are provided by the Blue Mountain and Reading Railroad. The Berks Area Reading Transit Authority (BARTA) provides door to door van service, which is particularly important to serve older persons and persons with disabilities.

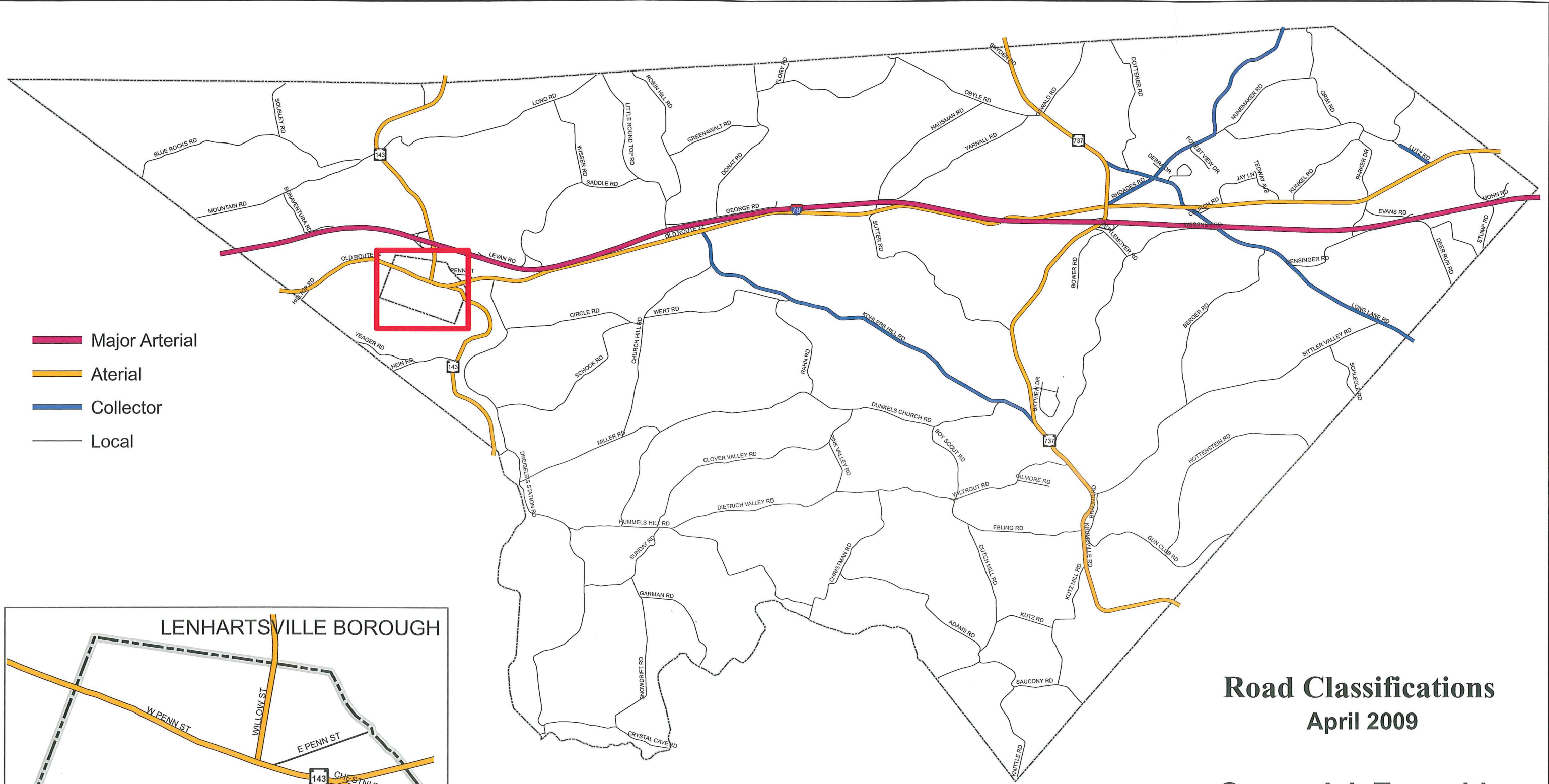
The services of the Commuter Services of Pennsylvania organization are discussed in the Transportation background section of this Plan.

Alternative Transportation

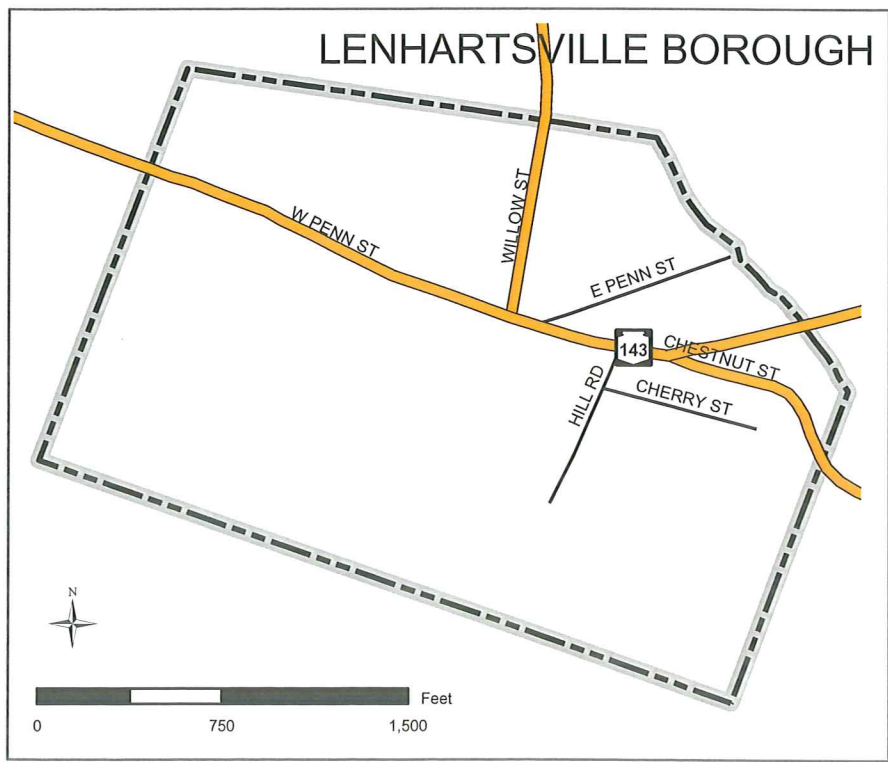
Alternatives to motorized transportation are limited within the Greenwich-Lenhartsville area. Within Lenhartsville a network of sidewalks exists along most streets. The Township contains only a few scattered segments of sidewalk. Gaps or missing links, poor conditions of certain segments and noncompliance with the American Disabilities Act (ADA) hinder maximum and efficient use of these sidewalks by pedestrians.

Informal pedestrian and bicycle trails do not exist within the Borough or Township except for a short section of the Appalachian Trail which crosses the northwest corner of Greenwich. Discussions have occurred over the years about the possibility of providing a recreation trail along portions of the Maiden Creek and Sacony Creek corridors.

In 2009, Berks County became a partner in the Community Services of Pennsylvania organization. This organization provides assistance to businesses and individuals to help commuters find alternatives to driving alone. For example, the organization helps to match people together to share rides to work. The organization also promotes van-pooling, use of public transit, bicycling and walking. These efforts are intended to reduce traffic congestion, generate savings for individuals and improve air quality.



- Major Arterial
- Aterial
- Collector
- Local



The preparation of this map was financed in part through a Land Use Planning and Technical Assistance Grant from the Department of Community and Economic Development, as administered by the Governor's Center for Local Government Services, Pennsylvania Department of Community and Economic Development.



Road Classifications April 2009

Greenwich Township & Lenhartsville Borough Berks County, Pennsylvania

Source Data: Berks County Planning Commission, Urban Research & Development Corporation

EXISTING LAND USE POLICIES AND ZONING

In preparing this plan, Lenhartsville Borough and Greenwich Township considered comprehensive planning policies, zoning policies and development trends within their boundaries, adjacent municipalities and Berks County. The following section summarizes these planning and zoning policies.

Existing Zoning

The existing zoning of Lenhartsville is consistent with the policies described in the Land Use Plan section of this document, and the Comprehensive Plan Map. Greenwich Township's current development policies are reflected in the following zoning districts, as of the adoption date of this Plan:

AP Agricultural Preservation District - The AP District promotes agricultural preservation. It includes many areas with prime agricultural soils, particularly in the south-central and north-central parts of the Township. This district uses zoning to preserve agricultural land through limits on the number of homes allowed on a tract of land.

- a. A tract of up to 10 acres is currently allowed to be subdivided into a total of 2 lots (1 new plus one existing). A tract of 10 to 30 acres is allowed to be subdivided into a total of 3 lots. A tract of 30 to 60 acres can be subdivided into 4 lots, etc. Each residential lot has a minimum net lot area of 1 acre and a maximum lot area in most cases of 5 acres. The goal is usually to minimize the consumption of land by each new house, and to keep farmland in large tracts of land that hopefully can be efficiently farmed.

CONS Conservation District - This district includes portions of the Blue Mountain in the northwestern part of the Township, near the Pulpit, the Pinnacle and the Hamburg Reservoir.

- a. An average of one home is allowed for each 6 acres. A home can be placed on a 1 acre minimum lot, provided that the average density is met.
- b. A cluster option exists on tracts of over 50 acres. That option does not increase the overall density, but does allow lots as small as 12,000 square feet (1/4 acre) if there is central sewage service. Only 20 percent of the tract is required to be set aside in open space. An 18,000 square feet maximum lot size is required, which seems impractical in many cases. It is unlikely the Conservation District would be served by a central sewage system. The lot sizes and amount of open space in the cluster option should vary by zoning district, which is presently not the case.
- c. It is most defensible to base density upon the natural features of each tract of land. The Township's definition of net lot area deletes wetlands and stormwater and utility easements, but does not delete very steep slopes.

R Rural District - This is the largest zoning district in the Township.

- a. The current minimum lot size is one acre, provided that an average density is met of one home per 3 acres.
- b. A cluster option exists on tracts of over 50 acres. That option does not increase the overall density, but does allow lots as small as 12,000 square feet (1/4 acre) if there is central sewage service. Only 20 percent of the tract is required to be set aside in open space.

LDR Low Density Residential District

- a. This district currently allows single family detached houses on 20,000 square feet (one half acre) lots, if central water and central sewage services are provided. The minimum lot size is one net acre if central water and central sewage are not used.
- b. A cluster option exists on tracts of over 50 acres. That option does not increase the overall density, but does allow lots as small as 12,000 square feet (1/4 acre) if there is central sewage service. Only 20 percent of the tract is required to be set aside in open space.

HDR High Density Residential District

- a. This district includes the Highland Estates manufactured home park on both sides of Old Route 22. That development is served by private central sewage and water systems.
- b. This district mainly allows manufactured/mobile home parks. In addition, a mix of housing types are allowed at up to 4 homes per acre.

V Village District

This district includes Klinesville, areas between Lenhartsville and I-78, and areas east of Krumsville. The intent is to allow less intense types of businesses and various types of housing.

- a. Many of the commercial uses currently need special exception or conditional use approval.
- b. If central sewage and water services would be provided, then housing is possible at an average of 4 homes per acre.
- c. An extensive set of provisions were added for Planned Residential Developments in the Village District. A PRD typically involves a mix of housing types, some light commercial uses for local needs, and preserved open space.

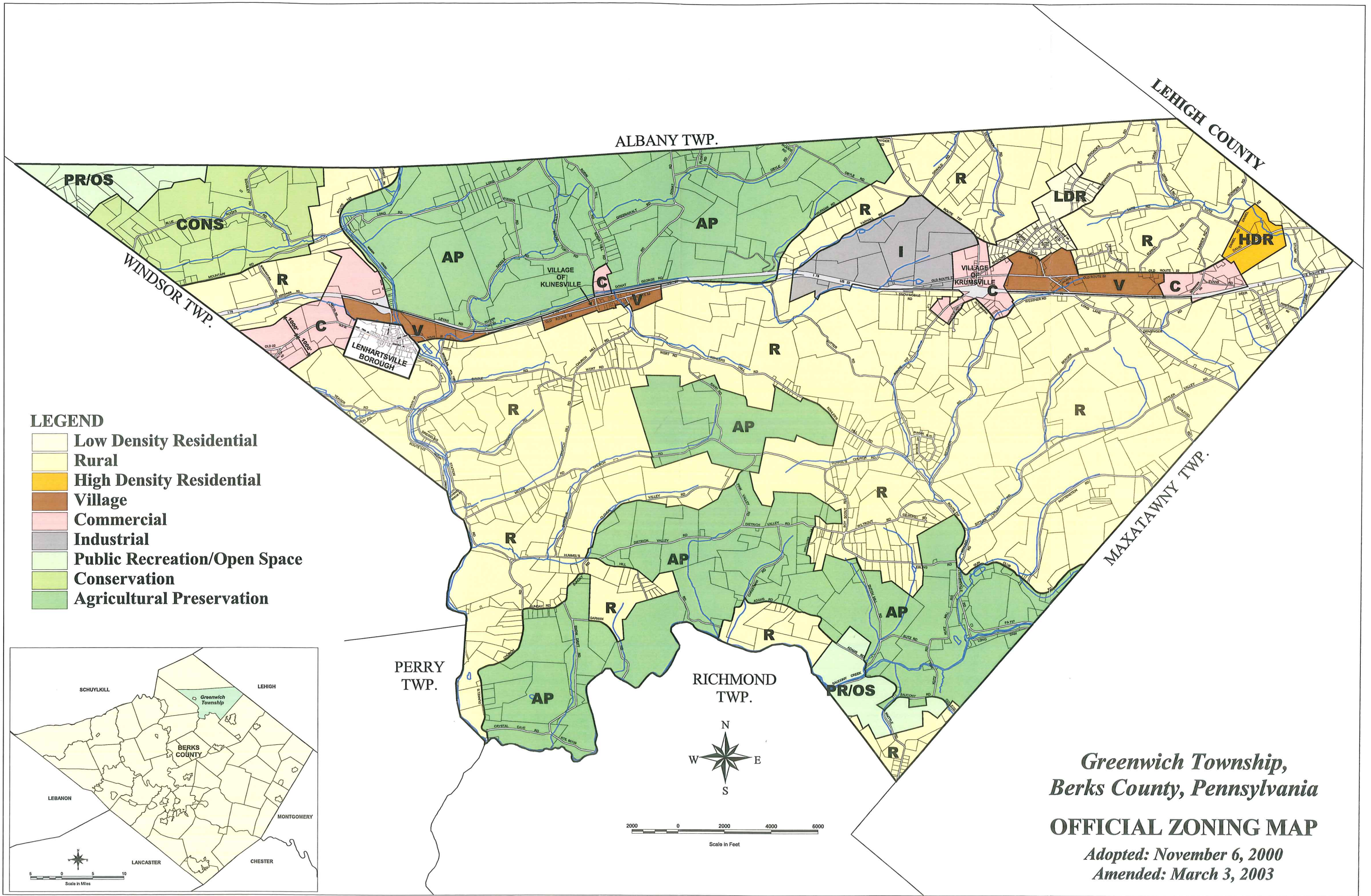
C Commercial District

- a. This district includes areas north and west of Lenhartsville, an area north of Klinesville north of I-78, Krumsville, an area of Route 737 near the Elementary School, and an area surrounding the campground south of Old Route 22.
- b. This district currently allows a wide variety of commercial businesses, including gas stations, restaurants (which may include drive-through service) and shopping centers. A few uses need conditional use approval, such as vehicle repair, manufacturing uses and motels.

I Industrial District

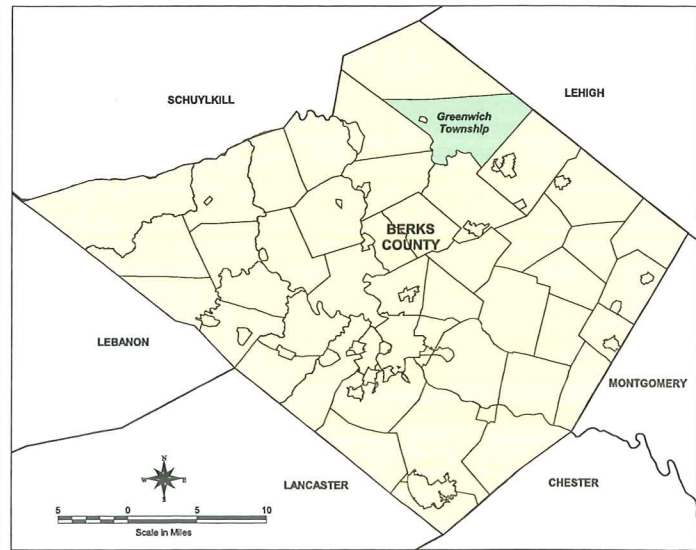
- a. This district is north of I-78, west of Krumsville and south of Route 737.
- b. This district allows all of the same uses as the Commercial district.
- c. In addition, this district allows airports, waste landfills, trash transfer stations, and mineral extraction with Supervisors or Zoning Hearing Board approval.

A map on the following page shows the locations of the existing zoning districts and boundaries for Greenwich Township.



LEGEND

- Low Density Residential
- Rural
- High Density Residential
- Village
- Commercial
- Industrial
- Public Recreation/Open Space
- Conservation
- Agricultural Preservation



ALBANY TWP.

LEHIGH COUNTY

WINDSOR TWP.

LENHARTSVILLE BOROUGH

VILLAGE OF KLIMESVILLE

VILLAGE OF KRUMVILLE

MAXATAWNY TWP.

PERRY TWP.

RICHMOND TWP.



*Greenwich Township,
Berks County, Pennsylvania*
OFFICIAL ZONING MAP
*Adopted: November 6, 2000
Amended: March 3, 2003*

THE BERKS COUNTY COMPREHENSIVE PLAN

The Lenhartsville and Greenwich Township Joint Comprehensive Plan is consistent with the Goals and Land Use Objectives of the Berks County Comprehensive Plan.

The County Plan emphasizes the preservation of contiguous areas of prime farmland and the conservation of natural resources.

The County Plan seeks to direct most new development to locations with central water and sewage services. Because Lenhartsville is the only area in this region with central sewage services, this region is generally not recommended for intensive new development.

The County Plan seeks to strengthen existing older communities, as opposed to spurring sprawled development that consumes large amounts of farmland and forested areas. Therefore, other areas of the County outside of Lenhartsville and Greenwich are designated as being appropriate to receive most new development in the County.

The County Plan encourages the preservation of important historic buildings.

The County Plan also emphasizes opportunities for cooperation between municipalities, to more efficiently provide services and to coordinate development and road patterns.

The Berks County Comprehensive Plan recognizes Greenwich Township's development patterns and recommends preserving large areas of environmentally sensitive features and agricultural land, with limited growth directed toward the existing villages and the Lenhartsville area.

The County Plan is, by necessity, more generalized than the Lenhartsville Borough and Greenwich Township Plan. However, the more site-specific future land use designations in the Greenwich-Lenhartsville Plan are generally consistent with the overall direction of the County Plan.

SUMMARY OF ASSETS AND CONCERNS

The Greenwich-Lenhartsville area's strengths and weaknesses are the basis for preparing a plan to guide the area's future growth and preservation. The plan attempts to capitalize on each municipality's assets and identify ways to overcome or mitigate concerns. This is a logical approach to planning for the future.

The following summary of assets and concerns reflects the themes most frequently cited by the municipal officials, community leaders and other residents who participated in the citizen input initiatives undertaken for this plan. These initiatives include public meetings, survey forms and interviews with municipal officials and other community leaders.

Assets

- **Convenient Access to Lehigh Valley, Kutztown and Reading Area Employment Opportunities** is available to Greenwich-Lenhartsville area residents.

- **Quality of Life** is a genuine advantage due to the area's combination of scenic beauty, rural environment and small town, village character.
- **A Strong Sense of History**, particularly the area's Pennsylvania German heritage, is found throughout Greenwich and Lenhartsville.
- **An Active Farming Community** is a Source of pride and provides a livelihood for many area residents.
- **Affordable Housing** in the area, particularly in the Borough and Township's villages, supplies ample choice and opportunity to both prospective homeowners and renters.
- **Intergovernmental Cooperation** between Greenwich Township and Lenhartsville Borough is underway through this planning effort and will hopefully be carried on into other areas.

Concerns

- **Conserving Farmland and Other Open Space**, including sensitive natural areas such as steep slopes, woodlands and floodprone property, is recognized as an important aspect of preserving the area's unique character and natural reSource based economy.
- The **Center of Lenhartsville** would benefit from additional small business activity to attract more investment, create jobs and enhance local tax revenues.
- **Encroaching Suburban Development** is both a long and short term threat to retaining the area's rural, small town atmosphere.
- **Community Services**, such as enhanced police coverage and more recreation opportunities may be requested in the future as the area continues to grow.
- Many of the **Roads in the Region** were not designed for the amount of traffic that they handle, including a number of curving, sloped and narrow roads. In particular, I-78 experiences serious accidents on a regular basis and Old Route 22 and Routes 143 and 737 cannot handle the traffic that results from detours.

ADJACENT ZONING

The following table describes the zoning policies that apply to land bordering Greenwich Township in adjacent municipalities. All land adjacent to Greenwich is zoned for agriculture, conservation or low density single family detached housing with the following exceptions:

- The Virginville area in Richmond Township is zoned for light commercial uses, in addition to dwellings.
- Land on each side of Old Route 22 in Windsor Township is zoned to permit twin homes in addition to single-family detached homes. 10,000 square foot single-family detached lots are also permitted in this zoning district, provided these lots have both central water and central

sewer.

Greenwich does not anticipate any conflict between Township land use policy and the planning or zoning policies governing adjacent lands located in neighboring municipalities.

ZONING ADJACENT TO GREENWICH TOWNSHIP

ADJACENT MUNICIPALITY	ADJACENT ZONING DISTRICT	MINIMUM LOT SIZE FOR A SINGLE FAMILY DETACHED HOME
Albany Township	AG Agriculture WC Woodland Conservation	2 acres (5 acre average per tract) 5 acres
Maxatawny Township	A-1 Agricultural Residential A-2 Agricultural Low Density Residential	1 acre 1 acre
Perry Township	R-A Rural Agricultural	2 acres (sliding scale minimum lot size of 1 to 1.2 acres if subdividing a farm)
Richmond Township	R-A2 Rural Agriculture WC Woodland Conservation R-1 Low Density Residential C-1 Neighborhood Commercial	1.5 acres 1.5 acres 0.5 acres with central water and sewer; otherwise 1.5 acres; 50% lot size reduction permitted in single family home cluster developments Light commercial and single family detached houses; 10,000 square foot minimum lot size with central utilities
Weisenberg Township	R Rural	1 acre (3 acres within designated environmentally sensitive areas)
Windsor Township	A Agriculture A-C Agricultural Conservation R-2 Medium Density Residential	1 acre 5 acres 1 acre (10,000 square feet with central water and sewer; 20,000 square feet with central sewer and private water). Two-family detached homes (twins) also permitted with same minimum lot sizes per dwelling unit