

Hereford- Washington Joint Comprehensive Plan



August 2018

ACKNOWLEDGEMENTS

The consultant for this project would like to acknowledge those members of the Study Committee who contributed to and oversaw the preparation of this Plan update:

Member

Karla Dexter
Curtis Kuhns
Albert Ciccarone
Norann Warmkessel
James Roma
Daniel Stauffer
Elaine Pennington
Rich Sichler

Affiliation

Hereford Township
Hereford Township
Hereford Township
Hereford Township
Washington Township
Washington Township
Washington Township
Washington Township

All maps and aerials presented within this Plan rely upon digital information of the Berks County Geographic Information System. While the accuracy of this information is believed to be very high, it should only be used for community planning purposes and cannot be relied upon for definitive site survey delineation.

This Plan was prepared by:

Berks County Planning Commission Staff

Matthew F. McGough, Intergovernmental Cooperation Planner
David Berryman, Planner II
Beth A. Burkovich, GISP, GIS Analyst
Pauline R. Klopp, Office Support V
Laura Mursch, Planning Technician
Jamie L. Passon, Planner II
Amanda M. Timochenko, Planner II



INTRODUCTION TO THIS PLAN

This Comprehensive Plan was prepared as an update to the Hereford-Washington Joint Municipal Comprehensive Plan of January 2006. The 2006 plan was originally developed by consulting firm Gannett Fleming, Inc. with input from the local municipalities as well as the Berks County Planning Commission. Over the ten year period since the adoption of the 2006 plan changes in municipal ordinances, land use, demographics and housing have occurred in the region. These changes were the catalyst for developing this update.

RESOLUTION NO. 2018-10

**A RESOLUTION OF THE BOARD OF
SUPERVISORS OF HEREFORD
TOWNSHIP, BERKS COUNTY,
PENNSYLVANIA, ADOPTING THE
HEREFORD WASHINGTON JOINT
COMPREHENSIVE PLAN**

WHEREAS, the Board of Supervisors of Hereford Township, Berks County, Pennsylvania, and the Board of Supervisors of Washington Township, Berks County, Pennsylvania previously approved a Multi-Municipal Comprehensive Plan (the Joint Plan) for both Townships; and,

WHEREAS the Provisions of Article III of the Pennsylvania Municipalities Planning Code, calls for the review and re-adoption of municipal comprehensive plans; and,

WHEREAS both Township's appointed a Joint Planning Committee who, in cooperation with the Berks County Planning Commission, revised and updated the Joint Plan and recommended approval and adoption of the Plan entitled "Hereford-Washington Joint Comprehensive Plan Draft March 2018"; and,

WHEREAS Hereford Township has otherwise complied with all the requirements for review and adoption of the Joint Plan;

NOW, THEREFORE, be it resolved by the Board of Supervisors of Hereford Township, Berks County, Pennsylvania and it is hereby resolved by the authority of the same as follows:

1. The document entitled Hereford-Washington Joint Comprehensive Plan Draft March 2018 is hereby approved and hereby adopted as the Comprehensive Plan of Hereford Township, Berks County, Pennsylvania, and will upon adoption be known as

the “Hereford-Washington Joint Comprehensive Plan” including all maps, charts, textual matter, and other documents intended to form the whole or part of the Joint Plan. The Table of Contents and List of Figures and Maps contained in the Joint Plan are summarized as follows:

TABLE OF CONTENTS

Chapter 1.	Location and Regional Context.....	1
Chapter 2.	Trends and Issues	5
Chapter 3.	Values, Vision, and Goals	19
Chapter 4.	Action Planning and Implementation Strategies	23
Chapter 5.	Demographics, Housing, Economy	41
Chapter 6.	Environmental Resource Analysis	57
Chapter 7.	Cultural Resource Analysis	95
Chapter 8.	Transportation Analysis.....	113
Chapter 9.	Community Facilities Analysis	141
Chapter 10.	Existing Land Use Analysis.....	161
Chapter 11.	Future Land Use Analysis	173

LIST OF MAPS

Figure 1	Physiographic Provinces Hereford	71
Figure 2	Physiographic Provinces Washington.....	73
Figure 3	Surface Geology Hereford	75
Figure 4	Surface Geology Washington	77
Figure 5	Soils Hereford	79
Figure 6	Soils Washington	81
Figure 7	Natural Resources Hereford	83

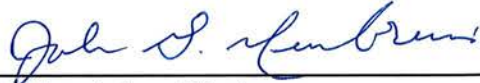
Figure 8	Natural Resources Washington	85
Figure 9	Sensitive Natural Features Hereford	87
Figure 10	Sensitive Natural Features Washington.....	89
Figure 11	Protected Lands Hereford.....	91
Figure 12	Protected Lands Washington	93
Figure 13	Historic Sites and Districts Hereford	105
Figure 14	Historic Sites and Districts Hereford Inset	107
Figure 15	Historic Sites and Districts Washington	109
Figure 16	Historic Sites and Districts Washington Inset	111
Figure 17	Road Classifications and Average Daily Traffic Hereford	121
Figure 18	Road Classifications and Average Daily Traffic Washington	123
Figure 19	Bridges and Pavement Condition Hereford	125
Figure 20	Bridges and Pavement Condition Washington	127
Figure 21	Congested Corridors Hereford.....	129
Figure 22	Congested Corridors Washington.....	131
Figure 23	Roadway Deficiencies Hereford	133
Figure 24	Roadway Deficiencies Washington.....	135
Figure 25	Freight Generators Hereford.....	137
Figure 26	Freight Generators Washington	139
Figure 27	Community Facilities Hereford.....	153
Figure 28	Community Facilities Washington.....	155
Figure 29	Public Utility Service Areas Hereford	157
Figure 30	Public Utility Service Areas Washington	159
Figure 31	Existing Land Use Hereford.....	169
Figure 32	Existing Land Use Washington	171
Figure 33	Future Land Use Hereford	179
Figure 34	Future Land Use Washington	181

All tables, charts, figures, plans, and text of the Joint Plan are incorporated herein by reference.

2. All resolutions or parts of resolutions inconsistent with this Resolution are repealed insofar, but only insofar as the same are inconsistent herewith.

RESOLVED and ADOPTED by the Board of Supervisors of Hereford Township,
Berks County, Pennsylvania, in lawful session duly assembled, this 7th day of
August, 2018.

BOARD OF SUPERVISORS
OF HEREFORD TOWNSHIP,
BERKS COUNTY, PENNSYLVANIA



John G. Membrino, Chairman



Keith J. Masemore, Supervisor

Karla T. Dexter, Supervisor

Attest:



Norann Warmkessel, Secretary

RESOLUTION NO. 2018-21

A RESOLUTION OF WASHINGTON TOWNSHIP, BERKS COUNTY, PENNSYLVANIA, BOARD OF SUPERVISORS APPROVING THE REVISED AND UPDATED HEREFORD-WASHINGTON AREA JOINT COMPREHENSIVE PLAN OF 2018

WHEREAS; A Joint Comprehensive Plan was prepared for the Hereford-Washington Area Berks County municipalities consisting of Hereford Township and Washington Township in 2006; and


WHEREAS; With the passage of time and changes in population of the stated municipalities and for various other reasons, it had become desirable to revise and update the Joint Comprehensive Plan; and

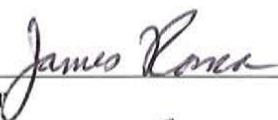
WHEREAS; The Joint Planning Commission, consisting of representatives from the two municipalities, under the guidance and direction of Matthew F. McGough, Intergovernmental Planner with the Berks County Planning Commission met from time to time and prepared a revised Joint Comprehensive Plan in accordance with Article III of the Pennsylvania Municipalities Code (Act 247 of 1968, as amended); and

WHEREAS; A governing body public hearing was held on June 28, 2018 in accordance with the Pennsylvania Municipalities Code (Act 247 of 1968, as amended).

NOW THEREFORE BE IT RESOLVED that the **Board of Supervisors of Washington Township, Berks County** hereby adopts the revised Hereford-Washington Area Joint Comprehensive Plan dated March 2018.

BOARD OF SUPERVISORS

By:  _____,
Chair

By:  _____,
Vice-Chair

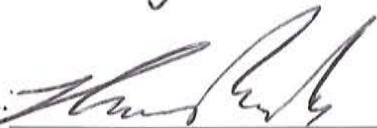
By:  _____,
Member

Table of Contents

Chapter 1.	Location and Regional Context.....	1
Chapter 2.	Trends and Issues	5
Chapter 3.	Values, Vision, and Goals	19
Chapter 4.	Action Planning and Implementation Strategies	23
Chapter 5.	Demographics, Housing, Economy	41
Chapter 6.	Environmental Resource Analysis	57
Chapter 7.	Cultural Resource Analysis.....	95
Chapter 8.	Transportation Analysis.....	113
Chapter 9.	Community Facilities Analysis	141
Chapter 10.	Existing Land Use Analysis.....	161
Chapter 11.	Future Land Use Analysis.....	173

List of Maps

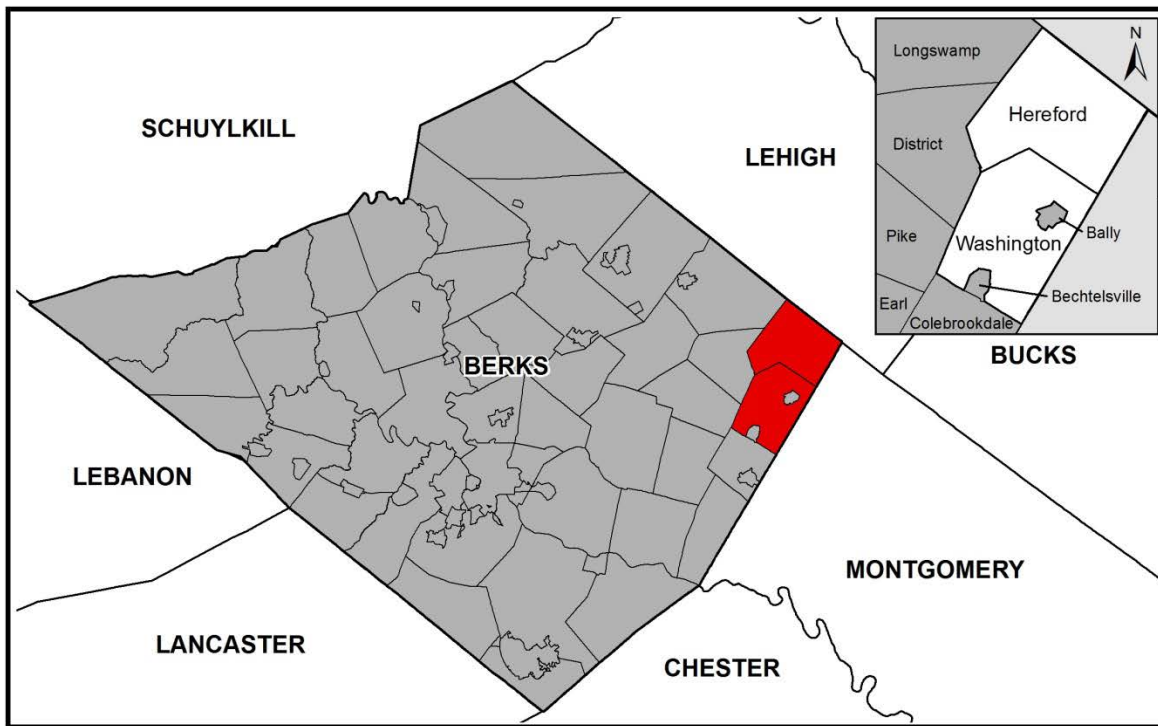
Figure 1	Physiographic Provinces Hereford	71
Figure 2	Physiographic Provinces Washington.....	73
Figure 3	Surface Geology Hereford	75
Figure 4	Surface Geology Washington	77
Figure 5	Soils Hereford	79
Figure 6	Soils Washington	81
Figure 7	Natural Resources Hereford	83
Figure 8	Natural Resources Washington	85
Figure 9	Sensitive Natural Features Hereford	87
Figure 10	Sensitive Natural Features Washington.....	89
Figure 11	Protected Lands Hereford.....	91
Figure 12	Protected Lands Washington.....	93
Figure 13	Historic Sites and Districts Hereford	105
Figure 14	Historic Sites and Districts Hereford Inset	107
Figure 15	Historic Sites and Districts Washington	109
Figure 16	Historic Sites and Districts Washington Inset	111
Figure 17	Road Classifications and Average Daily Traffic Hereford	121
Figure 18	Road Classifications and Average Daily Traffic Washington	123
Figure 19	Bridges and Pavement Condition Hereford	125
Figure 20	Bridges and Pavement Condition Washington	127
Figure 21	Congested Corridors Hereford.....	129
Figure 22	Congested Corridors Washington.....	131
Figure 23	Roadway Deficiencies Hereford	133
Figure 24	Roadway Deficiencies Washington.....	135
Figure 25	Freight Generators Hereford.....	137
Figure 26	Freight Generators Washington	139
Figure 27	Community Facilities Hereford.....	153
Figure 28	Community Facilities Washington.....	155
Figure 29	Public Utility Service Areas Hereford	157
Figure 30	Public Utility Service Areas Washington	159
Figure 31	Existing Land Use Hereford.....	169
Figure 32	Existing Land Use Washington	171
Figure 33	Future Land Use Hereford	179
Figure 34	Future Land Use Washington	181

LOCATION AND REGIONAL CONTEXT

Hereford and Washington Townships are contiguous municipalities located in the eastern tip of Berks County, Pennsylvania. Both municipalities adjoin Montgomery County to the east, and Hereford Township adjoins Lehigh County to the north. Both Townships are predominantly rural townships. They are, however, included in the Reading Metropolitan Statistical Area for statistical analysis and comparison with other metropolitan areas across the state. Within Berks County, Hereford and Washington Townships are considered part of the Pottstown urbanized area.

The joint Planning Area of Hereford and Washington Townships lies along the State Route 100 (SR 100) corridor that connects the Allentown and Pottstown areas. Located as such, the Planning Area receives through regional traffic traveling to and from these business centers, as well as local traffic moving throughout the Oley Hills area. The Planning Area is also equidistant between the Reading and Allentown areas. Smaller urban centers of Boyertown, Kutztown, and Quakertown are also readily accessible.

The Planning Area is predominantly an upland landscape containing some of the headwaters of the Perkiomen Creek and the Little Lehigh Creek. Agriculture is still active in the eastern portion of the Planning area – in the valley along SR 100, - though development is pressing northward along the SR 100 corridor into this easily developed region. The hills and uplands remain predominantly wooded with scattered fields and pastures. Development is also occurring here, though at a slower rate and in a more dispersed pattern.



Settlement and Development History

Less than 300 years ago, the area now known as Hereford and Washington Townships was inhabited by the Lenni Lenape tribe of Native Americans. These peoples valued the forest, particularly, the hickory and chestnut, for its fruit and hunting habitat, and they grew maize and squash in small clearings created by lightening fires and other natural events. They named this region “Perkiomen,” meaning land of cranberries.

Chapter 1 - Location and Regional Context

Early settlement of the region occurred in the 1700s. Southern German and English settlers traveled west from eastern ports, accompanied by a handful of Swiss and French, seeking peace from war-torn Europe and freedom from government and religious oppression. Amidst the resources of the Perkiomen region, they found timber for construction and heating, iron ore for smelting, rich soils for crop production, and steady waters in the Pekiomen Creek for powering mills—from grist mills and oil mills (producing linseed oil), to bone mills and sawmills. Fields were planted with oats and flax to meet both food and clothing needs. Small furnaces, mines and creameries were also common throughout the community. During the 19th century, clay soils in southeastern Washington Township would support a small but vibrant pottery industry, which sold its products in country stores and by wagon.

Political organization in Early Pennsylvania established counties and townships. Until 1752, Philadelphia County encompassed this region, when Berks County was created and bounded. Hereford Township was surveyed in 1732, as a township much larger than the one known today. It was bordered to the south by Colebrookdale Township. These political boundaries remained until January 1840 when portions of both Townships were removed to create Washington Township.

From the early 1700s to the early 1900s, five distinct villages developed among the hills and bottomlands of Hereford Township: Chapel (Herefordville), Hereford (Treichlersville), Huffs Church (Huffsville), Harlem (Perryville and Gery Mills) and Seisholtzville. Similarly, the villages of Mount Pleasant (Barto), Bechtelsville, Churchville (Bally), and Eshbach, grew throughout the area that would become Washington Township.

The iron industry took hold in the region in the 1730s. Hereford Furnaces was built and brought into operation in 1734, employing 100 to 150 men.

The first furnace in Washington Township (then Hereford Township), Mount Pleasant Furnace, opened in 1737. The furnaces and forges produced pig iron, as well as finished iron products, such as stoves, and “country castings.”

Though the iron industry would experience unstable growth, by 1745, the Hereford Township community had grown to include 89 taxable persons. By 1759, that number increased to 105.

The rural road network is a result of Native American footpaths and cartways that connected the various mines, furnaces, forges, and mills, as such needs developed. The official designation of many of these roadways has been documented in the Berks County Records. For example, the Oley Path was originally traveled by Native Americans and later connected Seisholtzville with Huffs Church and the Oley Valley. Also, Old Route 100 was established as a road to connect Colebrookdale Furnace with Mount Pleasant Furnace in 1736.

By the late 1700s, the appearance of the community was visibly changing. Thick, stone-walled houses were preferred over log construction, for durability and fire protection. The exteriors were commonly plastered and whitewashed. As the woodlands were harvested for charcoal and minor construction, the landscape was increasingly opened and converted to agricultural fields and pastures. Dairy farming was most common, but orchards, potato fields, and hay and corn were also planted and cultivated.

Clay tiles were laid to drain the level fields of the Butter Valley. By the mid 1800s, the bounty of agriculture was also visible in the expansion of barns and new barn construction. Farming became a family trade, as many farms passed through the ownership members of the same family over generations.

In 1868, rail lines were extended from Pottstown to Boyertown, Bechtelsville, Eshbach and Barto to provide passenger and freight transportation. Further extension was planned (to connect to rail lines in the Lehigh Valley) but was constrained by lack of funding.

Iron mining in the upper Midwest drew the iron industry away from Berks County in the late 1800s. With local iron mines, furnaces, and forges closing, the rail road business was no longer profitable along the Colebrookdale Branch, and the rails were removed.

Chapter 1 - Location and Regional Context

The village of Bechtelsville became a borough in 1890, removing approximately 1,000 acres from Washington Township. That same year, a creamery was built and opened along SR 100. The creamery was later bought by the Longacre Family and continues in operation today.

Community services developed as the population grew throughout the 19th and 20th centuries. Washington Township already had nine schools by 1890. There were 8 schoolhouses in the Hereford Township by 1923. In 1924, volunteers began operating the Barto Fire Company and in 1947 applied “for charter with the state.” In 1956, the Hereford Fire Company was organized.

Community development was incremental throughout the first half of the 1900s. Thereafter, as personal automobiles became commonplace and regional roads were improved, development pressure began to increase from the south and patterns began to shift toward tract housing and subdivision development. Compounded by the declining profitability of farming, agricultural land owners were increasingly willing to sell farmland for its development value.

At the cusp of the 21st century, Hereford and Washington Townships can look back to over 200 years of history and an on-going evolution of community values—and they look forward to the future. What will that future bring? How will it change the community appearance? How will it continue to shape community values? What change should be encouraged? These are the important policy decisions needed to guide the Townships through the coming years.

Sources: “Hereford Township,” Carl Arner, 2002; Continuing the Vision: Preserving the Values, Washington Township Historical Committee, 1990; and Worth Remembering: Profiles of a Community, Washington Township Anniversary Fest Committee, 2002

TRENDS AND ISSUES

Introduction

Before realistic plans can be made for future development, it is essential to understand the Hereford-Washington community as it is today, what trends have defined its existing condition, and what forces are likely to shape its future. This chapter takes a comprehensive look at the trends and issues surrounding the community’s natural, social, and functional characteristics, and examines their potential impact on its future sustainability.

Population Trends and Issues

Population statistics were collected from the 2010 Census as well as the 2010-2014 American Community Survey and used to characterize Hereford-Washington in terms of number of residents, distribution of age groups, education completion, income and economic condition, and household composition.

The population in the Hereford-Washington Township planning region is growing and losing population with the greatest population growth by number and rate occurring in Washington Township during the 2000 to 2010 period. In contrast, Hereford Township lost 70 residents (-2.3 percent). Washington Township grew by 731 residents (23.5 percent).

Population Growth Trends, 2000 - 2014							
Municipality	2000	2010	2014	2000-2010 # Change	2000-2010 % Change	2010-2014 # Change	2010-2014 % Change
Hereford Township	3,013	2,943	2,923	-70	-2.3%	-20	-0.7%
Washington Township	3,109	3,840	3,962	731	23.5%	122	3.2%
Colebrookdale Township	5,469	5,080	5,074	-389	-7.1%	-6	-0.1%
District Township	1,449	1,387	1,404	-62	-4.3%	17	1.2%
Douglass Township (Mont. Co.)	9,104	10,195	10,401	1,091	12.0%	206	2.0%
Longswamp Township	5,387	5,682	5,684	295	5.5%	2	0.0%
Lower Macungie Township	19,220	30,633	31,639	11,413	59.4%	1,006	3.3%
Lower Milford Township	3,617	3,775	3,839	158	4.4%	64	1.7%
Pike Township	1,359	1,724	1,746	365	26.9%	22	1.3%
Upper Hanover Township	4,885	6,464	7,124	1,579	32.3%	660	10.2%
Upper Milford Township	6,889	7,292	7,522	403	5.8%	230	3.2%
Berks County	373,638	411,905	413,016	38,267	10.2%	1,111	0.3%
Pennsylvania	12,281,054	12,702,379	12,758,729	421,325	3.4%	56,350	0.4%

Source: U.S. Census 2000-2010 and 2010-2014 American Community Survey

Hereford-Washington is still growing faster than the state. While Hereford-Washington Township’s growth rates (-2.3 and 23.5 percent, respectively) were relatively comparable to the growth/loss rates enumerated for neighboring townships over the 2000 and 2010 Census period, jointly, even with Hereford Township losing population between 2000 and 2010, they far exceeded the growth rate experienced by Pennsylvania (3.4 percent). These trends are indicative of the region’s location along the State Route 100 (SR 100) corridor and accessibility to the greater Allentown, Philadelphia and Reading areas. Transportation access, coupled with the planning area’s rural environment, make the Hereford-Washington Township region an attractive place to live.

The population in the Hereford-Washington Township planning region is projected to increase. By the year 2040, Washington Township is expected to increase its population by 415 persons to 4,255, which equals a 10.8 percent growth rate from 2010 population. By the year 2040, Hereford’s total population is also projected

Chapter 2 - Trends and Issues

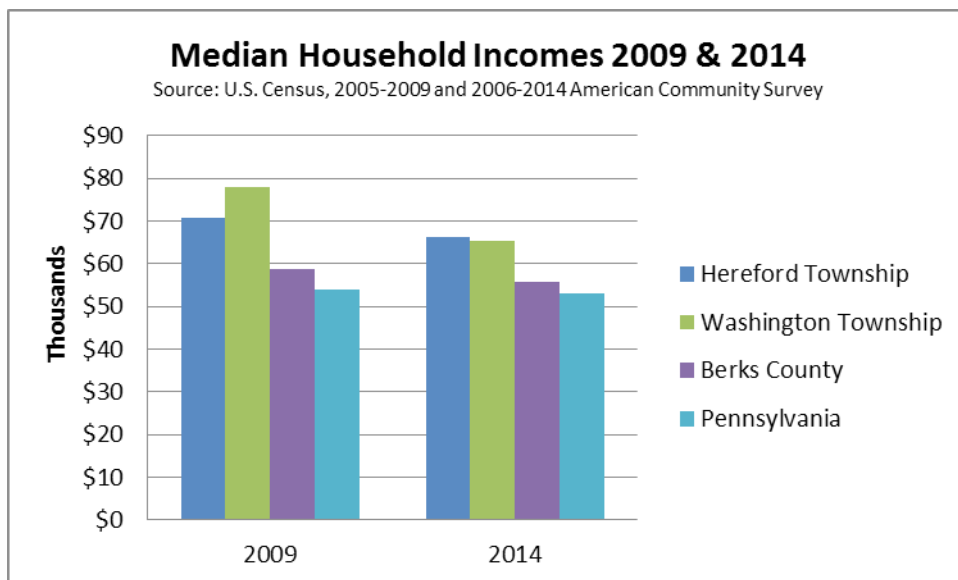
to increase by 10.8 percent, or by 318 persons to 3,261.

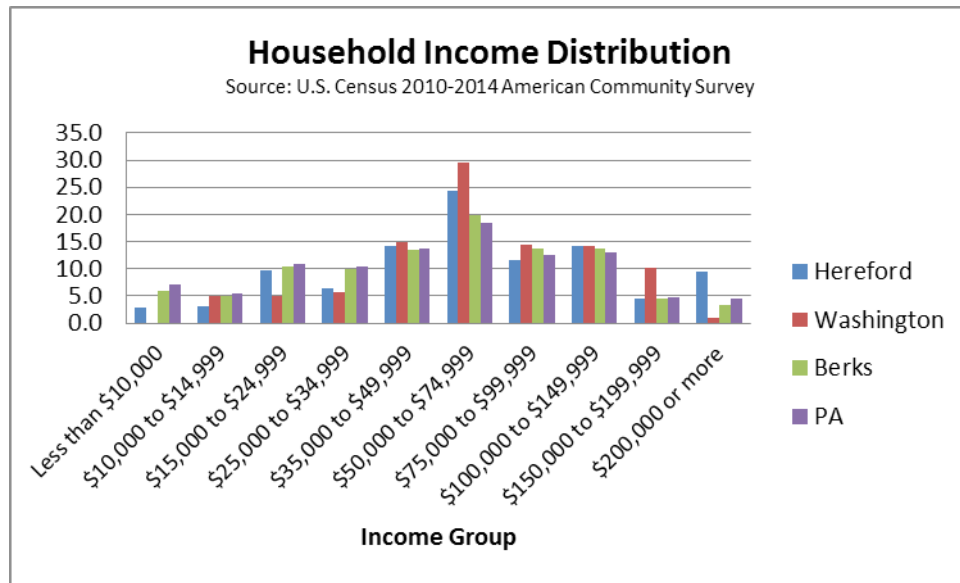
Hereford-Washington Townships' population is aging. Hereford Township has one of the oldest populations in Berks County, with a median age of 49. It has aged significantly from a median age of 32.8 in 1990 and 38.2 in 2000. Washington Township also trends older than Berks County as a whole with a median age of 43. Washington has aged slower than Hereford from a median age of 33.6 in 1990 and 38.2 in 2000.

People are “here” to stay in Hereford Township. Hereford Township has much higher concentrations of residents in the 40+ age group than Berks County and the State. When coupled with the housing tenure data in the Demographics, Housing and Economy section the concentrations of the “older” age groups suggests that Hereford Township residents continue to reside in the Township after raising families and entering retirement.

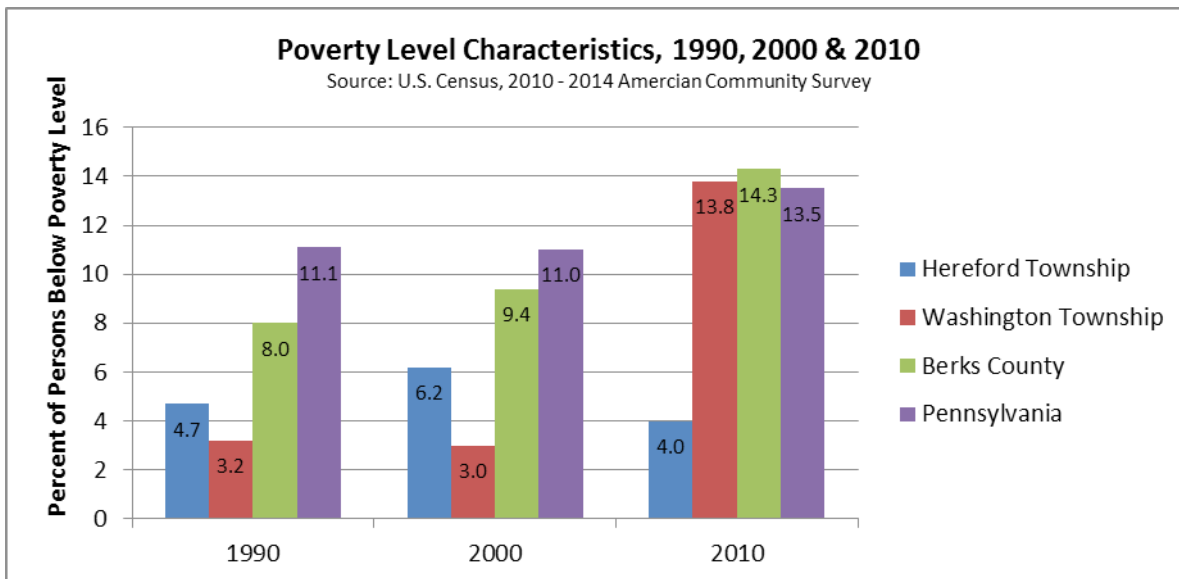
Washington Township is attractive to young families. The Township has a high concentration of young families with children below the age of ten than Berks County and the State. This appears to be driven by a higher concentration of people in the 25-29 age group.

Both Townships have high household incomes, however... Both Townships have median incomes that greatly exceed the county median. However, both townships have experienced declines in median income at a greater rate than county or state figures since 2009. Most households in the township earn \$50,000 - \$75,000. Both townships have higher rates of households in the \$100,000 - \$150,000 band than the county and state. Hereford Township has more households earning \$200,000 and more than county and state figures.





Poverty levels are slowly increasing in Hereford and Washington Townships. Poverty rates have increased over time in the townships. While the poverty rates in Hereford remain relatively low, the poverty rate in Washington exceeds the state rate for overall poverty.



Housing Trends and Issues

Housing is important to the prosperity of any community. Affordable, available, and attractive housing creates a sound tax base that will continue to appreciate in value. Housing unit growth, density, type, age, ownership, vacancy, and affordability are key characteristics in this housing inventory.

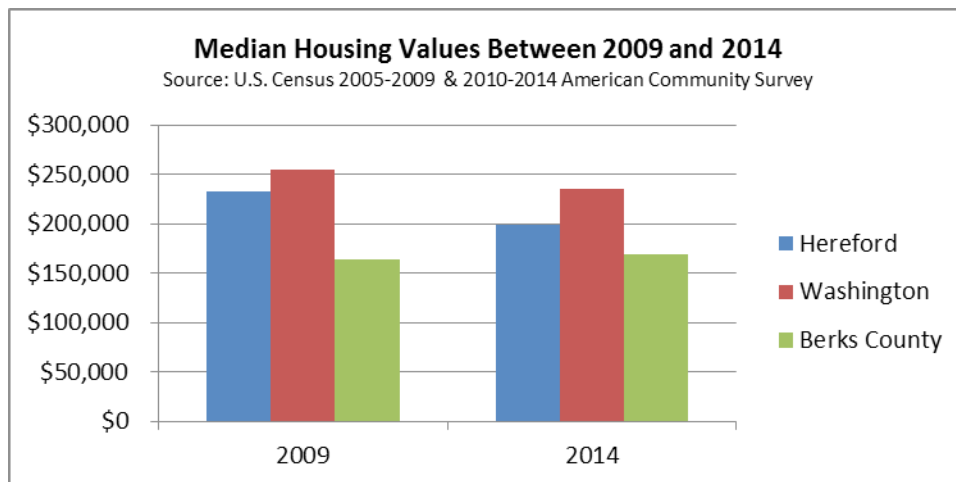
Both Townships are distinctly rural places, and remain inviting places for workers and new families to call home, and enable seniors to remain in their homes as they age. In both townships, the majority of homes are owner occupied. Interestingly, in both townships, many of the residents moved to the township between 2000 and 2009.

Owner Profile				
Type	Hereford		Washington	
	#	%	#	%
Owner-occupied	958	89.4%	1,148	87.0%
Renter-occupied	114	10.6%	172	13.0%
Moved in 2010 or later	105	9.8%	203	15.4%
Moved in 2000 to 2009	321	29.9%	489	37.0%
Moved in 1990 to 1999	218	20.3%	273	20.7%
Moved in 1980 to 1989	205	19.1%	133	10.1%
Moved in 1970 to 1979	191	17.8%	158	12.0%
Moved in 1969 or earlier	32	3.0%	64	4.8%

Source: U.S. Census 2010-2014 Community Survey

The majority of homes sold since 2006 in both townships were single-family homes. Washington Township had more sales than Hereford, but the median sales price of homes is higher in Hereford. Both townships experienced significant declines in median sales price due to the 2007-2009 recession and have been slow to recover. The median sales price declined 25 percent in Hereford since 2006 and declined 16.3 percent in Washington. Historically, the median sales prices in both townships have greatly exceeded the overall Berks County median sales price.

Median housing values in the Hereford-Washington planning area are relatively high but declining. The median value of a house in Berks County in 2014 was \$169,200. Both townships have median housing values that exceed county figures. Hereford ranks 25th in median housing value in the County. Washington Township ranks 9th in median housing value. However, it should be noted that the median housing values in both townships have steadily declined in recent years.



A relatively high proportion (26.7 percent) of Hereford Township’s housing units is comprised of mobile homes, which is a key factor in the availability of affordable housing for lower income families.

The high level of home ownership present in the Hereford-Washington Township planning region is also reflective of the region’s rural character and demonstrates a close-knit community. According to the U.S. Census 2010-2014 American Community Survey, the percentage of owner-occupied housing units in Hereford (89.4 percent) and Washington (87.0 percent) Townships exceeded the levels enumerated for Berks County (71.7 percent) and Pennsylvania (69.5 percent).

Owner Profile of Occupied Housing								
Type	Hereford		Washington		Berks County		Pennsylvania	
	#	%	#	%	#	%	#	%
Owner-occupied	958	89.4%	1,148	87.0%	110,353	71.7%	3,446,230	69.5%
Renter-occupied	114	10.6%	172	13.0%	43,504	28.3%	1,511,506	30.5%
Moved in 2010 or later	105	9.8%	203	15.4%	29,035	18.9%	969,379	19.6%
Moved in 2000 to 2009	321	29.9%	489	37.0%	63,140	41.0%	1,881,987	38.0%
Moved in 1990 to 1999	218	20.3%	273	20.7%	27,667	18.0%	866,333	17.5%
Moved in 1980 to 1989	205	19.1%	133	10.1%	14,490	9.4%	495,770	10.0%
Moved in 1970 to 1979	191	17.8%	158	12.0%	9,014	5.9%	361,726	7.3%
Moved in 1969 or earlier	32	3.0%	64	4.8%	10,511	6.8%	382,541	7.7%

Source: U.S. Census 2010-2014 American Community Survey

Approximately one-third of the housing units in both Washington Township and Hereford Township were built after 1980, when the use of lead based paint began to decline. Because of this, it is possible that the remaining majority of homes, which were built prior to 1980, contain lead-based paint, which represents both a substantial health risk for children and a liability concern for property owners. The cost of removing lead-based paints, however, is often beyond the budget of landlords and lower income individuals have limited equity in their properties and lack access to financing.

Cultural Resource Trends and Issues

Cultural resources are those characteristics of a community that make it socially and historically different from other communities. The comprehensive plan reviews cultural resources in order to promote a better understanding and appreciation of the local heritage by decision makers that will improve the community’s overall quality of life.

Several properties and villages within the planning area have documented historic value. The planning area contains properties already listed on the National Register of Historic places. There are five properties currently listed on the National Register of Historic Places and three that are eligible. There are twelve Historic Districts in the planning area; these are protected under authority of the home municipality. Additional resources of state and county significance have been identified. There are a total of 157 identified historic resources in the planning area.

Chapter 2 - Trends and Issues

National Register: Listed and Eligible Properties

Historic Site Name	Address	Eligible	Key
<i>Hereford Township</i>			
Gehman, John, Farm	Township Rd., N of Harlem	5/7/1992	National Register - Listed
Baver, Faith & George, Property	Township Rd., N of Harlem	8/16/2001	National Register - Eligible
Hunter's Mill, Rush's Mill			National Register - Listed
Mensch Mill	Camp Mensch Mill Rd.	4/23/2001	National Register - Eligible
Wiegner-Schelly House	Rte. 29 & Toll Gate Rd.	1/22/1991	National Register - Eligible
<i>Washington Township</i>			
Barto Bridge	L.R. 284	6/22/1988	National Register - Listed
Borneman Mill	Off PA 100, SW of Clayton	11/8/1990	National Register - Listed
Christman, Philip, House	Gehman Rd., off T-865	3/8/1973	National Register - Listed

Source: Berks County Historic Resources Database

Historic Districts			
Site Name	Location	Eligible	Key
<i>Hereford Township</i>			
Siesholtzville (Village of)	Seisholtzville & Dale Rd	8/16/2001	National Register - Eligible
Treichlersville (Village of Hereford)	PA 100 & PA 29	4/9/1991	National Register - Eligible
Huff's Church (Village of)	Huff's Church & Dale Road		PHMC
Perryville (Village of Harlem)	PA 100 & Kutztown Road		PHMC
Herefordville (Village of)	PA 29, near Montgomery Co.		PHMC
Hunter's Mill District			National Register - Listed
<i>Washington Township</i>			
Dale Furnace & Forge Historic District	Forgedale Road, N. of Dale	9/6/1991	National Register - Listed
Barto (Village of)			PHMC
Dale (Village of)			PHMC
Eshbach (Village of)			PHMC
Schultzville (Village of)			PHMC
Falkners Swamp Rural Historic District			PHMC

Source: Berks County Historic Resources Database

One historical marker commemorates an early business of national significance. The Hereford Furnace sign, located in the village of Hereford, refers to the furnace in nearby Mensch Mill that produced the first cast-iron cooking-stove in North America in 1767.

Residents and officials of the planning area and the County are interested in preserving agricultural lands as part of their cultural landscape. 8,021 acres in the planning area have been enrolled in the Agricultural Security Program.

Conservation organizations are working to protect cultural resources of the region. The Schuylkill River Greenway is one of 23 heritage areas in the state. The primary focus of the Schuylkill River Greenway Association and the Highlands Coalition is natural resources conservation; however, since much of the local heritage in these areas of Pennsylvania is based in natural resources, cultural resource conservation and interpretation is a natural extension of their efforts. The Highlands Coalition has identified the Perkiomen watershed as one of the natural treasures critical to retaining high quality drinking water, clean air, wildlife habitat and recreational opportunities

for the nearly 25 million people who live within an hour's drive of the Highlands region, reaching from Reading, Pennsylvania to western Connecticut.

Natural Resource Trends and Issues

Hereford-Washington enjoys a wealth of natural features. Identification and preservation of these resources will help ensure that future development takes place in an environmentally sensitive manner.

The geologic formations that underlie the planning area influence development and open space opportunities. Geologic constraints to development include excavation difficulty throughout most of the planning area.

Wellhead development potential is highest along the eastern edge of the planning area, parallel to SR 100. Groundwater appears most available in the Leithsville and Limestone Fanoglomerate Formations located along the eastern edge of the Townships.

Groundwater contamination has occurred in and around the planning area. Mitigation efforts are complete at the Crossley Farms Superfund site in Hereford Township, however this area is still currently unsuitable for additional development that would rely on groundwater for water supply. The US EPA is currently monitoring the site for the presence of 1,4-dioxane found in one of Bally's municipal wells, which serves some of Washington Township's residents.

Air quality is a concern throughout the planning area. There is a growing concern, in both Townships, regarding residents experiencing respiratory illnesses that could be contributed to the application of certain stabilized residual solids fertilizer on farms throughout the planning region. The appropriate agencies should systematically monitor application of this fertilizer to ensure that proper protocols are followed when applying it to fields; especially when in close proximity to neighboring residential areas.

Prime farmland soils in the planning area have supported agriculture as the predominant local industry since its settlement; increasing regional growth threatens the agricultural landscape with development pressure. The planning area contains prime farmland soils; the majority of these are in active agricultural production. Many of these areas have Agricultural Conservation Easements and Agricultural Security Areas.

Certain land features of the Hereford-Washington planning area are sensitive to disturbance and therefore unsuitable to development. The planning area contains floodplains, wetlands, and steep slopes; these areas are not suitable for development and are key to the preservation of the rural character in the planning area.

A high percentage of open fields and forest cover define the planning area as a scenic, rural landscape. The planning area contains open fields and forest; defining its rural character. Changes to the distribution of the land cover will have significant impacts to this character.

The planning area contains environmentally sensitive features: high (surface) water quality and five species of state concern. The headwaters of the Perkiomen Creek, which lie in the planning area, have been classified as high quality and exceptional value watersheds and high quality cold-water fisheries. Because of their high quality, Swamp and Middle Creeks serve as a vital water supply sources. If development in these areas is planned, careful assessments of its impacts will need to be addressed in order to preserve these designations. Failing septic systems in the Huff's Church area are of immediate concern.

The planning area is home to five species of concern in the Pennsylvania Natural Heritage Inventory. Any development that may impact these areas will need to be carefully looked at in order to mitigate any potential negative impacts to these species.

Although many areas of the Townships are undeveloped, public and private recreation is scattered throughout. The planning area contains state game land, public parkland, and private parkland offering many opportunities for both passive and active recreation.



Transportation Trends and Issues

The transportation network of a community is the backbone for its development and prosperity. By providing access to residential and business properties, transportation networks and improvements influence future development patterns. A carefully planned and maintained transportation system will help sustain the County's existing quality of life.

The importance of the road network to Hereford-Washington cannot be overstated. Two major state thoroughfares pass through Hereford-Washington. SR 100 connects Pottstown (to the south) and Allentown (to the north), carrying over 16,000 vehicles per day. SR 29 crosses the

northeast corner of the Hereford Township, connecting Emmaus/Allentown with East Greenville/Pennsburg and points southeast.

There are some structurally deficient and functionally obsolete bridges with the planning area. Structurally deficient bridges are characterized by deteriorating conditions of the major components of a bridge. There are four (4) such bridges in the planning area. A functionally obsolete bridge does not meet current design standards. There are 11 such bridges in the region.

The state is aware of three needed improvements in the planning area. Replacement/rehabilitation of Burkey's Bridge on County Line Road in Washington Township; road and intersection improvements to SR 100, near the intersection of Dairy Lane and PA 29 resurfacing from the Montgomery County line to the Lehigh County line are programmed on the Reading Area Transportation Study's 2017-2020 Transportation Improvement Program.

The freight rail line that crosses the northeast corner of the planning area does not stop in the planning area. Though there are no plans to develop this site, the area is zoned for light industrial to take advantage of the rail line.

There are no commercial airports within the planning area, however there is a small private airfield in the western region. This private airfield has a paved runway. Concern for the safe take-off and landing of small aircraft has been expressed by local residents. Additionally, the Butter Valley Golf Port is located just east of Hereford-Washington in Montgomery County.

Washington Township has implemented traffic impact fees to fund transportation improvements based on land development. The Transportation Impact Fee Study prepared for Washington Township recommended possible widening, an access management plan, and a signal specification system for SR 100. The study also called for the possible widening of various one-lane bridges around the Township.

Land parcels along SR 100 are under increasing pressure to develop as residential and commercial properties. Development along the corridor will result in increased traffic volumes and turning movements to and from SR 100. This may decrease safety and level of service values along the corridor. Integrated land use and transportation planning need to occur especially along the SR 100 corridor to manage growth and minimize development impacts.

The carrying capacity of the local roadway network is limited by its current roadway conditions and potential for improvements. Topographical and geologic constraints to construction (e.g. widening, re-alignment) may limit the improvement potential of many local roads. Development in many areas without significant roadway improvements would inappropriately endanger the residents of these areas.

Community Facilities and Services Trends and Issues

Community Facilities and Services include the public safety, health care, education, recreation, and utilities services that residents and businesses rely on for safe, clean communities in which to live, work, and play.

- **Police Services**

The Pennsylvania State Police provides emergency police response services to Hereford-Washington residents.

Response times of the Pennsylvania State Police are often longer than expected. State police routinely patrol the Hereford/Washington region. Response times vary depending on the nature of the request for service, location of available officers and the existence of other business that may require state police assistance.

The Berks County Fire Police Association provides emergency site control, crowd control, scene security, and fire investigation for the Townships.

- **Fire and EMS Services**

Eastern Berks, Seisholtzville and Hereford Fire Companies provide primary response to protect Hereford-Washington Township residents from fire hazards.

Townships' residents receive emergency medical services (EMS) from Bally Community Ambulance Association.

Berks County's Hazardous Material Response Team handles emergencies involving large quantities of hazardous materials in the County, including the planning area.



Fire Service

- **Utility Networks**

Natural gas service is made available in portions of Hereford-Washington by the Reading Gas Division of the UGI Corporation. Due to the rural nature of the Townships, many residents use propane gas, delivered by local/regional providers.

Metropolitan Edison Company (Met Ed) distributes electricity to Hereford-Washington Townships.

There are a number of telecommunications services in the Townships, including D&E Communications and Verizon phone service, Comcast and Service Electric cable television, and a variety of local/regional Internet providers.

- **Educational Facilities**

Hereford-Washington spans two school districts: Boyertown Area School District and the Upper Perkiomen School District. One elementary school from each district is located in the planning area. Local students attend secondary schools outside the planning area. One Mennonite school and one Montessori school are also located in the planning area.

Although rural, the Townships' residents have access to educational options throughout the Berks, Lehigh, and Montgomery County regions. Such options include private schools, such as St. Francis Academy in Bally and the Perkiomen School in Pennsburg,



School

Chapter 2 - Trends and Issues

vocational-technical programs, continuing education classes, and many regional colleges and four-year universities.

- **Health Care Facilities**

There are no major medical facilities in Hereford-Washington. Two private medical facilities provide family practice and dental care in the planning area.

Four hospitals provide medical care to residents of the region; Lehigh Valley Hospital, the Pottstown Memorial Medical Center, the Reading Hospital and Penn State Health - St. Joseph's Hospital.

- **Library Facilities**

There are no public library facilities located within the study area. The J.K. Boyer Boyertown Community Library branch of the Berks County Library system, the Red Hill Library of the Montgomery County Library system, and the Hereford Elementary School provide residents with library services.

Other regional library facilities include the Carnegie Library and Schwankenfelder Heritage Center and Library, both located in Pennsburg.

- **Solid Waste Management**

Berks County adopted an Act 101 *Berks County Solid Waste Management Plan* in 1991. It was updated in 2005.

Due to their rural population density patterns, **the Township governments do not provide trash collection and disposal services.** Instead, residents contract with private haulers for waste disposal services. Washington Township operates a drop off site at the Red Barn on the first Saturday morning of every month and the third Wednesday of the month from March through October.

- **Public Water Facilities**

There are two municipal water authorities and three community water systems operating in Hereford-Washington; the Bally Borough Municipal Authority, the Upper Hanover Water Authority, and the community water systems (CWS) located in Hereford Estates in Hereford Township, The Reserve at Bally Springs and Spring Valley Village both located in Washington Township.

Bally Borough Municipal Authority provides water to over 100 households in Washington Township.

The Upper Hanover Water Authority's water mains connect wells in Hereford Township with the Authority's service area in Montgomery County. The Authority serves a limited number of residents along SR 29 in the village of Chapel. There is concern for the effects that withdrawal may have on the local water table and private wells.

Public Water Systems in the Planning Area

System Name	Service Area	Customer Connections	Primary Source
Bally Borough Municipal Authority	Bally Borough, portion of Washington Township	106	One well
Upper Hanover Water Authority	Portion of Hereford Township, along P.A. 29	56	Two wells (in Hereford Twp)
Red Hill Water Authority	Northeast portion of Hereford Township	45	Two wells, spring-fed reservoir
Hereford Twp. CWS	Manufactured Home parks in central part of Township	450	various

A vast majority of the Townships’ residents have on-lot water wells.

Recommendations have been made to share services among the water supply providers, as found in the Berks County Water and Sewer Management Plan.

- **Public Sewer Facilities**

Washington Township has a public sewer system. Washington Township’s Act 537 Sewage Facilities Plan was prepared in 1993 and laid the foundation for creating the Washington Township Municipal Authority and its present system. Washington Township’s public sewer service area generally parallels its public water service area. An update to the plan was completed in 2009. The Bally Municipal Authority serves some residents in Washington Township.

The southwestern area of Washington Township was chosen as the primary sewer services area to resolve existing contamination problem areas and provide capacity for the growing SR 100 corridor.

Hereford Township currently does not have public sewer. At the time of this plan Hereford Township has not completed an Act 537 Plan. Although Hereford Township has no existing Act 537 Plan in place, the Township is currently studying the feasibility of creating a sewer service area in the future.

- **Municipal Facilities and Services**

Both Hereford-Washington Townships have municipal buildings, which generally serve as community centers. These complexes are multi-purpose, in that they provide Township office space, meeting facilities, public works storage, and park land. Washington Township also offers recycling services at their municipal building.

- **Parks and Recreation Facilities and Services**

The County and Townships have been actively involved in park planning, acquisition, and development activities through formal recreation plans and informal initiatives. Berks County Planning Commission produced a County Greenway, Park and Recreation Plan in 2007. Washington Township produced a Township Comprehensive Open Space and Recreation Plan in 1992. Hereford Township addresses recreation and open space in their 1991 Comprehensive Open Space and Recreation Plan.

Hereford-Washington Townships have 25 parks and/or open space areas totaling approximately 715 acres. Hereford Township has 12 parks on 454 acres for its 2,923 (2014) residents. Seven parks and the majority of this acreage are privately owned. Washington Township has 13 parks and/or recreation facilities on 261 acres for its 3,962 (2014) residents.

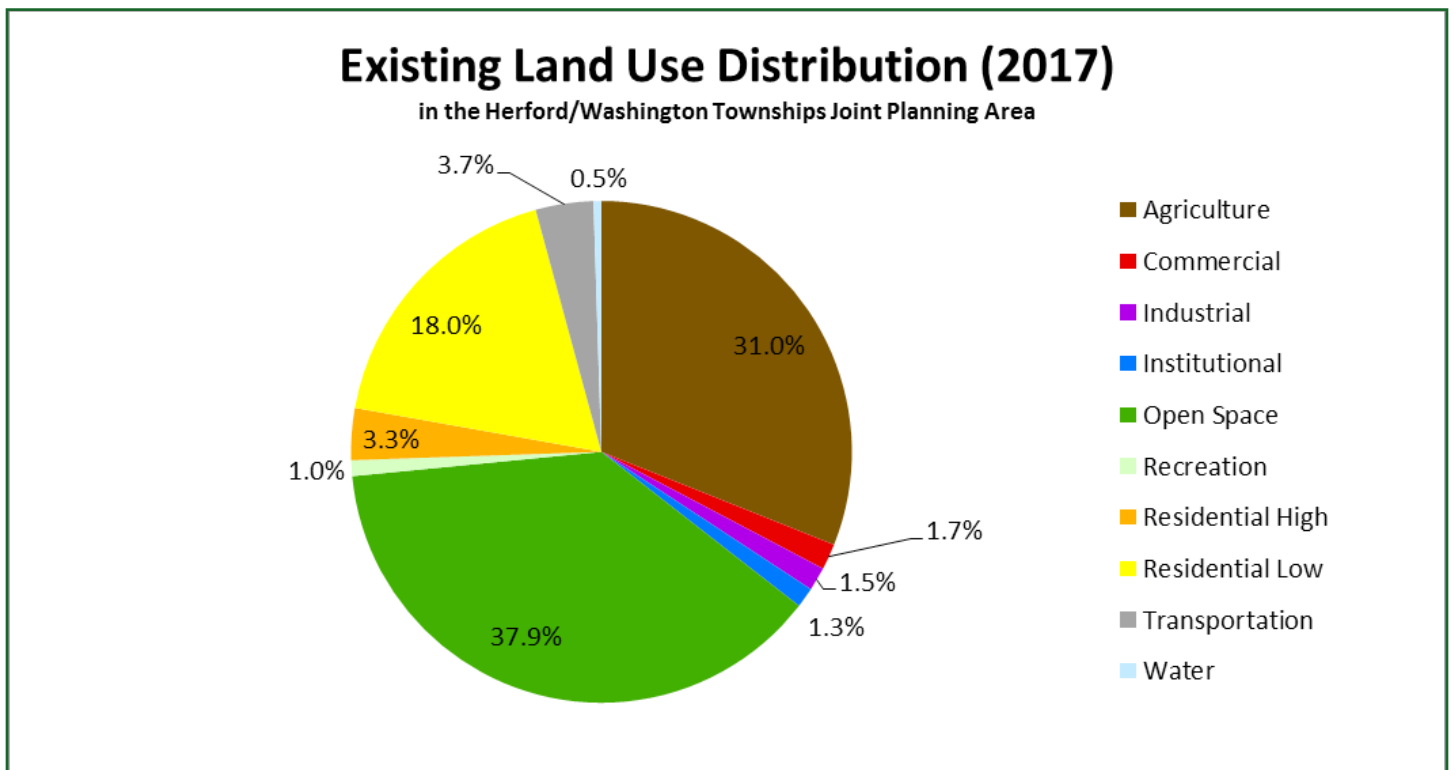
Chapter 2 - Trends and Issues

There are currently no trails in Hereford-Washington. NRPA standards recommend one mile of trail per 2,000 community residents, indicating a need of 3.5 miles of trails in the planning area.

Land Use Trends and Issues

A review of recent land use patterns allows decision makers to examine land use patterns, the effectiveness of existing regulations, and the forces that influence land use decisions, such as natural features and the location of transportation routes. From this review, they can determine how to guide future development (both new and redevelopment) through regulations, and policy and program incentives.

Hereford-Washington has been and remains predominantly rural. Nearly 68.9 percent of the total land in the planning area lands is used for agricultural and woodland uses.



Most development has occurred in the lowland areas along the eastern portions of the Townships. Some future development is planned in this area, particularly the southeastern portion of Washington Township as zoning permits and where sewer service is available.

Most of the developed land in the planning area is used for single-family housing, with just over 3,300 acres throughout both Townships. Roads and rights-of-way are the second most dominant developed land use, with nearly 700 acres devoted to this purpose.

The Townships vary in their land use distribution, but residential development is the predominant developed land use type. Washington Township has a greater percentage of its land devoted to single-family residential uses (86.9 percent, compared to 69.9 percent in Hereford Township). It also has nearly three times as much multi-family residential acreage. Washington Township has greater percentages of commercial and institutional lands. The Townships' acreage and percentage of industrial land is relatively similar.

Regionally, the larger urban areas of Reading, Allentown, and Philadelphia are experiencing population shifts from their centers to their edges. As these edge areas become more intensively developed, their

residents seek attractive, less dense, typically rural communities with good transportation access to their urban and suburban employment centers. This has resulted in the further spread of suburbanization in the region and into the Hereford-Washington area.

Development pressure has waned partly due to the recession of 2009, but the potential for sprawl of residential subdivisions, strip-type retail development, and loss of farmland still exists in the planning area.

Both Townships have a previously adopted joint comprehensive plan (January 2006) but still maintain separate zoning ordinances.

Residents and officials of the planning area and the County are interested in agricultural preservation. Nearly 8,021 acres in the planning area have been enrolled in the Agricultural Security Program. That's nearly 2,621 acres more than were enrolled in 2005.

Estimated Growth

Independent population projections indicate that resident population will continue to increase in the Hereford-Washington Planning Area into the year 2040. The population increase is estimated at an additional 318 residents for Hereford Township and an additional 415 residents for Washington Township, for a total of 733 new residents in the Planning Area. These increases represent a growth rate of approximately 3.3 percent for both Hereford and Washington Townships. From this population increase, estimates for growth in various land uses can be approximated. This approximation in comparison with existing land use data and the current regulations for new development allow the determination of whether or not adequate land is available to accommodate projected growth.

Population increases are directly related to increases in numbers of households, which in turn, represent an estimate of the number of dwelling units needed. Projected numbers of new households are determined by dividing the number of new residents by the average number of persons per household. In this case, the average number of persons per household was assumed to remain at 2014 levels for each municipality. As a result of 318 new residents, Hereford Township can expect 118 new dwelling units by 2040. Similarly Washington Township can expect 138 new dwelling units by 2040. In total, 256 new dwelling units may be needed in the Planning Area by 2040—an increase of 10.2 percent.

At an average density of one dwelling unit per acre, this would result in an additional 256 acres of residential development.

In addition to residential growth, the Planning Area may anticipate growth in other land use categories to support the new residents with private and community services. This growth would occur in some relative proportion to the residential growth.

As stated in the land use analysis, the majority of the Planning Area (68.9 percent or 12,996.6 acres) is rural and undeveloped. While there are regulatory limitations to development, including steep slopes, wetlands, and floodplains, sufficient land remains to accommodate estimated future development in other areas. The protection of prime farmland (currently regulated by zoning) is a limitation to development in Washington Township. Constraints on the construction of on-lot septic systems and excavation are notable, however development and design alternatives could address these on a per-site basis, without precluding development, specifically in areas along the SR 100 corridor.

There is sufficient available undeveloped land that is currently zoned for potential development and that could accommodate the estimated growth for each of the use categories. In fact, even more development, particularly residential, could occur under existing zoning.

The more important question that remains is how such development, if and where it occurs, will impact the character of the Planning Area. The residential development will likely have the greatest impact. In the long term,

Chapter 2 - Trends and Issues

conventional development could consume the open space that currently exists, resulting in obvious suburban sprawl. In the short term, development could fragment the agricultural and woodland areas into small pockets rather than large, scenic expanses of open space.

VALUES, VISIONS AND GOALS

In order to plan a desirable future for the Hereford-Washington community, the Joint Planning Committee (JPC) needed to understand their residents' perspectives on living in Hereford-Washington. The JPC needed to recognize the values that residents find in the local quality of life, the desires they have for a future that will include some change, and the direction of changes that should occur. Residents' perspectives on these topics were invited through a community survey that was distributed via Township Newsletter to all of the households in the Hereford-Washington community.

Community Values

Early discussion with the JPC generated a list of most liked features (assets) and least liked features (issues) of Hereford-Washington. The list of assets was, by far, the longer list, which reflects a positive self-image of the Hereford-Washington community. Both lists were prioritized to focus further discussion on the key assets and issues. The following assets and issues were identified as the most important from the entire list.

Key Community Assets:

- Rural character and scenic vistas
- Agriculture
- Historic sites
- Privacy of Woodlands
- Location and accessibility
- Outdoor activities
- Community Facilities
- Conservation

Key Community Issues:

- Superfund sites
- Air quality
- High density housing
- State Route 100 traffic
- Signage
- Growth/sprawl
- Diminishing open space
- Sewer Costs
- Litter



This list aided the preparation of the community survey where community values were further defined.

Survey

A Hereford-Washington Townships' Joint Planning Area community survey was completed during the winter of 2016/2017. One survey was sent to each household in the Planning Area – a total of 2,392 surveys. Of these, 206 were returned, tabulated and analyzed, resulting in an 8.6 percent response rate. Although this response rate is relatively low it is just below the average response rate for surveys distributed to external parties. Surveys that you distribute internally (i.e. to employees) generally have a much higher response rate than those distributed to external audiences (i.e. community members). Internal surveys will generally receive a **30-40%** response rate (or more) on average, compared to an average **10-15%** response rate for external surveys. The following are the main takeaways from the community survey:

- Overall, people in the joint planning area are satisfied with the quality of life in Hereford and Washington Townships.
- Roughly 50 percent of the respondents are to some degree satisfied with the Township government with regard to citizen input, building permits and codes, and zoning regulations; feeling strongest about the ease of attaining building permits, codes enforcement and inspections.

Chapter 3 - Values, Visions and Goals

- Generally, the availability of community services is deemed adequate by respondents. At least 20 percent of residents indicate that the following services are not adequate: police services, retail stores and restaurants, and walking/hiking/biking trails.
- Family farms were overwhelmingly chosen (92 percent strongly agree or agree) as a type of development to be encouraged. Single-family homes also received majority support for encouraging such development.
- Approximately three-quarters of the Townships' respondents disagreed with the encouragement of mobile homes and high-density housing; over half strongly disagreed.
- Actively protecting agricultural land and open space from development was strongly supported throughout the survey.
 - Over 89 percent of respondents strongly agreed or agreed that protecting open spaces and preserving the farming industry should be given the highest priority in the Townships over the next five years.
 - Nearly 90 percent agreed or strongly agreed with supporting actions that protect agricultural land and open spaces from development.
 - Over 54 percent strongly agreed or agreed that they would support a referendum to raise funds from Township residents to purchase open space.
- 75 percent of the respondents supported cooperative economic development with Bally and/or Bechtelsville.
- Almost 66 percent support the creation of a regional police force, as the region's population grows; support for Township police forces was less – 47 percent.
- There is no current consensus on appropriate locations for future development. Of the options given, the State Route 100 (SR 100) corridor and the villages received the most support (60 percent strongly agree or agree) as a future development focus.
- Most respondents (93 percent) plan to reside in the joint planning area of Hereford-Washington for the next 5-10 years.
- However, they would consider leaving the Townships within these years if municipal taxes increased significantly (76 percent), significant woodlands and other open spaces are lost to development (75 percent), and/or farming leaves the community (59 percent).

Overall, there were few differences between the responses of Hereford Township and Washington Township. A few distinctions are noted here:

- The majority of respondents (76 percent) were residents of Washington Township.
- Results indicated that Washington Township residents were more concerned with protecting open spaces from development.
- Hereford Township residents were generally more pleased with the current quality of life in their Township than Washington Township residents.

- Hereford Township residents put a higher priority on promoting economic and employment development while Washington Township residents put more of a priority on preserving the farming industry
- Hereford Township residents put a higher priority on expanding water and sewer service areas than Washington Township residents.
- There was generally equal support for developed land uses in Washington and Hereford Townships, except Hereford Township residents indicated more support (and less opposition) for mobile homes.
- Washington Township residents expressed somewhat greater support for cooperative economic development with Bally and/or Bechtelsville.
- Both Townships residents equally support actions that protect agricultural land and open spaces from development.

The survey indicates that open space preservation, agricultural sustainability and high sewer rates are the most pressing community issues in the Planning Area. Property taxes follow closely behind. All four are related to the amount of growth that the Townships will allow and encourage in the future. These issues will need to be carefully considered in the planning efforts of this Planning Area.

From the analysis of the community survey, the JPC was able to define both joint (common) and individual values.

Joint Values include...

- Quality of life
- Family farms
- Protection of open space (agricultural fields, pastures, meadows, and woodlands) from development
- Reasonable taxes to support community facilities and services
- Local employment opportunities
- Local retail and service establishments
- Recreation linkages (trails)

Individual Values include...

Hereford Township

- Personal freedom for land development or land preservation
- Increased services that keep pace with residential growth

Washington Township

- Development to share the cost of community services
- Development should not destroy rural character

ACTION PLANNING AND IMPLEMENTATION STRATEGIES

Introduction

In order for Hereford-Washington to achieve the vision of continued rural character, growth and development in targeted locations, and a balanced, small scale economy for its residents, a number of policy changes must occur. These changes are outlined in the following action plans. Each action plan corresponds to specific municipal policy topics and planning activities (e.g. land use, transportation, housing, etc.).

These action plans provide a functional approach for achieving the community vision. However, many of the action items are interrelated and coordination among these will produce the most efficient results.

A capital improvements program (CIP) has been developed to outline the order and timing of physical improvements, as well as policy changes. The CIP will provide the Supervisors with immediate guidance for decision-making in Hereford-Washington.



Action Plans

Action Plans answer the question “How can we change what we do today in order to become the community we want to be?” The Action Plans build on the goals developed earlier in the planning process to identify objectives and recommend policies for decision making and tasks for making change. There are six Action Plans (and the Future Land Use Map) that each address a particular component of community planning. In these Action Plans, the goals for each planning category are followed by policy statements (objectives) and action strategies for the Townships to implement, jointly or in coordination, as well as other resources to assist in making the recommended changes.

Land Use Action Plan and Future Land Use Designations

The Land Use Action Plan and Future Land Use Map work together to concentrate new development within existing service areas and work with other Action Plans to promote neighborhood connectivity, employment and recreation opportunities, and resource conservation. The intent is to respond to the community’s preference for rural township landscapes with small town neighbors. This is achieved by

- focusing potential development around the boroughs and villages in both Townships, essentially expanding these towns and their development patterns and densities,
- filling in pockets of undeveloped land within utility service areas, and
- limiting sprawl in the rural landscape.

GOAL: To guide development to areas with available infrastructure and reduce development pressure on the rural landscape.

OBJECTIVES:

- Guide growth and development to areas along the SR 100 corridor, particularly those areas where the infrastructure exists to support proposed development.
- Require/Encourage new development to conserve rural character.
- Encourage re-use/re-development of existing developed sites, especially in desired growth areas.

Chapter 4 - Action Planning and Implementation Strategies

- Coordinate land development with transportation planning and improvements.
- Reduce the potential for suburban sprawl and rural sprawl.
- Protect open spaces that are key to local character and heritage.
- Continue to enforce zoning codes.

Strategic Actions - How to Accomplish Objectives

1. Regularly review zoning and subdivision and land development regulations with enforcement staff to identify problematic codes. Address enforcement issues with public education regarding the code and/or revise the code, as appropriate.
2. Develop guidelines for new building construction based on historic architectural patterns and materials.

Future Land Use Map

The Land Use Action Plan and Maps (found in the Future Land Use Analysis: Chapter 11) promote additional residential capacity in Low Density Residential, High Density Residential, and Mixed Use areas. The Land Use Action Plan and Map also expand areas designated for commercial services, both within Mixed Use areas and in separate Commercial areas. Finally, the Land Use Action Plan and Map designate areas for resource conservation (agricultural soils, woodlands, water quality protection) and for very low density residential development.

The following Future Land Use categories, as defined below, are used on the Hereford-Washington Townships' Joint Future Land Use Map. These recommendations would best be implemented by a joint zoning ordinance and coordinated subdivision and land development ordinance(s). Each category's purpose or uses would be addressed by the zoning ordinance, while the lot size and site improvements would be regulated through the subdivision and land development ordinance(s).

Future land use densities as shown may require public utilities, specifically for Planned Residential Development and village areas. Hereford Township will need to evaluate the need for public water and sewer in these areas through the development of an Act 537 Sewages Facilities plan and water studies. Washington Township will need to guide the extension of public water throughout its High Density Residential, Industrial and Commercial areas. Where these utilities are established or extended by an agency other than the Township, the Township should support system expansion that is consistent with the Future Land Use Map, i.e. within the areas shown for intensive development.

Low Density Residential

Primary Purpose: to accommodate residential uses, and associated facilities, in suburban-style patterns and densities

Application: lots would range in size from 43,560 sf – 217,800 sf.

High Density Residential

Primary Purpose: to accommodate residential uses, and associated facilities. Permitted unit types would include detached-single family, semi-detached, row homes/duplex, townhouse, apartments, and mobile homes within parks.

Application: Dwellings would be built at densities that exceed one unit per acre; public water and sewer service would be required; streets and sidewalks would be encouraged to interconnect with the existing roadway network to a reasonable extent; street trees would be required.

Mixed Use

Primary Purpose: to accommodate residential, small-scale commercial uses, and other compatible uses in patterns and densities typical of rural villages

Chapter 4 - Action Planning and Implementation Strategies

Application: lot sizes would range from 10,000 sf to 20,000 sf, maximum lot width would be 90 ft; non-residential building size provisions could manage building scale; public water and sewer would be required; shared parking would be encouraged or required; street trees, sidewalks (or other hard surface paths) and street lighting would be encouraged.

Agriculture

Primary Purpose: to accommodate agricultural uses and directly-related residential and commercial uses.

Application: Lot sizes would be multi-acre and determined by large lot, fixed area, sliding scale or other effective agricultural zoning techniques; public water and sewer extension into agricultural/open space districts would be discouraged, except to address public health and welfare issues; agricultural/open space preservation easements would be encouraged.

Rural Conservation

Primary Purpose: to conserve woodlands, prime agricultural soils, and open space for the protection of water quality, wildlife habitat, and rural character, while allowing for some single-family residential and in-home business development. Development should be subject to flexible siting standards, conservation design standards, and disturbance limitations designed to avoid the most critical environmental constraints.

Application: lot size minimums would be 3-5 acres; development would be permitted only in areas free of prime agricultural soils and other specific conservation features (existing vegetation, topography, etc.) as defined by Hereford-Washington; cluster techniques would be encouraged to retain the overall development density, with possible density bonuses; estate lots (10+ acres) could be permitted. Ultimately the density of development depends on the environmental constraints present.

Commercial

Primary Purpose: to accommodate commercial sales and service uses in proximity to existing roadway and utility infrastructure.

Application: no specific minimum lot size is recommended, though building size provisions could manage building scale; public water and sewer would be required; shared access and parking would be encouraged or required; access from streets other than SR 100 would be encouraged; street trees, sidewalks, and street lighting would be encouraged, based on site context.

Industrial

Primary Purpose: to accommodate manufacturing and other industrial uses in proximity to existing roadway and utility infrastructure.

Application: minimum lot size would be 2 acres; building size provisions could manage building scale; public water and sewer would be required; shared parking would be encouraged or required; street trees, sidewalks, and street lighting would be encouraged, based on site context.

Recreation

Primary Purpose: to provide space and facilities for people to engage in active and passive recreation activities.

Application: continue to provide recreational opportunities for the residents of the Townships. Locating recreational opportunities in the most appropriate locations maintains their usefulness and they are much less likely to fall into disrepair and be obsolete.

Conforming and non-conforming uses will need to be defined during any future zoning ordinance update(s). The locations of existing agricultural uses should be carefully considered at that time. Agricultural uses can be permitted by right in more intensively developed districts, and need not be restricted exclusively to the “agricultural district.”

Chapter 4 - Action Planning and Implementation Strategies

This Future Land Use Plan can guide the immediate and short term future of the Townships. The rate of development over the next few years will be one factor in determining how long the plan can truly be effective. The comprehensive plan should be reviewed in five years with particular attention given to land use, namely the location, intensity (density), timing, and character of development since the plan's adoption.

Land Uses of Regional Impact

Uses of regional impact in the Hereford-Washington Planning Area are agriculture and open space. As stated in Chapter 2, Hereford-Washington has been and remains predominantly rural. Nearly 70 percent of the total land in the planning area lands is used for agricultural and open space. These uses are integral to the community's quality and character and should not be sacrificed simply to accommodate growth pressures. These uses promote groundwater infiltration, clean air and water when properly managed, and passive outdoor recreation. They create minimal demands on the traffic system and community services.

Housing Plan

The Housing Action Plan emphasizes increased housing alternatives in Hereford-Washington for residents of all ages, income levels, and household types. The existing housing stock is primarily comprised of single-family homes, which are the preferred housing unit type and appropriate to rural communities. However, portions of Hereford-Washington are developing in urban and suburban patterns, and therefore housing options appropriate to these environments are needed. While single-family homes may continue to be the predominant new housing type, new development should expand housing options by permitting and enabling more than one housing size, type, and cost in a given subdivision. Such integration of housing sizes, types, and costs is particularly encouraged in the Traditional Neighborhood areas, which would include planned residential developments (PRD) and/or traditional neighborhood developments (TND).

GOAL: To provide housing options for residents of all ages and income levels.

OBJECTIVES:

- Continue to support the development of single-family housing units.
- Increase housing options for seniors (type, size, value, etc.).
- Increase housing options for singles and small families (type, size, value, etc.).
- Reduce the potential for a significant increase in mobile home development.
- Continue to enforce building codes.

Strategic Actions - How to Accomplish Objectives

1. Consideration should be given regarding the pursuit of a joint zoning ordinance between the Townships to centralize the impacts of potential future mobile home development. This is one approach to addressing the desire for minimal additional mobile home park development. In addition, continual code enforcement of mobile home properties is critical to maintaining a positive community perception of mobile home neighborhoods. Any consideration to revise zoning should include research on existing housing unit types and their patterns in rural and small town communities like the Hereford/Washington region.

Economic Action Plan

The Economic Action Plan focuses efforts on the vitality of the existing small business and agribusiness communities, as well as other resource based economic sectors. Rather than trying to import large business and industry operations, which could dramatically impact transportation demand, Hereford-Washington should capitalize on the growth of its current businesses and supplement this with additional commercial services to serve the growing population. The Economic Action Plan recommends that Hereford-Washington work with local

Chapter 4 - Action Planning and Implementation Strategies

and regional economic development organizations to draw corporate interest and employment opportunities to the region, though not necessarily to these townships.

GOAL: To provide local employment, goods and services for residents and to supplement municipal revenue.

OBJECTIVES:

- Retain the existing small business community.
- Support the continued participation of the agricultural community in the local economy.
- Determine the level of community support for agricultural preservation.
- Promote sustainable forestry.
- Promote the development of natural resource and tourism-based small businesses in the Townships.
- Support expansion of office and light industrial sectors in Eastern Berks County.

Strategic Actions - How to Accomplish Objectives

1. Continue/establish regular dialogue with the small business community, regarding local challenges to business operations and expansion.
2. Identify key persons/organizations that can provide insight on business trends and offer advice on business planning in small, growing communities.
3. Work with the County to assist in finding capital for small business expansion.
4. Encourage development and expansion of business that promote the unique heritage of the Hereford/Washington community.
5. Encourage rehabilitation rather than demolition of historic buildings and properties for commercial uses.
6. Encourage locally owned and operated retail services where appropriate.
7. Continue on-going dialogue with the agricultural community regarding local challenges to farming operations and to the future of farming in the community. Focus attention on farming after current farmers retire – in terms of 10, 20, and 30 year timeframes.
8. Provide new residents with information on agriculture in the Townships and how farming activities could potentially impact residential properties.
9. Continuously review ordinance regulations to ensure that farmers have flexibility in the types of agricultural operations and farm related income.
10. Work with the County to assist in finding capital for agricultural expansion/diversification and preservation
11. Consider the development of a joint farmer’s market to sell and promote local agricultural products.

Transportation Plan

The Transportation Action Plan focuses on improvements to and access management of the SR 100 corridor, funding for transportation improvements from private and public sources and improved connectivity in the rural community for non-motorists.

GOAL: To provide an efficient, well-maintained transportation network to ensure the safe mobility of all users.

OBJECTIVES:

- Facilitate safe, efficient travel movement along SR 100 as well as other important routes throughout the area.
- Provide transportation alternatives within the Townships and connections to regional transportation alternatives.

Chapter 4 - Action Planning and Implementation Strategies

- Continue to improve local roadways.
- Coordinate land use planning and economic development with transportation.

Strategic Actions - How to Accomplish Objectives

1. Establish a traffic impact fee program in Hereford Township to fund future transportation improvements and for greater consistency in public policy with Washington Township.
2. Utilize impact fees to fund roadway and intersection improvements.
3. Communicate regularly with the Metropolitan Planning Organization (MPO), Reading Area Transportation Study (RATS), to prioritize SR 100 as a candidate for future corridor studies.
4. Consider developing bicycle/pedestrian trail(s) for non-motorists and increased recreational opportunities.
5. Work with BARTA/SCTA on exploring service options or need in the community with regards to mass transit availability.

Community Facilities, Services, and Utilities Plan

The Community Facilities and Services Action Plan focuses on effective public safety services and utilities, and expanding recreational and educational opportunities. As the population of Hereford-Washington grows, service areas and quality will need to be monitored and evaluated in conjunction with land use planning that enables such growth. Facility, service, and utility upgrades will come at a cost to all residents and should be carefully considered.

Hereford-Washington may want to look beyond their borders for cost-effective means of providing high quality community facilities, services, and utilities to residents. Many regional partnerships exist in Pennsylvania to provide recreation, public safety, and utilities services, as well as other local government services, e.g. code administration and enforcement, that exceed what each municipality could provide independently. These partnerships can take many forms, such as informal arrangements or formal intergovernmental agreements. These forms of cooperation maintain the municipalities' autonomy in working toward common goals. Where goals for local government are shared more broadly, municipal mergers or consolidation may be considered.

GOAL: To provide services, facilities, and utility networks that ensure an enriched quality of life to meet the needs of a growing population.

OBJECTIVES:

- Ensure efficient, effective safety services in the planning area.
- Maintain efficient, effective utility services.
- Expand upon existing recreation resources, both public and private, to create a comprehensive recreation network.
- Continue support for public access to the Hereford Elementary School Library and the Bookmobile. Continually assess the need for local public library facilities.

Strategic Actions - How to Accomplish Objectives

1. Periodically evaluate response times of emergency service providers and overall quality of services provided.
2. Consider regional police services, if state police services are determined to be inadequate. Work with adjacent municipalities in Eastern Berks County to explore regional police service options.
3. Continue to support volunteerism and community support of the local fire companies.
4. Evaluate the need for paid staff or regional fire protection services, if local volunteer services are

Chapter 4 - Action Planning and Implementation Strategies

determined to be inadequate. Work with adjacent municipalities in Eastern Berks County to explore options for fire protection services.

5. Continue to explore preparation of an Act 537 Sewage Facilities Plan for Hereford Township.
6. Consider consolidation of various water suppliers, where quality of service, and administrative and cost efficiency can be improved.
7. Encourage water suppliers to develop wellhead protection areas. Direct water suppliers to program information available from DEP. Coordinate the development of well head protection areas with land use planning.
8. Coordinate land use planning to maximize existing utility capacity.
9. Regulate the development of further cellular/telecommunications infrastructure.
10. Consider developing a bicycle-pedestrian network to interconnect existing recreational sites and neighborhoods. Consider off-road and on-road (shoulder) routes.
11. Work with the Upper Perkiomen and Boyertown Area School Districts to establish and promote the use of the Hereford Elementary School and Washington Township Elementary School libraries for possible public access.

Natural and Cultural Resources Plan

The Natural and Cultural Resources Action Plan focuses on public and private efforts that preserve and conserve natural and cultural resources through regulations and incentives. Stream and woodland conservation are key to retaining the remaining rural character of the Township, as well as the water quality of the watershed. Finally, efforts to explore and celebrate local heritage should be supported to enhance Hereford-Washington's contemporary and historic identity.

GOAL: To protect and enhance open space and natural and cultural resources.

OBJECTIVES:

- Protect sensitive natural resources through regulations.
- Conserve woodlands and open fields.
- Encourage the use of conservation design principles in new development.
- Protect surface water features.
- Protect groundwater resources, coordinate with land use development and planning.
- Support historic resource conservation and preservation, as appropriate for each resource.

Strategic Actions - How to Accomplish Objectives

1. Continue to enforce steep slope regulations to limit soil erosion and protect stream quality.
2. Reference state permitting requirements for streams and wetlands as a pre-qualification for municipal building/zoning permits.
3. Support participation in forest conservation programs, such as the Forest Legacy Program (USDA). Educate land owners on the tools available for woodland and open field (meadow) conservation.
4. Encourage active forest management through forest stewardship planning.
5. Provide information on and encourage the creation of new woodland and natural meadows over traditional lawn and landscaping management practices typical of today's suburban developments.
6. Work with County and local environmental organizations on establishing forested riparian buffers along stream corridors for the movement of species and enhanced water quality.
7. Support the development of riparian corridors within new subdivisions for the movement of wildlife and encourage existing private land owners to establish forested riparian buffers on private lands.

Chapter 4 - Action Planning and Implementation Strategies

8. Revise the subdivision and land development process to require a site inventory of natural and cultural resources, including in hedgerows, vegetative clusters, roadway viewsheds, historic features, etc., during sketch plan development. Exclude these areas from developable land.
9. Document local architectural patterns and materials usage. Provide documentation as preferred patterns for future development.
10. Encourage local organizations to pursue private sources for historical preservation.

Interrelationship of Plan Components

Each of the planning components of the Comprehensive Plan—Land Use, Housing, Economic Development, Transportation, Community Facilities, Services, and Utilities, and Natural and Cultural Resources—has been developed with consideration of the interrelationships among them. Each Action Plan includes a number of strategies that implement the goals and objectives established for that particular planning component, and many of these strategies directly or indirectly support strategies in other interrelated Action Plans. Several examples are explained here.

The Land Use Action Plan clearly impacts other planning efforts. Land use decisions imply the need for vehicular access, utilities service, and natural resource protection, at a minimum. Future Land Use recommendations considered the relevant availability of infrastructure and sensitivity of resources in making these decisions. Locating the majority of developed uses along the SR 100 corridor will minimize development impacts on natural and cultural resources located in the Rural Conservation area. Concentrating development within existing service areas or in proximity to them will result in greater efficiency of water and sewer service systems.

The Land Use Plan complements the Housing Action Plan, as it recommends a variety of lots sizes (to be implemented through subdivision and land development regulations) that would encourage a greater variety of housing sizes, types, and values.

The Economic Development Action Plan works with the Land Use Action Plan to encourage the continued presence of the agricultural industry. The Economic Development Plan strives to understand how the industry functions and can continue to function in the Planning Area, in ways that maximize agricultural viability and minimize land use conflict. The Economic Development Plan also supports the existence and growth of small, locally owned businesses, primarily within areas served by existing infrastructure.

The Transportation Action Plan supplements the Land Use Plan and the Economic Development Plan by focusing investment in the SR 100 corridor, particularly in already developed areas where improvements would benefit the greatest proportion of residents and thru-travelers.

Community Facilities, Services and Utilities Action Plan recommends coordination of utility expansion with land use planning to provide public utilities only in areas where development densities can help to support the cost of these services.

The Natural and Cultural Resources Plan aims to protect these resources from development that would render them unusable in the future. The Plan recommends protection of prime agricultural soils in order to enable continued and future farming activities—be it at a large or small scale. The Plan's emphasis on woodland conservation promotes groundwater recharge and filtration that will help to maintain high-quality public water supply as well as stream quality for wildlife.

Each Action Plan could be implemented independently. However, the Action Plans are purposefully interrelated to create the greatest benefit for the Township communities. A coordinated implementation effort will be needed to achieve the vision and goals established by and for the Planning Area in this Comprehensive Plan—to support appropriate new development, provide services and infrastructure, as needed, and protect sensitive resources.

Plan Compatibility with Adjacent Municipalities

Extensive effort was made to ensure that the Hereford-Washington Joint Comprehensive Plan is compatible with adjacent municipal and County planning.

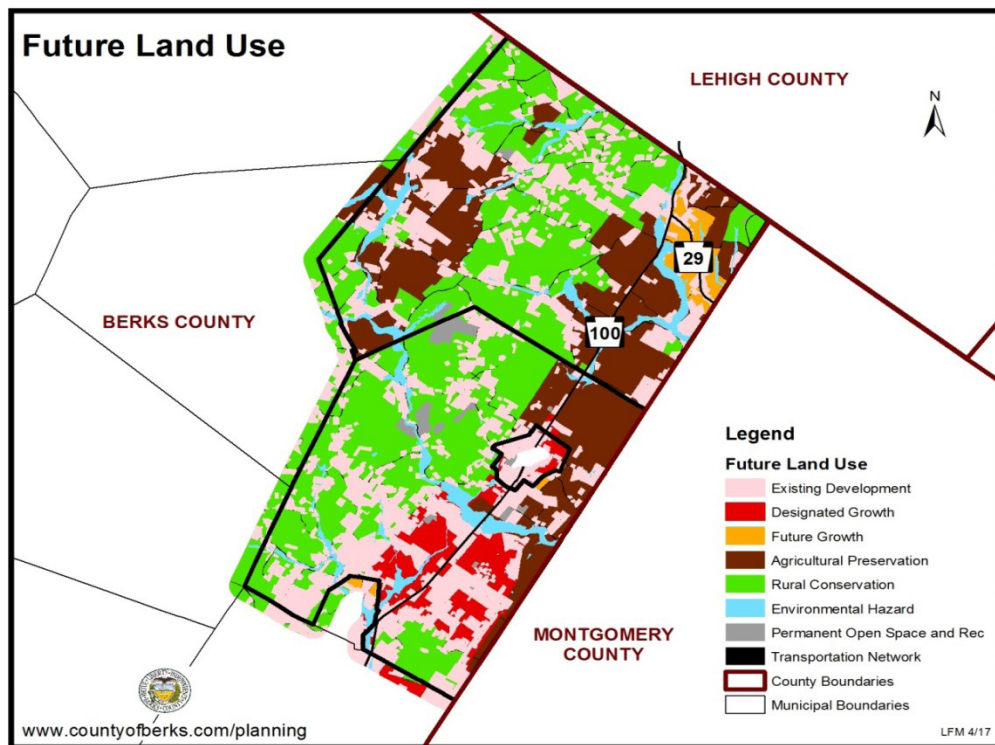
BERKS COUNTY

Berks County Comprehensive Plan 2030

Berks County Comprehensive Plan 2030, as the name implies, is the County's Comprehensive Plan. The plan aims to take advantage of economic activity moving into Berks county along its growth corridors, i.e. Route 422, I-78, and I-83/Route 222; to protect its agricultural land and open spaces; and to guide new development to create higher density, more intimate living environments in the boroughs and townships across the county. The Plan puts forth Smart Growth principles as the means to achieve these and other goals.

This Joint Comprehensive Plan for Hereford and Washington Townships is generally consistent with the vision and policies of Berks County Comprehensive Plan 2030, as characterized in the following examples:

- Like the County Plan, the Joint Plan supports the continuation of the agribusiness system and agricultural community through land use, economic and natural and cultural policies. Land use planning along the Montgomery County border, where agricultural preservation interest and efforts are prominent, is critical to consistency with Berks County and regional planning efforts.
- The Joint Plan directs and concentrates growth and investment in areas immediately surrounding existing developed areas, and more specifically to areas with sewer (expansion) capacity. Such areas are suitable for mixed- use development that helps to create a sense of place or community. The Plan also supports the use of innovative subdivision and development techniques for limited development in rural areas. These locations generally correspond with development/growth and conservation areas as portrayed on the County's Future Land Use Map.



- The Joint Plan recognizes the need to coordinate land use planning with transportation planning in order

Chapter 4 - Action Planning and Implementation Strategies

to develop a network of travel routes and to manage access, safety, and mobility.

- The Joint Plan acknowledges the need to protect surface and ground water resources from pollutants through sound land use planning and riparian buffers, as does the County Plan.
- The Joint Plan recognizes the economic and cultural value of historic sites and features to the Townships. The County Plan references both preservation and patterning as means to retain such value.

Bally-Bechtelsville Planning Area

The Bally-Bechtelsville Comprehensive Plan was adopted in 1994 and followed by an adopted Joint Zoning Ordinance and Map. Due to the fact that Washington Township surrounds Bally and nearly encircles Bechtelsville, nearly all land uses in the Bally-Bechtelsville Planning Area abut Washington Township in some location. Bally's future land use pattern is a linear one, focused on the Main Street town center/medium residential/general commercial corridor. Bechtelsville's future land use pattern is also linear in nature, based on the parallel routes of Main Street and the abandoned railroad.

Future land uses in Washington Township abut Bally-Bechtelsville in the following patterns:

- Agricultural— abutting Bally's low density residential area
- Commercial – abutting low density residential and mixed use in Bally on the north end of the SR 100 corridor. Abutting medium density residential in Bechtelsville at the southern end of the Township.
- Low Density Residential – abutting rural conservation in Bechtelsville
- Rural Conservation – abutting low density and high density residential in Bally
- Industrial – abutting industrial areas of Bally and abutting low density residential and industrial in Bechtelsville

Due to the fact that Bally and Bechtelsville represent the two historic community centers in the general Hereford-Washington Planning Area, the borders with these two communities are more complex and more readily defined than the shared borders with other municipalities.

Eastern Berks Planning Area

The Eastern Berks Comprehensive Plan is a regional plan prepared for District and Rockland Townships, and the Borough of Topton. This planning area lies west of the Hereford-Washington Planning Area. This Plan aggressively promotes growth control by focusing all future development toward the Borough of Topton. Future land uses along the shared borders are conservation related uses. Plan recommendations suggest very low density residential development. Future land use in Hereford-Washington for this area is shown as Rural Conservation, which allow for limited residential development.

The Boyertown-Colebrookdale-Pike Planning Area

A joint comprehensive plan was adopted in the Boyertown-Colebrookdale-Pike Planning Area in 2005. This Planning Area is located south west of Hereford-Washington, but only Colebrookdale and Pike Townships lie adjacent to Washington Township. Development in Colebrookdale Township is generally characterized as medium density residential toward the east and low density residential toward the west. Geographically corresponding future land uses in Washington Township are Low Density Residential and Rural Conservation. Pike Township is woodland conservation along the border it shares with Washington Township, which complements the Rural Conservation category illustrated for Washington Township.

MONTGOMERY COUNTY

Pottstown Metropolitan Joint Comprehensive Plan

Chapter 4 - Action Planning and Implementation Strategies

The Pottstown Metropolitan Joint Comprehensive Plan provides planning guidance for Pottstown Borough, Douglass, Lower Pottsgrove, Upper Pottsgrove, West Pottsgrove and New Hanover Townships in Montgomery County and North Coventry and East Coventry Townships, Chester County. The plan was adopted in 2003 and updated in 2015. Of these municipalities, only Douglass Township adjoins Washington Township. This planning area focuses future development toward the urban center of Pottstown and various community centers, such as Gilbertsville. The planning area has the expressed support of the Pottstown Area School District in limiting growth and its impacts on community services, such as public education; however it recognizes that public sewer service is available along Hoffmansville Road and provides a localized incentive for growth.

Generally the western border of Douglass Township is a conservation area. This area has scattered preserved agricultural parcels, with numerous additional applicants awaiting approval.

The Upper Perkiomen Valley Planning Area

The Upper Perkiomen Valley Planning Area is comprised of Upper Hanover and Marlborough Townships and the Boroughs of East Greenville, Green Lane, Red Hill and Pennsburg. A joint comprehensive plan was adopted by the municipalities in 2001 and updated in 2011. Of these municipalities, only Upper Hanover Township adjoins the Hereford-Washington Planning Area. As a result of continued viable farming activity, the majority of Upper Hanover Township is zoned farmland conservation. Future land uses in adjoining Hereford Township include Agricultural/Open Space, Industrial, Solid Waste Management (deed restricted) and Village uses. The Agricultural/Open Space use is a wise complement to zoning in Upper Hanover Township. Industrial and Solid Waste Management uses are a continuation of existing zoning in Hereford Township, although the Industrial area was extended northward to improve access to SR 29. The Village use abuts similar development in the village of Chapel as it extends across the County line.

LEHIGH COUNTY

Southwestern Lehigh Joint Comprehensive Plan

The Southwestern Lehigh Joint Comprehensive Plan was adopted by Lower Macungie, Lower Milford and Upper Milford Townships and Alburts, Emmaus and Macungie Boroughs in 2005. All three townships abut Hereford Township's northern border, with Upper Milford occupying the majority of this edge. Generally the Southwestern Leigh Joint Comprehensive Plan recommends conservation areas in this area. Topography and lack of utilities naturally discourage intensive development, and some parcels have been permanently preserved from development. Implementation of the Southwestern Lehigh Plan could result in 2-3-acre zoning in Lower Macungie Township and 2-acres zoning with clustering options in Upper and Lower Milford Townships.

Future land uses in Hereford Township include Rural Conservation, and Agriculture, which are compatible with the conservation and low density development expected to result from the Southwestern Lehigh Joint Comprehensive Plan and its implementation.

Currently an update to the Southwest Lehigh Joint Comprehensive Plan is taking place. From initial review of the land uses along the border with Hereford Township this plan will remain consistent with the objectives outlined in this document.

Zoning and Subdivision and Land Development Ordinance Review

Hereford Township - Zoning Ordinance

Hereford Township adopted its original Zoning Ordinance in 1973. It has since been amended multiple times throughout the years. The Zoning Ordinance follows a conventional organization. Twenty articles address definitions, zoning districts, regulations, provisions for special exceptions, non-conformities, natural resource conservation and administration and enforcement, as well as subsequent amendments. In addition to regulations

Chapter 4 - Action Planning and Implementation Strategies

addressing uses and performance and operational standards, the Ordinance also includes standards for parking and signage.

Article I – Title, Application, and Purpose

This article places the document in the context of public policy. It presents the community development objectives from Hereford Township’s Comprehensive Plan and outlines the authority to develop and enforce zoning regulations, as given by the Municipalities Planning Code.

Recommendation: None

Articles II and III – Definitions; and Zoning Districts and Zoning Map

Article II provides definitions for terms used repeatedly throughout the Ordinance. Article III identifies the zoning districts and overlay districts by name and provides clarification on how the district boundaries as shown on the zoning map relate to the physical landscape. There are seven zoning districts and two independent overlay districts designated in the Ordinance. These districts effectively result in one agricultural preservation district, two residential districts, one mixed-use district, one industrial district, one private airport district (Article XII) and one solid waste management district. The overlay districts provide for environmental protection for floodplains, wetlands, alluvial soils, and lands with a high water table or steep slopes and mobile home parks.

Recommendations: Article III may need minor revisions to implement the future land use plan and map, as presented in this comprehensive plan.

Articles IV-XIV – Zoning Districts

These articles individually define each district’s purpose, permitted uses, uses by special exception, and lot standards, e.g. size, setbacks, and coverages. The articles contain a number of development options, such as lot averaging and lot clustering.

Recommendations: None

Article XV and XVI – Administration and Enforcement; and Zoning Hearing Board

These articles address the implementation of the Ordinance.

Recommendation: None

Article XIX – Supplementary Regulations

Article XIII addresses additional regulations that are specific to individual and all uses, including landscaping and parking, signage, slope limitations, woodland conservation, barn conversions, and farms stands, as well as provisions for the overlay districts.

Recommendations: Parking requirements, i.e. number of spaces required, options for shared parking (particularly in the desired growth areas), and size of parking, should be reviewed in terms reducing the quantity of stormwater generated from these impervious surfaces.

Article XX – Non-conforming Lots, Uses, Structures, and Buildings

This article addresses how existing development that does not conform to the adopted Ordinance is to be regulated.

Recommendations: None

Hereford Township – Subdivision and Land Development Ordinance

Hereford Township’s Subdivision and Land Development Ordinance was adopted in 1970 and was most recently amended in 1998. The Ordinance currently includes eight articles regulating conventional subdivision and land development concerns and includes a table of contents for ease of use.

General Recommendations

The Ordinance is slightly dated in its use of state agency titles that have been renamed and/or reorganized since the Ordinance was adopted. In addition, several state agencies publish design, construction and performance standards intended to improve the quality of community development under state-funded projects. These publications can also serve as standards for private development, when referenced as specific or minimum standards. The Township should consider the application of these standards and, if appropriate, reference them by current title and publication number.

The Ordinance would be greatly enhanced by the addition of typical drawings to illustrate design standards.

In some ordinances, municipalities provide application or processing forms (e.g. submission checklist) to facilitate the submission process. The Township may want to consider such an addition to the Ordinance.

Article I – Title, Short Title and Purpose

This article simply outlines the purpose of the Ordinance and relates it purpose to community development objectives “to protect, promote and create conditions favorable to the health, safety, and general welfare of the citizens” of Hereford Township.

Recommendation: None

Articles II and III– Submission and Review Procedures; and Plan Requirements

These articles outline the submission, review, and approval procedures for subdivision and land development plans, as well as the required information for each stage of the process. The article also outlines procedures and requirements for developer performance.

Recommendation: Portions of this article have been rescinded, and should be removed from the text. The Township may want to specify what individual or body will address comments received from the County Planning Commission and/or PENNDOT. As recommended in the Future Land Use Action Plan, the Township should consider a pre-submission site visit requirement or option so that all plan reviewers can view the site (its location, adjacent properties, topography), see its natural and cultural features firsthand (vegetation, waterways), and express personal knowledge of site history that could enhance the site design.

Articles IV and V – Design Standards; and Improvement Specifications

These articles address the need to provide design and construction standards for streets and infrastructure, such as public use areas, public utilities and stormwater. The article contains access management guidance for collector roads, which supports the development of a more developed travel network. At the same time, the article currently seems to discourage thru-traffic movements in new development.

Recommendations: Guidance for streets and roads should be reviewed and revised to promote a connected travel network throughout designated development areas. Traffic calming components and pedestrian facilities should accompany this more intensively developed network. State and federal roadway design and construction standards could be referenced here. Recreational facilities standards should be evaluated and revised, as needed, with regards to current recreational trends.

Chapter 4 - Action Planning and Implementation Strategies

Articles VI – Definitions

This article provides definitions for terms used repeatedly throughout the document. Typically, this section is placed earlier in the document—immediately following the title and purpose—to make the user aware of commonly used and specifically defined terms.

Recommendations: Article VI should be updated and expanded, as needed, to define terms used throughout the Ordinance. This would include definitions added in subsequent amendments. Definitions in this article should be reviewed with other definitions throughout the Township regulations for consistency.

Articles VII – Administration, Amendment, and Severability

This article authorizes the implementation, modification, and interpretation of the Ordinance.

Recommendation: None

Article VIII – Flood Hazard Area

This article specifies that certain areas of the Township have been established as flood hazard areas in the Township’s zoning ordinance and directs the user to particular maps that illustrate these areas.

Recommendation: The text of this very brief article could be incorporated into the design standards portion of the Ordinance.

Washington Township – Zoning Ordinance

Washington Township’s Zoning Ordinance is recorded as Chapter 131 of the Code of Washington Township. The Zoning Ordinance was originally adopted in 1982 and amended in its entirety in 1993. Subsequent amendments have been adopted since 1993.

The Zoning Ordinance follows a conventional organization. Twenty-four articles address definitions, zoning districts, regulations, provisions for special exceptions and non-conformities, and administration and enforcement, as well as subsequent amendments. In addition to regulations addressing uses and performance and operational standards, the Ordinance also includes standards for parking and signage.

The Ordinance is a bound chapter separate from other chapters of the Washington Township Code. Other chapters that are relevant to the Zoning Ordinance are listed under general references in the front of the document.

General Recommendations

The Ordinance should be periodically reviewed to ensure compliance with the current Pennsylvania Municipalities Planning Code (PA MPC).

Article I – General Provisions

This article places the document in the context of public policy. It presents the community development objectives from Washington Township’s Comprehensive Plan and outlines the authority to develop and enforce zoning regulations, as given by the Municipalities Planning Code.

Recommendation: Update the community development objectives with the goals and objectives of this comprehensive plan. Update the references to zoning authority with relevant changes to the MPC, e.g. enabling multi-municipal land use planning.

Articles II and III – Definitions, and Designation and Boundaries of Zoning Districts

Article II provides definitions for terms used repeatedly throughout the document. Article III simply identifies the zoning districts and overlay districts by name and provides clarification on how the district boundaries as shown on the zoning map relate to the physical landscape. There are nine zoning districts and two independent overlay districts designated in the Ordinance. These districts effectively result in one agricultural district, three residential districts, one mixed-use district, one commercial district, two industrial districts, and one extractive industry district. The overlay districts address properties in the vicinity of the floodplain and nearby Butter Valley Golf Port (airport). One additional overlay, the mobile home park overlay, is tied directly to the high density residential and village district.

Recommendations: Article II should be updated and expanded, as needed, to define terms used throughout the Ordinance. This would include definitions added in subsequent amendments. Definitions in this article should be with other definitions throughout the Code of Washington Township reviewed for consistency. Article III will need revisions to implement the future land use plan and map.

Article IV- XIV – Zoning Districts

These articles individually define each district's purpose, permitted uses, uses by special exception, and lot standards, e.g. size, setbacks, and coverages. The articles contain a number of conservation options and incentives.

Recommendations: Amendments to the MPC made in 2000 now require that forestry activities and group homes be permitted in all zoning districts. The Ordinance should be revised to fulfill this new requirement. Based upon the regulations for the watershed conservation district and the rural residential district, these two districts could be merged for stronger public policy in support of a distinct town and country landscape, as is preferred by planning area residents. Minimum lot sizes across the districts should be reviewed and revised to foster a small-scale, interconnected pattern of development in desired development areas and a dispersed pattern in desired conservation areas (the country). Expansion and interconnection of the road network should be encouraged to provide route alternatives to SR 100 for local trips.

Article XV – Supplementary Regulations

Article XV addresses additional regulations that are specific to individual and all uses, including access, barn conversion, parking, and signage. The barn conversion provisions support residents' desire to promote conservation of historic structures and building styles.

Recommendations: Where this article addresses vehicular access, indeed access to SR 100 needs to be proactively managed. Mobility in adjacent areas should be encouraged to disperse local traffic. Following recommendations of the future land use plan and map, townhomes should be more widely permitted in high density residential and mixed use districts. Parking requirements, i.e. number of spaces required, options for shared parking, and size of parking, should be reviewed in terms reducing the quantity of stormwater generated from these impervious surfaces.

Article XVI – Transfer of Development Rights

This article has been repealed.

Recommendation: Remove references to the TDR provision throughout the Ordinance.

Article XVII – Nonconforming Lots, Uses, Structures, and Buildings

This article addresses how existing development that does not conform to the adopted Ordinance is to be regulated.

Recommendations: None

Articles XVII, XVIII, and XIX – Administration and Enforcement; Zoning Hearing Board; and Appeals, Remedies, and Penalties

Chapter 4 - Action Planning and Implementation Strategies

These articles address the implementation of the Ordinance.

Recommendation: None

Article XX – Environmental Performance Standards

This article is intended to protect the Township’s natural features from direct and indirect development impacts.

Recommendation: These standards should be incorporated into the supplementary regulations of Article XV.

Article XXI – Communications Antennas, Communications Equipment Buildings, and Communications Towers

These provisions specifically address the establishment of communications infrastructure.

Recommendation: These standards should be incorporated into the supplementary regulations of Article XV.

Washington Township – Subdivision and Land Development Ordinance

Washington Township’s Subdivision and Land Development Ordinance is recorded as Chapter 107 of the Code of Washington Township. The Ordinance was adopted in 2003 and currently includes eleven articles. This Ordinance follows a conventional organization and includes a table of contents for ease of use.

General Recommendations

The Ordinance is slightly dated in its use of state agency titles that have been renamed and/or reorganized since adoption. In addition, agency publications should be periodically checked for current title and publication number.

Article I – General Provisions

This article simply outlines the purpose of the Ordinance and requirement for conformance.

Recommendation: None

Article II - Definitions and Word Usage

This article provides definitions for terms used repeatedly throughout the document.

Recommendations: Article II should be updated and expanded, as needed, to define terms used throughout the Ordinance. This would include definitions added in subsequent amendments. Definitions in this article should be with other definitions throughout the Code of Washington Township reviewed for consistency.

Articles III and IV – Required Plans and Processing Procedure; and Information to be Shown on Subdivision and Land Development Plans

These articles outline the data requirements and submission, review, and approval procedure for subdivision and land development plans.

Recommendation: None

Articles V – Design Standards and Improvement Requirements

This article addresses the need to provide location and construction standards for buildings, roads, and infrastructure, such as recreation facilities, utilities and stormwater.

Chapter 4 - Action Planning and Implementation Strategies

Recommendations: The general standards promote the preservation and/or conservation of natural and cultural features. Wherever possible, this text should be more specific and reference feature inventories. Recreational facilities standards should be evaluated and revised, as needed, with regards to current recreational trends. Guidance for streets and roads should be reviewed and revised to promote connectivity and throughout desired development areas. Alleys and on-street parking should be considered for future residential areas. Parking standards should be reviewed, as mentioned in the Zoning Ordinance review.

Articles VII and VIII – Preventative Remedies and Enforcement; and Adoption and Modification of Provisions and Appeals

These articles address the implementation of the Ordinance.

Recommendation: None

Article IX – Planning Commission

This article addresses the role of the Planning Commission in implementing of the Ordinance.

Recommendation: None

Capital Improvements Program

The tasks listed in the Action Plans need further prioritization for timely and effective programming. The Capital Improvements Program (see table) suggests a schedule for initiation and completion of the most significant action items.

First and foremost, the Townships should prepare and adopt an intergovernmental agreement to implement the comprehensive plan. An intergovernmental agreement is an ordinance that outlines how the municipalities will work together to implement and update the plan. It states the responsibilities of the municipalities to the planning partnership, namely what activities should be reviewed by the partner municipality and which activities should be collaborative in nature. The intergovernmental agreement also states the limits to authority and liability of the partnership. Berks County has prepared a model intergovernmental agreement for its planning partnerships to use.

The responsibility for initiating these items lies with the Boards of Supervisors as they delegate tasks, compile annual initiatives and approve annual budgets.

Chapter 4 - Action Planning and Implementation Strategies

Capital Improvements Program					
	2017/2018	2019/2020	2021/2022	2023/2024	2025/2026
Action to be Taken	Short-term		Mid-term		Long-term
Prepare a Joint (or coordinated) Zoning Ordinance and Map		X			
Revise Subdivision and Land Development Ordinances			X		
Develop an Act 537 Plan for Hereford Township		X			
Develop a Traffic Impact Fee Program for Hereford Township		X			
Develop a Joint or Regional Bicycle-Pedestrian Plan		X			
Promote the need for RATS Study of the SR 100 corridor	X	X	X	X	X
Promote private natural resource protection	X	X	X	X	X
Preserve Open Space	X	X	X	X	X

Conclusion

This Comprehensive Plan update is the product of a careful planning process. The Townships' staff, committee members, and others are able to begin using the Plan immediately. They will be able to apply the Capital Improvements Program to their annual agenda. When the task is scheduled, they can refer to the action plans for tasks and resources. They can refer to Chapter 3 to review the vision they are trying to accomplish.

This Comprehensive Plan is rich in information and illustration to provide the Hereford-Washington region with sound guidance for its future. It is intended to be used regularly, for the Plan can only accomplish the vision when it is applied. Regular review of the plan will enable the Townships to continue proactive community planning without starting from scratch. Amending the plan is possible, too, if the vision or the direction of the community changes. Regardless, the Plan is an investment in the community's future.

DEMOGRAPHICS, HOUSING, AND ECONOMY

As Hereford and Washington townships plan for their future, the first step in the process is to understand past demographic and economic trends. The analysis below examines these trends and makes projections for the future, thereby providing a solid foundation for subsequent components of this Plan.

Population

While similar in size in terms of population, Hereford and Washington are going in opposite directions when it comes to population growth since 2000. Since 2000, Hereford Township experienced a 3% decline in population while Washington Township’s population grew nearly 28%. Both Hereford and Washington are surrounded by quickly growing townships in Lehigh and Montgomery counties.

Population									
Municipality	2000	2010	2014	2000-2010 # Change	2000-2010 % Change	2010-2014 # Change	2010-2014 % Change	2000-2014 # Change	2000-2014 % Change
Hereford Township	3,013	2,943	2,923	-70	-2.3%	-20	-0.7%	-90	-3.0%
Washington Township	3,109	3,840	3,962	731	23.5%	122	3.2%	853	27.4%
Colebrookdale Township	5,469	5,080	5,074	-389	-7.1%	-6	-0.1%	-395	-7.2%
District Township	1,449	1,387	1,404	-62	-4.3%	17	1.2%	-45	-3.1%
Douglass Township (Mont. Co.)	9,104	10,195	10,401	1,091	12.0%	206	2.0%	1,297	14.2%
Longswamp Township	5,387	5,682	5,684	295	5.5%	2	0.0%	297	5.5%
Lower Macungie Township	19,220	30,633	31,639	11,413	59.4%	1,006	3.3%	12,419	64.6%
Lower Milford Township	3,617	3,775	3,839	158	4.4%	64	1.7%	222	6.1%
Pike Township	1,359	1,724	1,746	365	26.9%	22	1.3%	387	28.5%
Upper Hanover Township	4,885	6,464	7,124	1,579	32.3%	660	10.2%	2,239	45.8%
Upper Milford Township	6,889	7,292	7,522	403	5.8%	230	3.2%	633	9.2%
Berks County	373,638	411,905	413,016	38,267	10.2%	1,111	0.3%	39,378	10.5%
Pennsylvania	12,281,054	12,702,379	12,758,729	421,325	3.4%	56,350	0.4%	477,675	3.9%

Source: U.S. Census 2000 and 2010 and 2010-2014 American Community Survey

Population Projections

Population projections can help the townships plan efficiently for future land use and community service needs. In comparison to adjacent communities, both Hereford and Washington are expected to add residents over time. It is expected that Hereford will reverse the trend of population loss with an 11% increase in population by 2040. Washington will continue to grow albeit slower than what was experienced between 2000 and 2014.

A general note about population projections – each county planning agency calculates future population growth differently. Those differences are readily apparent with our study including population projections from three different counties. With those differences in mind, the value of the projections is that both Hereford and Washington townships are expected to add residents, not lose them, as time goes on.

Chapter 5 - Demographics, Housing, and Economy

Population Projections										
Municipality	2010 Base	2020	2030	2040	2010-2020 # Change	2010-2030 # Change	2010-2040 # Change	2010-2020 % Change	2010-2030 % Change	2010-2040 % Change
Hereford Township	2,943	3,040	3,148	3,261	97	205	318	3.3%	7.0%	10.8%
Washington Township	3,840	3,966	4,108	4,255	126	268	415	3.3%	7.0%	10.8%
Colebrookdale Township	5,080	5,247	5,435	5,629	167	355	549	3.3%	7.0%	10.8%
District Township	1,387	1,433	1,484	1,537	46	97	150	3.3%	7.0%	10.8%
Douglass Township (Mont. Co.)	10,195	10,950	11,987	12,812	755	1,792	2,617	7.4%	17.6%	25.7%
Longswamp Township	5,682	5,869	6,079	6,296	187	397	614	3.3%	7.0%	10.8%
Lower Macungie Township	30,633	33,749	37,011	40,596	3,116	6,378	9,963	10.2%	20.8%	32.5%
Lower Milford Township	3,775	4,252	4,541	4,859	477	766	1,084	12.6%	20.3%	28.7%
Pike Township	1,724	1,781	1,844	1,910	57	120	186	3.3%	7.0%	10.8%
Upper Hanover Township	6,464	7,696	8,516	9,168	1,232	2,052	2,704	19.1%	31.7%	41.8%
Upper Milford Township	7,292	8,382	9,012	9,642	1,090	1,720	2,350	14.9%	23.6%	32.2%
Berks County	411,905	425,447	440,656	456,409	13,542	28,751	44,504	3.3%	7.0%	10.8%

Source: U.S. Census, American Community Survey, 2010 1-Year Estimate; The Center for Rural Pennsylvania, Pennsylvania Population Projections 2010-2040, March 2014 for Lebanon and Schuylkill Counties and the state of Pennsylvania; Berks County Planning Commission 2016 Estimates; DVRPC 2012 estimates for Chester and Montgomery counties; Lancaster County Planning Commission 2012 estimates, LVPC 2012 estimates

Population Density

The United States Census Bureau defines places “urban” as territory that has a population density of at least 1,000 people per square mile. By this definition, both Hereford and Washington townships are rural areas.

Population Density				
Municipality	Size (Sq.Mi.)	2014 Population	Density	Urban
Hereford Township	15.4	2,923	189.8	No
Washington Township	14	3,962	283.0	No
Colebrookdale Township	8.4	5,074	604.0	No
District Township	11.6	1,404	121.0	No
Douglass Township (Mont. Co.)	15.4	10,401	675.4	No
Longswamp Township	22.8	5,684	249.3	No
Lower Macungie Township	22.6	31,639	1,400.0	Yes
Lower Milford Township	19.7	3,839	194.9	No
Pike Township	13.9	1,746	125.6	No
Upper Hanover Township	21.2	7,124	336.0	No
Upper Milford Township	17.9	7,522	420.2	No

Source: Berks County, U.S. Census 2010-2014 American Community Survey

School Enrollment

Hereford Township is served by the Upper Perkiomen School District. The district also serves municipalities in Montgomery County. Washington Township is served by the Boyertown School District. The district also serves adjacent townships in Berks County.

The Upper Perkiomen School District added over 300 students since the last comprehensive plan in 2006. Most of the growth is in very young students attending the two elementary schools in the district with the largest increase at the elementary school located in Hereford Township.

Enrollment by School Building 2006-2015 UPPER PERKIOMEN				
Building Name	2006	2015	# Change	% Change
Hereford Elementary	479	907	428	89.4%
Marlborough Elementary	524	744	220	42.0%
Upper Perkiomen Middle	1055	806	-249	-23.6%
Upper Perkiomen High School	1042	963	-79	-7.6%
Total	3,100	3,420	320	10.3%

Source: Pennsylvania Department of Education

The Boyertown Area School District is the second largest school district in Berks County. It experienced slower growth than the Upper Perkiomen School District between 2006 and 2015. Most of the growth in the school district is in the Gilbertsville area of Montgomery County.

Enrollment by School Building 2006-2015 BOYERTOWN				
Building Name	2006	2015	# Change	% Change
Boyertown Elementary	600	608	8	1.3%
Colebrookdale Elementary	251	305	54	21.5%
Earl Elementary	253	277	24	9.5%
Gilbertsville Elementary	601	748	147	24.5%
New Hanover-Upper Frederick Elementary	633	725	92	14.5%
Pine Forge Elementary	259	267	8	3.1%
Washington Elementary	618	499	-119	-19.3%
Boyertown Area Junior High - East	897	837	-60	-6.7%
Boyertown Area Junior High - West	807	812	5	0.6%
Boyertown High School	1723	1649	-74	-4.3%
Total	6,642	6,727	85	1.3%

Source: Pennsylvania Department of Education

Households

Both Hereford and Washington townships have similar numbers of persons per household (PPH) to neighboring municipalities. Of note is Washington Township having a PPH of 3.0 in 2014, which may be a result of either slightly larger families with children or a rise in multigenerational living (parents residing at the home of their children or adult children still residing at home). Based on family composition, it would appear that with so few families in Washington Township having people above the age of 65, that the rise in PPH in Washington is the result of children, not elderly.

Generally, families in Hereford are older than those in Washington. Hereford Township has considerably higher numbers of families in Hereford having people above 65 years of age.

Chapter 5 - Demographics, Housing, and Economy

Households & Families								
Municipality	Households	Population	PPH	Municipality	Average Family Size	With People Under 18	With People Over 65	Living Alone
Hereford Township	1,072	2,923	2.7	Hereford Township	3.0	26.4	8.4	13.5
Washington Township	1,320	3,962	3.0	Washington Township	3.1	37.0	3.2	8.6
Colebrookdale Township	2,009	5,074	2.5	Colebrookdale Township	2.5	27.2	5.3	20.6
District Township	554	1,404	2.5	District Township	2.6	30.1	6.3	18.1
Douglass Township (Mont. Co.)	3,755	10,401	2.8	Douglass Township (Mont. Co.)	2.8	34.6	9.1	18.8
Longswamp Township	2,261	5,684	2.5	Longswamp Township	2.8	24.1	13.4	19.5
Lower Macungie Township	11,894	31,639	2.7	Lower Macungie Township	3.1	34.2	9.8	21.5
Lower Milford Township	1,354	3,839	2.8	Lower Milford Township	3.1	31.5	11.7	15.9
Pike Township	630	1,746	2.8	Pike Township	3.0	35.9	5.9	16.0
Upper Hanover Township	2,514	7,124	2.8	Upper Hanover Township	3.0	34.1	6.6	17.5
Upper Milford Township	2,743	7,522	2.7	Upper Milford Township	3.0	29.7	8.5	15.4
Berks County	153,307	413,016	2.7	Berks County	2.6	32.9	10.8	24.7
Pennsylvania	4,940,581	12,758,729	2.6	Pennsylvania	3.1	29.1	11.9	29.6

Source: U.S. Census 2010-2014 American Community Survey

Age

Age distribution is an important indicator of both future population and housing dynamics and potential goods and services needs. A large concentration of the young adult population, for example, could mean a coming boom of young children or a high concentration of baby boomers or retirees may indicate a need for additional services such healthcare as the population continues to age. In the present, Hereford Township skews towards older, post family retirees while Washington Township skews to younger families.

Hereford Township has one of the oldest populations in Berks County, with a median age of 49. It has aged significantly from a median age of 32.8 in 1990 and 38.2 in 2000. Washington Township also trends older than Berks County as a whole with a median age of 43. The township has aged slower than Hereford from a median age of 33.6 in 1990 and 38.2 in 2000.

Hereford Township has much higher concentrations of residents in the 40+ age groups than Berks County and the State of Pennsylvania. When coupled with the housing tenure data on the previous page the concentrations of the “older” age groups suggest that Hereford Township does not experience much outmigration. People continue to reside in Hereford after raising families and entering retirement.

Washington Township has a higher concentration of young families with children below the age of ten than Berks County and the state of Pennsylvania. This appears to be driven by a higher concentration of people in the 25-29 age group. This may suggest that Washington Township is attractive to young families and those settling in the Township to start a family.

Age Composition				
Age Group	Hereford	Washington	Berks	PA
Under 5 years	3.7	7.2	6.0	5.6
5 to 9 years	7.8	7.7	6.3	5.9
10 to 14 years	5.7	6.2	6.8	6.1
15 to 19 years	3.6	6.8	7.4	6.8
20 to 24 years	3.7	4	6.8	6.9
25 to 29 years	4.2	6.2	5.8	6.4
30 to 34 years	3.7	1.3	5.7	6.0
35 to 39 years	3.4	7.7	5.6	5.8
40 to 44 years	8.5	5.8	6.8	6.4
45 to 49 years	8.6	6.9	7.4	7.1
50 to 54 years	8.3	9	7.6	7.6
55 to 59 years	8.8	6.7	6.8	7.2
60 to 64 years	9.5	7.6	5.9	6.2
65 to 69 years	10.5	8.5	4.6	4.8
70 to 74 years	3	5.3	3.3	3.5
75 to 79 years	3.8	1.1	2.7	2.8
80 to 84 years	1.6	1.1	2.3	2.4
85 years +	1.6	0.8	2.2	2.5
Median Age	49	43.1	39.7	40.4

Source: U.S. Census 2010-2014 American Community Survey

Race

Both Hereford and Washington townships are predominately white. This is a trend relatively unchanged since the last comprehensive plan. Compared to the rest of Berks County and in general, the state of Pennsylvania, the townships have a lower percentage of residents identifying as non-white races/ethnicities and a lower percentage of residents identifying as Hispanic/Latino.

Racial Composition				
Race	Hereford	Washington	Berks	PA
White	93.8	94.1	75.4	78.5
Black	0.0	3.2	4.1	10.5
Hispanic or Latino	6.2	1.3	17.6	6.1
American Indian	0.0	0.4	0.1	0.1
Asian	0.0	0.0	1.3	2.9
Pacific Islander	0.0	0.0	0.0	0.0
Some Other Race	0.0	0.0	0.2	0.2
Two or More Races	0.0	1.0	1.3	1.6

Source: U.S. Census 2010-2014 American Community Survey

Chapter 5 - Demographics, Housing, and Economy

Educational Attainment

The majority of residents in the townships have high school degrees. Both townships have slightly lower percentages of population with a 4-year bachelor's degree. Hereford Township has a higher than average rate of residents with advanced graduate degrees.

Educational Attainment (25 and Older)				
Level	Hereford	Washington	Berks	PA
Less than 9th Grade	2.9	3.0	5.9	3.6
High School, No Diploma	9.1	5.0	9.6	7.4
High School Graduate	43.3	50.2	38.7	36.8
Some college, no degree	12.4	19.4	15.6	16.4
Associate's degree	11.4	5.8	7.5	7.7
Bachelor's degree	11.7	9.3	14.8	17.1
Graduate or Professional degree	9.1	7.2	7.9	11.0

Source: U.S. Census 2010-2014 American Community Survey

Poverty

In 2014, Berks County has the highest overall poverty rate of the surrounding six counties and presently exceeds the state poverty rate. While the poverty rates in Hereford Township are low, the poverty rate in Washington Township exceeds the state rate of overall poverty. There are also high rates of family and single mother (Female Householder, No Husband Present FHNHP) poverty in the township.

Poverty Composition				
Municipality	Overall Poverty Level	Families	FHNHP	Elderly
Hereford Township	4.0	4.5	0.0	4.3
Washington Township	13.8	11.5	64.6	0
Berks County	14.3	10.4	35.4	7
Pennsylvania	13.5	9.3	29.1	8.3

Source: U.S. Census 2010-2014 American Community Survey

Free/Reduced Lunch Enrollment by School/School District

Another indicator of poverty is examining enrollment in the free/reduced lunch program at school.

As of 2015, overall, the Upper Perkiomen Area School District ranks 11th out of all county school districts in students enrolled in the program. The Boyertown School District ranks 18th out of all county districts. While both districts are below both county and state averages, both districts have seen substantially increased enrollment in the free/reduced lunch program. Enrollment in the Upper Perkiomen Area School District has increased 39% since 2011. In the Boyertown Area School District, enrollment increased 63%.

Percent Free/Reduced Lunch Enrollment by School District: 2015	
School District	2015
I-Lead Charter School	100
Reading School District	100
Antietam School District	51.6
Muhlenberg School District	51.5
Hamburg Area School District	41.7
Tulpehocken Area School District	38.8
Governor Mifflin School District	37.6
Berks Career and Technology Center	37.5
Wyomissing Area School District	32.6
Conrad Weiser Area School District	30.7
Upper Perkiomen Area School District	30.6
Brandywine Heights Area School District	30
Schuylkill Valley School District	28.8
Wilson School District	28.3
Twin Valley School District	27.8
Daniel Boone Area School District	27
Fleetwood Area School District	25.9
Boyertown Area School District	25.8
Kutztown Area School District	25.4
Oley Valley School District	24.8
Exeter Township School District	14.6
Berks County Average	38.6
Pennsylvania Average	50.4

Source: Pennsylvania Department of Education - Division of Food and Nutrition, National School Lunch Program (NSLP), 2015 data

Veterans

The townships have nearly 800 veterans of the nearly 30,000 in Berks County - with the majority of township veterans serving during the Vietnam War era.

Veteran Composition			
Period of Service	Hereford	Washington	Berks
Gulf War (9/2001 or later) veterans	0.0	4.0	7.4
Gulf War (8/1990 to 8/2001) veterans	3.3	3.5	11.6
Vietnam era veterans	34.0	59.1	33.7
Korean War veterans	14.0	6.8	14.4
World War II veterans	3.0	0.0	9.3
Total Veterans	329	425	29,256

Source: U.S. Census 2010-2014 American Community Survey

Chapter 5 - Demographics, Housing, and Economy

Economy

The economic structure of the townships is characterized by its diversity of employment, with manufacturing, retail and healthcare accounting for the vast majority of jobs. While over the last several decades Berks County and the nation as a whole have transitioned from a goods producing economy to a service oriented economy, these two townships have consistently bucked that trend. Residents in both townships remain employed significantly in the manufacturing sector and remain working steady hours while hours worked has declined across Berks County in recent years.

When examining the employment composition of the townships, differences are apparent. Hereford Township has a large number of residents not in the labor force. Coupled with the low unemployment numbers, this suggests the township has a growing base of retirees. In Washington Township, the data is more mixed. There appears to be higher than average unemployment when compared to county and state levels coupled with retirees.

Employment Composition				
Municipality	In Labor Force	Employed	Unemployed	Not in Labor Force
Hereford Township	58.1	54.1	4.0	41.9
Washington Township	68.7	59.6	9.0	31.3
Berks County	65.8	60.3	5.5	34.2
Pennsylvania	62.9	58.1	4.8	37.1

Source: U.S. Census American Community Survey 2010-2014, U.S. Bureau of Labor Statistics

Employment Flows

The townships are net exporters of labor in that; the number of workers who leave the townships to work exceeds those that come into the townships to work. Most residents have a commute of between 10 minutes to a half hour and most work outside of Berks County. With major industrial and commercial areas in nearby Lehigh and Montgomery counties, living in Hereford and Washington townships provides ample choices for employment.

Worker Flow			
Municipality	In to Work	Staying to Work	Out to Work
Hereford Township	293	45	1,474
Washington Township	626	94	2,187
Total	919	139	3,661

Commute to Work in Minutes				
Municipality	Less than 10	10 to 29	30-59	60+
Hereford Township	3.1	56.4	29.8	10.6
Washington Township	9.1	46.3	35.0	9.5

Commute Location			
Municipality	In Berks County	Outside Berks County	Outside PA
Hereford Township	29.8	65.5	4.7
Washington Township	40.2	59.1	0.7

Source: U.S. Census LEHD, 2014

Employee and Jobs Profile

The 3,800 employed residents in the townships have a lot in common when it comes to the types of jobs they have. In both municipalities, the majority of workers are between the ages of 30-54. There are more workers (age 55 and above) than younger (29 or younger.) Most make in excess of \$40,000 per year annually in salary. Most work in manufacturing but retail and healthcare are strong and growing sectors.

Resident Employer Profile - Workers 16 and Older				
Type	Hereford		Washington	
	#	%	#	%
Age 29 or younger	311	20.5%	489	21.4%
Age 30 to 54	786	51.7%	1,216	53.3%
Age 55 or older	422	27.8%	576	25.3%
\$1,250 per month or less (\$15,000 annually)	389	25.6%	520	22.8%
\$1,251 to \$3,333 per month (\$15,000-\$40,000 annually)	477	31.4%	727	31.9%
More than \$3,333 per month (\$40,000 +)	653	43.0%	1,034	45.3%
Agriculture, Forestry, Fishing and Hunting	4	0.3%	12	0.5%
Mining, Quarrying, and Oil and Gas Extraction	3	0.2%	11	0.5%
Utilities	3	0.2%	10	0.4%
Construction	105	6.9%	172	7.5%
Manufacturing	269	17.7%	389	17.1%
Wholesale Trade	85	5.6%	121	5.3%
Retail Trade	174	11.5%	291	12.8%
Transportation and Warehousing	76	5.0%	109	4.8%
Information	26	1.7%	25	1.1%
Finance and Insurance	47	3.1%	92	4.0%
Real Estate and Rental and Leasing	12	0.8%	28	1.2%
Professional, Scientific, and Technical Services	74	4.9%	111	4.9%
Management of Companies and Enterprises	33	2.2%	45	2.0%
Administration & Support, Waste Management and Remediation	65	4.3%	115	5.0%
Educational Services	129	8.5%	197	8.6%
Health Care and Social Assistance	194	12.8%	265	11.6%
Arts, Entertainment, and Recreation	19	1.3%	17	0.7%
Accommodation and Food Services	116	7.6%	146	6.4%
Other Services (excluding Public Administration)	55	3.6%	80	3.5%
Public Administration	30	2.0%	45	2.0%

Source: U.S. Census LEHD, 2014

Hours Worked

Overall, employees in Berks County have seen a decline in hours worked, with sharp declines in full time employment hours and substantial increases in “part time” employment and “no employment.” However, in both

Chapter 5 - Demographics, Housing, and Economy

Hereford and Washington townships, this is not the case as both townships boast the highest rates of hours worked in the County.

Mean Usual Hours Worked				
Municipality	2009	2014	Difference	% Change
Hereford Township	38.1	41	2.9	7.6%
Washington Township	38.6	39.0	0.4	1.0%
Berks County	38.8	38.1	-0.7	-1.8%
Pennsylvania	38.6	38.1	-0.5	-1.3%

Source: U.S. Census 2010-2014 American Community Survey

Incomes

In 2014, the median household income in Berks County was \$55,798. Both townships have median incomes that greatly exceed the county median. However, both townships have experienced declines in median income at a greater rate than county or state figures since 2009. Most households in the township earn \$ 50,000-\$75,000. Both townships have higher rates of households in the \$100,000-\$150,000 band than the county and state. Hereford Township has more households earning \$200,000 or more than county and state figures.

Median Household Incomes			
Municipality	2009	2014	% Change
Hereford Township	\$70,806	\$66,111	-6.6%
Washington Township	\$77,896	\$65,231	-16.3%
Berks County	\$58,795	\$55,798	-5.1%
Pennsylvania	\$54,007	\$53,115	-1.7%

Source: U.S. Census, 2005-2009 and 2006-2014 American Community Survey

Household Income Distribution				
Income Group	Hereford	Washington	Berks	PA
Less than \$10,000	2.8	0.0	6.0	7.0
\$10,000 to \$14,999	3.0	5.1	4.9	5.4
\$15,000 to \$24,999	9.7	5.1	10.5	10.8
\$25,000 to \$34,999	6.3	5.8	10.0	10.4
\$35,000 to \$49,999	14.3	14.9	13.5	13.6
\$50,000 to \$74,999	24.4	29.5	19.8	18.4
\$75,000 to \$99,999	11.5	14.4	13.6	12.5
\$100,000 to \$149,999	14.1	14.2	13.7	12.9
\$150,000 to \$199,999	4.5	10.1	4.6	4.7
\$200,000 or more	9.5	0.9	3.4	4.4
Median Income	\$66,111	\$65,231	\$55,798	\$53,115

Source: U.S. Census 2010-2014 American Community Survey

While the majority of township residents generate income through earnings, Hereford Township has a large group of residents who generate income from Social Security or retirement savings.

Household Income Sources				
Income Group	Hereford	Washington	Berks	PA
Earnings	74.3	85.5	77.1	75.4
Social Security	46.5	32.1	32.6	33.2
Retirement	33.7	20.5	19.8	20.2
Supplemental Security	5.5	2.9	5.7	5.9
Cash/Public Assistance	4.6	4.4	3.5	3.5
Food Stamps/SNAP	5.7	9.5	13.6	12.5

Source: U.S. Census 2010-2014 American Community Survey

Housing

Both townships are distinctly rural places, and remain inviting places for workers and new families to call home, and enable seniors to remain in their homes as they age. In both townships, the majority of homes are owner occupied. Interestingly, in both townships, the majority of residents moved to the township between 2000 and 2009. Residents in Hereford Township tend to stay in Hereford as they age as evidenced by the higher rates of people who moved to the township in the 1970s and 1980s.

Owner Profile				
Type	Hereford		Washington	
	#	%	#	%
Owner-occupied	958	89.4%	1,148	87.0%
Renter-occupied	114	10.6%	172	13.0%
Moved in 2010 or later	105	9.8%	203	15.4%
Moved in 2000 to 2009	321	29.9%	489	37.0%
Moved in 1990 to 1999	218	20.3%	273	20.7%
Moved in 1980 to 1989	205	19.1%	133	10.1%
Moved in 1970 to 1979	191	17.8%	158	12.0%
Moved in 1969 or earlier	32	3.0%	64	4.8%

Source: U.S. Census 2010-2014 American Community Survey

In both townships, housing is predominately the single-family dwelling and in character with their rural setting, both townships have a fair amount of mobile homes. Hereford has older homes than Washington. The majority of Hereford Township’s housing was constructed in the 1970s. In Washington Township, the majority of housing is newer with most constructed in the last decade (2000-2009). Both townships have low numbers of vacant houses – a sign of a healthy housing market.

The median value of a house in Berks County in 2014 was 169,200. Both townships have median housing values that exceed county figures. Hereford Township ranks 25th in median housing value in the County. Washington Township ranks 9th in median housing value. However, it should be noted that the median housing values in both townships have steadily declined in recent years.

Median Housing Values		
Year	Hereford	Washington
2009	\$233,000	\$255,400
2010	\$211,800	\$260,500
2011	\$216,500	\$257,400
2012	\$205,600	\$251,700
2013	\$199,000	\$241,700
2014	\$199,400	\$234,800

Source: U.S. Census 2005-2009 -2010-2014 American Community Survey

Median Housing Values Between 2009 and 2014				
Municipality	2009	2014	\$ Change	% Change
Hereford	\$233,000	\$199,400	-\$33,600	-14.4%
Washington	\$255,400	\$234,800	-\$20,600	-8.1%
Berks County	\$163,700	\$169,200	\$5,500	3.4%

Source: U.S. Census 2005-2009 -2010-2014 American Community Survey

Chapter 5 - Demographics, Housing, and Economy

Housing Profile				
Type	Hereford		Washington	
	#	%	#	%
Total Units	1,137		1,362	
Occupied housing units	1,072	94.3%	1,320	96.9%
Vacant housing units	65	5.7%	42	3.1%
1-unit, detached	795	69.9%	1,184	86.9%
1-unit, attached	0	0.0%	59	4.3%
2 units	15	1.3%	14	1.0%
3 or 4 units	23	2.0%	0	0.0%
5 to 9 units	0	0.0%	0	0.0%
10 to 19 units	0	0.0%	0	0.0%
20 or more units	0	0.0%	0	0.0%
Mobile home	304	26.7%	105	7.7%
Boat, RV, van, etc.	0	0.0%	0	0.0%
Built 2010 or later	0	0.0%	54	4.0%
Built 2000 to 2009	97	8.5%	268	19.7%
Built 1990 to 1999	129	11.3%	259	19.0%
Built 1980 to 1989	160	14.1%	82	6.0%
Built 1970 to 1979	292	25.7%	158	11.6%
Built 1960 to 1969	74	6.5%	128	9.4%
Built 1950 to 1959	74	6.5%	165	12.1%
Built 1940 to 1949	40	3.5%	37	2.7%
Built 1939 or earlier	271	23.8%	211	15.5%
Less than \$50,000	251	26.2%	27	2.4%
\$50,000 to \$99,999	56	5.8%	54	4.7%
\$100,000 to \$149,999	19	2.0%	133	11.6%
\$150,000 to \$199,999	156	16.3%	183	15.9%
\$200,000 to \$299,999	183	19.1%	489	42.6%
\$300,000 to \$499,999	232	24.2%	230	20.0%
\$500,000 to \$999,999	28	2.9%	32	2.8%
\$1,000,000 or more	33	3.4%	0	0.0%
Median (dollars)	\$199,400		\$234,800	

Source: U.S. Census 2010-2014 American Community Survey

Housing Sales 2006-2015

Most sales since 2006 in both townships were single-family homes. As shown below, Washington Township had more sales than Hereford, but the median sales price of homes is higher in Hereford. Both townships experienced significant declines in median sales price due to the 2007-2009 recession and have been slow to recover. The median sales price declined 25% in Hereford since 2006 and declined 16.3% in Washington. Historically, the median sales prices in both townships have greatly exceeded the overall Berks County median sales price.

Hereford Township			Washington Township		
Single Family Detached			Single Family Detached		
Year	Median Sales Price	# of Sales	Year	Median Sales Price	# of Sales
2006	\$350,000	15	2006	\$299,950	24
2007	\$349,900	13	2007	\$262,500	25
2008	\$309,500	12	2008	\$244,175	18
2009	\$294,000	12	2009	\$237,500	22
2010	\$311,250	10	2010	\$234,500	33
2011	\$249,900	19	2011	\$223,000	25
2012	\$184,000	16	2012	\$223,000	41
2013	\$227,500	16	2013	\$210,000	40
2014	\$309,900	21	2014	\$199,625	34
2015	\$315,000	23	2015	\$192,450	42
2016	\$262,500	16	2016	\$251,250	30

Both townships have limited numbers of twin or duplex types of housing. Again, there are more sales in Washington Township but a higher median price in Hereford Township.

Hereford Township			Washington Township		
Twins			Twins		
Year	Median Sales Price	# of Sales	Year	Median Sales Price	# of Sales
2006	*	0	2006	*	0
2007	*	0	2007	*	0
2008	*	0	2008	\$113,500	1
2009	*	0	2009	*	0
2010	\$140,000	1	2010	*	0
2011	*	0	2011	*	0
2012	*	0	2012	\$98,900	1
2013	*	0	2013	\$48,250	1
2014	*	0	2014	*	0
2015	*	0	2015	\$139,900	1
2016	*	0	2016	*	0

Hereford has considerably more mobile homes than Washington. Therefore, it is not surprising to see the sales of mobile homes largely in Hereford since 2006.

Hereford Township			Washington Township		
Mobile Homes			Mobile Homes		
Primary Year	Sale Price, Median	Sales, Number of	Primary Year	Sale Price, Median	Sales, Number of
2006	\$30,500	2	2006	\$106,500	2
2007	\$149,500	1	2007	*	0
2008	\$59,000	4	2008	*	0
2009	\$16,250	4	2009	*	0
2010	\$65,000	3	2010	\$95,000	1
2011	\$35,000	5	2011	*	0
2012	\$29,000	1	2012	\$69,900	1
2013	\$18,000	3	2013	\$61,500	2
2014	\$36,000	2	2014	\$140,000	1
2015	\$34,100	3	2015	*	0
2016	*	0	2016	\$120,000	2

Only Washington Township had sales in townhouses since 2006.

Washington Township		
Townhouses		
Primary Year	Sale Price, Median	Sales, Number of
2006	*	0
2007	*	0
2008	\$212,384	5
2009	*	0
2010	*	0
2011	*	0
2012	\$209,900	3
2013	*	0
2014	\$172,000	1
2015	\$167,500	1
2016	\$163,900	3

Source: Housing sales data courtesy of the Reading-Berks Association of REALTORS®

How Housing Affects the Tax Base

From the perspective of municipal administration, the tax base drives the ability to invest in amenities and provide quality professional services that residents expect. From a resident's perspective, tax burden influences where people buy homes, whether they reinvest in property and where they develop businesses. Your ability to raise revenue to provide infrastructure and services is affected by the tax base. The existing and future real estate of the municipality provides opportunities and constraints for maintaining and attracting homeowners, businesses, and jobs. Overall, the key to economic stability or growth is to optimize the tax base by making every acre of land as productive as it can be without compromising community wants and needs or the natural/environmental resources in your town.

The Pennsylvania State Tax Equalization Board (STEB) provides the information on the Berks County municipal tax bases that will be discussed below. STEB's primary role is to determine, on an annual basis, the total market value of taxable property in all 67 counties and 2,562 municipalities. The primary use of this data is the disbursement of school funds to the state's 501 school districts.

Berks County Planning Commission staff uses this STEB data to analyze tax base trends. Annually collected for every county, it allows us to analyze multi-year trends at both the municipal and county levels. This allows analysis of the township tax base to see if it genuinely expanded between 2006 and 2015. The 2006 figures are adjusted for inflation. We do this because over time, inflation gives a false picture of monetary growth. We also have broken out the municipal tax base into eight (8) categories.

In terms of value, Washington Township has a larger tax base than Hereford. Both townships rely heavily on residential property to generate taxes. Between 2006 and 2015, Hereford Township saw a 7.1% decline in their tax base. Washington Township saw an 11.4% increase due to a 15% increase in the residential component and a 36% increase in the commercial component.

(See attached chart.)



Grandview Speedway in Washington Township

Chapter 5 - Demographics, Housing, and Economy

2006 Inf. Adj.															
Municipality	RESIDENTIAL	% of TOTAL	LOTS	% of TOTAL	INDUSTRIAL	% of TOTAL	COMMERCIAL	% of TOTAL	AGRICULTURE	% of TOTAL	LAND	% of TOTAL	MOBILE HOMES	% of TOTAL	TOTAL
Hereford Township	\$88,906,894	61.5%	\$3,771,902	2.6%	\$2,509,584	1.7%	\$13,206,362	9.1%	\$27,041,179	18.7%	\$1,171,649	0.8%	\$7,998,329	5.5%	\$144,605,899
Washington Township	\$159,598,723	75.3%	\$3,110,520	1.5%	\$2,548,157	1.2%	\$15,648,091	7.4%	\$25,554,950	12.1%	\$1,756,474	0.8%	\$3,638,897	1.7%	\$211,855,812

2015															
Municipality	RESIDENTIAL	% of TOTAL	LOTS	% of TOTAL	INDUSTRIAL	% of TOTAL	COMMERCIAL	% of TOTAL	AGRICULTURE	% of TOTAL	LAND	% of TOTAL	MOBILE HOMES	% of TOTAL	TOTAL
Hereford Township	\$86,376,600	64.3%	\$2,433,400	1.8%	\$2,155,400	1.6%	\$11,609,400	8.6%	\$24,255,700	18.1%	\$943,200	0.7%	\$6,509,200	4.8%	\$134,282,900
Washington Township	\$184,275,200	78.1%	\$2,304,400	1.0%	\$2,177,700	0.9%	\$21,272,700	9.0%	\$22,282,300	9.4%	\$1,866,800	0.8%	1,787,200	0.8%	\$235,966,300

CHANGE BETWEEN 2006 AND 2015																
Municipality	RESIDENTIAL	% CHANGE	LOTS	% CHANGE	INDUSTRIAL	% CHANGE	COMMERCIAL	% CHANGE	AGRICULTURE	% CHANGE	LAND	% CHANGE	MOBILE HOMES	% CHANGE	\$ Change	% CHANGE
Hereford Township	(\$2,530,294)	-2.8%	(\$1,338,502)	-35.5%	(\$354,184)	-14.1%	(\$1,596,962)	-12.1%	(\$2,785,479)	-10.3%	(\$228,449)	-19.5%	(\$1,489,129)	-18.6%	(\$10,322,999)	-7.1%
Washington Township	\$24,676,477	15.5%	(\$806,120)	-25.9%	(\$370,457)	-14.5%	\$5,624,609	35.9%	(\$3,272,650)	-12.8%	\$110,326	6.3%	(\$1,851,697)	-50.9%	\$24,110,488	11.4%

ENVIRONMENTAL RESOURCE ANALYSIS

Introduction

The inventory and identification of Hereford and Washington Townships' natural resources is an important part of the planning process. Delineation of these resources serves as a guide for future planning and preservation decisions. The following will identify and describe the planning area's environmental features and natural resources. Environmental features mapping will be utilized to spatially demonstrate the various resources described in this chapter.



Climate

Washington and Hereford Townships are located in the eastern corner of Berks County, in the southeastern part of Pennsylvania. They share the border with Lehigh and Montgomery Counties. The Townships have a fairly moderate, humid continental climate. As they are located on the leeward side of the Appalachian Mountains, winters are comparatively short and mild (with an average January temperature of 30 degrees) while summers are long and frequently humid (with an average July temperature of 77 degrees). The immediate climate is quite variable, changing with greater frequency during the winter and spring months, than in the summer months. This is due to the influence of prevailing westerly winds that carry many of the major weather systems eastward across the continent. Air masses tend to linger longer in the summertime. Climate is not a major factor affecting land use patterns in the area; however, it is a prime determinant of the natural vegetation pattern. The area usually encounters freezing temperatures between mid-October to mid-April, and receives approximately 45 inches of precipitation annually.

Physiography

A physiographic region combines the aspects of geology and topography, creating broad classifications based on terrain texture, rock type, and geologic structure and history. There are three physiographic sections in Hereford and Washington Townships, as shown on the Physiographic Provinces maps. The Reading Prong section (New England Physiographic Province) encompasses the higher ground in the western portion of the Townships. The Great Valley section (Ridge and Valley Province) runs narrowly between the hills and the valley. The valley section is classified as the Gettysburg-Newark Lowland section (Piedmont Province).

A majority of Hereford and Washington Townships falls in the New England Physiographic Province (specifically the Reading Prong section), which is characterized by circular to linear, rounded low hills or ridges that project upward in significant contrast to the surrounding lowlands. These hills and ridges are generally composed of granitic gneiss, granodiorite, and quartzite – all very resistant to erosion. Therefore, the hills and ridges stand higher than the softer sedimentary rocks that surround them. The slopes of these hills and ridges are often steep, lie in a northeast to southwest pattern, and have a very well defined change in slope where the bases of the hills and ridges meet the lower and gentler slopes of adjacent sections. The streams eroding into the hills and ridges are short and steep. Local relief is 300 to 600 feet and elevations range from 140 to 1,240 feet. The Reading Prong is a narrow belt of folded and faulted Precambrian crystalline rocks and metamorphosed Paleozoic igneous and sedimentary rock, similar to that which comprises many New England mountains. These are some of the oldest rocks in the Piedmont/Appalachian region. They are a deposition of sediments on the ancient North American coastline more than one billion years ago.

Rocks of the Great Valley Section of the Ridge and Valley Province serve as a thin barrier weaving between the Reading Prong and Gettysburg-Newark section. This section of rocks are typically found in the very broad lowland that sweeps across the southeast portion of the state from Maryland to New Jersey that is bordered

Chapter 6 - Environmental Resource Analysis

by the Blue Mountain to the north and the South Mountain and Reading Prong to the south. The thin band of Great Valley sequence rocks found in Hereford and Washington Townships are about five miles south and well outside of the actual Great Valley as a result of faulting and rock displacement during the Alleghanian orogeny. While the actual Great Valley has gently undulating hills eroded into shales and siltstones on the north side of the valley and a lower elevation flatter landscape developed on limestones and dolomites on the south side, the Great Valley rocks found in Hereford and Washington Townships are solely comprised of carbonate rocks and sandstones. Local relief in this thin section of Great Valley rocks is less than 100 feet. Surface water in the thin band of Great Valley rocks consists of a number of small streams that originate in the hills and ridges of the New England province in the western portion of the townships, cut across the band of carbonate and sandstone rocks of the Great Valley section and continue on through the lowlands in the eastern portion of the Townships. A number of contact springs are present along the boundary of the Reading Prong metamorphic rocks and the Great Valley carbonate rocks. The best known of these springs is the Barto Spring located near the intersection of Forgedale Road and Old Route 100 in Washington Township.

The eastern edge of Washington Township and the lower edge of Hereford Township are part of the Gettysburg-Newark Lowland Piedmont Physiographic Province. The Gettysburg-Newark Lowland Section consists mainly of rolling low hills and valleys developed on red sedimentary rock. There are also isolated higher hills developed on diabase, baked sedimentary rock (hornfels), and conglomerates. Almost all of the underlying sedimentary rock dips to the north or northwest and many of the smaller drainage ways are oriented normal to the direction of dip so that some of the topography has a northeast-southwest linearity. However, the basic drain-age pattern is dendritic. Soils are usually red and often have a visually striking contrast to the green of vegetation. Relief is generally in the area of 100 to 200 feet, but locally is up to 600 feet on some of the isolated hills. Elevation in the Section ranges from 40 to 1,335 feet. The Section is made up of sedimentary rocks that were deposited in a long, narrow, inland basin that formed when the continents of North America and Africa separated more than 200 million years ago.

Geology

The Townships are underlain by a number of geologic formations of the Precambrian and Lower Mesozoic eras. Each of the nine formations has unique characteristics that determine its construction suitability, such as cut-slope stability, ease of excavation, and foundation stability. In addition, geologic formations reveal groundwater characteristics and yields.

The table on the next page highlights the major geologic formations within Hereford and Washington Townships along with a description of each formation's engineering characteristics. The Surface Geology maps show the locations of these various formations within the Townships. The ridge that runs along the center of the Townships is generally composed of Granitic Gneiss (gn), while the lowland area under the State Route 100 (SR 100) corridor is generally composed of the Brunswick Formation (Trb) and Limestone Fanoglomerate (Trfl).

Nine geologic formations have been identified in the planning area. Porosity and permeability, the ability to absorb and transfer water to the aquifer, is a key characteristic to determining where structures are built. The formations in Hereford and Washington Townships are generally low to moderate with the exception of the Leithsville Formation, which abuts the middle ridge of the Townships on both sides, and the Limestone Fanoglomerate, which is located on the eastern lowland corridor. Excavation is typically difficult, though foundation stability is good.

Engineering Characteristics of Hereford and Washington Townships' Geologic Formations						
Formation	Description	Porosity	Permeability	Ease of Excavation	Foundation Stability	Median Ground-water Yield (GPM)
Brunswick Formation (Trb)	Reddish-brown shale, mudstone, and siltstone; beds of green shale and brown shale occur; very fine grained; near base, rock is tough, red argillite interbedded in some places with dark-gray argillite.	Moderate	Moderate	Moderately difficult to moderately easy	Good	60
Diabase (Trd)	Dark gray to black, dense, and very fine grained, and consists of mainly labradorite and augite; occurs as dikes and sheets.	Low	Low	Difficult	Good	5
Granitic Gneiss (gn)	Light buff to light pink; fine to medium grained; primary minerals are quartz, microcline, hornblende, and biotite.	Low	Low	Difficult	Good	20
Granodiorite & Granodiorite Gneiss (ggd)	Medium grained; light pink to green; largely quartz, feldspar, and mica; commonly gneissic.	Low	Low	Difficult	Good	10
Hardystone Formation (Cha)	Light-gray quartzite; weathers yellow brown; porous and limonitic in many places; quartz-pebble conglomerate occurs at base.	Low	Low	Difficult	Good	20
Hornblende Gneiss (hg)	Dark -gray to black; composed of hornblende and labradorite (feldspar).	Low	Low	Moderately difficult	Good	10
Leithsville Formation (Clv)	Dark-gray to medium-gray dolomite; some calcareous shale and sandy dolomite.	High	Moderate to high	Difficult	Good	100
Limestone Fanoglomerate (Trfl)	Yellow-gray to light medium gray; Composed mainly of limestone and dolomite pebbles and fragments; some shale fanoglomerate interbeds; very fine grained, red quartz matrix.	Moderate	Moderate to high	Difficult	Good	200
Metadiabase (md)	Dark-greenish-gray to almost black diabase; consists of augite, feldspar (andesine to labradorite), and manetite; extensively altered-feldspar is altered to sericite and augite has been replaced by epidote and chlorite; occurs as mostly thin dikes.	Low	Low	Moderately easy	Excellent	5

Sources: *Pennsylvania State University, Earth Resources Research Institute, 1994.*

Alan R. Geyer and J. Peter Wilshusen, Engineering Characteristics of the Rocks of Pennsylvania. 1992. (Pennsylvania Geological Survey, Harrisburg, PA).

Chapter 6 - Environmental Resource Analysis

Soils

The Soil Survey Geographic Data Base (SSURGO) combines soils into Soil Associations, which emphasize how soil depth, slope, and drainage affect potential land use. The associations are helpful in attaining a general idea of soil quality, in comparing different sections of the study area and locating large areas suited for certain uses. The soil associations found in Hereford and Washington Township are shown on the Soils maps.

Prime Agricultural Soils

Prime farmland, as defined by the U.S. Department of Agriculture (USDA), is the land that is best suited to producing food, feed, forage, fiber, and oilseed crops. It has soil quality, growing season, and water supply needed to economically produce a sustained high yield of crops when it is treated and managed using acceptable farming methods, as shown on the Sensitive Natural Features map. Such fertile soils are commonly found close to streams in Hereford and Washington Townships. They generally lie along the SR 100 corridor, in the eastern portion of the Townships and along the western edge of Hereford Township. The ridge that runs down the middle of the Townships has less prime agricultural soils, tending to do best in non-hilly areas. Farmland soils of statewide importance are soils that are predominantly used for agricultural purposes within a given state, but have some limitations that reduce their productivity or increase the amount of energy and economic resources necessary to obtain productivity levels similar to prime farmland soils. These soils are usually classified as capability Class II or III.

Hydric Soils

Hydric soils are soils that retain water during a portion of the year. As a natural resource, hydric soils provide water storage and infiltration that naturally regulates water sources and flows. These soils are susceptible to compaction and uneven settling when developed. These factors impact land use decisions. Hydric soils in Hereford and Washington Townships are generally located in the flood plains, near riverbeds. See the Sensitive Natural Features or Soils maps for specific locations.



On-Lot Septic Suitability

The suitability for septic tank installation is of great importance to future development and is completely dependent on local soil properties, including depth to seasonal high water table, depth to bedrock, slope, and susceptibility to flooding. Without proper soil conditions, septic tanks will not operate properly and health hazards may result. The Public Utility Service Areas maps illustrate the locations of proposed sanitary sewer service areas. These proposed areas are locations where due to soil properties, sanitary sewer service would be most appropriate to reduce on-lot septic system failures. The Public Utility Service Areas maps also identify existing sanitary sewer service areas, sanitary sewer plants, and sanitary sewer pumping stations.

Soil Suitability for Construction

Areas set aside for development within Hereford and Washington Townships are based on a number of factors, most importantly the engineering characteristics of soils determine where the growth of such communities will occur. Construction suitability is based on the local water table and the depth to bedrock. These areas correlate with on-lot septic suitability, but account for a wider range of uses. Again, most of the Townships have severe limitations for development. Areas that pose moderate and slight limitations are in the lower lying areas of the Townships, on either side of the middle ridge that runs throughout the Townships.

Sinkholes are a common name given to a depression in a limestone soil's surface. These develop when underground cavities that are formed when water percolates through soluble limestone bedrock, collapse. Sinkholes are found in areas that are underlain by carbonate bedrock. Carbonate bedrock is generally found in the Allegheny Mountains in central Pennsylvania and in southeast Pennsylvania. In Berks County, sinkhole prone areas overlie limestone beds. Although most sinkholes in Berks County lay in the limestone belt north of Reading, Hereford and Washington Townships have pockets of such areas along the eastern lowlands. DCNR's Sinkhole Interactive map identifies surface depression locations and sinkholes throughout the state. A sinkhole located in close proximity to a septic system may allow untreated wastes into an underground water supply.

Limited mining operations in the Townships have also left dormant mine shafts in the area. This may present some difficulties in the available land to be developed or constructed upon. Iron Ore quarrying near the intersection of Barto Road and Old Route 100 has presented such problems.

Floodplains

Floodplain areas absorb and store large amounts of water, resulting in aquifer recharge. Natural vegetation supported by floodplains helps to trap sediment from upland surface runoff, stabilize stream banks, and reduce soil erosion. Floodplains also provide shelter for wildlife and proper stream conditions for aquatic life. Regulations of floodplains help to reduce the threat to human life and property caused by periodic flooding. For regulatory purposes, a floodplain is defined by the 100-year or base flood, which has a one percent chance of being equaled or exceeded in a given year. The Sensitive Natural Features maps show the 100-year floodplain for the major creeks and streams located in Hereford and Washington Townships.

The Pennsylvania Floodplain Management Act (Act 166 of 1978) requires municipalities identified as being flood-prone, to enact floodplain regulations that (at a minimum) meet the requirements of the National Flood Insurance Program (NFIP). The NFIP is a federal program that allows property owners in participating communities to purchase insurance protection against losses from flooding. Currently, both Hereford and Washington Townships are participating in this program and have enacted floodplain ordinances.

The NFIP Community Rating System (CRS) was implemented in 1990 to recognize and encourage community floodplain management activities that exceed the minimum NFIP standards. The National Flood Insurance Reform Act of 1994 codified the CRS in the NFIP. Under the CRS, flood insurance premium rates are adjusted to reflect the reduced flood risk resulting from community activities that meet the three goals of the CRS: (1) reduce

Chapter 6 - Environmental Resource Analysis

flood losses, (2) facilitate accurate insurance rating, and (3) promote the awareness of flood insurance. Neither Hereford nor Washington Township participates in the CRS program.

Participation in the CRS is voluntary. No fee is charged for a community to apply for participation in the CRS. The only costs the community incurs are those of implementing creditable floodplain management activities and the staff time needed to prepare the CRS Application. The benefits to participating in the CRS program, beyond insurance premium reduction, include the following:

- The CRS floodplain management activities provide enhanced public safety, a reduction in damage to property and public infrastructure, avoidance of economic disruption and losses, reduction of human suffering, and protection of the environment.
- A community can evaluate the effectiveness of its flood program against a nationally recognized benchmark.
- Technical assistance in designing and implementing some activities is available at no charge.
- A CRS community's flood program benefits from having an added incentive to maintain its flood programs over the years. The fact that the elimination of a flood-related activity or a weakening of the regulatory requirements for new development could affect the community's CRS status should be taken into account by the governing board when considering such actions.
- Implementing some CRS activities, such as floodplain management planning, can help projects covered under this plan qualify for certain other federal assistance programs such as the Flood Mitigation Assistance Program (FMA), the Hazard Mitigation Grant Program (HMGP), and the U.S. Army Corps of Engineers.

Wetlands

Wetlands are unique environments that perform a variety of important functions. They moderate storm water runoff and downstream flood crests because they are natural water storage areas. Wetlands help to maintain a stream flow and groundwater recharge. Wetlands also provide important habitats for many species of plant and animal life. There are problems associated with developing on wetland soils. Wetlands located in floodplains are often flooded. Draining or filling in of upland wetlands removes natural water storage, which can add to storm water runoff problems downstream. Wetland soils are easily compacted, which results in uneven settling of structures. Wetland soils with low permeability and high groundwater tables are not suitable for the installation of on-lot septic systems. Laws, such as the Federal Clean Water Act and similar state and local laws, have led to the enforcement of wetland protection. In Pennsylvania, the U.S. Army Corp of Engineers and the Pennsylvania Department of Environmental Protection strictly regulate development in wetland areas. Therefore, any development of these areas is subject to both federal and state permitting processes.

As shown on the Sensitive Natural Features maps, wetlands are located throughout Hereford and Washington Townships, based on The National Wetlands Inventory by the U.S. Department of Agriculture, Fish and Wildlife Service. They are commonly found along the major creeks and/or tributaries; namely Swamp Creek in the lower portion of Washington Township, West Branch Perkiomen Creek in both Townships, and the Perkiomen Creek in eastern Hereford Township. There are also several smaller 'pockets' of wetlands spread throughout the Townships.

Steep Slopes

The slope of the landscape affects land use patterns and development in a variety of ways. Steep slopes constrict development potential and cost, e.g. the placement of sewage systems and septic tanks, as well as

buildings. Slope can also be an economic incentive, offering unique scenic quality to the placement of structures. Slopes with grades of 15% or greater are considered steep. If disturbed, these areas can yield heavy sediment loads on streams. Very steep slopes, with over 25% grade, produce heavy soil erosion and sediment loading.

Steep slopes generally fall within the middle ridge of the Townships, which roughly correlates with the placement of Granitic Gneiss bedrock. Both Hereford and Washington Townships have identified slope as a restrictive factor of land development in their subdivision ordinances. Hereford Township restricts the development of buildings on slopes of 25% or more. Structures proposed on land that has a slope of 15 – 25% are permitted, with limitations.

Land Cover

Open Fields

Open fields are very abundant throughout Berks County, including the Oley Valley east of the City of Reading. Hereford and Washington Townships are no exception. The Berks County Comprehensive Plan defines open field as, “farmland, both active and inactive, pastureland, meadows, and yards.”

Open fields are a key asset in Hereford and Washington Townships. They provide an important source of groundwater recharge and high quality soils. Open fields also serve as a prime area for plant and animal habitat and activity, as well as providing scenic vistas for visitors and residents of the region. Although the use of open fields depends largely on soils and underlying geology, agriculture is a common use for such land in the Townships.

The importance of open fields are addressed in earlier comprehensive plans and zoning for both Hereford and Washington Townships. As most of the development within the Townships are focused on the SR 100 corridor in Washington Township, the hillier areas west of this area is generally open fields and forested areas that are not developed. Cluster development, transfer of development rights (TDR), conservation easements, and agricultural preservation strategies (Ag Security Act, Clean and Green, etc.) are the most commonly used tools to preserve open fields. The cultural resources analysis highlights these resources in further depth.

Forested Areas

As Washington and Hereford Township are in relatively rural areas, a large majority of the land remains forested. Such coverage provides aesthetic qualities of scenery, climate control, and better air quality. Woodlands also provide erosion control on steep slopes, which inhibits stream pollution. Areas that have year-round foliage covering determine wooded areas in Hereford and Washington Townships. Although both Townships have the preservation of significant woodlands as an objective in their earlier comprehensive plans and zoning ordinances, both allow conditional development on areas deemed for woodland conservation.

Surface Water Features

Surface waters include rivers, streams, and ponds. They provide aquatic habitat, carry or hold runoff from storms, and provide recreation and scenic opportunities. Surface water resources are a dynamic and important component of the natural environment, but ever-present threats such as pollution, construction, clear-cutting, mining, and overuse have required the protection of these valuable resources. Hereford and Washington Townships include several creeks, streams, and pools, all within the Delaware River Basin. The Perkiomen Creek, the west branch of the Perkiomen Creek, and Swamp Creek are the larger tributaries in Hereford and Washington Townships. A slight portion of the Little Lehigh watershed falls in the extreme northwest corner of Hereford Township, while the Manatawny Creek watershed runs along the southern border of Washington Township. See the Natural Resources maps for surface water features and watersheds.

Hereford Township and the upper half of Washington Township lie in the Perkiomen Creek watershed,

Chapter 6 - Environmental Resource Analysis

encompassing approximately 30 square miles of the Upper Perkiomen Creek watershed. These are the headwaters of this watershed. The lower half of Washington Township lies in the Swamp Creek watershed. These watersheds serve as a vital resource for the Philadelphia Suburban Water Company.

The Pennsylvania Chapter 93 Water Quality Standards classify surface waters according to their water quality criteria and protected water uses. Selected bodies of water that exhibit exceptional water quality and other environmental features are referred to as “Special Protection Waters.” Certain activities in those watersheds that could adversely affect surface water are more stringently regulated to prevent degradation. Land development, sewage treatment and disposal, industrial and municipal waste, mining and quarrying, timber harvesting, stormwater management, and confined feeding operations must follow guidelines found in PADEP’s Special Protection Waters Implementation Handbook, or other regulations relative to Special Protection Waters. The waterways that are deemed high quality or exceptional, or another special status of Chapter 93 are listed in the table on the following page.

Chapter 93: Water Quality Standards for Hereford & Washington Townships		
Stream	Location	Protected Use
Delaware Estuary		
Schuylkill River		
Perkiomen Creek	Basin, Source to SR 1010 Bridge at Hereford	HQ-CWF, MF
West Branch Perkiomen Creek	Basin, Source to SR 1022 Bridge (Huffs Church Road (RM 12.9)	CWF, MF
West Branch Perkiomen Creek	Basin, SR 1022 Bridge to SR 2069 Bridge (Old Route 100) (RM 8.0)	EV, MF
West Branch Perkiomen Creek	Basin, SR 2069 Bridge to Mouth	CWF, MF
Swamp Creek	Basin, Source to Dam in Bechtelsville (RM 15.5)	HQ-CWF, MF
Swamp Creek	Basin, Dam in Bechtelsville to SR 100 Bridge	CWF, MF
<i>Cold Water Fishes (CWF):</i> Maintenance or propagation, or both, of fish species including the family Salmonidae and additional flora and fauna that are indigenous to a cold water habitat.		
<i>Migratory Fishes (MF):</i> Passage, maintenance and propagation of anadromous and catadromous fishes and other fishes that ascend to flowing waters to complete their life cycle.		
<i>High Quality Waters (HQ)</i>		

Source: Pennsylvania Department of Environmental Protection, 2013

The Pennsylvania Environmental Quality Board recently designated the west branch of the Perkiomen Creek, and the Perkiomen Creek itself, as high-quality habitats for cold-water fish. The Townships’ area of the watershed is classified as cold water fishery. According to the Pennsylvania Department of Environmental Protection (PADEP), this is defined as the, “maintenance of propagation, or both, of fish species including the family Salmonidae and additional flora and fauna that are indigenous to a cold water habitat.” (Chapter 93) As well as being a cold-water fish haven, the Perkiomen Creek has been designated as having exceptional value. Swamp Creek in Washington Township has been designated a stream with high water quality. Such designations are based on scientific conditions and require a public comment period.

Watershed Conservation Groups

Perkiomen Watershed Conservancy

The Perkiomen Watershed Conservancy is a non-profit organization founded in 1964 by local citizens to combat pollution in the Perkiomen Creek and its tributaries. The Conservancy’s mission has since been broadened to protection of the watershed’s ecosystems in the midst of regional growth. The Conservancy provides an integrated approach to issues through Environmental Education, Land Conservation and Protection, and Watchdog Activities. Although a majority of their efforts are concentrated in Montgomery County (because

geographically, a majority of the watershed is in that County), they hold high water quality of the Perkiomen Watershed (in Berks County) as one of their goals.

Upper Perkiomen Watershed Coalition

The Upper Perkiomen Watershed Coalition is a non-profit organization that strives to protect the water quality and environmental integrity of the Upper Perkiomen Watershed. The Coalition educates the public in watershed management, coordinates various municipalities for cooperation, represents interests for local government support, and identifies and evaluates water resources and the threats to them. A main activity of the Coalition has been to produce the Upper Perkiomen Creek Watershed Conservation Plan. The Plan serves as a guide for stakeholders, providing an overview of key natural and cultural elements, water quality and quantity concerns, and examines potential major land use changes. The plan was recently completed in 2002 as part of the PA DCNR's River Conservation Program. Since completion, the Upper Perkiomen Creek has been added to the Pennsylvania Rivers Conservation Registry, making participating municipalities eligible for DCNR matching grants. The Rivers Registry program is used to promote river conservation and serve as an avenue to endorse local initiatives by binding them together in a statewide recognition program.

Schuylkill River Greenway Association

The Schuylkill River Greenway Association (SRGA) strives to conserve, interpret, and develop the historical, cultural, natural, and recreational resources related to the industrial and cultural heritage of the Schuylkill River Valley. As part of this overall mission, protecting the water quality and resources of the Schuylkill River is a key objective of the organization. The larger Schuylkill River Watershed encompasses all of the subwatersheds (Perkiomen Creek, West Branch Perkiomen Creek, Swamp Creek, Little Lehigh, and Manatawny Creek) in Hereford and Washington Townships, stretching from Schuylkill County to the headwaters in Philadelphia. In the year 2000, the SRGA was a main facilitator in the production of the Schuylkill Watershed Conservation Plan. This plan was completed in 2001. As a DCNR River Conservation Plan (RCP), the Schuylkill River Watershed has been added to the Pennsylvania Rivers Conservation Registry. This allows river support groups and municipalities within this watershed to apply for future grant funding from other state agencies to conduct implementation and development projects based on the recommendations of the RCP. The Rivers Registry program is used to promote river conservation and serve as an avenue to endorse local initiatives by binding them together in a statewide recognition program.

Berks Nature

Berks Nature, previously known as Berks County Conservancy, was established as a non-profit membership organization in 1974. Their mission is to preserve Berks County's cultural and environmental heritage. Berks Nature has focused its efforts on preserving agricultural land and open space; protecting the quality of our streams and ground water; preserving historic landmarks and scenic landscapes; and by promoting those values which contribute to a sustainable future in the region. Watershed protection is one of the main areas of focus for Berks Nature. The Manatawny Creek Watershed was a key project of the watershed protection division of Berks Nature. This watershed contains several streams of exceptional value. Using state grants, Berks Nature took the role of coordinating partnerships within the watershed. The Ironstone Creek branch of the Manatawny Creek watershed falls along the southern border of Washington Township.

Groundwater Quality and Supply

The supply of groundwater to Hereford and Washington Townships is of key importance. Groundwater is the ultimate source of drinking water for Township residents. This underground water that flows through aquifers, springs, and caverns is extracted by private wells or by public water companies using wells or springs. Therefore, the location and amount of groundwater is of key importance to the capacity of development for the Townships.

Chapter 6 - Environmental Resource Analysis

Groundwater quality and supply is ultimately controlled by bedrock geology. Geologic factors such as rock type, intergranular porosity, rock strata inclination, faults, joints, folds, bedding planes, and solution channels affect groundwater movement and availability. Groundwater quality is dependent on interaction between the groundwater and the bedrock. The more soluble bedrock, such as limestone, allows more compounds to be dissolved in the groundwater, thus resulting in increased hardness values. The table on page 59 and the Surface Geology map provide the details about the bedrock geology of the two Townships.

Porosity and permeability of bedrock is the most important factor that affects groundwater. Median groundwater yield is the most variable of the parameters; median yields vary from 5 gallons per minute (gpm) in the Diabase (located in the extreme southeast corner of Washington Township) and Metadiabase (located in the northwest corner of Hereford Township) formations. Higher yields of up to 100 and 200 gpm, respectively in the Leithsville and Limestone Fanoglomerate Formations, can also be found in the Townships. These formations are generally found along the SR 100 corridor in the Townships.

Sources of Public Water

As noted earlier, groundwater is the final source of all drinking water in Pennsylvania. Public water systems and private wells are both used in Hereford and Washington Townships. A public water system generally consists of supply sources (wells, pumping and distribution system, storage facilities, filtering system, etc.). Sources for a public water system may come from a variety of sources, and usually a combination of two or more, such as reservoirs, springs, streams, or wells. Ensuring there is large enough supply for the dependent population and protecting the water from pollution (creating a high quality water level) are two key issues that are important for a public water system. As these systems are constructed, they naturally facilitate housing and commercial development. Therefore, the infrastructure of such systems needs to be carefully placed.

There are three main public water systems that are operating in Hereford and Washington Townships. The Bally Municipal Water System serves peripheral lots that are located in Washington Township. The Bally Borough Municipal Authority is supplied water by two surface springs and two groundwater wells. Washington Township has a surface water reservoir providing water to Bally Borough's water treatment facility. Once treated, the water is redistributed back to Washington and Hereford Townships. See the Public Utility Service Areas map for location of Public Water Supply Areas.

The Upper Hanover Water Authority has two wells located in Hereford Township that serves a limited amount of residents along SR 29. Green Lane Reservoir is an 814-acre impoundment located in northwestern Montgomery County, PA, in Marlborough, Upper Frederick and Upper Hanover Townships owned and operated by the Philadelphia Suburban Water Company (PSWC). The reservoir discharges an average of 16.5 million gallons per day into the Perkiomen Creek and supplies drinking water to 140,000 customers in Chester and Montgomery Counties. The modular home community in central Hereford Township also has a community water system.

Groundwater Threat - Superfund Site (Crossley Farms)

A major concern regarding the quality of the groundwater supply focuses on the Crossley Farm Superfund Site. The Crossley Farm Site encompasses 24 acres at the intersection of Huff's Church Rd. and Blackhead Hill in Hereford Township. Between 1960 and 1980, the nearby company of Bally Case and Cooler used Crossley Farms as a disposal site for its liquid waste. The Pennsylvania Department of Environmental Resources (PA DER) performed an investigation in 1983. They found contamination of volatile organic compounds (VOCs) in residential wells downhill from the site. A regional study of the area in 1987 found a large area of trichloroethylene (TCE) contaminated groundwater. Public and private wells within four miles of the site supply drinking water to approximately 4,800 residents. Currently, the U. S. Environmental Protection Agency (EPA) has spent over \$9 Million to complete a Remedial Investigation and Feasibility Study. The study outlines the plans for cleanup. This involves an interim measure of extracting the most contaminated groundwater from a limited area located

at the top of Blackhead Hill and treating the groundwater until it meets drinking water standards. After which, random extraction wells in the area will be tested to evaluate the effectiveness of decreasing concentration of contaminants in the groundwater. As of the date of this publication, the remediation of this site has been completed but the site is still currently being monitored by the EPA.

Air Quality

Some residents of the planning area have reported to municipal officials of experiencing respiratory issues. These respiratory problems seem to be attributed to the application of a certain type of fertilizer on farmlands throughout the region. Although no scientific evidence has been collected to determine the exact cause of these issues, officials, at both the state and local level, should continue to monitor this problem and take appropriate action as necessary.

Areas of Concern (Pennsylvania Natural Heritage Program)

The Pennsylvania Natural Heritage Program (PNHP) identifies rare and significant ecological features across the Commonwealth. These features include plant and animal species of special concern (those classified as Endangered, Threatened, or Rare as listed by various environmental divisions of the State of Pennsylvania), rare and exemplary natural communities, and outstanding geologic features. The Pennsylvania Natural Heritage Inventory information system is continually refined and updated.

Five PNHP sites lie within the study area, as shown on the Sensitive Natural Features maps. One site is located in the southwest corner of Hereford Township. It marks the nesting location of a bird species imperiled at the state level. Such a ranking means that the species is imperiled in Pennsylvania because of its rarity (6 – 20 occurrences or few remaining individuals or acres) or vulnerability to extirpation from the state. It was observed nesting among boulders and rock outcrops in a tulip poplar, ash, and maple woodlot. This rare bird and a more common species will continue to use the site if the surrounding area remains undisturbed.

Another site is located in the southeast corner of Washington Township. It is designated as a Pennsylvania-vulnerable plant species because of widespread collecting in the past. It grows on private property owned by a famous local botanist who is dedicated to the preservation of the native flora. The site should be secure for the foreseeable future.

Pennsylvania Natural Heritage Program policy requires that the name and exact location of species remain undisclosed; however the general location of the species habitat can be identified in public documents, such as the comprehensive plan. By documenting the habitat area, local officials and planning commission members can determine whether or not a development proposal may impact the rare and significant ecological features of the community during the plan review process. If a development proposal is located within a Pennsylvania Natural Heritage Inventory-designated area, officials should contact the Pennsylvania Natural Heritage Program (PNHP) for further information on the specific species and compatible development and conservation techniques.

Pennsylvania Natural Heritage Program (PNHP)
Department of Conservation and Natural Resources
Bureau of Forestry
PO Box 8552
Harrisburg, PA 17105-8552
(717) 787-3444

Chapter 6 - Environmental Resource Analysis

Public Lands for Conservation and Recreation

State Game Lands

The Pennsylvania State Game Commission was formed in 1920 with the goal to ensure that wild animals always have shelter and food. To obtain this goal, the Commission has purchased approximately 300 separate tracts, comprising roughly 1.5 million acres, to create the Pennsylvania State Game Lands. Each State Game Lands tract has an individual management plan designed to improve wildlife habitat and provide recreational opportunities. The Agency's Food and Cover Corps carry out plans. The State Game Lands serve hunters, anglers, hikers, and birdwatchers, and other wildlife enthusiasts.

State Game Land #315 is comprised of two areas, located in southern Washington Township and on the shared Hereford-Washington border. Combined, they contribute approximately 152 acres of public recreation land to the Townships open space and recreation system. See the Community Facilities map for specific locations.

Public and Private Lands

Public lands include open space and recreational facilities available to the general public, regardless of ownership. These include parks, playgrounds, and nature study centers. Facilities and areas that are owned by the State, County, and Municipality are considered public facilities. There are five public parks in Hereford Township and twelve in Washington Township.

Open space and recreation facilities that are privately owned are available to individuals or organizations by membership only. Examples of such private open space include country clubs, golf courses, gyms, gun clubs, and swimming pools. The Community Facilities maps identify the location of recreation areas in Hereford and Washington Townships.

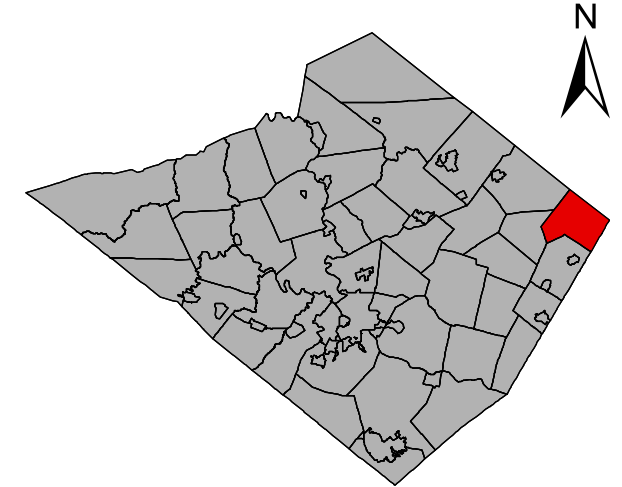
Key Trends and Issues

- **The geologic formations that underlie the planning area influence development and open space opportunities.** Geologic constraints to development include excavation difficulty throughout most of the planning area.
- **Wellhead development potential is highest along the eastern edge of the planning area,** following SR 100. Groundwater appears most available in the Leithsville and Limestone Fanogglomerate Formations located along the eastern edge of the Townships. Wellheads in any location will need designated protection areas to prevent groundwater contamination.
- **Groundwater contamination has occurred in the western portion of the planning area.** Mitigation efforts are complete; however this area is currently unsuitable for additional development that would rely on groundwater for water supply. The U.S. Environmental Protection Agency is still monitoring the site.
- **Air quality is a concern throughout the planning area.** There is a growing concern, especially in Washington Township regarding residents experiencing respiratory illness that could be contributed to the application of certain stabilized residual solids fertilizer on farms throughout the planning region.
- **Prime farmland soils in the planning area have supported agriculture as the predominant local industry since its settlement; increasing regional growth threatens the agricultural landscape with development pressure.** The planning area contains prime farmland soils; the majority of these are in active agricultural production. Many of these areas have Agricultural Conservation Easements and Agricultural Security Areas.
- **The planning area includes areas sensitive to disturbance and therefore unsuitable to**

development. The planning area contains floodplains, wetlands, and steep slopes; these areas are not suitable for development and are key to the preservation of rural character in the planning area.

- **A high percentage of open fields and forest cover define the planning area as a scenic, rural landscape.** The planning area contains open fields and forest; defining its rural character. Changes to the distribution of the land cover will have significant impacts to this character.
- **The planning area contains environmentally sensitive features: high (surface) water quality and five species of state concern.** The headwaters of the Perkiomen Creek, which lie in the planning area, have been classified as high quality and exceptional value watersheds and high quality cold-water fisheries. Because of their high quality, Swamp and Middle Creeks serve as a vital water supply sources. If development in these areas is planned, careful assessments of its impacts will need to be addressed in order to preserve these designations. Failing septic systems in the Huff's church area are of immediate concern.
- **Although many areas of the Townships are undeveloped, public and private recreation is scattered throughout.** The planning area contains state game land, public parkland, and private parkland.

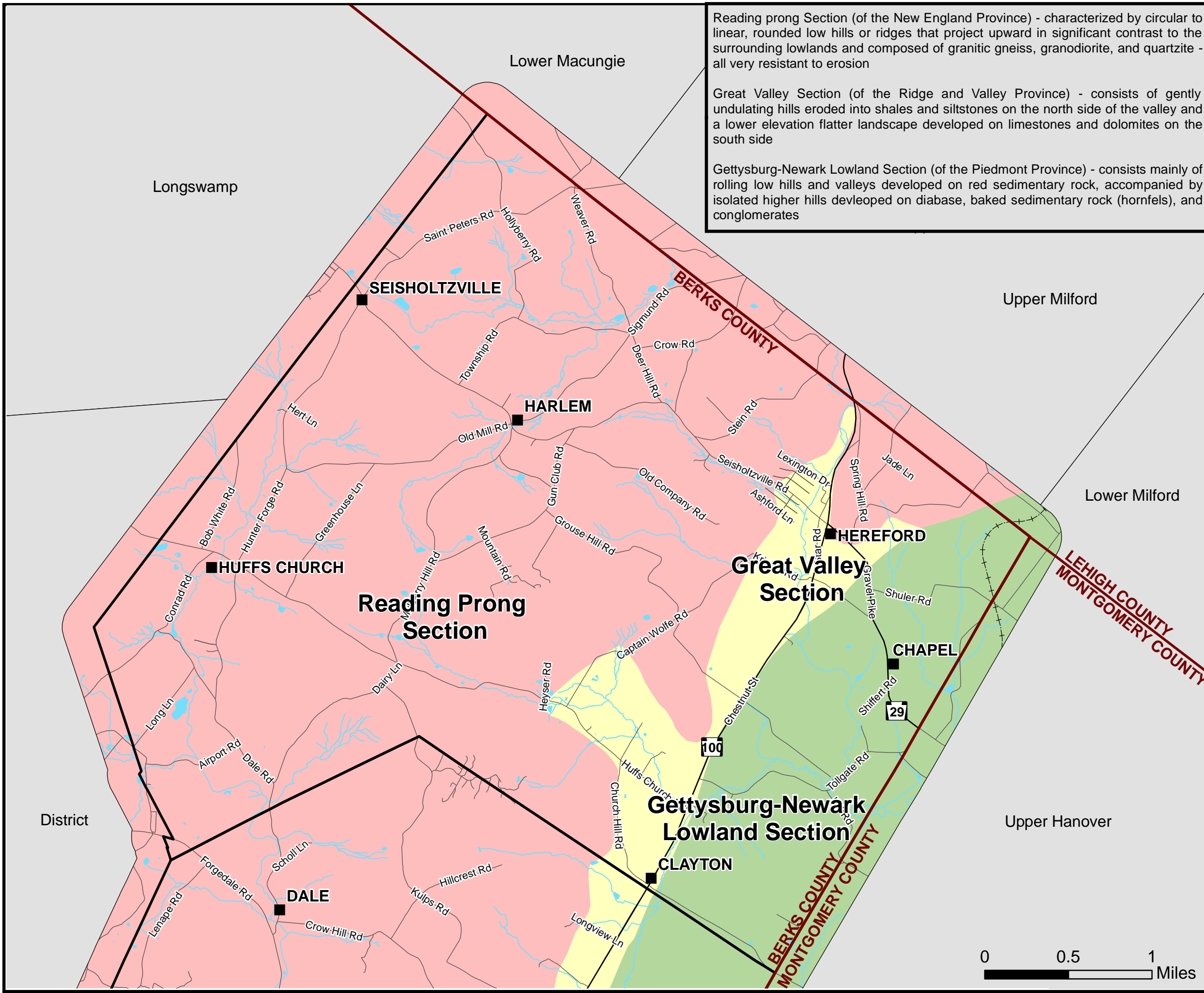
Physiographic Provinces Hereford Township



Reading prong Section (of the New England Province) - characterized by circular to linear, rounded low hills or ridges that project upward in significant contrast to the surrounding lowlands and composed of granitic gneiss, granodiorite, and quartzite - all very resistant to erosion

Great Valley Section (of the Ridge and Valley Province) - consists of gently undulating hills eroded into shales and siltstones on the north side of the valley and a lower elevation flatter landscape developed on limestones and dolomites on the south side

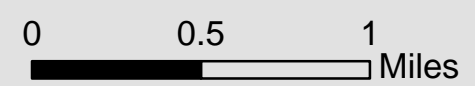
Gettysburg-Newark Lowland Section (of the Piedmont Province) - consists mainly of rolling low hills and valleys developed on red sedimentary rock, accompanied by isolated higher hills developed on diabase, baked sedimentary rock (hornfels), and conglomerates



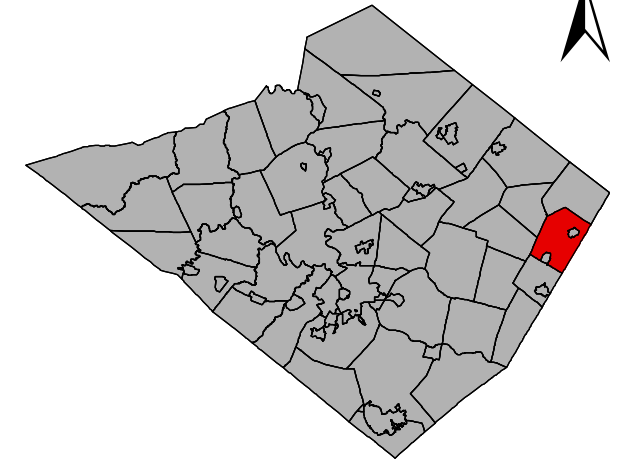
Legend

- Physiographic Provinces**
- New England
 - Piedmont
 - Ridge and Valley
 - Villages
 - Roads
 - Railroads- Active
 - Streams and Water Bodies
 - Municipal Boundaries
 - County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA Natural Resources Conservation Service
Published by the Berks County Planning Commission



Physiographic Provinces Washington Township



Legend

Physiographic Provinces

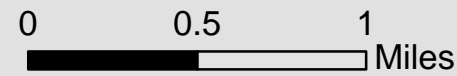
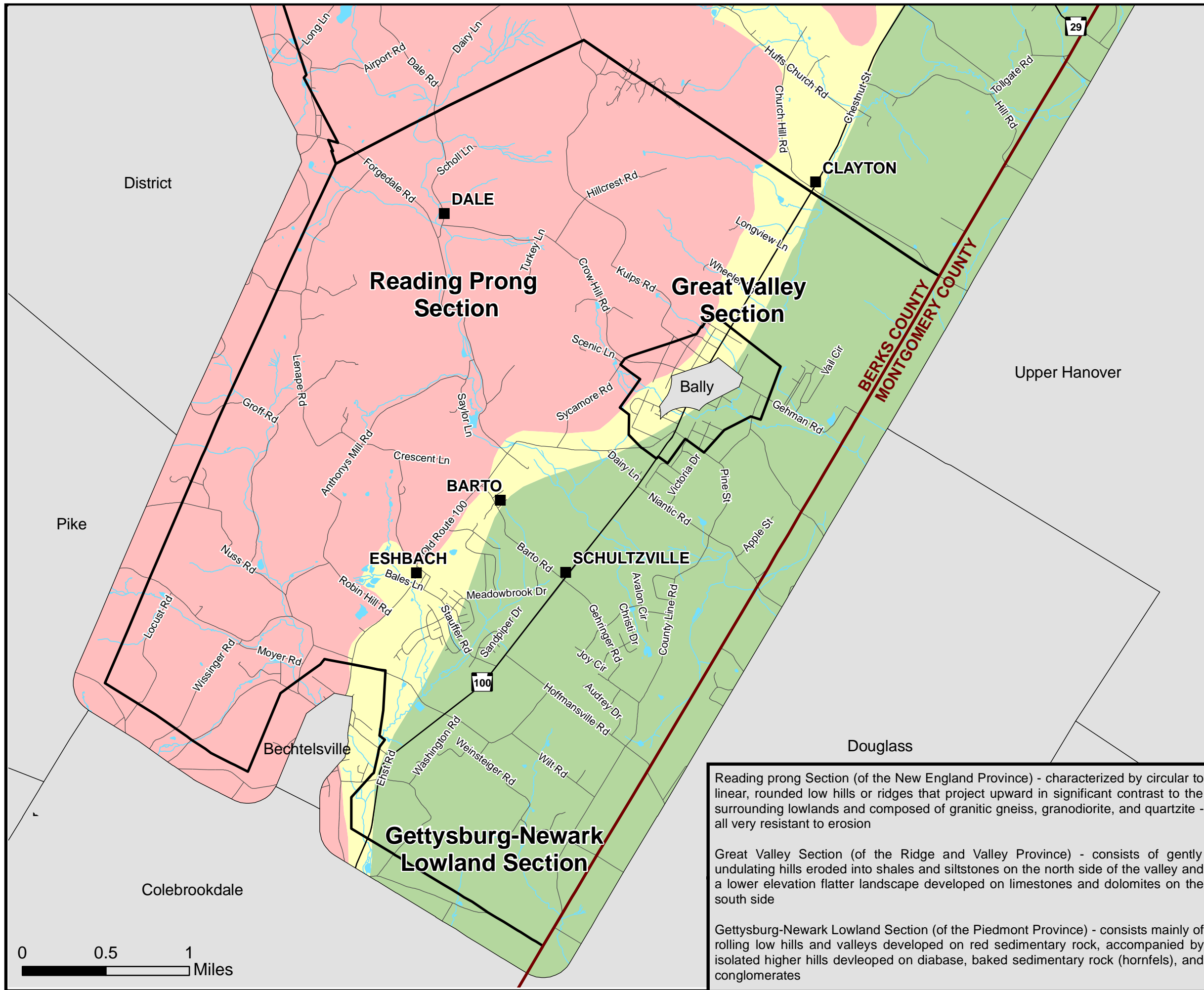
- New England
- Piedmont
- Ridge and Valley

- Villages
- Roads
- Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA Natural Resources Conservation Service

Published by the Berks County Planning Commission

LFM 8/18

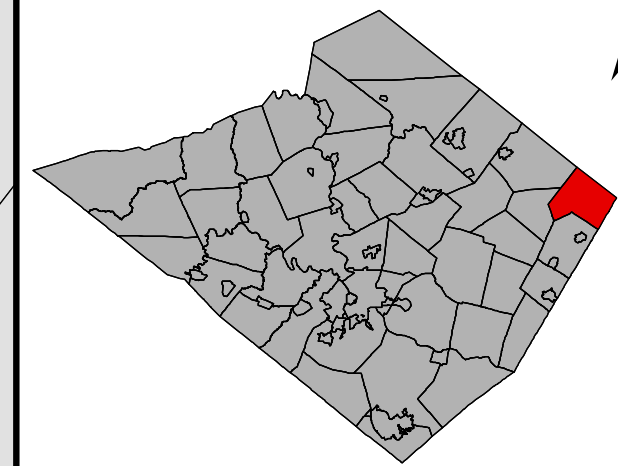


Reading prong Section (of the New England Province) - characterized by circular to linear, rounded low hills or ridges that project upward in significant contrast to the surrounding lowlands and composed of granitic gneiss, granodiorite, and quartzite - all very resistant to erosion

Great Valley Section (of the Ridge and Valley Province) - consists of gently undulating hills eroded into shales and siltstones on the north side of the valley and a lower elevation flatter landscape developed on limestones and dolomites on the south side

Gettysburg-Newark Lowland Section (of the Piedmont Province) - consists mainly of rolling low hills and valleys developed on red sedimentary rock, accompanied by isolated higher hills developed on diabase, baked sedimentary rock (hornfels), and conglomerates

Surface Geology Hereford Township



Surface Geology

Cha	Hardstone Formation	Trb	Brunswick Formation	gn	Granitic Gneiss
Clv	Leithsville Formation	Trfl	Limestone Fanoglomerate	hg	Hornblende Gneiss
Jd	Diabase	ggd	Granodiorite/Granodiorite Gneiss	md	Metadiabase

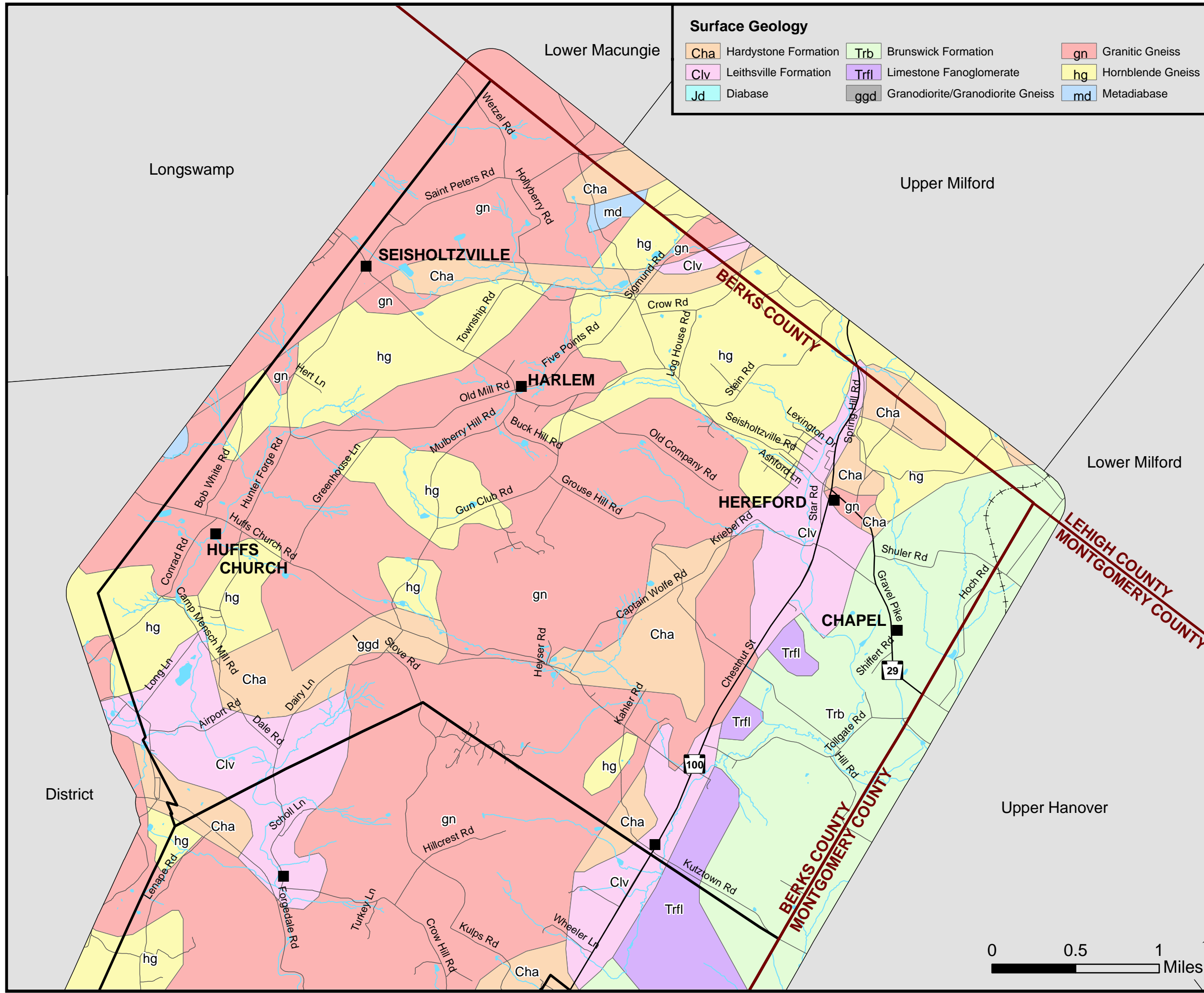
Legend

- Villages
- Roads
- - - - Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

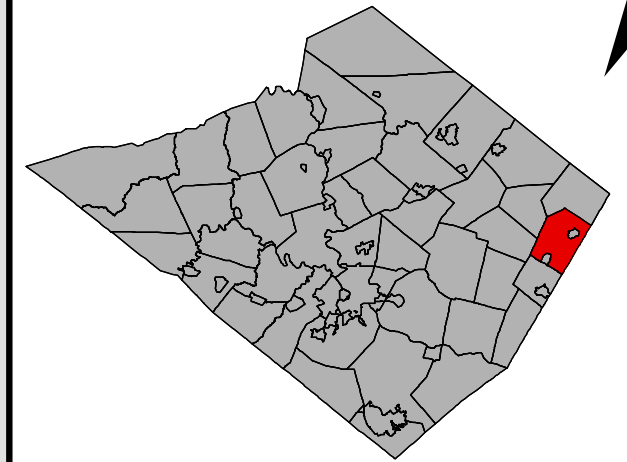
Note: See Table #-#, Engineering Characteristics of Hereford and Washington Townships' Geologic Formations, for descriptions of geologic formations

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA Natural Resources Conservation Service
Published by the Berks County Planning Commission

LFM 8/18



Surface Geology Washington Township



Legend

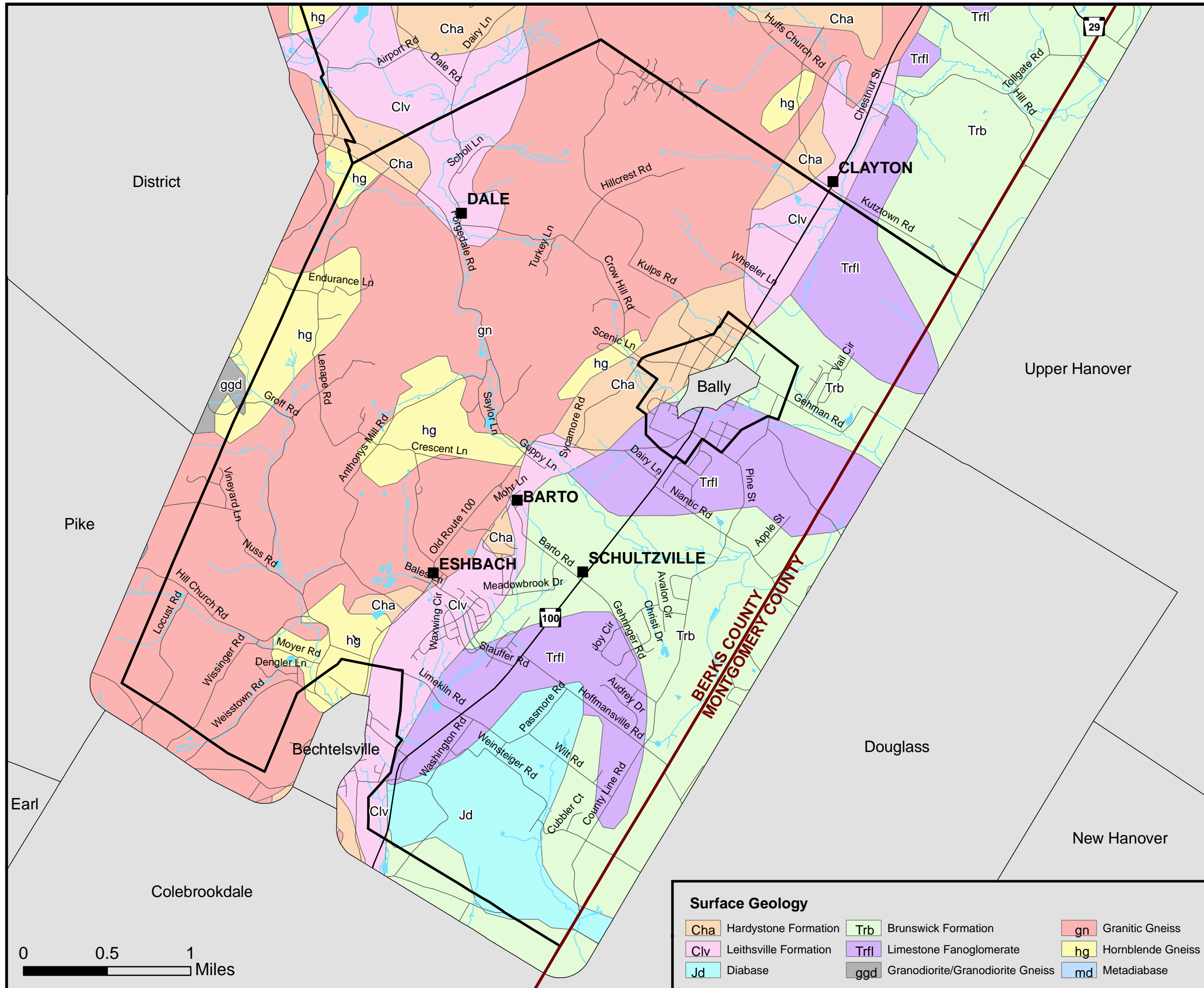
- Villages
- Roads
- ++++ Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

Note: See Table #-#, Engineering Characteristics of Hereford and Washington Townships' Geologic Formations, for descriptions of geologic formations

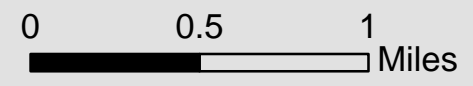
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA Natural Resources Conservation Service

Published by the Berks County Planning Commission

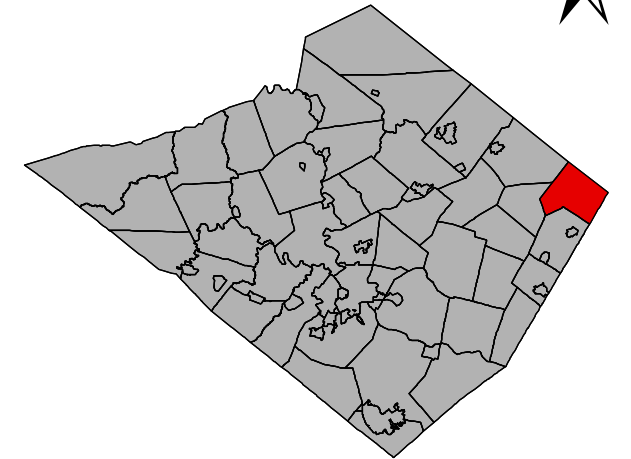
LFM 8/18



Surface Geology			
Cha	Hardstone Formation	Trb	Brunswick Formation
Clv	Leithsville Formation	Trfl	Limestone Fanoglomerate
Jd	Diabase	hg	Hornblende Gneiss
ggd	Granodiorite/Granodiorite Gneiss	md	Metadiabase
		gn	Granitic Gneiss



Soils Hereford Township



Soil Type

	AsB		LaC
	AsC		LbB
	AuD		LbD
	Bo		Me
	CaC		MuB
	CaD		MuC
	CmA		NaB
	CmB		NaC
	CwA		NaD
	CwB		NhD
	DbA		NhF
	DbB		PaA
	DfC		PeB
	DfD		PeC
	EdB		PeD
	EdD		PkD
	EhB		Qu
	EhC		ReA
	EhD		ReB
	GeB		RhA
	GeC		RhB
	GeD		ThA
	GfB		ToA
	GfD		ToB
	GfF		TwB
	GnA		Ua
	GnB		UgB
	HeD		UmB
	HeF		UmD
	Ho		UnB
	JnB		UnD
	JpB		UsB
	JpD		UsD
	LaB		W

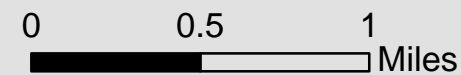
Legend

- Hydric Soil
- Villages
- Roads
- Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

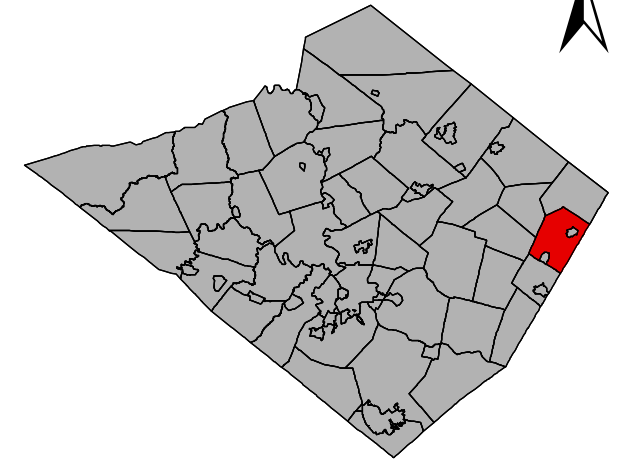
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA

Published by the Berks County Planning Commission

LFM 8/18



Soils Washington Township



Soil Type

AsB	LaC
AsC	LbB
AuD	LbD
Bo	Me
CaC	MuB
CaD	MuC
CmA	NaB
CmB	NaC
CwA	NaD
CwB	NhD
DbA	NhF
DbB	PaA
DfC	PeB
DfD	PeC
EdB	PeD
EdD	PkD
EhB	Qu
EhC	ReA
EhD	ReB
GeB	RhA
GeC	RhB
GeD	ThA
GfB	ToA
GfD	ToB
GfF	TwB
GnA	Ua
GnB	UgB
HeD	UmB
HeF	UmD
Ho	UnB
JnB	UnD
JpB	UsB
JpD	UsD
LaB	W

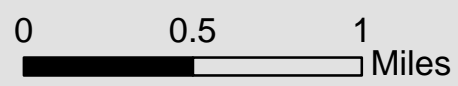
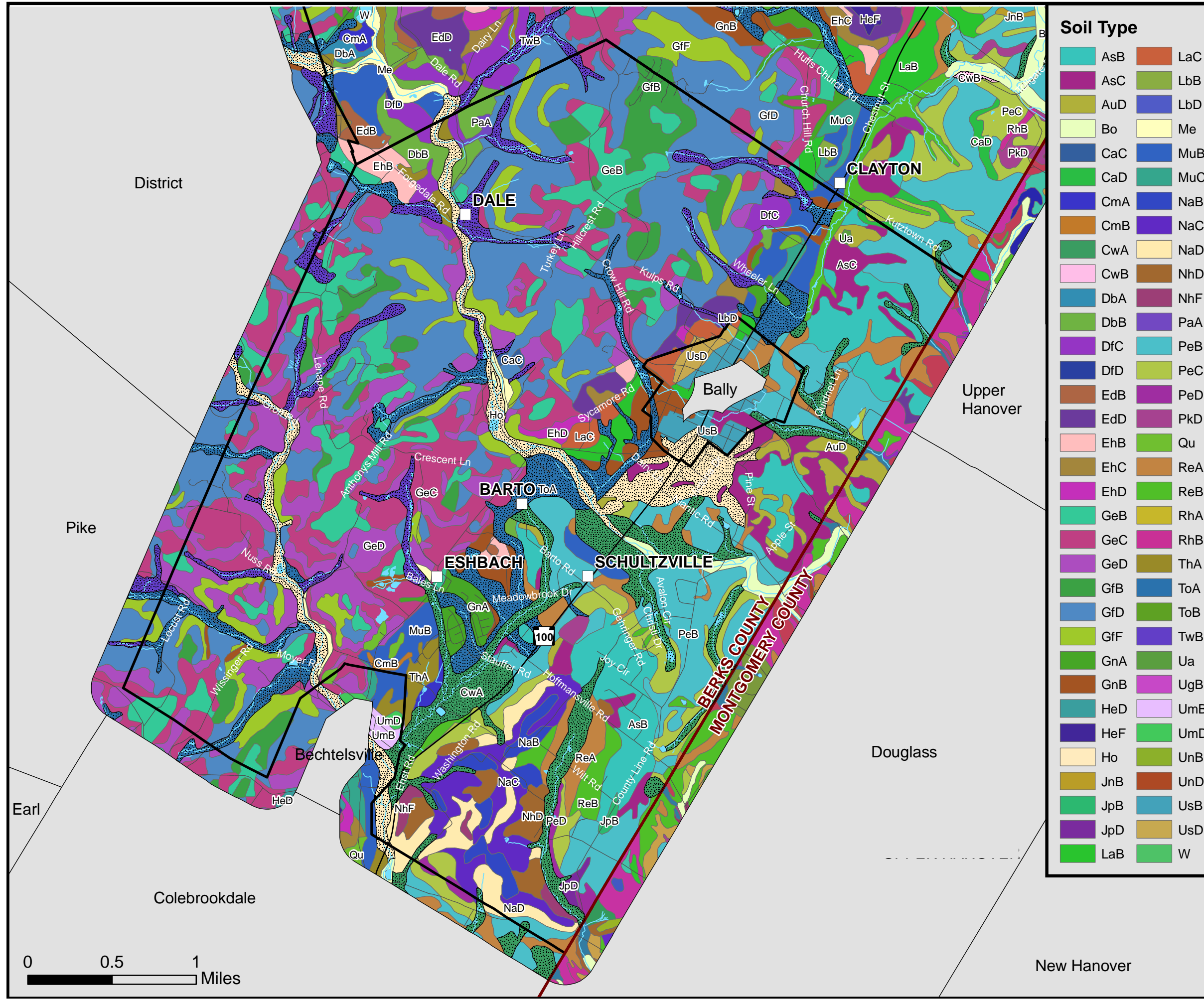
Legend

- Hydric Soil
- Villages
- Roads
- Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

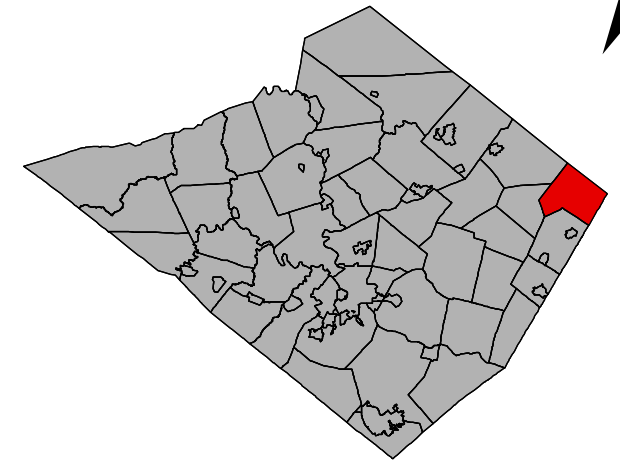
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA

Published by the Berks County Planning Commission

LFM 8/18



Natural Resources Hereford Township



WATER QUALITY FOR MAJOR WATERWAYS:

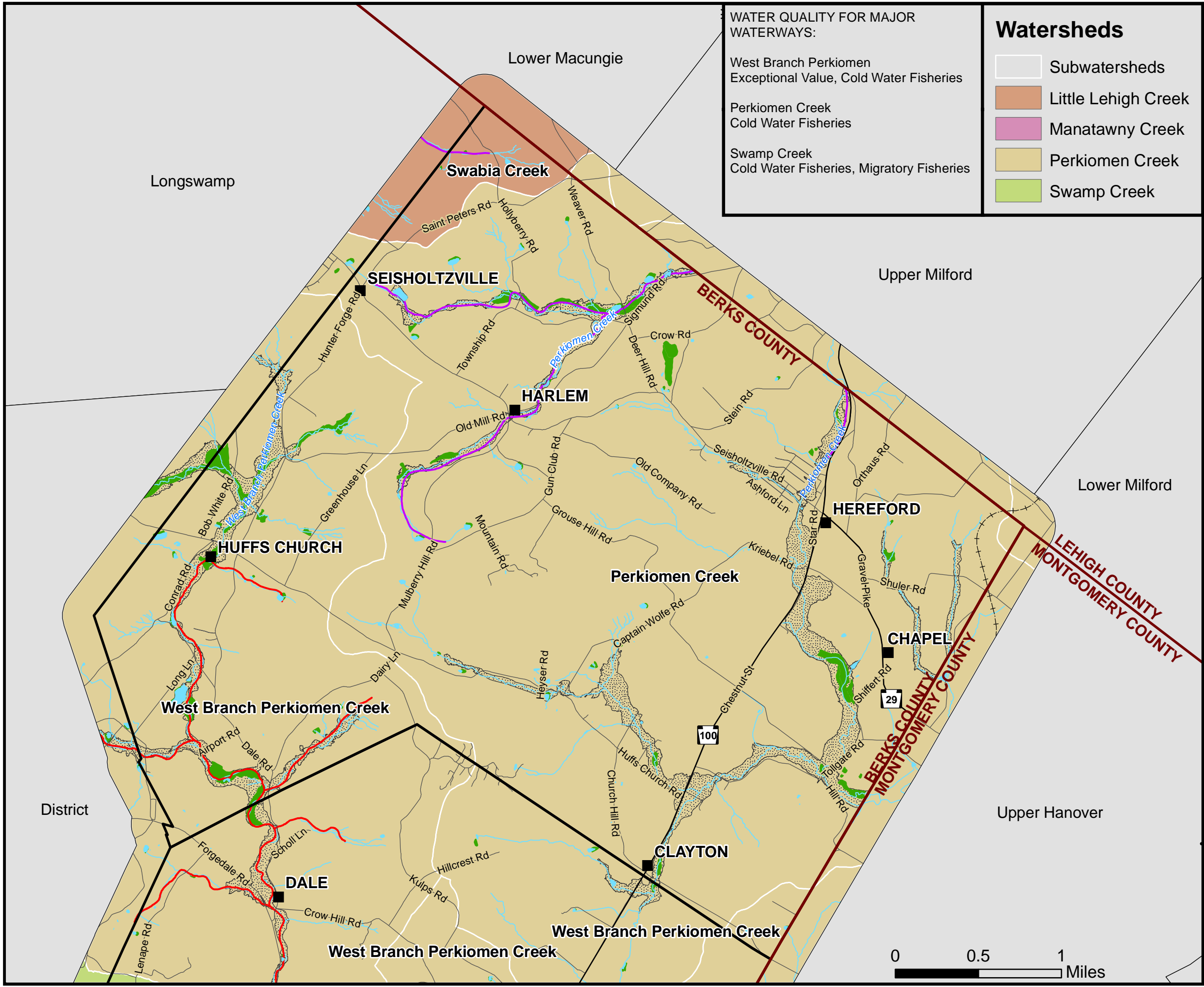
West Branch Perkiomen
Exceptional Value, Cold Water Fisheries

Perkiomen Creek
Cold Water Fisheries

Swamp Creek
Cold Water Fisheries, Migratory Fisheries

Watersheds

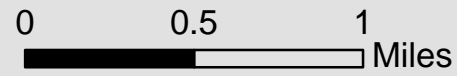
- Subwatersheds
- Little Lehigh Creek
- Manatawny Creek
- Perkiomen Creek
- Swamp Creek



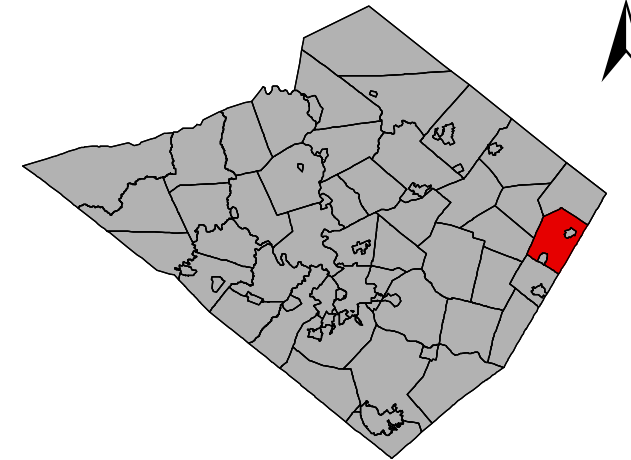
Legend

- ~ Exception Value Streams
- ~ High Quality Streams
- Floodplain 100 Year
- Wetlands
- Villages
- Roads
- +- Railroads- Active
- ~ Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, FEMA, National Wetlands Inventory, Penn State Institutes of the Environment
Published by the Berks County Planning Commission LFM 8/18



Natural Resources Washington Township



Legend

- Exception Value Streams
- High Quality Streams
- Floodplain 100 Year
- Wetlands
- Villages
- Roads
- Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

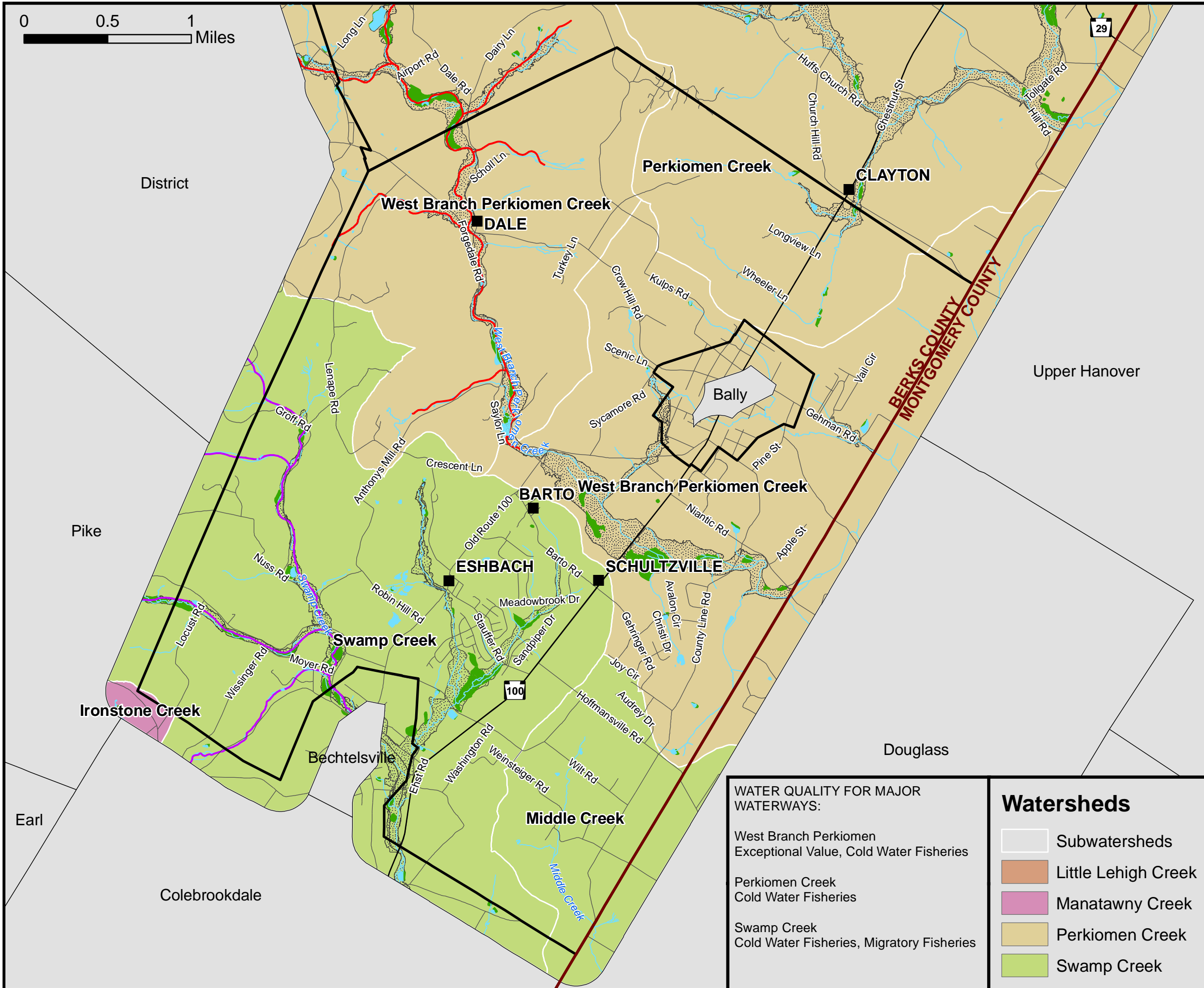
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, FEMA, National Wetlands Inventory, Penn State Institutes of the Environment

Published by the Berks County Planning Commission

LFM 8/18



0 0.5 1 Miles

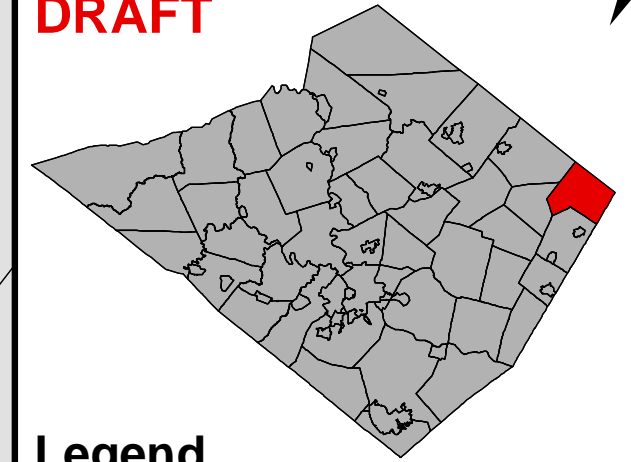


WATER QUALITY FOR MAJOR WATERWAYS:	
West Branch Perkiomen	Exceptional Value, Cold Water Fisheries
Perkiomen Creek	Cold Water Fisheries
Swamp Creek	Cold Water Fisheries, Migratory Fisheries

Watersheds	
	Subwatersheds
	Little Lehigh Creek
	Manatawny Creek
	Perkiomen Creek
	Swamp Creek

Sensitive Natural Features Hereford Township

DRAFT



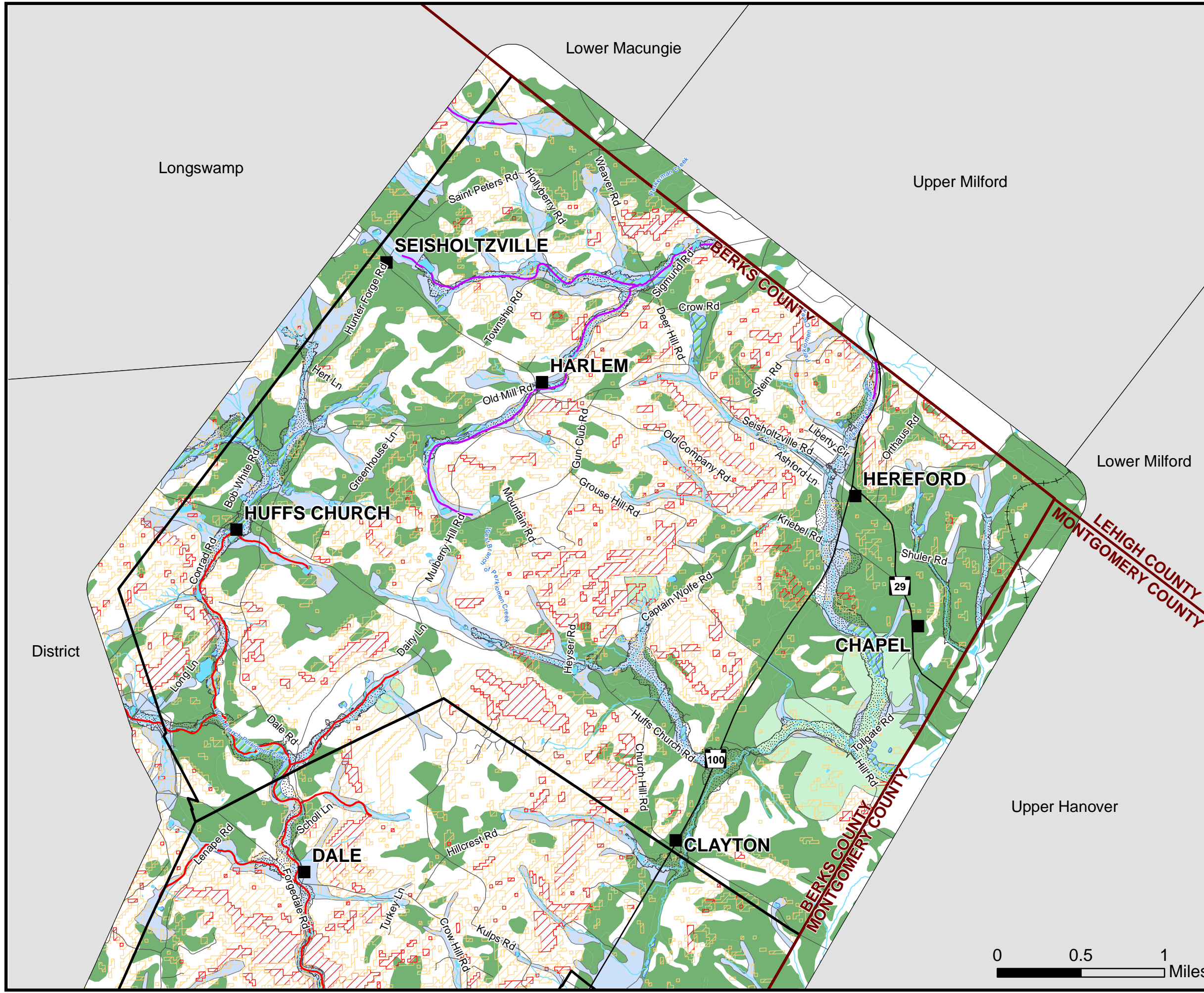
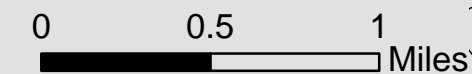
Legend

- | | | | |
|--|---------------------------|--|--------------------------|
| | Exceptional Value Streams | | Slopes 15-25% |
| | High Quality Streams | | Slopes over 25% |
| | Floodplain 100 Year | | Villages |
| | Wetlands | | Roads |
| | Hydic Soil | | Railroads-Active |
| | Prime Farmland | | Streams and Water Bodies |
| | NHA Core Habitat | | Municipal Boundaries |
| | | | County Boundaries |

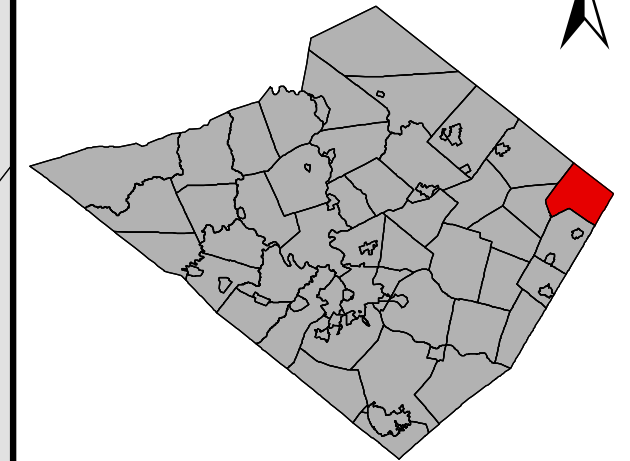
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, USDA, FEMA, Penn State Institutes of the Environment

Published by the Berks County Planning Commission

LFM 8/18



Protected Lands Hereford Township



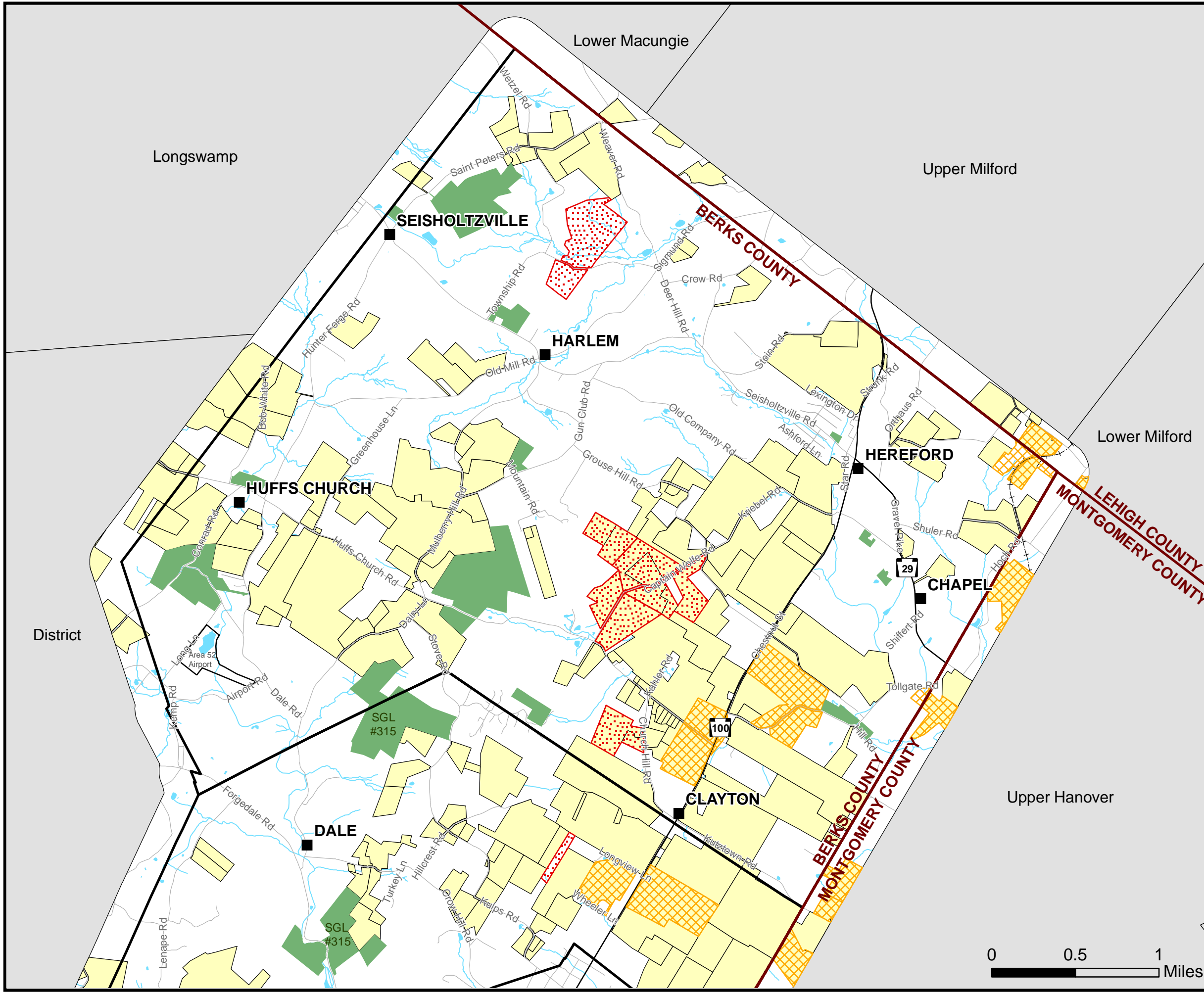
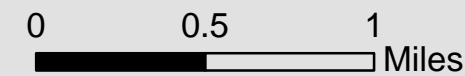
Legend

-  Agricultural Conservation Easements
-  Easements
-  Agricultural Security Areas
-  Public/Private Recreation Area
-  Villages
-  Roads
-  Railroads
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

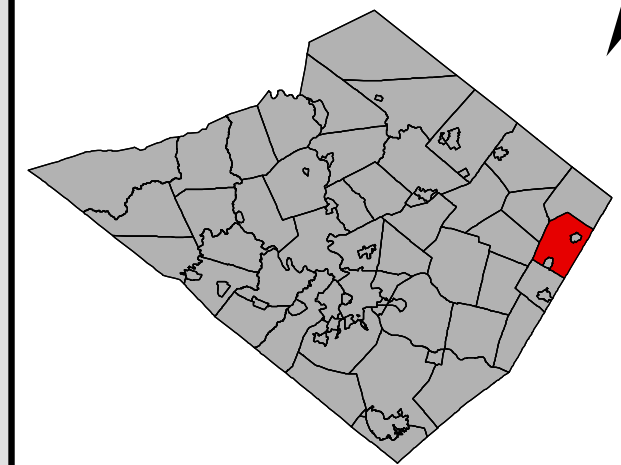
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

Published by the Berks County Planning Commission


LFM 8/18



Protected Lands Washington Township



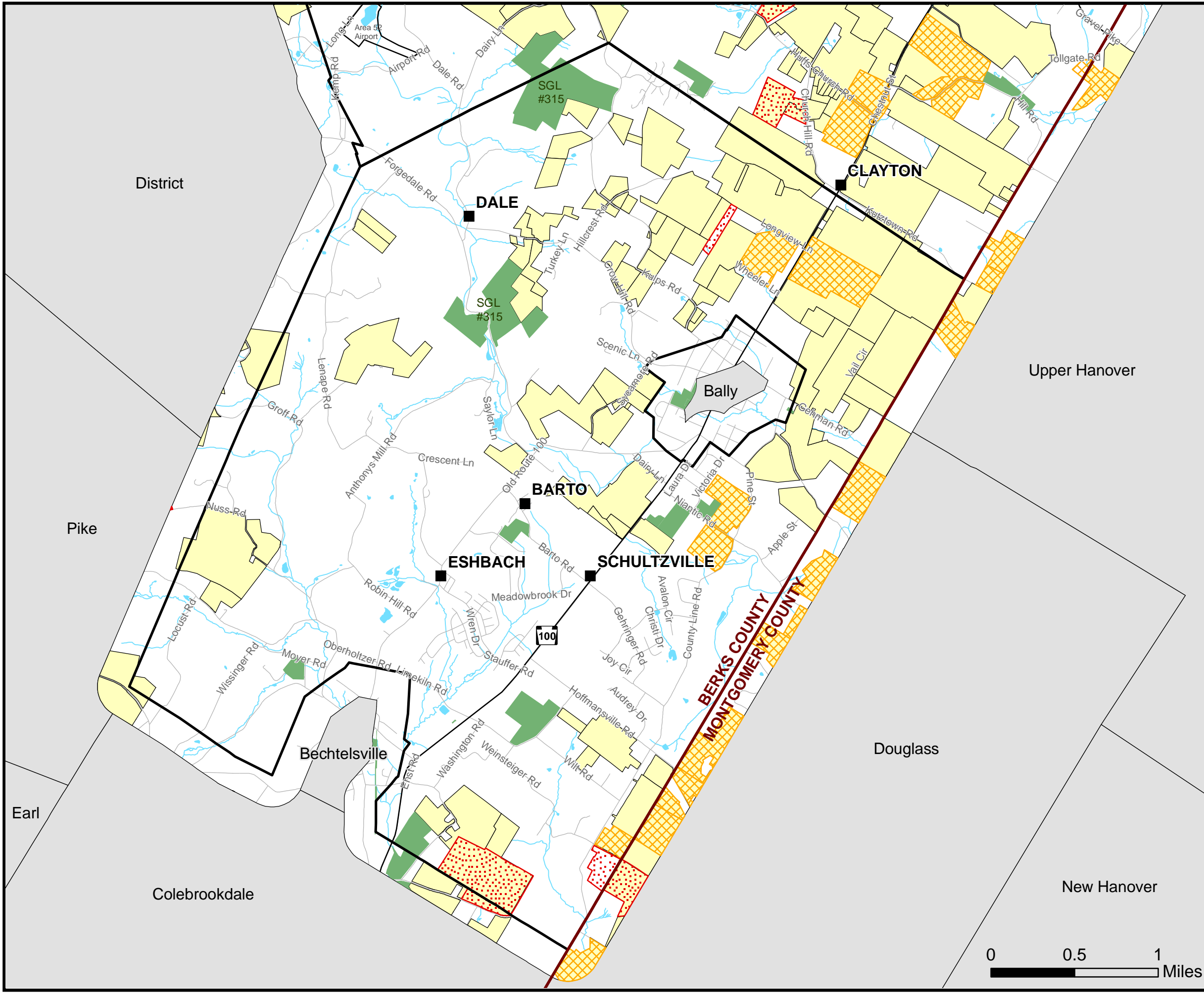
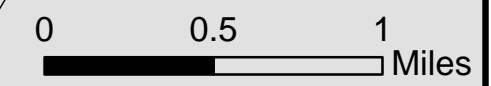
Legend

-  Agricultural Conservation Easements
-  Easements
-  Agricultural Security Areas
-  Public/Private Recreation Area
-  Villages
-  Roads
-  Railroads
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

Published by the Berks County Planning Commission

LFM 8/18



CULTURAL RESOURCE ANALYSIS

Introduction

A community's cultural resources provide a window into its development and heritage. The identification of these resources is a valuable tool for historic and archaeological preservation efforts, development of community focal areas, and education of younger generations. The understanding of the planning area's historic development is also a useful reference in planning its future. Figures 13 through 16; Historic Sites and Districts, shows the general location of sites of historic significance in the townships. Locations of historic properties are approximate and intended for general planning purposes; corrections should be forwarded to the Berks County Planning Commission for future map updates.



Kriebel's Mill

Properties Listed or Eligible for the National Register of Historic Places

Federal and state historic preservation laws require federal and state agencies to consider the effects of their actions on all historic and prehistoric sites, districts, buildings, and structures eligible for inclusion in the National Register of Historic Places. According to the National Park Service, "The National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources." Federal legal mandates include Section 106 of the National Historic Preservation Act of 1966, Executive Order 11593 of 1971 that expanded preservation standards of the cultural environment, and the regulations of the Advisory Council on Historic Preservation. Pennsylvania's legal mandates include the Environmental Right Amendment, Article 1, Section 27 of the Pennsylvania Constitution, and the Pennsylvania Historic Preservation Act of 1978.

The Pennsylvania Historic and Museum Commission's (PHMC) Bureau for Historic Preservation develops, coordinates, and administers the program to identify, protect and enhance buildings, structures, sites, districts and neighborhoods of historic and architectural significance in public and private ownership throughout the Commonwealth. The Bureau provides federally mandated professional staff to support the activities of the State Historic Preservation Officer to receive federal historic preservation funds and implement the National Historic Preservation Program throughout the Commonwealth. The Bureau also administers PHMC grants for museums and local history projects.

National Register properties are evaluated according to uniform standards; they include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. Listing on the National Register has a number of benefits for a community. It offers recognition of a property's significance, receives consideration in the planning of federal projects, eligible for federal tax benefits, and qualifies for federal historic preservation funding. In the Hereford Washington planning area there are four properties currently listed on the National Register of Historic Places and three that are eligible to be placed on the register.

To identify the Region's specific historic sites, the Berks County Planning Commission Historic Resources Inventory was used. This inventory includes PHMC, Meiser, Berks Nature, and other resource data. "Meiser" sites, as they are known, come from the work of George Meiser, IX who is a prominent author and well respected historian born and raised in Berks County. The Berks County Historic Resources Inventory includes 145 different sites and 12 different districts that have been identified as important from a local, State and National perspective. The Region has four sites and two districts listed on the National Register.

Chapter 7 - Cultural Resource Analysis

Sites of State and County Significance

In addition to the properties listed and eligible for the National Register, there are a number of locally significant, historically or architecturally prominent properties in the planning area. These properties have not applied for eligibility to the National Register but are recognized as significant by PHMC and Berks Nature. PHMC has identified 74 historic resources in its Pennsylvania Historic Resources Inventory (mostly farms and homesteads) in Hereford Township. There are 49 historic resources located in Washington Township. These sites, as well as properties on the National Register of Historic Places, are found on the Historic Sites and Districts maps at the end of this chapter.

Historic Districts

The Historic District Act of 1961 established Historic Districts in Pennsylvania. The historic district designation empowers municipalities to protect the distinctive historical character of a given area, by regulating the erection, reconstruction, alteration, restoration, demolition, or razing of buildings within the historic districts. There are twelve Historic Districts in the planning area, excluding the railroad districts that traverse the area. Six of these districts are in Hereford Township and six are in Washington Township. As shown on the tables on page 102 two Historic Districts in Hereford and Washington Townships are listed on the National Register of Historic Places. These areas have historically served as community and agricultural centers. Today, they are intersections or small areas of historic architecture in a unique setting. These districts draw residents and local tourists alike.

Archaeological Resources

According to the Pennsylvania Historic and Museum Commission, an archaeological site is “all evidences of past human activity or occupation which can be used to reconstruct the lifeways of past peoples. These include features, artifacts, environmental and all other relevant information, and the contexts in which they occur. Archaeological sites can be prehistoric Native American, as well as historic period Native American and European.” (Guidelines for Archaeological Investigations, Revised May 2016, p. 46)

Archaeological resources are identified and inventoried by PHMC. PHMC records these resources in their CRGIS (Cultural Resources Geographic Information System). Cultural Resources, according to PHMC, is “a term used to cover all of the resources that are considered by the National Register of Historic Places and includes: historic buildings, structures, objects, sites and districts; archaeological sites and districts; cultural landscapes; traditional cultural properties.” While all of these resources are recorded in one location, PHMC recognizes the different recording needs among the different cultural resources and provides forms for submittal for the various resource types. These forms and files are continually updated as new resources are identified through survey projects, National Register listings, reports generated through the Section 106 and History Code compliance process and submissions from private property owners. Although archaeological resources have not been directly identified, there is a probability that there may be some artifacts found in areas of the Townships, due to its extensive Native American and colonial history.

Local/County Inventories and Preservation Groups

Schuylkill River Greenways National Heritage Area

The Schuylkill River Greenways National Heritage Area (SRGNHA) strives to conserve, interpret and develop the historical, cultural, natural, and recreational resources related to the industrial and cultural heritage of the Schuylkill River Valley.

In 2000, Congress designated the Schuylkill River Valley as a National Heritage Area with the passage of the Schuylkill River Valley National Heritage Act (S. 1584). This Act expanded the geographic area for such a designation from the Schuylkill River corridor to the entire Schuylkill River Watershed. According to SRGNHA,

the benefits of this designation are: The preservation and enhancement of historic and environmental resources, heritage tourism-related economic development, community awareness of and pride in heritage resources, and the eligibility for federal matching funds. The Schuylkill River Valley is now recognized as a significant contributor to the nation's political, cultural, and industrial development. This designation led the Schuylkill River Heritage Area (SRHA), managed by the Schuylkill River Greenways National Heritage Area (SRGNHA), to complete a Management Action Plan in 2003 to help further define its mission, vision, goals, strategies, and priorities. Projected to be completed in 2017, SRHA is developing a strategic plan to evaluate the progress made by the goals in the 2003 plan. This new plan further established new milestones to reach during 2017-2026.

Berks Nature

Berks Nature, previously known as the Berks County Conservancy, was established as a non-profit membership organization in 1974, with a mission to preserve Berks County's cultural and environmental heritage for the benefit of future generations. Berks Nature has focused its efforts on preserving agricultural land and open space; protecting the quality of our streams and ground water; preserving historic landmarks and scenic landscapes; and by promoting those values which contribute to a sustainable future for the communities within Berks County. Berks Nature holds two conservation easements in Washington Township and 4 conservation easements in Hereford Township.

Berks County Planning Commission

The Berks County Planning Commission (BCPC) adopted the Berks County Greenway, Park and Recreation Plan in December, 2007. The plan "recommends the protection and preservation of historic sites and districts on or eligible for the National Register of Historic Places." The plan identifies and provides recommendations for historic resources in each of the five planning regions established in the plan.

In addition to the Berks County Greenway, Park and Recreation Plan, the BCPC has been working to develop an inventory of historic resources in Berks County for municipal and public use. Using data obtained from PHMC, Berks Nature, Meiser, local historic societies, and volunteers the BCPC has developed an interactive web-based map that identifies historic sites, structures, buildings, and districts in Berks County. The map is available on the Berks County Planning Commission website.

To aid in BCPC's historic resources inventory and help promote and implement historic preservation goals in the Berks County Comprehensive Plan, the BCPC and Historic Preservation Trust of Berks County established a Memorandum of Understanding (MOU) in March, 2013.

Township Historical Committees

The Washington Township Historical Society was founded in 1990 with the mission to preserve and promote the heritage of Washington Township and adjacent areas of Barto, Bally, and the Butter Valley. The group has produced two publications outlining the history of structures and genealogy of the Township.

The Hereford Township Heritage Society was created in 2003 for the "purpose of preserving, collecting, and displaying historical artifacts." Their objective is to educate the public and residents of Hereford Township about the history that exists within the Township to further promote and preserve the heritage of the area. In addition, the Hereford Township Heritage Society has a published book, *Early Times in Hereford Township*, with over 360 photographs between the time period of 1848-1956.

Historic Inventory

The following identifies those sites in the Berks County Historic Resources database with their respective municipality, name, data source, and National Register status:

Chapter 7 - Cultural Resource Analysis

List of Historic Resources (See numbers on Historic Resources Maps)

Hereford

Resource ID	Historic Name	Source	National Register Status*
2131	893 Gravel Pike	PHMC	Undetermined
2132	994 Gravel Pike	PHMC	Ineligible
2133	950 Gravel Pike	PHMC	Undetermined
2134	965 Gravel Pike	PHMC	Ineligible
2135	966 Gravel Pike	PHMC	Undetermined
2136	969 Gravel Pike	PHMC	Ineligible
2137	973 Gravel Pike	PHMC	Ineligible
2138	978 Gravel Pike	PHMC	Ineligible
2139	979 Gravel Pike	PHMC	Ineligible
2140	980 Gravel Pike	PHMC	Ineligible
2141	981 Gravel Pike	PHMC	Undetermined
2142	982 Gravel Pike	PHMC	Ineligible
2143	984 Gravel Pike	PHMC	Undetermined
2144	986 Gravel Pike	PHMC	Ineligible
2145	Adam Fink Farmstead	PHMC	Undetermined
2146	Adam Funk House	PHMC	Undetermined
2147	Alfred Butz House	PHMC	Ineligible
2148	Bauers Tilt Hammer	Meiser	Unknown
2149	Bittnebender House	PHMC	Undetermined
2150	Cab Frye's Tavern	PHMC	Undetermined
2151	Christman Gristmill	PHMC	Undetermined
2152	Clayton Hotel	Meiser	Unknown
2153	Clayton Store, Clayton Tavern	PHMC	Undetermined
2154	Clayton Store, Clayton Post Office	Meiser	Unknown
2155	Clemmer Mill	PHMC	Undetermined
2156	Daniel Bechtel House	PHMC	Undetermined
2157	Daniel Wegner House	PHMC	Undetermined
2158	Fisher's Tavern	PHMC	Undetermined
2159	Fox Hollow Farm	PHMC	Undetermined
2160	Gehman Hill	PHMC	Undetermined
2161	Gehman Tract	PHMC	Undetermined
2162	General Store, Post Office	Meiser	Unknown
2163	George & Faith Baver Property	PHMC	Eligible
2164	Gilberg's Store	Meiser	Unknown
2165	Graveyard	Meiser	Unknown
2166	Gressley House	PHMC	Ineligible
2167	Harvey Leshner House	PHMC	Ineligible

Chapter 7 - Cultural Resource Analysis

Resource ID	Historic Name	Source	National Register Status*
2168	Henry & Susanna Hoffman House	PHMC	Undetermined
2169	Hereford Church; Huff's Church	PHMC	Undetermined
2170	Hereford Furnace, Maybury Furnace	PHMC	Undetermined
2171	Hereford Hotel	PHMC	Undetermined
2172	Hereford Hotel	PHMC	Undetermined
2173	Hereford School House	PHMC	Undetermined
2174	Hereford Store / Post Office	Meiser	Unknown
2176	Hiestand House	PHMC	Ineligible
2177	Huff's Chapel	Meiser	Unknown
2179	Huff's Church Hotel	PHMC	Undetermined
2180	Huff's Church Store	PHMC	Undetermined
2181	Hunter Forge	PHMC	Undetermined
2182	Hunter's Mill, Rush's Mill	PHMC	Listed
2184	John Gehman Farm	PHMC	Listed
2185	John Schiffert House	PHMC	Undetermined
2186	Kriebel Farm	PHMC	Undetermined
2187	Kriebel Mill	PHMC	Undetermined
2188	Martin Bechtel Homestead	PHMC	Undetermined
2189	Mensch Mill	PHMC	Eligible
2190	Moyer-Seisholtz Farm	PHMC	Undetermined
2192	Perryville Hotel	Meiser	Unknown
2193	Perryville Store / Post Office	Meiser	Unknown
2194	Richard Gregory House	PHMC	Undetermined
2195	Richard-Letterhouse-Stierly Pro	PHMC	Undetermined
2196	Richland	PHMC	Undetermined
2197	Robert Wagner Property	PHMC	Undetermined
2198	Schultz Farm	PHMC	Undetermined
2199	Schwenkfelder Cemetery	PHMC	Undetermined
2202	Stauffer Road Property	PHMC	Undetermined
2203	Thompson Forge, Rush's Forge	PHMC	Undetermined
2204	Tim Noble Property	PHMC	Undetermined
2205	Tollgate Road	PHMC	Undetermined
2206	Treichler Gristmill	Meiser	Unknown
2207	Treichler Homestead	PHMC	Undetermined
2209	Wellers Forge	PHMC	Undetermined
2210	Wiegner-Schelly House, Grubb Residence	PHMC	Eligible
5924	Warren Backenstoe Farm, Barthmeier Property	BCPC	Undetermined
6631	Geisinger Barn	PHMC	Unknown
6632	Perkiomen Railroad (Emmaus Junction to Perkiomen Junction)	PHMC	Undetermined
6633	Bridge	PHMC	Ineligible

Chapter 7 - Cultural Resource Analysis

Resource ID	Historic Name	Source	National Register Status*
6634	Ferrence Barn	PHMC	Unknown
6635	Bridge	PHMC	Ineligible
6636	Mann Barn	PHMC	Unknown
6637	Tettermer Barn	PHMC	Unknown
6638	Solt Greenhouse	PHMC	Ineligible
6639	Bridge	PHMC	Ineligible
6640	Jacob Knetz House	PHMC	Ineligible
6641	Bridge	PHMC	Ineligible
6305	Philadelphia and Reading Railroad	PHMC	Undetermined
7133	Augustus Spaar's Hereford Hotel	BCPC	Unknown

Washington

Resource ID	Historic Name	Source	National Register Status*
5618	Adam Schultz Farm	PHMC	Undetermined
5619	Andrew Stauffer Farm	PHMC	Undetermined
5620	Bachman's Tavern	PHMC	Undetermined
5622	Barto Bridge	PHMC	Listed
5624	Barto General Store	Meiser	Unknown
5625	Barto Hotel	PHMC	Undetermined
5626	Barto Railroad Station	Meiser	Unknown
5627	Bechtel House	PHMC	Undetermined
5628	Bechtel Oil Mill	PHMC	Undetermined
5629	Benjamin Heydt Farm	PHMC	Undetermined
5631	Borneman Mill	PHMC	Listed
5632	Bower-Moyer-Ehst Farm	PHMC	Undetermined
5633	C.E. Westervelt Property	PHMC	Undetermined
5634	Charles Henry Home	PHMC	Undetermined
5635	Colebrookdale Hotel / Post Office	Meiser	Unknown
5636	Covely Foundry	Meiser	Unknown
5639	Dale Office Mansion	Meiser	Unknown
5640	Dotterer Farm	PHMC	Undetermined
5641	Eshbach House	PHMC	Undetermined
5643	Focht's Forge	Meiser	Unknown
5644	Frederick Brandt Property, Christian Bear Property	PHMC	Undetermined
5645	General Store / Post Office	Meiser	Unknown
5646	Gilbert Farm	PHMC	Undetermined
5647	Heydt's School	Meiser	Unknown
5648	John Glaes Pottery Home	Meiser	Unknown
5649	Kermit and Catherine Eshbach Property, Andrew Schultz Farmstead	PHMC	Undetermined
5650	Kuhn Farm	PHMC	Undetermined

Chapter 7 - Cultural Resource Analysis

Resource ID	Historic Name	Source	National Register Status*
5651	Kulp Sawmill	PHMC	Undetermined
5652	Latshaw-Saylor Mill	PHMC	Undetermined
5653	Lloyd Hill Property	PHMC	Undetermined
5654	Michael & Mimi Brooks Property	PHMC	Undetermined
5655	Moatz Farm	PHMC	Undetermined
5656	Mt. Pleasant Forge	PHMC	Undetermined
5657	Mt. Pleasant Furnace	PHMC	Undetermined
5658	Philip Christman House	PHMC	Listed
5659	Raymond Nuss Property	PHMC	Undetermined
5660	Reichert Homestead	PHMC	Undetermined
5661	Rita Oteri Property	PHMC	Undetermined
5662	Robert Hoffman Property	PHMC	Undetermined
5663	Schultz Farm	PHMC	Undetermined
5664	Schultz Gristmill	PHMC	Undetermined
5665	Schultz House	PHMC	Undetermined
5667	Schwenkfelder Homestead	PHMC	Undetermined
5668	Stauffer Homestead	PHMC	Undetermined
5669	Thomas Edison Iron Mine	Meiser	Unknown
5670	Treichler House	PHMC	Ineligible
5671	Wagonhurst Log House	PHMC	Undetermined
5672	Washington Hotel	PHMC	Undetermined
5673	Zerr-Stauffer Farm	PHMC	Undetermined
6677	Bridge	PHMC	Ineligible
6678	Bridge	PHMC	Ineligible
6679	Bridge	PHMC	Ineligible
6680	Bridge	PHMC	Ineligible
6681	Bridge	PHMC	Ineligible
6682	Bridge	PHMC	Ineligible
6683	Bridge	PHMC	Ineligible
6684	Bridge	PHMC	Ineligible
5630	Bethany Church	PHMC	Undetermined
6305	Philadelphia and Reading Railroad	PHMC	Undetermined

Source: Berks County Historic Resources Database

List of Historic Districts
(See numbers on the Historic Resources Maps)

Hereford

Resource ID	Historic Name	Source	National Register Status*
2175	Village of Herefordville	PHMC	Undetermined
2178	Village of Huff's Church	PHMC	Undetermined
2183	Hunter's Mill District	PHMC	Listed
2191	Village of Perryville, Village Of Harlem	PHMC	Undetermined
2201	Village of Seisholtzville	PHMC	Eligible
2208	Village of Treichlersville	PHMC	Eligible

Washington

Resource ID	Historic Name	Source	National Register Status*
5621	Village of Barto	PHMC	Undetermined
5637	Village of Dale	PHMC	Undetermined
5638	Dale Furnace and Forge Historic District	PHMC	Listed
5642	Village of Eshbach	PHMC	Undetermined
5666	Village of Schultzville	PHMC	Undetermined
6512	Falkners Swamp Rural Historic District	PHMC	Ineligible

Source: Berks County Historic Resources Database

* National Register Status Defined

Listed: Historical site/district is listed on the National Register

Eligible: Historical site/district is considered eligible according to the PA State Historic Preservation office

Ineligible: Historical site/district is considered not eligible according to PA State Historic Preservation office.

Undetermined: The PA State Historic preservation office has record of the historical site/district, but it has never been evaluated to determine if the site/district is eligible, ineligible or listed.

Unknown: This is not a national register status. This status signifies a historical site/district identified by George Meiser, IX or surveys returned to the Berks County Planning Commission that are not identified in the National Register database, but are still historically significant to Berks County.

State Historic Marker Program

The Pennsylvania Historical Marker Program is coordinated by the Pennsylvania Historic and Museum Commission (PHMC). It was begun in 1946, overseeing approximately 2,000 markers in the state. The blue and gold signs are placed along highways and city streets dedicating significant historical events and places.

There are three Historical Marker signs in the region. There is one roadside Historical Marker in Hereford Township, highlighting the Hereford Furnace. The marker, located at the junction of SR 29 and SR 100, was dedicated on May 5, 1967. It marks the establishment of an iron manufacturing business by Thomas Maybury in 1745 on the west bank of the Perkiomen Creek. Maybury



is credited with producing the first cast-iron cooking-stove in North America here in 1767.

The other two Historical Markers are located within Washington Township. One is located near the intersection of Forgedale Road and SR 100 and identifies the site of the Forgedale Iron Works. Another sign identifies the Dale Furnace and Forge Historic District also known as the Dale Iron Works and Mt. Chalfont Furnace.

Key Trends and Issues

- **The historic value of several properties and villages within the planning area has been documented.** The planning area contains properties already listed on the National Register of Historic Places. There are four properties currently listed on the National Register of Historic Places and three that are eligible. There are twelve Historic Districts in the planning area; these areas are protected under authority of the home municipality. Additional resources of state and county significance have been identified. There are a total of 157 identified historic resources in the planning area.
- **Conservation organizations are working to protect cultural resources of the region.** The Schuylkill River Greenway Association and Berks Nature are aware of resources in the planning area.
- **One historical marker commemorates an early business of national significance.** The planning area is home to the first cast-iron cooking-stove made in North America, 1767.



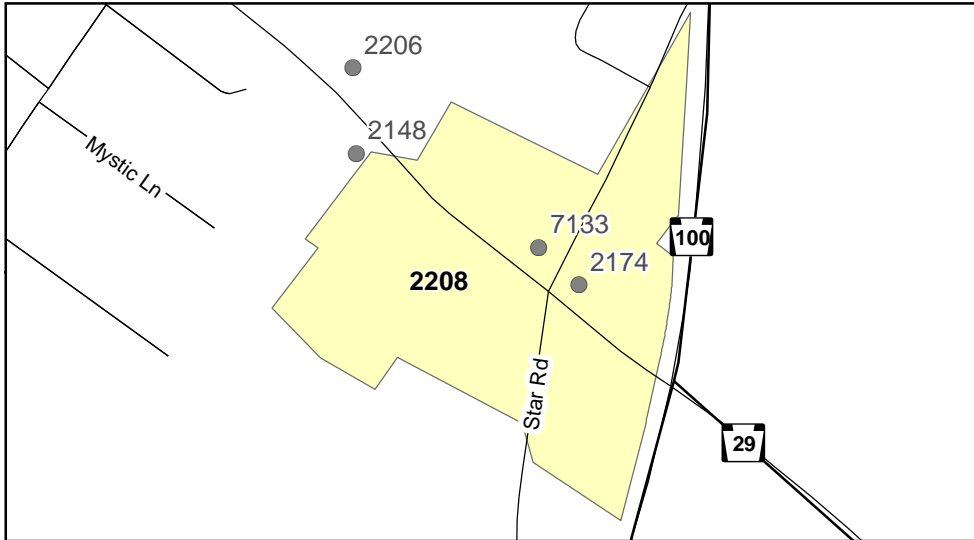
Hereford Hotel

Historic Sites and Districts Hereford Township

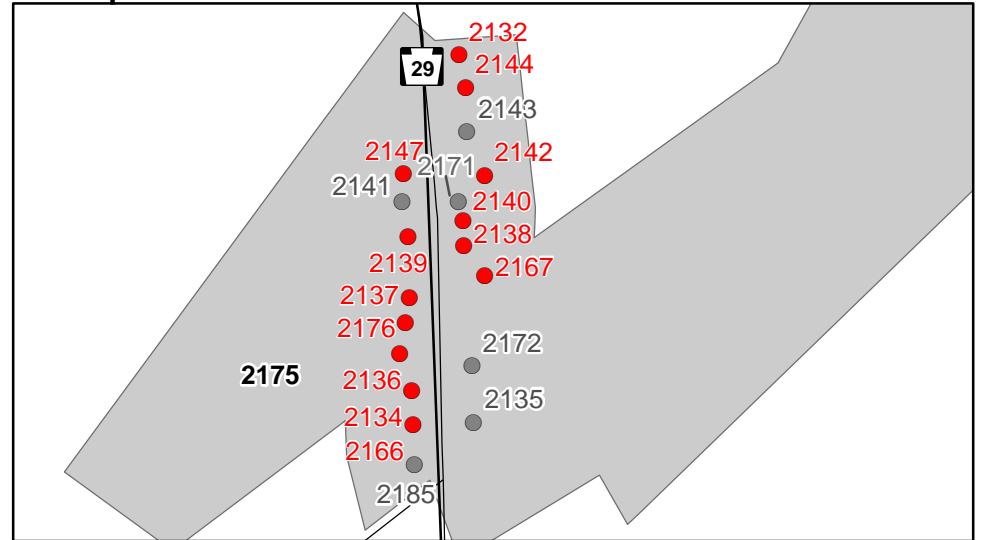
FIGURE 14
Hereford and Washington Joint Comprehensive Plan Update
Adopted: August 2018



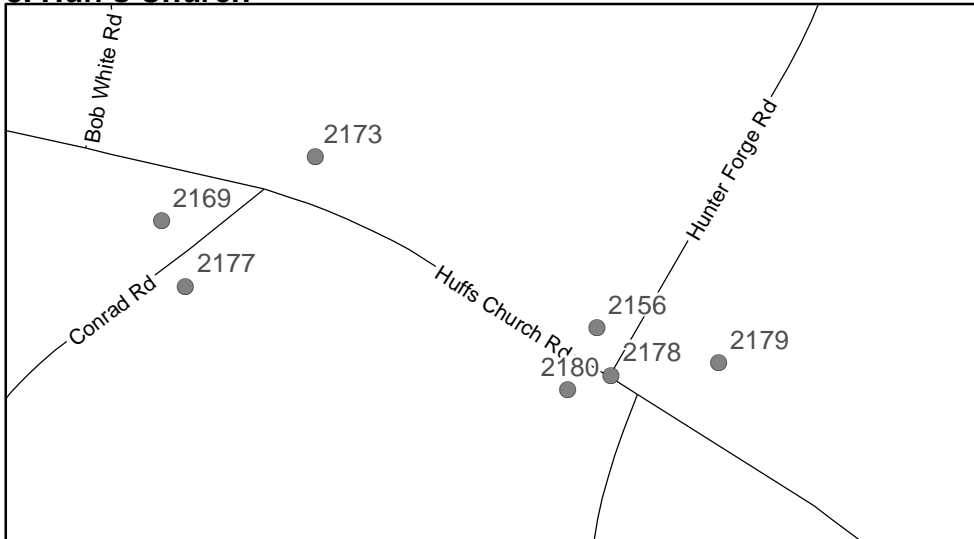
1. Hereford



2. Chapel



3. Huff's Church



4. Clayton



* Includes sites identified by surveys conducted from one or more of the following groups: Pennsylvania Historic Museum Commission, Berks Nature, George Meiser, BCPC, local historic volunteers and local historical societies.

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

Published by the Berks County Planning Commission

Legend

— State Route

— Roads

National Register Listed Districts

National Register Eligible Districts

National Register Ineligible Districts

Other Historic Districts*

National Register Listed

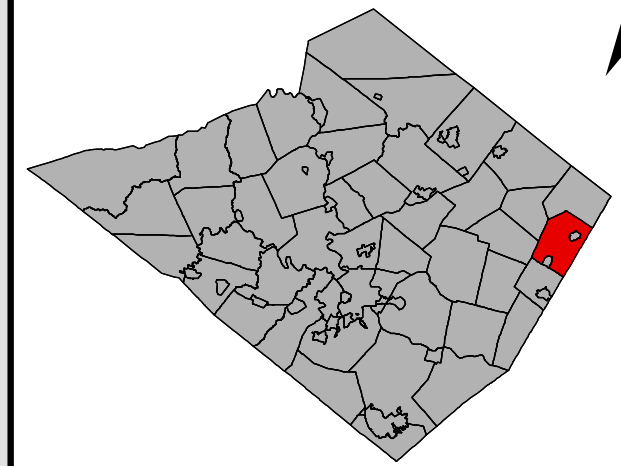
National Register Eligible

National Register Ineligible

Other Historic Sites*



Historic Sites and Districts Washington Township



Legend

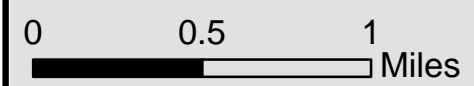
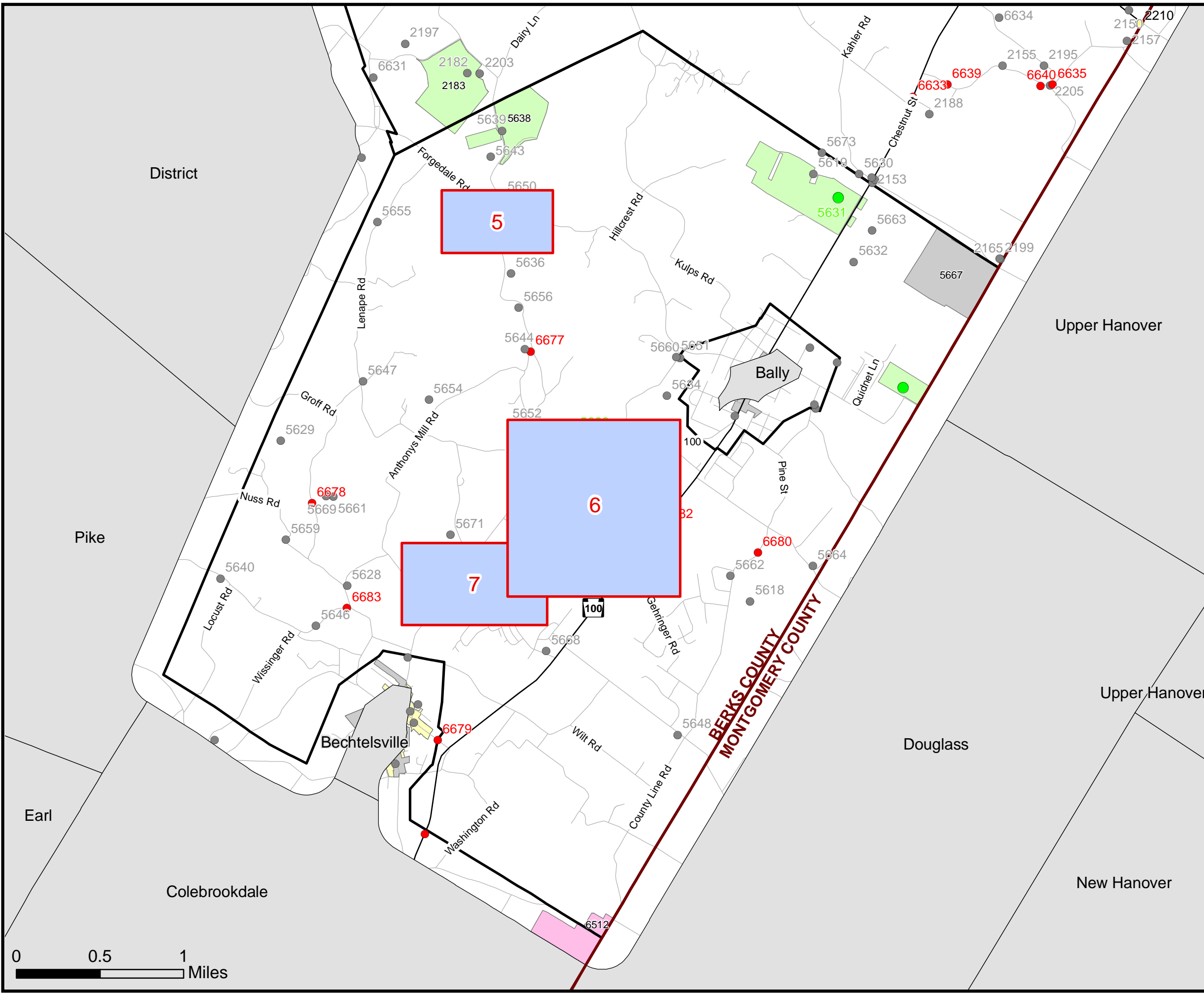
- National Register Listed
- National Register Eligible
- National Register Ineligible
- Other Historic Sites*
- National Register Listed Districts
- National Register Eligible Districts
- National Register Ineligible Districts
- Other Historic Districts*
- Roads
- Railroads- Active
- Municipal Boundaries
- County

* Includes sites identified by surveys conducted from one or more of the following groups: Pennsylvania Historic Museum Commission, Berks Nature, George Meiser, BCPC, local historic volunteers and local historical societies.

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

Published by the Berks County Planning Commission

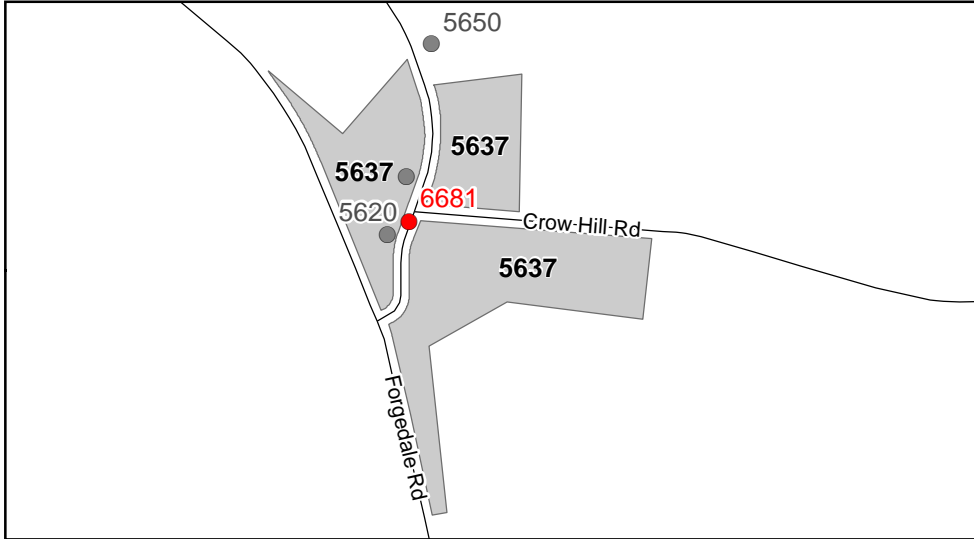
BAB 8/18



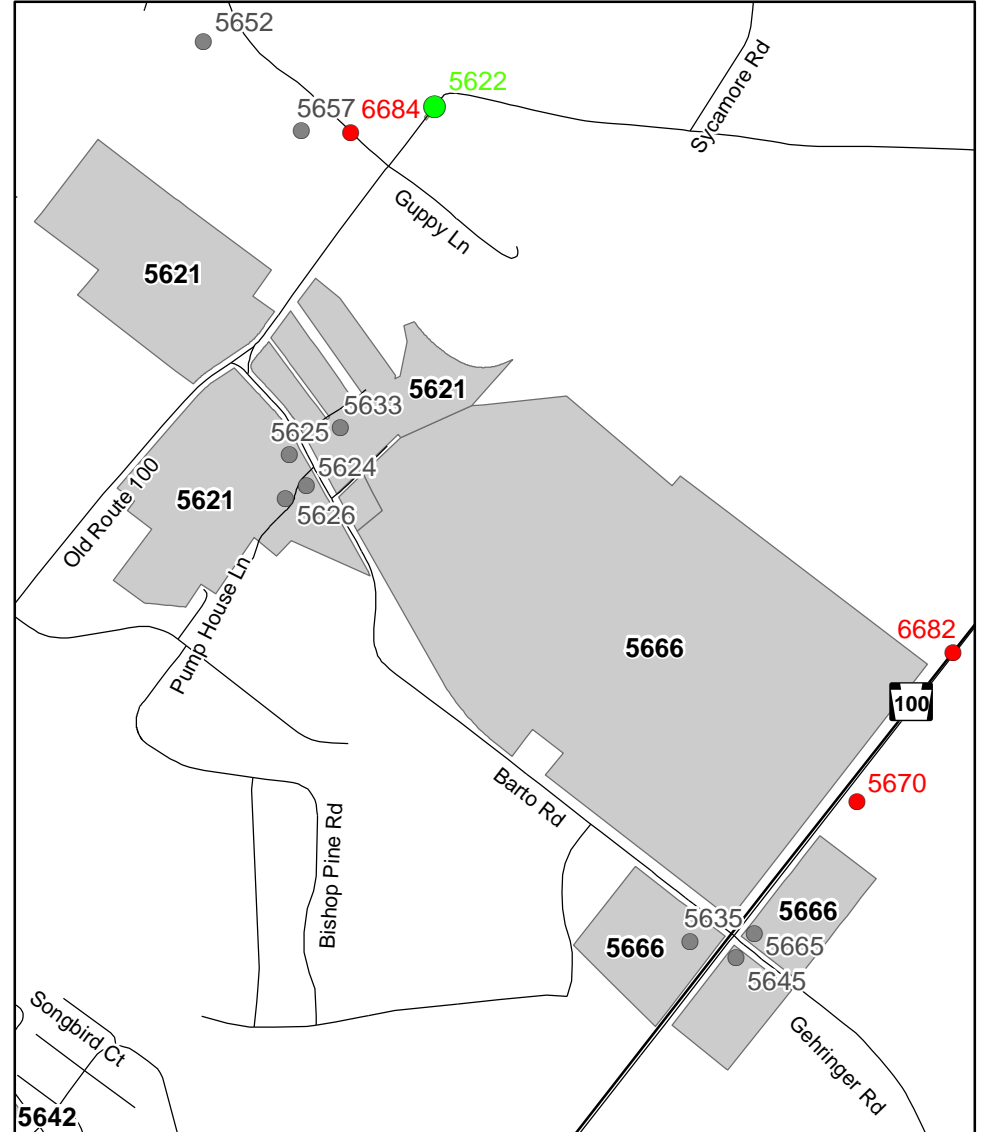
Historic Sites and Districts Washington Township



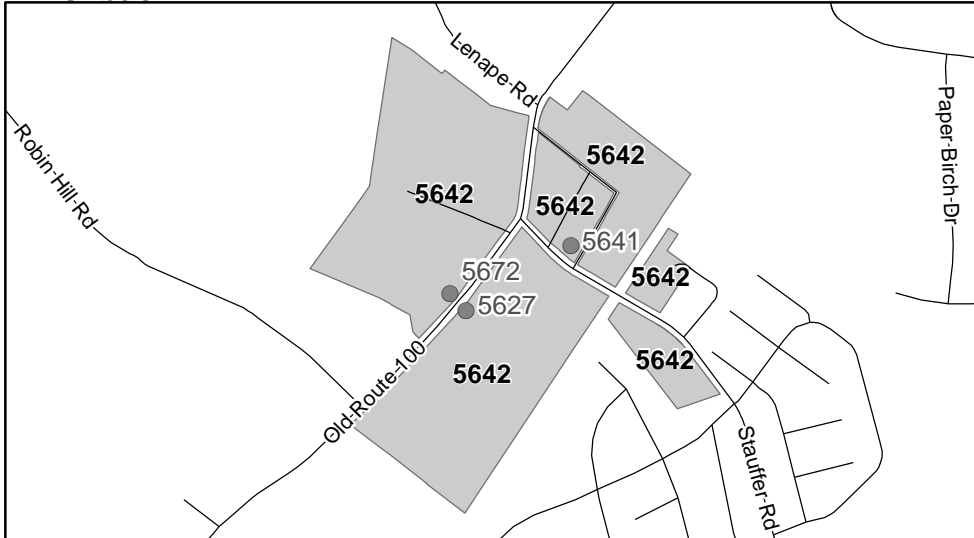
5. Dale



6. Barto and Schultzville



7. Eshbach



* Includes sites identified by surveys conducted from one or more of the following groups: Pennsylvania Historic Museum Commission, Berks Nature, George Meiser, BCPC, local historic volunteers and local historical societies.

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

Published by the Berks County Planning Commission

Legend

- State Route
- Roads

- National Register Listed
- National Register Eligible
- National Register Ineligible
- Other Historic Sites*
- National Register Listed Districts
- National Register Eligible Districts
- National Register Ineligible Districts
- Other Historic Districts*



TRANSPORTATION ANALYSIS

Introduction

The objective of a well-planned transportation system is to develop safe, convenient, and reliable infrastructure for personal and freight mobility in and around the townships. Based on the worker flow data in Chapter 5, both townships are net exporters of labor in that; the number of workers who leave the townships to work exceeds those that come into the townships to work.

With major industrial and commercial areas in nearby Lehigh and Montgomery counties, living in Hereford and Washington townships provides ample choices for employment. By 2014, most residents have a commute of between 10 minutes to a half hour. Most Hereford Township residents commute to the southeast, primarily to East Greenville, Pennsburg and Red Hill. Most Washington Township residents commute to the south to the Boyertown/Gilbertsville area. Low transit use is likely due to the lack of any transit services provided in the township; however, transit services are provided within nearby municipalities in Boyertown and in the aforementioned Montgomery county boroughs.

Percentage of Residents - Commute to Work in Miles - 2014				
Municipality	Less than 10	11-24 mi.	25-50	50+
Hereford Township	33.8	39.4	16.3	10.5
Washington Township	31.7	42.2	15.3	10.8

U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program

Direction Residents Commute to Work -2014		
Direction	Hereford	Washington
North	11%	8%
Northeast	12%	10%
East	7%	9%
Southeast	26%	20%
South	13%	21%
Southwest	11%	14%
West	14%	14%
Northwest	6%	3%

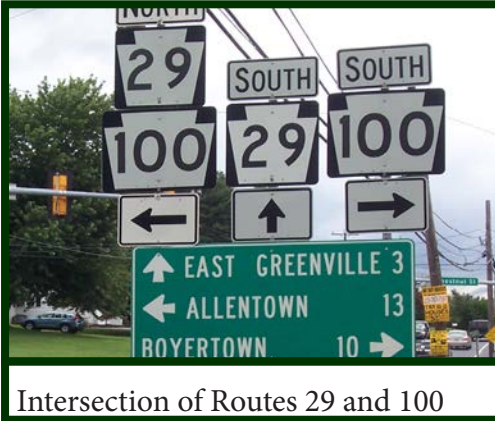
U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program

Hereford and Washington townships strive to maintain and improve their overall transportation system to meet these objectives. The area is well connected to Berks and Montgomery counties, enabling local and regional access for businesses and neighborhoods. Similar to other rural Berks County communities, motor vehicle use is presently the primary form of circulation and transportation within the townships. There are almost 105 miles of public roadways in the Hereford/Washington planning area and 63% are owned and maintained by the townships.

Road Ownership by Municipality			
Type	Hereford	Washington	Combined
Local	30.1	33.0	63.1
State	21.4	13.1	34.5
Private	3.0	4.0	7.0
TOTAL	54.5	50.1	104.6

Source: PennDOT

Chapter 8 - Transportation Analysis



Intersection of Routes 29 and 100

Routes 100 and 29 are the principal state road corridors in the area. These and other major traffic routes (Old Route 100, Seisholtzville, Kutztown and Hoffmansville roads) in the townships are shown on the maps following this chapter. In general, the state owned roadways serve a regional role and provide mobility to travel quickly between the townships and neighboring municipalities. The local network primarily serves shorter local trips and provides access to destinations in the townships and Bally and Bechtelsville boroughs.

In addition to experiencing population growth discussed in Chapter 5, the demographic and socioeconomic characteristics of the population in Hereford and Washington townships have changed significantly and will continue to change in the future. These demographic changes contain challenges for the provision of transportation facilities and services. For example, as the area's population ages, especially in Hereford Township, it becomes more important to provide transportation options

and services geared to their needs with more emphasis on safety improvements tailored to elderly drivers.

It is also important to remember that there is a direct correlation between land use and transportation needs especially as it pertains to the Route 100 corridor. Understanding that both townships have a substantial amount of open land along Route 100, access management to these parcels, should they be developed in the future, will always be an important feature of any development plan. The traffic carrying capacity of Route 100 should always be a primary transportation focus of both townships, not solely PennDOT.

The highest priorities of this plan will be to preserve and maintain the existing transportation system with a primary focus on maintaining and improving our existing roads and bridges and to preserve the through carrying capacity of Route 100 through access management strategies and legislation.

Transportation Planning Context

A key aspect of transportation planning is effective coordination between the different government agencies responsible for maintaining the various parts of the transportation infrastructure. In addition to Hereford and Washington townships, these include the Reading Area Transportation Study (RATS), the Pennsylvania Department of Transportation (PennDOT), Berks County, and neighboring communities. As part of the process of preparing this transportation chapter, the RATS FFY 2017-2040 Long Range Transportation Plan (LRTP) was reviewed and considered. This section of the plan will focus on the local transportation infrastructure. Details on the PennDOT owned infrastructure are found in the RATS Transportation Improvement Program (TIP) and the LRTP.

RATS is the regional transportation planning organization for the Reading, Pennsylvania metropolitan area. Working with PennDOT and the Federal Highway Administration (FHWA), RATS facilitates and is responsible for prioritizing approximately \$80 million annually to advance transportation improvement projects throughout the county. PennDOT, South Central Transportation Authority (SCTA), and the 73 municipalities in the County are responsible for project implementation.

Capital Improvement Plans

Capital Improvement Plans (CIP) outline a schedule of public service expenditures over a certain period of years. The CIP does not address all of the capital expenditures for the Township, but provides for large, physical improvements that are permanent, including the basic facilities, services and installations needed for the functioning of the community. These include utilities, municipal facilities and other miscellaneous projects.

Roads

As shown on the maps accompanying this chapter, the townships have over 63 miles of roads and streets to maintain. The streets and roads owned by the townships are part of the Pennsylvania State Liquid Fuels Programs that provides state payments to the municipalities for road maintenance and reconstruction based

on population and miles of roads meeting PennDOT specifications. However, the Liquid Fuels funds comprise only a small part of the municipal maintenance budgets and do not cover the cost of long-term maintenance and reconstruction.

Shown below is a comparison of the liquid fuels allocations in 2006 and 2016. The amount of money allocated to each municipality increased and overall, LFF increased 53%. Streets and roads owned and maintained by both municipalities are in good condition. Both townships will focus on continued maintenance, including resurfacing, and monitor the need to correct specific drainage problems and add shoulders based on available funding. Paving projects are scheduled annually based on street/road condition and available funding.

Liquid Fuels Allocations by Municipality 2006 & 2016						
2006			2016			% Increase
Municipality	Miles	Allocation	Municipality	Miles	Allocation	
Hereford	30.08	\$98,670.43	Hereford	30.08	\$144,576	46.5%
Washington	32.56	\$105,842.75	Washington	33.04	\$167,884	58.6%
TOTAL	62.64	\$204,513.18	TOTAL	63.12	\$312,460	52.8%

Source: PennDOT Bureau of Municipal Services MLF Allocations Report, 2006 & 2016

Figures 17 and 18 show the federal functional classifications assigned to roads in the area. The functional classification of a roadway may change over time based on changing traffic conditions. Classification of a road is based on an analysis of the volume of traffic using the facility, the type of trip provided, the length of trip, and the speed of the trip.

Arterials provide the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control. These roads are typically classified as principal arterials (sub-grouped by Interstate, Freeway/ Expressway, and other principal arterials) and minor arterials. Examples of roads of this type in the area include Routes 100 and 29, Kutztown Road and Hoffmansville Road.

Collectors provide a lower level of service at a slower speed. They provide service for shorter distances by collecting traffic from local roads and connecting them with arterials. Collectors are classified as major collectors and minor collectors. These roads provide access to individual properties and serve short distance, low speed trips. Examples include Old Route 100, Huff’s Church Road and Forgedale Road.

Average Annual Daily Traffic (AADT) is the total number of vehicles traveling on a road on an average day. Annual average daily traffic (AADT) volumes provide an overview of the traffic flow in the townships for planning purposes. An important point to remember is that AADT does not reflect daily and seasonal traffic volumes that can far exceed AADT. The proportionate increase in daily and seasonal counts can be significant. PennDOT conducts traffic counts on state roads, and the counts provide the means to assess the overall traffic conditions in the area. Figures 17 and 18 illustrate 2014 AADT on area roadways. The heaviest traveled roads are the arterials in the area, namely Route 100.

Roadway surfaces in the area are mostly comprised of paved surface roadways. Of the paved surface roadways, pavements are either asphalt or concrete. PennDOT assesses pavement surface conditions using a variety of metrics that include International Roughness Index (IRI). IRI measures pavement roughness in terms of the number of inches per mile that a laser, mounted in a specialized van, jumps as it is driven along the highway – the lower the IRI, the smoother the ride. Since PennDOT uses IRI in its pavement condition performance measures, Figures 19 and 20 show the condition of pavement on state roads in the area.

Bridges

Overall, the bridges in Hereford and Washington townships are in good shape. In 2014, there are 30 bridges in the area, with the majority owned by PennDOT. All bridges are open. These bridges are those that require inspections – state bridges longer than eight feet and local bridges longer than 20 feet. Figures 19 and 20 show the approximate location of bridges in the area.

Chapter 8 - Transportation Analysis

Bridges in Hereford Township												
Owner	Facility	Location	Suff. Rate	Year Built	Year Recon.	Length	Deck Width	Deck Area	ADT Total	Status	SD	FO
Hereford Township	Camp Mensch Mill	South Of Huffs Church	70	1970	*	40	38	1,536	100	OPEN	*	*
Hereford Township	Airport Road (Rush's)	South Of Huffs Church	90	1979	*	25	32	795	120	OPEN	*	*
Hereford Township	Kriebel Road	1/2 Mile S. Of Hereford	73	1928	*	55	20	1,089	100	OPEN	*	FO
Berks County	Airport Road	3 Mi. Nw Of Bally	97	1975	*	49	40	1,960	204	OPEN	*	*
PADOT	SR 100(LR 284)	Village Of Clayton	94	1951	1990	32	41	1,312	12,698	OPEN	*	*
PADOT	SR 100(LR 284)	Hereford	94	1951	1990	47	41	1,927	12,368	OPEN	*	--
PADOT	SR 1010(LR 06119)	Village Of Harlem	83	1943	*	15	47	698	2,891	OPEN	*	--
PADOT	SR 1010(LR 06119)	Seisholtzville Road	94	1960	*	58	38	2,175	2,891	OPEN	*	--
PADOT	SR 1022 (LR 06140)	Huff Church	95	1962	*	39	44	1,697	2,572	OPEN	*	--
PADOT	SR 1022 (LR 06140)	Huffs Church Road	65	1934	*	10	0	190	2,047	OPEN	*	FO
PADOT	SR 1022 (LR 06140)	Huff Ch.Rd.@Capt.Wolfe Rd	64	1934	*	19	26	490	2,047	OPEN	*	FO
PADOT	SR 1022(APPL. 1)	Tollgate Road	66	1909	*	34	26	867	1,864	OPEN	*	FO
PADOT	SR 1047(LR 06014)	Dale Road	97	1985	*	9	0	207	506	OPEN	*	*
PADOT	SR 1022 (APPL.1)	Weigner's Bridge	93	2013	*	105	29	3,045	1,864	OPEN	*	*

Source: PennDOT

Bridges in Washington Township												
Owner	Facility	Location	Suff. Rate	Year Built	Year Recon.	Length	Deck Area	ADT Total	Status	SD	FO	
Washington Township	Heydt's School House Road	Near Bechtelsville	93	2005	*	32	954	275	OPEN	*	*	
Washington Township	Heydt's School House Road	Near Bechtelsville	97	1987	*	24	847	100	OPEN	*	*	
Berks County	County Line Road (Burkey's)	1 Mi. S. Of Bally	26	1919	1956	68	1,244	1,415	POSTED	SD	*	
PADOT	Pa 100 (LR 284)	North Side Of Bally	72	1951	*	15	618	13,156	OPEN	*	*	
PADOT	SR 1030 (LR 06095)	Forgedale Road	83	1960	*	19	675	538	OPEN	*	*	
PADOT	SR 1030 (LR 06095)	Forgedale Road	91	1965	*	75	2,513	538	OPEN	*	*	
PADOT	SR 1030 (LR 06095)	Forgedale Road, Barto	53	1927	2013	60	1,218	538	OPEN	SD	*	
PADOT	SR 1047 (LR 06014)	Dale Rd. & Crow Hill Rd.	65	1920	*	45	900	506	OPEN	*	FO	
PADOT	SR 2032(LR 06098)	Hill Church Road	68	1924	*	34	704	549	OPEN	*	FO	
PADOT	SR 2032(LR 06098)	Hill Church Rd. Bechtelsville	81	1916	*	19	323	549	OPEN	*	FO	
PADOT	SR 2032 (LR06098Sp)	Bechtelsville, E.Chestnut	72	1941	1964	25	763	1,165	POSTED	*	*	
PADOT	SR 2044 (LR 06195)	Mill St. Bechtelsville	100	1965	2014	61	2,044	515	OPEN	*	*	
PADOT	SR 2069 (LR 284)	Village Of Eshbach	64	1908	1969	19	428	2,053	OPEN	*	FO	
PADOT	SR 2069(LR 284)	Barto Bridge	48	1908	*	82	1,599	1,363	OPEN	SD	*	
PADOT	SR 2069 (LR 284)	Old Route 100	65	1915	*	12	264	1,363	OPEN	*	FO	
PADOT	Pa 100 (LR 06026)	0.4 Mi.N. Of Passmore	94	2014	*	120	4,968	14,609	OPEN	*	*	

Source: PennDOT

Load posting a bridge is required by the National Bridge Inspection Standards when a bridge is not capable of safely carrying a legal load. If a bridge is deemed deficient, officials will post a maximum load for the bridge. Bridges may be posted for other load-capacity restrictions including speed and number of vehicles permitted on the bridge. There are two (2) load-posted bridges in the area. Burkey's Bridge, owned by Berks County and located on County Line Road in Washington Township, is scheduled for replacement in 2018.

Structurally deficient bridges are characterized by deteriorated conditions of the major components of a bridge. This may include cracked concrete, the bridge deck, the support structure, or the entire bridge itself. A "structurally deficient" (SD) designation does not imply that a bridge is unsafe. However, such bridges typically require significant repair to remain in service and would eventually require major rehabilitation or replacement to address the underlying deficiency. There are four (4) such bridges in the area.

A functionally obsolete bridge does not meet current design standards. Examples include a bridge that is too

narrow, has inadequate under-clearances, has insufficient load-carrying capacity, is poorly aligned with the roadway, or can no longer adequately service today’s traffic. Functionally obsolete does not mean the bridge is unsafe or necessarily structurally deficient. It means that the bridge is showing its age and should be upgraded or replaced to improve its function. The area has 11 such bridges.

Congested Corridors

RATS developed a Congestion Management Process (CMP) in May 2016 that included an examination of the 38 most congested corridors in the County. These corridors were ranked using both a Travel Time Index (TTI) and the Average Annual Daily Trips (AADT) in that corridor. The TTI is the ratio of the peak-period travel time to the free flow travel time. This congested speed data, from purchased GPS information, shows peak period travel (7-9 a.m. and 4-6 p.m.) speeds as a function of free-flow (non-congested) speeds. By plotting segments with TTI greater than 1.20 (speeds 20 percent slower than free-flow averages), congested segments can be easily plotted. Please note that these rankings are not a definitive account of congestion along the network or a representation of prioritizing one corridor over another for improvements. Rather, it is an introduction to useful data and highlights the bottlenecks and most congested segments in Hereford and Washington townships. Figures 21 and 22 show Routes 100 and 29 are congested corridors. The rankings shown on the maps represent where the corridor is ranked countywide.

Most Congested Corridors Ranked by Travel Time and Daily Traffic in Hereford/Washington Townships				
County Rank	Area Rank	Corridor	Peak TTI	Max AADT
21	1	PA Route 100 (Hereford Bally Area)	1.60	18,002
36	2	PA Route 29 (Hereford Township)	1.18	8,326

Source: RATS Congestion Management Process, 2016

Safety

Maintaining a safe transportation system is essential to sustaining and enhancing the quality of life for Berks County residents. Deaths and injuries resulting from traffic crashes are a public health concern and impact local communities with medical costs, lost wages, insurance costs, taxes, police, fire, and emergency medical services, legal and court costs, and property damage.

As part of its safety program, PennDOT collects traffic crash data for the entire state and reports data at the state, county, and municipal level. For the purposes of this plan, county crash data for Berks County was analyzed. Motor vehicle crashes generally involve multiple contributing factors that may be related to drivers, the roadway, or the vehicle(s) involved, thus making transportation safety a multidisciplinary concern.

Analyzing crash trends allows PennDOT, RATS and the townships to focus on setting goals to improve upon those trends by programming safety improvements to the road system itself or encouraging greater emphasis on education and enforcement.

Berks County has a significant amount of crashes – ranking sixth in the state in the number of overall crashes and fifth in the number of fatal crashes between 2009 and 2014. During the same span, there were 663 crashes in the two townships. Between 2009 and 2014, crashes declined 10% in the area. Six (6) of those crashes were fatal.

Total Number of Crashes in Hereford and Washington Townships										
MUNICIPALITY	2009	2010	2011	2012	2013	2014	2015	Total	% of Total	% Increase
Hereford	52	33	42	62	52	39	56	336	50.7%	7.7%
Washington	55	47	52	43	48	42	40	327	49.3%	-27.3%
TOTAL	107	80	94	105	100	81	96	663		-10.3%

Source: PennDOT, Pennsylvania Crash Facts and Statistics, 2009-2015

Chapter 8 - Transportation Analysis

Fatal Crashes in Hereford and Washington Townships								
MUNICIPALITY	2009	2010	2011	2012	2013	2014	2015	Total
Hereford	0	0	0	0	2	0	0	2
Washington	0	0	0	1	1	1	1	4
TOTAL	0	0	0	1	3	1	1	6

Source: PennDOT, Pennsylvania Crash Facts and Statistics, 2009-2015

Driving Behaviors

Unsafe driving behavior plays a significant role in crashes in Berks County. Aggressive driving and speeding are major factors, with distracted driving and tailgating as increasingly present contributors to crashes since 2009. We are more distracted and more prone to speeding than we were in the 1990s or 2000s. Of note, crashes because of distracted driving in Berks County began to rise with the mass adoption of smartphones in the early-mid 2000s.

Distracted Driving Behaviors that Contributed to Crashes in Hereford/Washington								
MUNICIPALITY	2009	2010	2011	2012	2013	2014	2015	Total
Hereford	3	4	5	9	1	3	5	30
Washington	6	5	8	4	9	5	1	38
TOTAL	9	9	13	13	10	8	6	68

Source: PennDOT, Pennsylvania Crash Facts and Statistics, 2009-2015

Aggressive Driving Behaviors that Contributed to Crashes in Hereford/Washington								
MUNICIPALITY	2009	2010	2011	2012	2013	2014	2015	Total
Hereford	29	14	24	38	30	19	28	182
Washington	31	27	29	29	27	21	20	184
TOTAL	60	41	53	67	57	40	48	366

Source: PennDOT, Pennsylvania Crash Facts and Statistics, 2009-2015

Non-Motorized Travel

Anytime you do not use your car, the bus or other motorized transport, you become a “non-motorized” traveler. Walking and biking are important parts of the county’s overall transportation system as they are two of the most basic and affordable forms of transportation available. Given the rural nature of the townships and the fact that nearly all goods and services are located several miles away in nearby communities, walking to places of work, shopping or entertainment is not realistic for the majority of residents in the two townships. It is simply much easier to drive.

Sidewalks in Hereford and Washington townships are mostly limited to subdivisions in Washington Township. Sidewalks provide a safe means for residents of these neighborhoods to access nearby attractions such as schools, parks, and adjacent subdivisions and for recreation. The key going forward will be considering internal connectivity and accessibility in all new subdivisions, along with consideration of connecting future development around these subdivisions to the existing sidewalk network. Going forward, new subdivisions, especially ones served by public sewer and water utilities, should have sidewalks on one side of all streets when within two (2) miles of a school, or 0.5 miles of a greenway, park or shopping area, or when there is an existing sidewalk network adjacent to the proposed development.

Trails

Presently, there are no planned or designated trails through either Hereford or Washington Township.

Freight

Figures 25 and 26 show the companies in the townships that generate freight and the annual sales in dollars, of that freight. While the bridges and local roads in the townships are important in the movement of freight, some are strategically more important than others, namely Routes 29 and 100. The state roads carry substantial amounts of freight from the local generators and connect Hereford and Washington townships with the Berks and Montgomery county markets. In the future, conflicts of present and future freight activities (e.g., truck trips, noise pollution), and community/residential activities (e.g., schools, residential neighborhoods) may be eased in the planning process by understanding and potentially segregating these activities through land use designation. For example, planning for the siting or truck routes between two freight generators, for truck trips, may be influenced by the presence of existing neighborhoods.

Filling vacant and/or undeveloped sites within or around either township's existing industrially zoned areas should be considered a high priority since these locations have a major beneficial factor behind them – location and a presence of existing industrial uses. Greenfield or previously undeveloped land should only be developed for freight intensive uses if located adjacent to or in close proximity to roads and bridges that can handle the truck traffic generated.

The townships do not have much railroad infrastructure or rail-served customers utilizing rail service. A small section of the East Penn Railroad Perkiomen Line crosses the northeastern portion of Hereford Township and a small section of the Colebrookdale Railroad Line is in the southern part of Washington Township. However, even though small, the townships should actively contribute to the decision-making process with local/state government and land owners to preserve these rail lines for continued and future railroad use and rail served companies and customers. Abandonment of railroad branch lines can result in additional localized truck traffic on township roads.

Airports/Mass Transit

The Comprehensive Plan provides no specific policies in regards to these parts of the county transportation network. Instead, it adopts the RATS FFY 2017-2040 Long Range Transportation Plan in regards to these modes as reference. The townships are not served, nor expected to be served in the future by the Berks Area Regional Transit Authority (BARTA)/South Central Regional Transit Association (SCTA). There is one small privately owned air field located in the southwest corner of Hereford Township. This airfield is registered with the Federal Aviation Administration and is formally known as PA 35 Area 52 Airport. This airfield is legally operational and approved for private take-off and landing as well as emergency landing of other aircraft as needed. The Butter Valley Golf Port, although not located in the planning region, it is adjacent to Washington Township in Montgomery County. This small, privately owned airport does have an impact on the planning area in that a portion of Washington Township falls within the airport hazard area for the airport and the Township has enacted airport hazard zoning regulations.

Future Planning Considerations

The importance of two state roads, Route 29 and Route 100, to the infrastructural, cultural, and economic life of both Hereford and Washington Townships cannot be overstated.

State Route 100 links both townships to the Lehigh Valley in the north, and the Schuylkill Valley in the South. State Route 29 links Route 100, and Hereford Township with the Perkiomen Valley to the east, and with the Emmaus/Cedar Crest/I-78 corridor to the north.

These two State roads, each limited to one lane in each direction—be it north to south, or east to west—profoundly limit the maximum vehicular traffic, and thereby the carrying capacity of the entire two-township road network.

Vehicular traffic originating in both Hereford and Washington Townships is restricted by the directionality of State Route 100 and Route 29. Both of these roads are primarily north-south routes and both of these roads direct vehicular traffic south into Chester County, and north into Lehigh County. Neither route 29 nor

Chapter 8 - Transportation Analysis

route 100 offer easy access for commuters wishing to travel east, west, southeast, or southwest – directions of travel that collectively include the destinations of 58% of Hereford Township’s commuters and 57% of Washington Township’s commuters. As primarily north-south roads, both State Route 29 and State Route 100 offer challenges to many of the two township’s commuters – particularly to those who wish to travel to the Philadelphia and Reading areas. Future planning should take into account the difficulties encountered by area residents as they try to travel “across the grain” of the area’s major roadways.

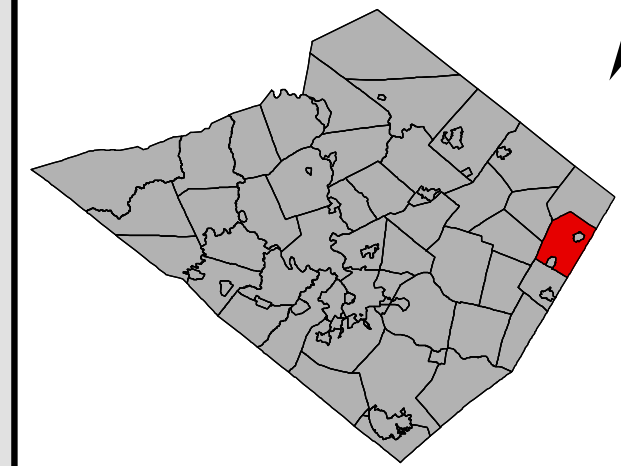
No developmental plan, and no large developmental subdivision, can ignore the realities defined by Hereford and Washington townships’ absolute dependence on these two state roads.

Nor can any regional plan speculate or gamble, on the unlikely expansion of either of these state routes within any foreseeable future.

Other than drainage, bridge, shoulder-work, and signage up-grades; the State of Pennsylvania is highly unlikely to re-build either State Route 29, or State Route 100 into a four (4) lane road. Such a project would require the massive exercise of eminent domain in both Hereford and Washington Townships, as well as a similar exercise within the boroughs of Bally, Bechtelsville (and also within East Greenville and Pennsburg in Montgomery County).

Responsible planning suggests that both Hereford and Washington Townships limit and carefully tailor growth so as not to exceed the finite carrying capacity of either Route 29, or Route 100. And such planning must take into account the quality of life of those residents of both townships, and of nearby boroughs, who live directly along both of these roads.

Road Classifications and Average Daily Traffic Washington Township



Legend

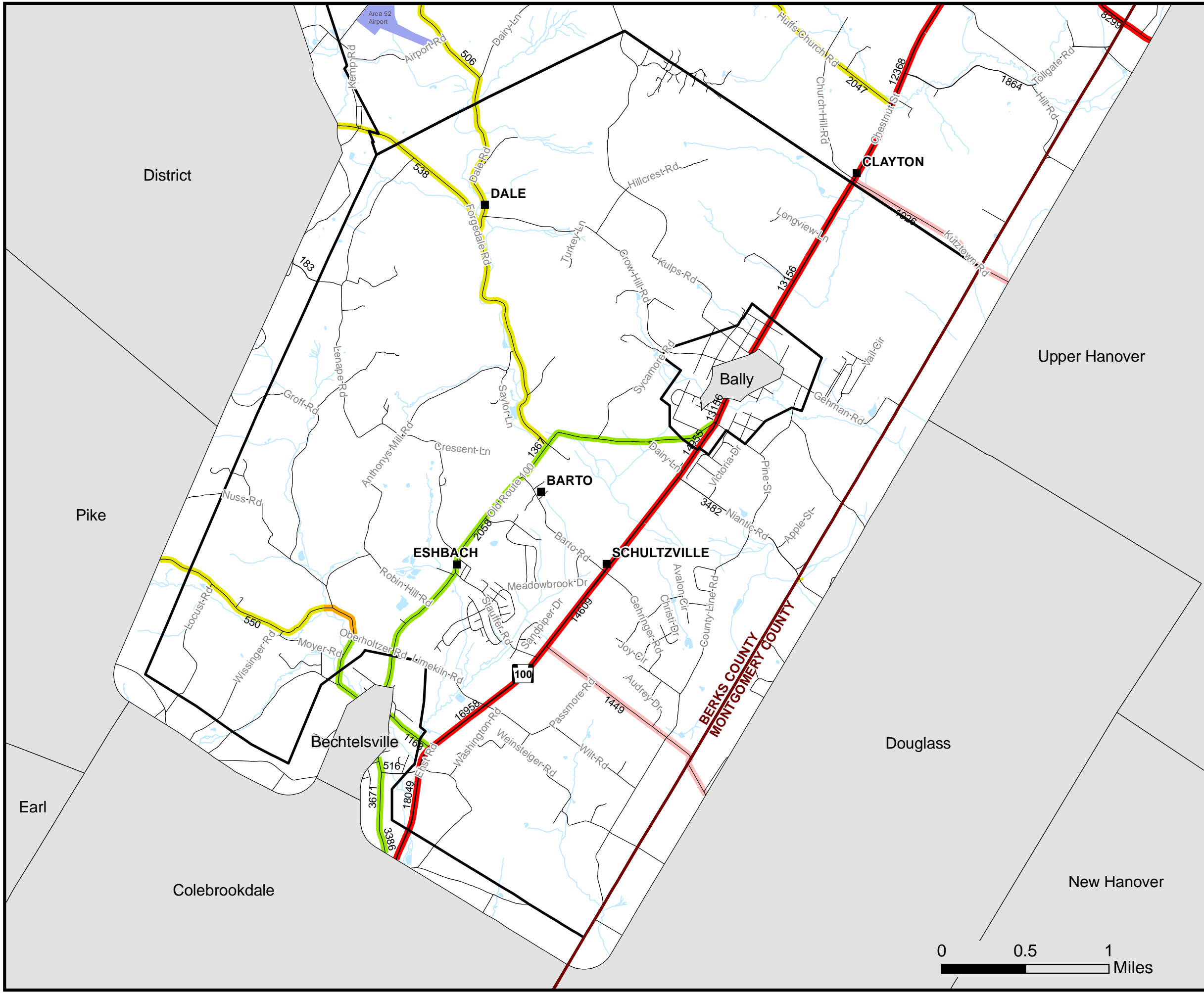
- Principal Arterials
- Minor Arterials
- Rural Major Collectors
- Rural Minor Collectors
- Urban Collectors

- -2056- Traffic Volume
- Villages
- Roads
- + + + + Railroads- Active
- Airport
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

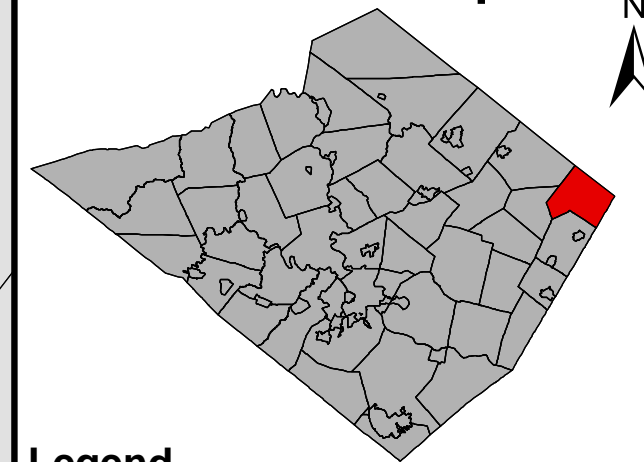
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT

Published by the Berks County Planning Commission

LFM 8/18



Bridges and Pavement Condition Hereford Township

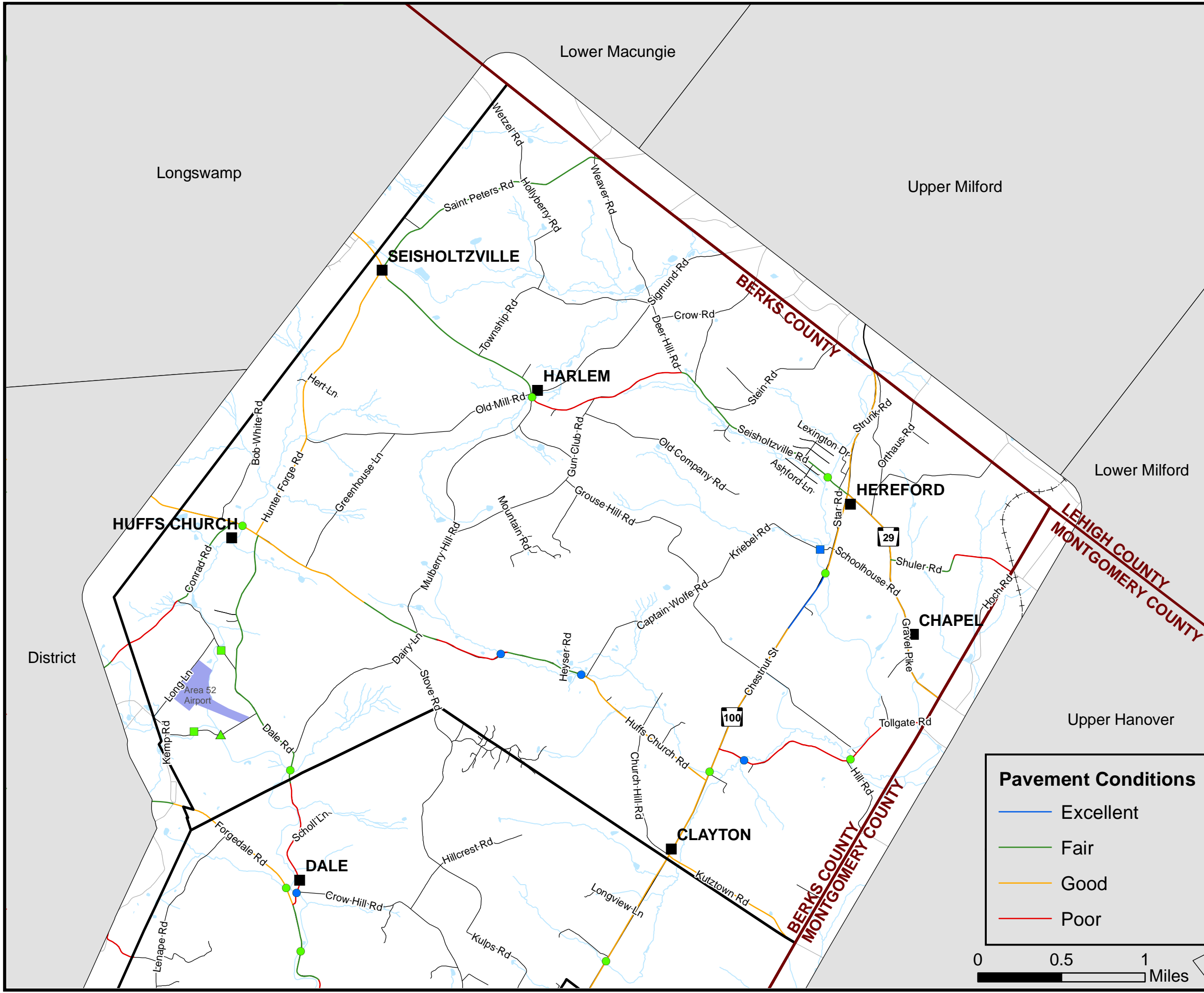


Legend

- State Bridges
- △ County Bridges
- Municipal Bridges
- Posted Bridges
- Red: Closed Bridges
- Orange: Structurally Deficient Bridges
- Blue: Functionally Obsolete Bridges
- Green: No Restrictions
- Villages
- Roads
- Railroads- Active
- Airport
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

Pavement Conditions

- Excellent
- Fair
- Good
- Poor



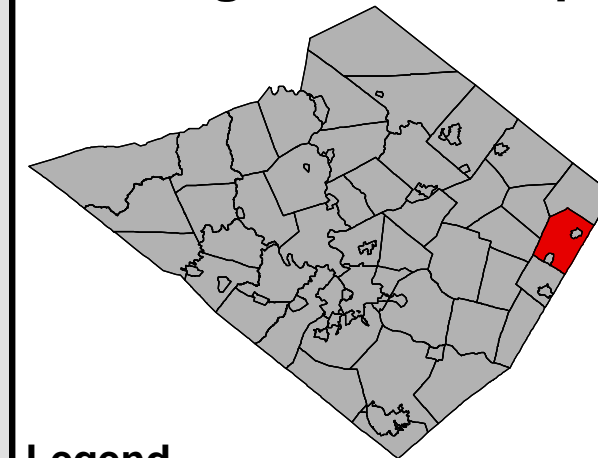
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT

Published by the Berks County Planning Commission

LFM 8/18



Bridges and Pavement Condition Washington Township

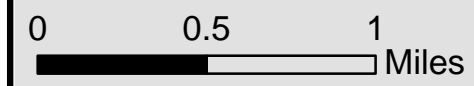
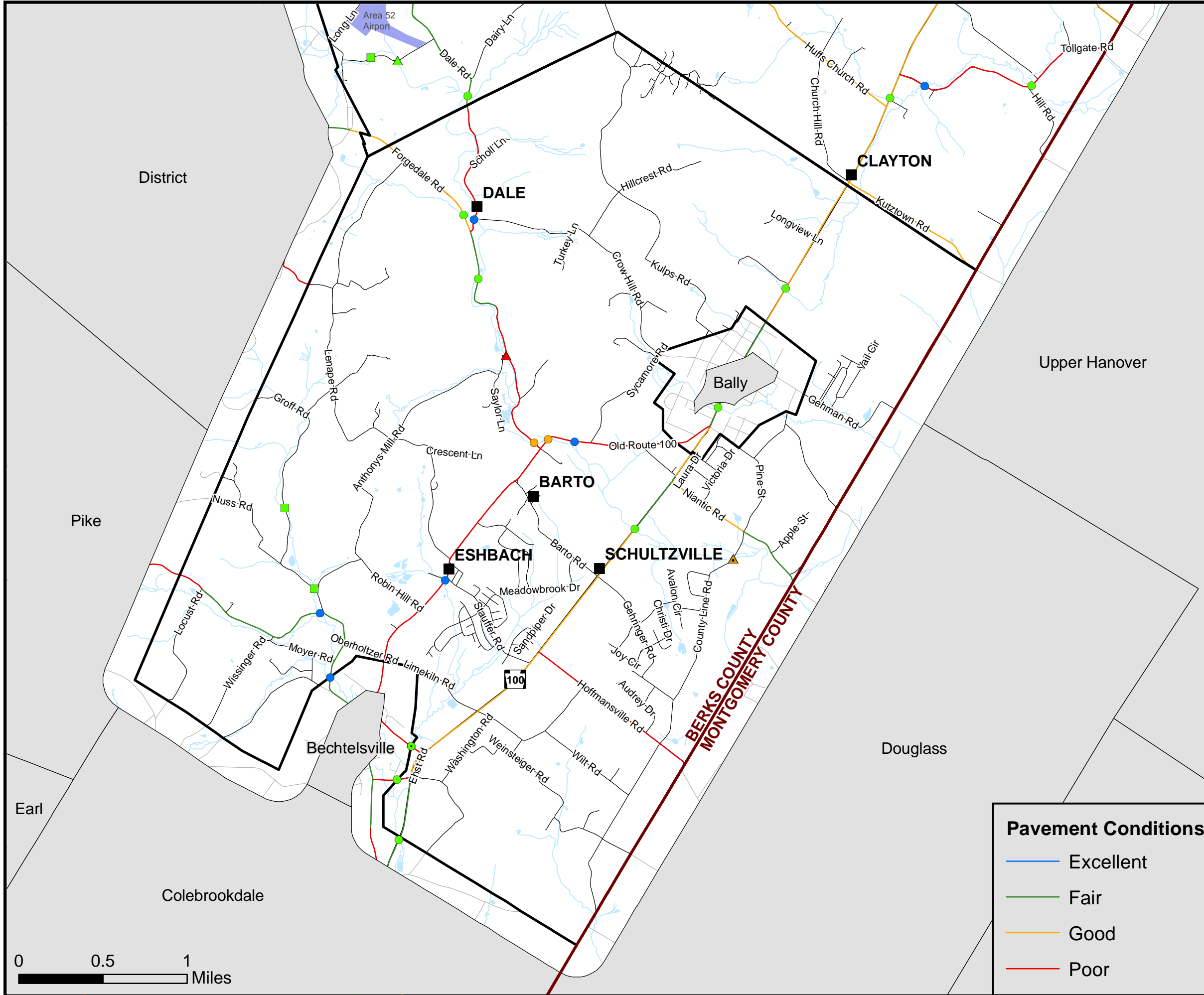


Legend

- State Bridges
- △ County Bridges
- Municipal Bridges
- Posted Bridges
- Red: Closed Bridges
- Orange: Structurally Deficient Bridges
- Blue: Functionally Obsolete Bridges
- Green: No Restrictions
- Villages
- Roads
- Railroads- Active
- Airport
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

Pavement Conditions

- Excellent
- Fair
- Good
- Poor

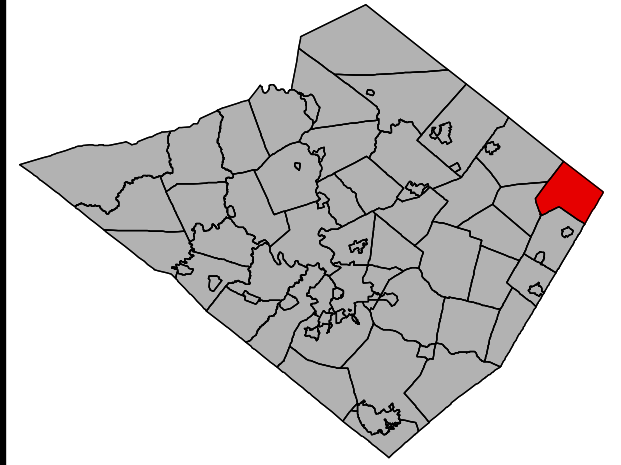


Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT
Published by the Berks County Planning Commission










LFM 8/18



Congested Corridors Hereford Township

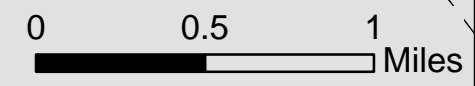
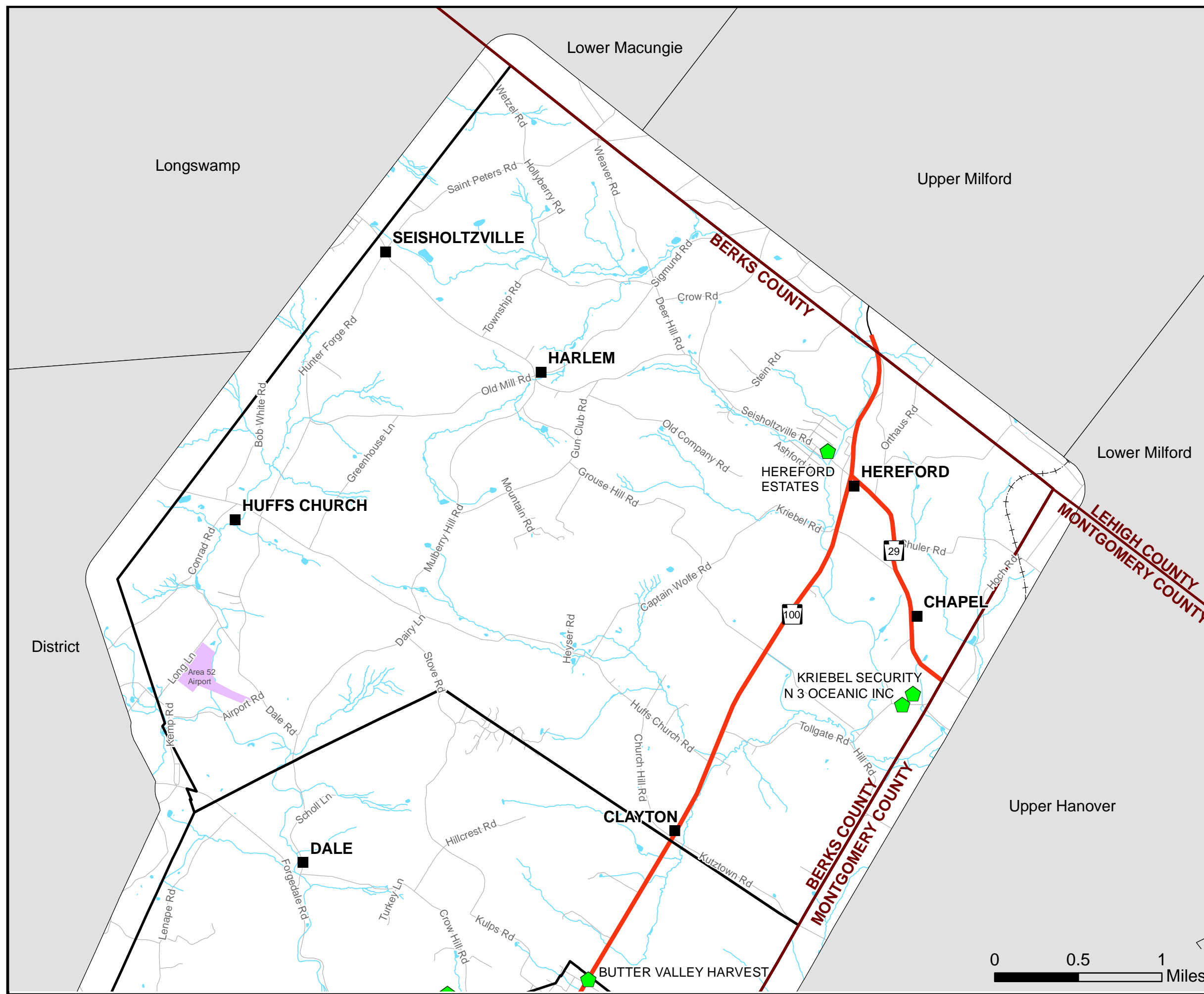


Legend

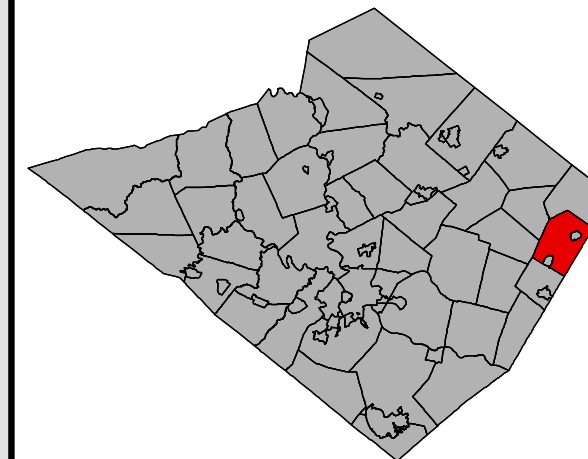
-  Freight Generators
-  Congested Management Corridors
-  Villages
-  Roads
-  Railroads- Active
-  Airport
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT, Berks County Congestion Management Process Plan 2016
Published by the Berks County Planning Commission










LFM 8/18



Congested Corridors Washington Township



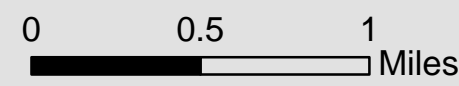
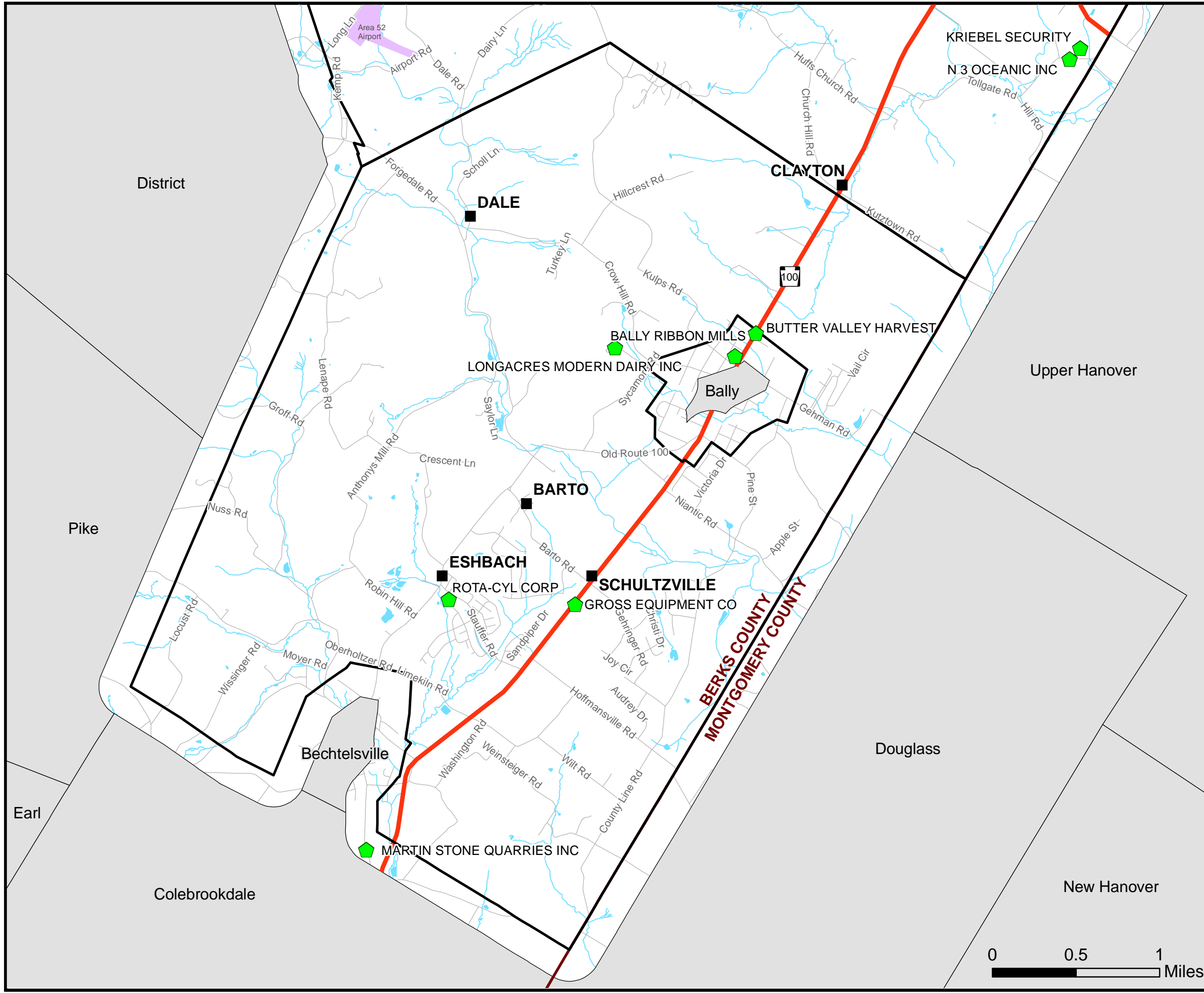
Legend

-  Freight Generators
-  Congestion Management Corridors
-  Villages
-  Roads
-  Railroads- Active
-  Airport
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

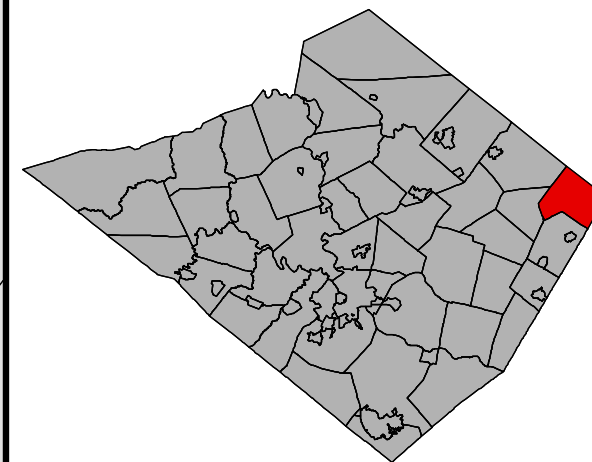
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT, Berks County Congestion Management Process Plan 2016

Published by the Berks County Planning Commission













LFM 8/18



Roadway Deficiencies Hereford Township



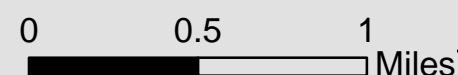
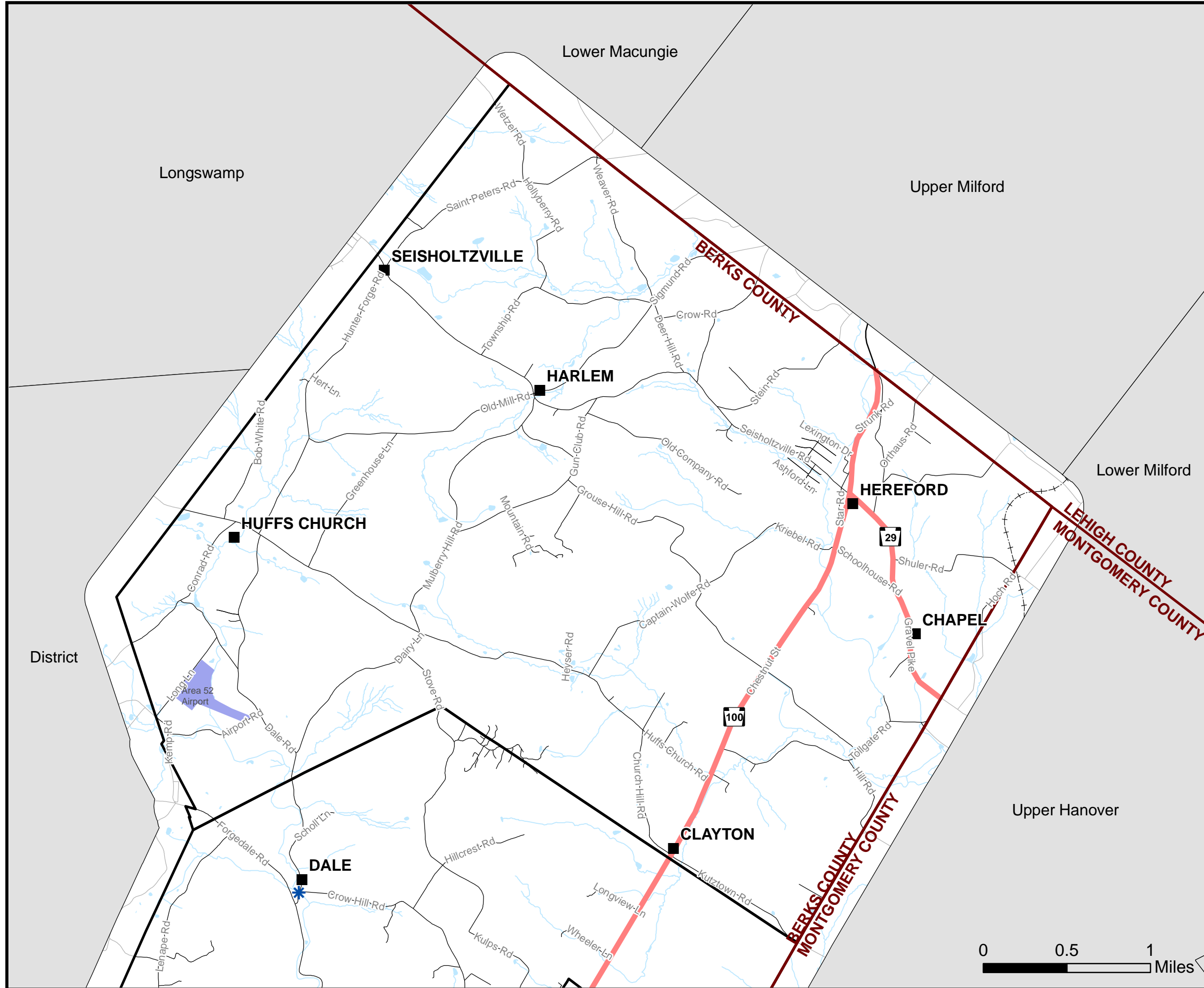
Legend

-  PennDOT TIP Highway Improvement
-  PennDOT TIP Bridge Improvement
-  County Owned Structurally Deficient Bridges
-  State Owned Structurally Deficient Bridges
-  State Owned Functionally Obsolete Bridges
-  Villages
-  Roads
-  Railroads- Active
-  Airport
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

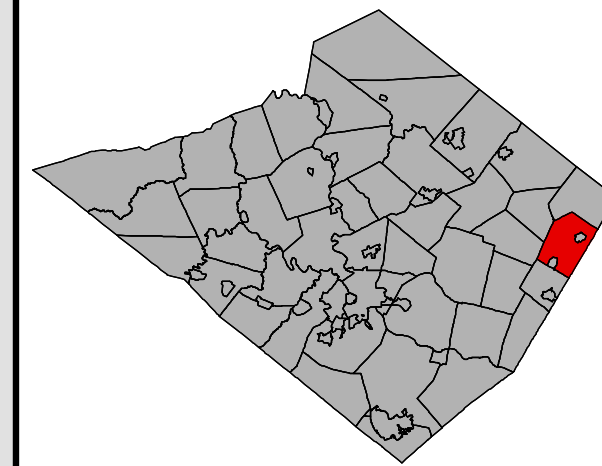
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT

Published by the Berks County Planning Commission













LFM 8/18



Roadway Deficiencies Washington Township



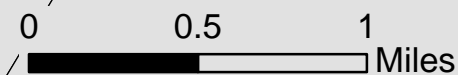
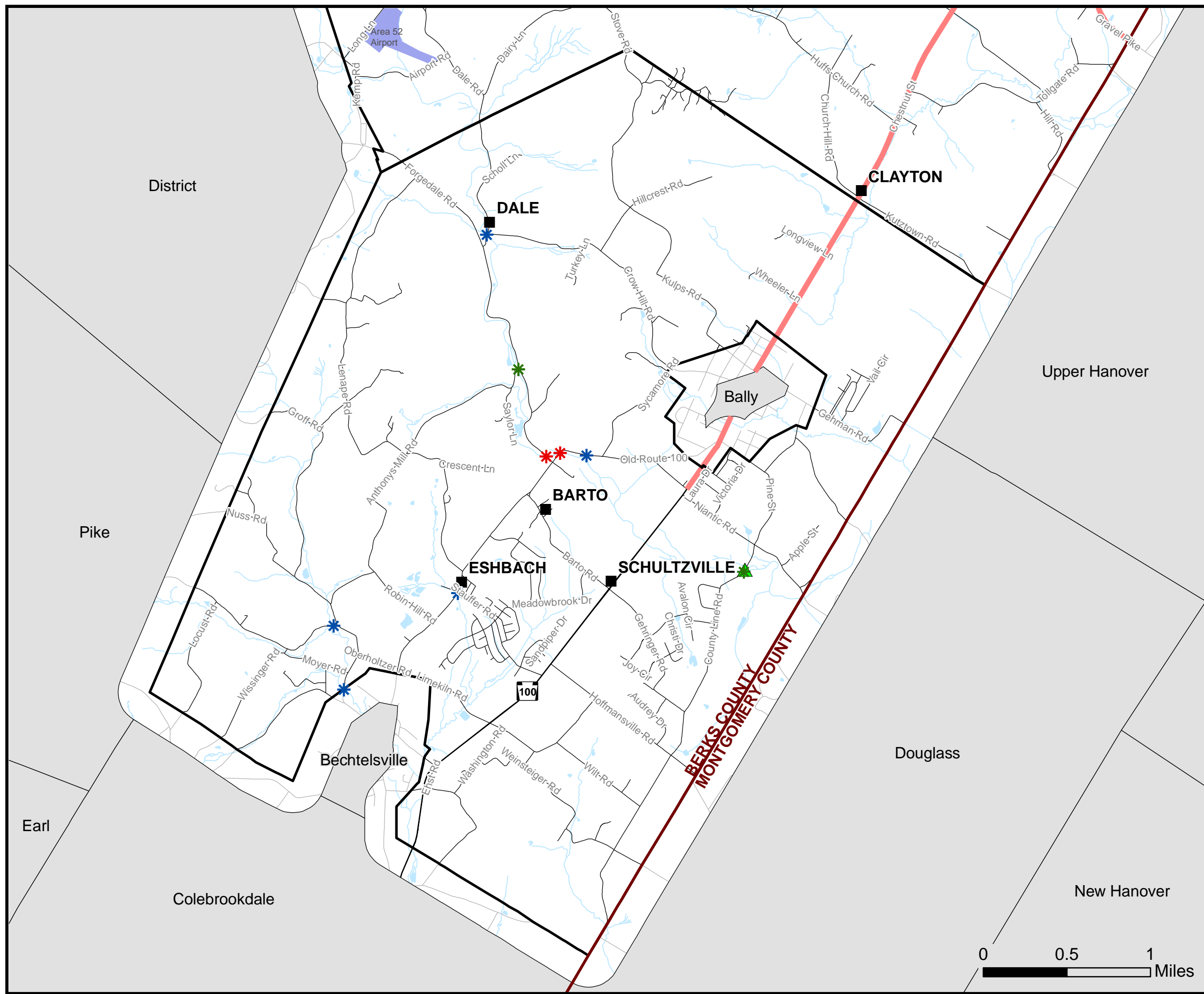
Legend

-  PennDOT TIP Highway Improvement
-  PennDOT TIP Bridge Improvement
-  County Owned Structurally Deficient Bridges
-  State Owned Structurally Deficient Bridges
-  State Owned Functionally Obsolete Bridges
-  Villages
-  Roads
-  Railroads- Active
-  Airport
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

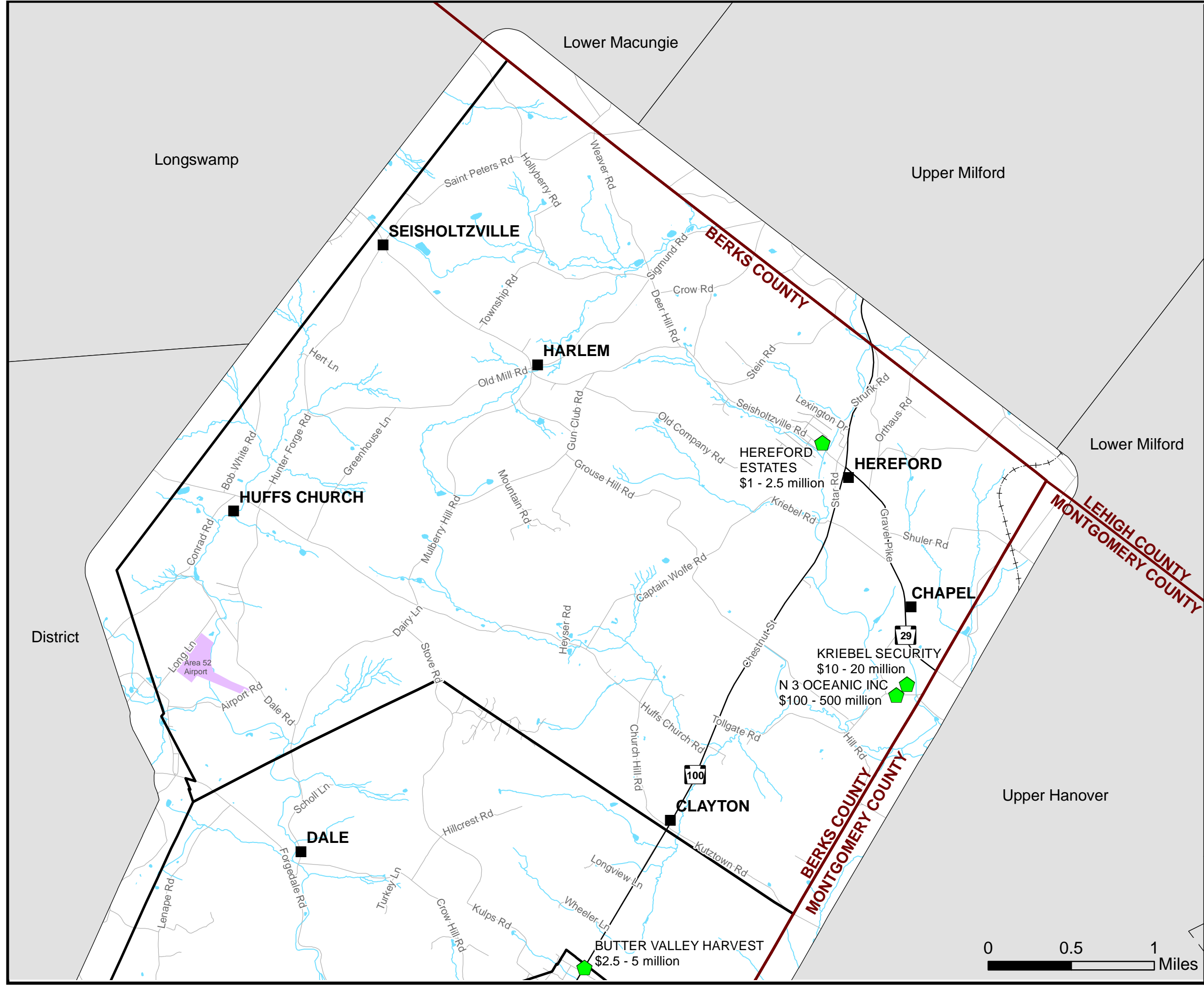
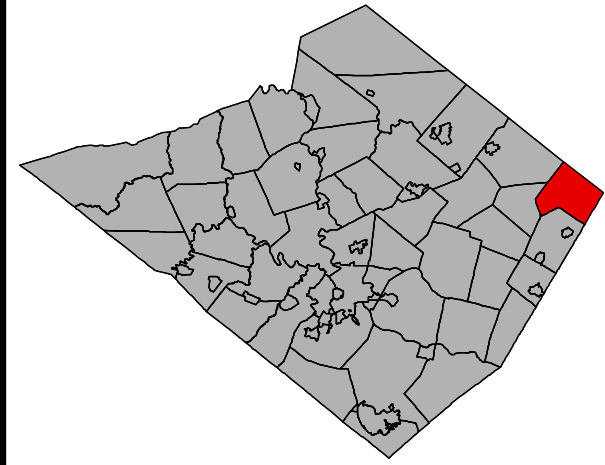
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT

Published by the Berks County Planning Commission

LFM 8/18



Freight Generators Hereford Township

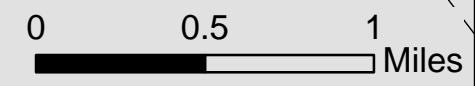


Legend

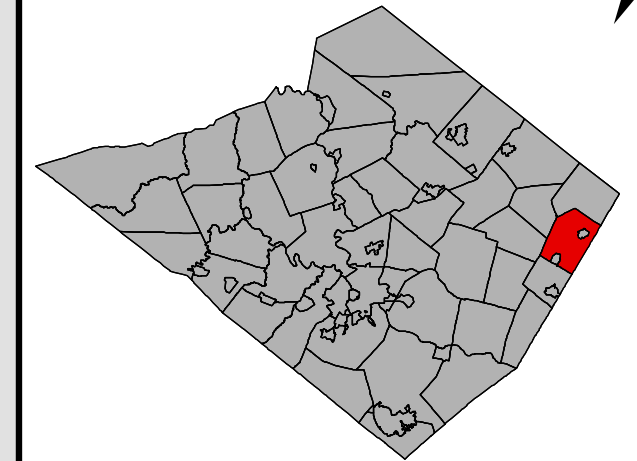
- Freight Generators
- Villages
- Roads
- Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT, Berks County Congestion Management Process Plan 2016
Published by the Berks County Planning Commission








LFM 8/18



Freight Generators Washington Township

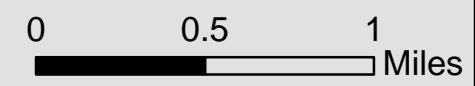
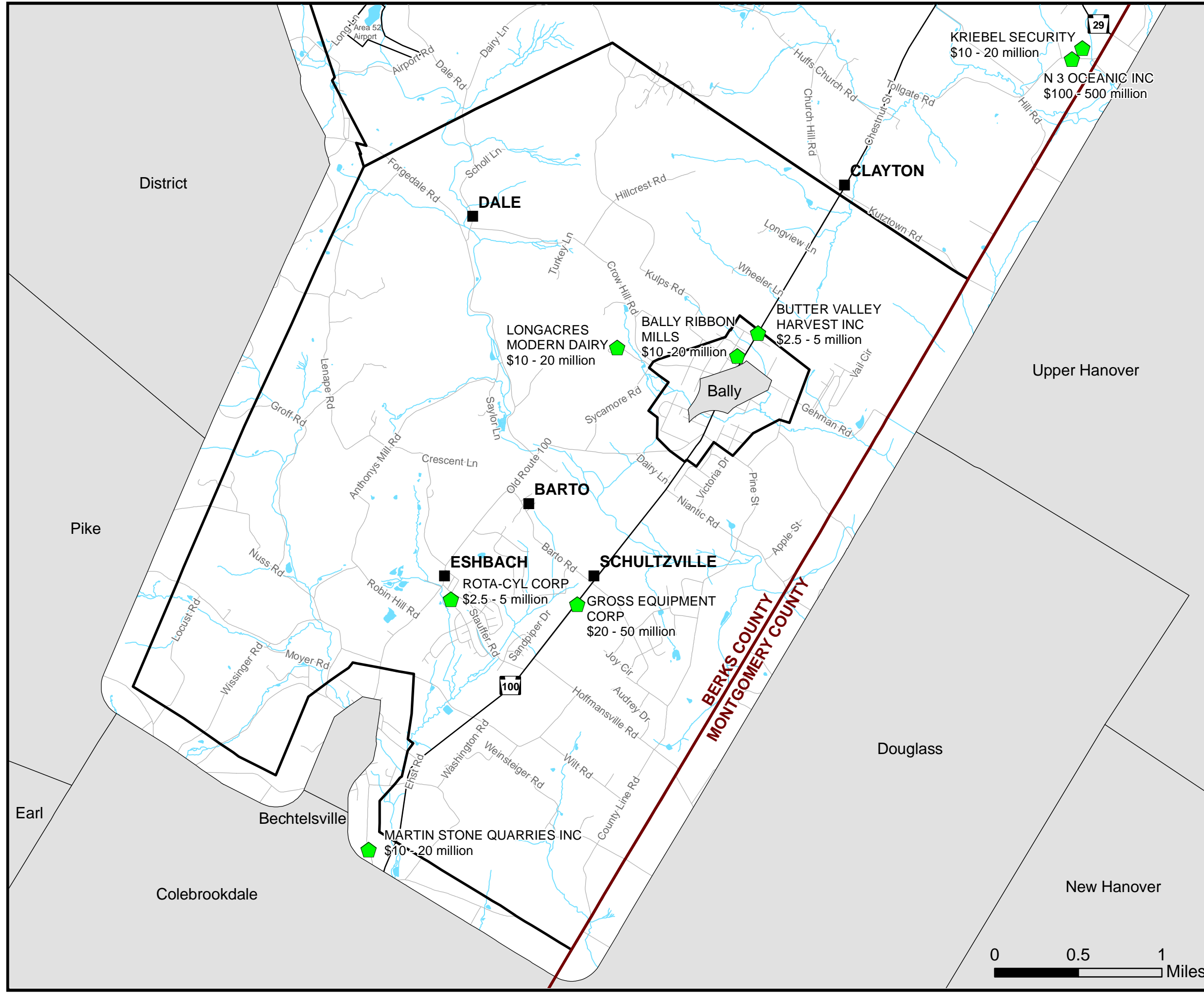


Legend

-  Freight Generators
-  Villages
-  Roads
-  Railroads- Active
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT, Berks County Congestion Management Process Plan 2016
Published by the Berks County Planning Commission

LFM 8/18



COMMUNITY FACILITIES ANALYSIS

Introduction

This chapter inventories Hereford and Washington Townships' community facilities and services and discusses the issues associated with their operation and provision. This is useful in identifying community services strengths and weaknesses, as well as needs. The operation of Hereford and Washington Townships' various facilities and services are the duties of both private and public organizations, as noted throughout this chapter.



Public Safety

Public safety services include police protection, fire protection, and emergency medical services. The dispatch of these services in Hereford and Washington Townships is handled through the Berks County Communications Center in Bern Township. The 9-1-1 communications center is able to receive calls 24 hours a day, 365 days a year, and dispatch service to any non-profit public safety agency servicing the County. Founded in 1989, its primary duties are to dispatch municipal and state police services, fire departments, EMS departments, and the County Search and Rescue Team. The Bally, Washington, and Bechtelsville (BWB) Emergency Management Council oversees dispatch services at the local level. The Council was created by an Ordinance in late 1995. Two members from each municipality serve on the Council.

Police Protection Services

Police protection is an essential service required for the protection of local residents and the business community. The traditional role of the police involves three functions—(1) law enforcement, (2) order maintenance, and (3) community service. Law enforcement involves the application of legal sanctions, usually arrest, to persons who injure or deprive innocent victims of life or property. Order maintenance involves the handling of disputes. The third aspect of the police function, community service, varies according to community tradition and local ordinances. It often includes tasks such as traffic control, education, and other public services.

Pennsylvania State Police (PSP) Area 1, Troop L provides police protection services in Hereford and Washington Townships. The PSP Kenhorst barracks response team is assigned to the planning area (see table on the following page). Due to the distance of nearby PSP facilities, response time is strained in this portion of the County.

The Berks County Fire Police Association is a non-profit organization that organizes the operations and communications of Fire Police throughout the County, including Hereford and Washington Townships. Known as the 'Safety Unit of Volunteer Fire Departments', they serve similar functions as police officers at emergency sites. These functions include emergency site management, crowd control, scene security, fire investigation, etc. The association provides training that would not typically be available or affordable at the municipal level.

As noted above, 9-1-1 emergency dispatch services are provided by the Berks County Communications Center. The Center began in 1989. It now provides a centralized emergency system that provides for centralized receipt of emergency calls, identifies the location of the caller, provides vital emergency information, and employs a form of computer-assisted-dispatch to send the appropriate response units. This is the crucial link that ensures responsive municipal services for emergencies. The Center moved to its new location in Bern Township in 2008. The Center's radio system was upgraded in 2014. The Computer Aided Dispatch (CAD) department had a minor upgrade in January of 2017. There is a new version scheduled to go on line in approximately a year.

Chapter 9 - Community Facilities Analysis

Public Safety (Emergency Services) Facilities

Name	Location	Service Areas
Police		
PSP Reading Troop HQ	600 Kenhorst Blvd., Reading, PA 19611	Both Townships
Fire Companies		
Hereford Fire Company	P.O. Box 7, 1153 Gravel Pike, Hereford, PA 18506	Hereford (Hereford Estates)
Seisholtzville Fire Company Station #39	24 St. Peters Road, Hereford, PA 18056	Hereford (Seisholtzville)
Eastern Berks Fire Department Station #1	2243 Old Route 100, Barto, PA 19504	Washington (Barto)
Eastern Berks Fire Department Station #2	537 Chestnut St., Bally, PA 19503	Bally, Washington Township
Eastern Berks Fire Department Station #3	1817 Main St., Bechtelsville, PA 19505	Bechtelsville, Washington Township
Emergency Medical Services		
Bally Community Ambulance	537 Chestnut St., Bally, PA 19503	Both Townships

Source: Berks County DES

Fire Protection Services

Three volunteer companies provide primary fire protection services in Hereford and Washington Townships: the Hereford Fire Company and Seisholtzville Fire Company in Hereford Township and the Barto Fire Company in Washington Township. All companies are dispatched through the County 9-1-1 system. Standard fire equipment consists of a pump to hold water, a brush, and an engine to control and drive the equipment. Currently, staff, facilities, and equipment are in adequate condition. The pump is restored at designated wells and water sources. Two percent loans, community fundraising, and small limited federal grants are utilized for funding.

The table above lists fire companies that provide fire protection services to Hereford and Washington Townships.

Emergency Medical Services

Emergency medical services can be divided into two general types. The first, emergency ambulance service, involves the transportation of patients from the scene of a medical emergency to a local medical care facility for treatment. The second, routine transports, provides transportation to patients from one medical care facility to another. As noted in the table above the Bally Community Ambulance Association, located in the downtown area of the Borough of Bally, provides emergency medical services to Hereford and Washington Townships.

Hazardous Materials Team

Each of the 67 counties in Pennsylvania is required under Act 165 (Act 1990-165 Hazardous Materials Response Fund) to have contracted a state certified hazardous materials response team. The program, which is managed by the Pennsylvania Emergency Management Agency (PEMA), establishes operational, staffing, training, medical monitoring, supply, and equipment guidelines. In 1989, Berks County implemented a HAZMAT program through its Office of Emergency Management. This program is currently part of the Special Operations Group of the Berks County Department of Emergency Services. Mainly funded by the County, the HAZMAT program is qualified to handle emergencies involving large quantities of hazardous materials.

Utility Services

The residential and commercial development in Hereford and Washington Townships has placed increased demands on natural gas, electricity, and telecommunication services. While most utility service providers have the ability to meet these increased demands, it is essential for this Comprehensive Plan to provide a brief inventory and review of the Hereford and Washington Townships' utility service providers.

Natural Gas

There are four main gas lines that transverse the Townships. These are owned by three different corporations. The Reading Gas Division of the UGI Corporation supplies the Townships with natural gas, which is used for heating, cooking, and other uses. UGI provides most of Berks County's residential and industrial customers with low, medium, and high-pressure gas. The UGI gas pipeline, which is six inch in diameter, runs through Hereford Township and terminates at a substation off Church Hill Road. Spectra Energy, a.k.a. Texas Eastern Corporation, also has a pipeline that connects to the same substation, crossing both Hereford and Washington Township. Additionally, Buckeye Partners also has a transmission pipeline that crosses Washington Township from west to east and Hereford Township from north to south. Lastly, Sunoco pipeline crosses the eastern tip of Hereford Township. As the Townships are rural in nature, propane gas is used by many of the residents.

Electricity

Pennsylvania is one of several states that offer residents a choice in their electric service generation supplier. Under the Electric Choice program established in 1999, customers can select their electric service based on cost, services and incentives, or personal preference. Metropolitan Edison Company (Met Ed) is a subsidiary of First Energy Corporation and is the main supplier of electricity to Hereford and Washington Townships. Met Ed is based in Muhlenberg Township, Berks County, and the Calpine Plant in Ontelaunee Township. There are a number of electric power lines that traverse the planning area, particularly Hereford Township. Two sets of power lines parallel the eastern boundary of Washington Township.

Telecommunications

D&E Communications and Verizon provide telephone service. Comcast and Service Electric provide cable service to the study area. There are multiple discretionary Internet providers for residents to select. Telecommunications infrastructure within the Townships is limited. There is an inactive co-axle buried telephone line (formerly ATT) in Hereford Township. There are four cell towers in the joint planning area, three in Washington Township and one in Hereford Township, which subsequently creates "gaps" in the wireless service of Hereford Township. There is one microwave tower, used to send and receive radio waves, located approximately in the center of the joint planning area, near the shared border.

Educational Facilities and Services

Students in Hereford and Washington Townships attend two separate school districts. Washington Township is part of the Boyertown Area School District of Berks County. Hereford Township schools belong to the Upper Perkiomen School District of Montgomery County. Figures 27 and 28 show the location of the educational facilities and their service areas. The Townships' public and private educational facilities are listed in the following table.



Chapter 9 - Community Facilities Analysis

Educational Facilities

Name	Location	Municipality	# of Students
Public Schools by District			
<u>Boyertown Area School District</u>			
Boyertown Elementary	641 E Second St, Boyertown, PA 19512	Boyertown	596
Colebrookdale Elementary	1001 Montgomery Ave., Boyertown, PA 19512	Boyertown	319
Earl Elementary	22 Schoolhouse Rd, Boyertown, PA 19512	Boyertown	320
Gilbertsville Elementary	36 Congo Rd, Gilbertsville, PA 19525	Douglass Twp., Montgomery Co.	821
New Hanover/Upper Frederick Elementary	2547 Big Rd, Frederick, PA 19435	Upper Frederick Twp.	787
Pine Forge Elementary	8 Glendale Rd, Pine Forge, PA 19548	Douglas Twp., Berks Co.	295
Washington Elementary	1406 Route 100, Barto, PA 19504	Washington Twp.	510
Boyertown Jr. High - West	380 S. Madison St., Boyertown, PA 19512	Boyertown	781
Boyertown Jr. High – East	2020 Big Road, Gilbertsville, PA 19525	Boyertown	858
Boyertown Sr. High	120 N. Monroe St., Boyertown, PA 19512	Boyertown	1,609
<u>Upper Perkiomen School District</u>			
Hereford Elementary	1043 Gravel Pike, Hereford, PA 18056	Hereford Twp.	879
Marlborough Elementary	1450 Gravel Pike, Green Lane, PA 18054	Green Lane	729
Upper Perkiomen Middle School	510 Jefferson St., East Greenville, PA	n/a	799
Upper Perkiomen High	2 Walt Road, Pennsburg, PA 18073	n/a	929
Private Schools			
St. Francis Academy	7th & Pine Streets, Bally, PA 19503	Washington Twp.	n/a
Chapel Mennonite School	42 School House Rd., Hereford, PA 18056	Hereford Twp.	n/a
Brookside Montessori School	1075 Route 100, Bechtelsville, PA 19505	Washington Twp.	n/a
Alpha Omega Christian Academy	83 Cleaver School Road Boyertown, PA 19512	Boyertown	n/a
Pine Forge Academy	PO Box 338, Pine Forge, PA 19548	Douglas Twp., Berks Co.	
Other Regional Educational Facilities			
Western Center for Technical Studies	∞∞ Gratersford Road, Limerick, PA 19468	n/a	n/a
Berks Vocational Tech Center East	3307 Friedensburg Road, Oley, PA 19547	n/a	n/a

Source: PA Department of Education, <http://www.pde.state.pa.us>; Boyertown Area School District, <http://basd.netjunction.com>

The districts obtain leadership and education services through the Berks County Intermediate Unit (Boyertown School District) and the Montgomery County Intermediate Unit (Upper Perkiomen School District). Services provided include curriculum planning, instructional materials, continuing professional education, and special education. Intermediate Units receive funding through both the Pennsylvania Department of Education (PADE) and the local school districts.

Public Facilities

Children in Washington Township attend the Boyertown School District. The Boyertown School District maintains seven elementary schools, two junior high schools, and one senior high school. There is one school located in Washington Township, Washington Elementary School, which contains grades K-6 and serves 510 students. The school offers art, music, and physical education classes, as well as a library and computer lab. Washington Elementary School promotes its students to the Boyertown Junior High School–West, Boyertown Junior High School–East, and the Boyertown Senior High School. Junior and senior high enrollments are 781, 858, and 1,609 students, respectively. Students residing east of Route 100 and the Borough of Bally attend Boyertown Junior High–West, while students west of Route 100 attend Boyertown Junior High School–East.

Children of Hereford Township attend the Upper Perkiomen School District. The Upper Perkiomen School District consists of two elementary schools, one middle school, and one high school. Hereford Elementary is

Chapter 9 - Community Facilities Analysis

located near the intersection of SR 29 and SR 100 in Hereford Township. The school offers language and special education classes, as well as a library and computer lab. The school serves grades K-5 with an enrollment of 879 students. Students are promoted to the Upper Perkiomen Middle School and Upper Perkiomen High School, both located outside of the planning area. Enrollments total 799 and 929 students, respectively.

It should be noted that there is a small, but rising, number of students that are home-schooled, as well as attend school outside of the immediate joint planning study area. Vocational-Technical education prepares students for employment directly upon graduation. There are two area vocational schools that are affiliated with the Townships' respective school districts. The Upper Perkiomen School District is affiliated with the Western Center for Technical Studies, located in Limerick Township in Montgomery County. The purpose of the school is to provide programs that one school district alone could not afford to provide. The technical school is teamed with two other school districts to offer vocational courses in 18 career programs. The Center offers high school students a vocational concentration, as well as academic courses. Students can complete a two-year technical institution program or prepare to transfer to a four-year college.

Boyertown Area Schools are affiliated with the Berks Vocational Tech Center East, in Oley Township. This is one of three Vo-Tech schools in the County. Teamed with eight other school districts, the Center offers 37 programs offering high school and adult enrollment.

Both school districts offer adult continuing education classes through their respective County Intermediate Units. Berks County offers Continuing Professional Education Workshops, as well as the Cisco Networking Academy that focuses on computer technology education. Courses are open and specifically geared for educators, parents, and community members at the Boyertown Area School District Education Center. Montgomery County Intermediate Unit houses the Continuing Professional Education Council, which approves CPE credit courses, and the Technology Professional Development Consortium. Both school district programs serve multiple roles: offering regional leadership and professional development programs, consulting with districts/schools regarding Induction, Act 48, strategic planning, supervision and evaluation, and staff development standards; supporting districts/schools in designing professional development to support standards-based education; serving as liaison to professional organizations, higher education institutions, and cultural institutions; and facilitating district strategic planning and team building exercises.

Private Facilities

There are three private schools in the planning area and adjacent Bechtelsville: St. Francis Academy, Chapel Mennonite School, and Brookside Montessori School. St. Francis Academy is a Roman Catholic parochial school affiliated with the Allentown Diocese. It is located at the edge of Bally Borough, in Washington Township. The Academy offers classes for grades preschool-8, with an average enrollment of 200 students per year. Chapel Mennonite School is a non-public, non-licensed school affiliated with the Mennonite church in Hereford Township. Brookside Montessori School is located in Bechtelsville. This school teaches elementary age children using the Montessori education system.

Facilities for Higher Education

There are no colleges or universities located in the planning area. However there are several higher education institutions located in Reading, Allentown, Bethlehem, Lehigh, and Kutztown. Schools include the Reading Area Community College, Montgomery County Community College in Pottstown, Lehigh County Community College, Penn State Lehigh Valley in Reading and Fogelsville, Albright College, Alvernia College, Cedar Crest College, as well as Kutztown, Lehigh, and Muhlenberg Universities.

Health Care Facilities and Services

As shown in the table below, there are four hospitals in the region that provide medical care. The Lehigh Valley

Chapter 9 - Community Facilities Analysis

Hospital (LVH) is located just southwest of Allentown. LVH offers primary care, specialty care such as kidney transplant, cardiac care, cancer treatment, burn center, and is the only trauma unit in the larger Allentown region. The Pottstown Memorial Medical Center (PMMC) is located just to the south of Washington Township along SR 100. PMMC provides cancer treatment and off-site family care centers. The Reading Hospital is located in West Reading. Reading Hospital consists of a complex of medical buildings, including close to 600 beds for patient care. Penn State Health St. Joseph Medical Center is an acute care hospital in Bern Township. Each of these hospitals offers both in- and out-patient care, as well as surgical facilities.

Health Care Facilities

Name	Type of Facility	Address
Lehigh Valley Hospital	Hospital	1200 S. Cedar Crest Blvd., Allentown, PA 18103
Pottstown Memorial Medical Center	Hospital	1600 E. High St., Pottstown, PA 19464
Reading Hospital/Tower Health	Hospital	Sixth & Spruce Sts., West Reading, PA 19611
Penn State Health St. Joseph Med Cntr.	Hospital	2400 Bernville Rd. Reading, PA 19605

Source: PA Department of Health

A number of facilities serve senior residents of the planning area. The Bally Senior Citizens Center in Bally serves elderly residents of Washington Township over the age of 55. The Center is located within the Borough. Seniors independently organize programs using separate fundraising and donations. Outside of the study area are the Walnut Woods and Chestnut Knoll in Boyertown, which commonly serve Township residents. BCIU provides specialized education for students up to 18 years of age at New Hanover Elementary School. It should be noted that there are a number of visiting nurse services that provide care for Township residents.

Library Facilities and Services

The Berks County Library System provides public library services to the planning area through the J.K. Boyer Boyertown Community Library. The Boyertown Community Library is located at 29 E. Philadelphia Avenue in downtown Boyertown, PA. The library owns over 39,000 books, magazines, videos, audiocassettes, compact discs, and large print items in their collection. There are also Ebooks available. In addition, the library system offers a variety of services including, but not limited to, Ebooks interlibrary loan, audio/video lending service, Internet and fax service, computer services, summer reading, and adult programs. Red Hill Library in Montgomery County and the Hereford Elementary Library (summertime only) provide library services to Hereford Township residents, as well. These library systems are funded through county tax dollars and state aid.

Solid Waste Management Services

Due to the rural character of the planning area, residents are required to provide their own trash disposal.

The Pennsylvania Municipal Waste Planning, Recycling, and Waste Reduction Act 101 of 1988, requires counties to develop formal plans for managing municipal wastes. Plans are subject to municipal ratification and approval from the PADEP. In accordance with the Act, each County must ensure 10 years of available disposal capacity and establish a postclosure care trust fund for landfills. In 1991, Berks County completed and the municipalities ratified the Act 101 *Berks County Solid Waste Management Plan*. This plan was revised in 2005.

The main goal of Act 101 is to reduce Pennsylvania's municipal waste generation. The benefits of recycling and waste reduction include reduced pollution risks, conservation of natural resources, energy and landfill space, and reduced disposal costs. Municipalities with populations of at least 5,000 are required to implement curbside programs, funded by PADEP grants. All other communities must provide recycling drop-off centers. Municipalities must collect at least 3 of the following materials: clear glass, colored glass, plastics, aluminum, steel and bimetallic cans, high-grade office paper, corrugated paper, and newsprint. Monies generated by the Recycling Fee are deposited in the Act 101 Recycling Fund and are funneled back into public programs, studies, and processing, and administration costs of the statewide program.

Washington Township operates a drop off site at the Red Barn on the first Saturday morning of every month and the third Wednesday of the month from March through October. Volunteers and the Environmental Advisory Council of Washington Township maintain the site.

Public Water Facilities and Services

Public water systems were designed to serve developed areas where individual on-lot systems would be impractical. They generally consist of supply sources, storage facilities, a distribution and pumping system, and a filter to chlorinate the water. Sources of supply for a public water system are three basic types: wells, springs or streams, and reservoirs. Most systems usually draw from multiple sources. The quality and quantity of the water are indicative of the effectiveness of the public water system.

Four public water systems provide water to some residents of the planning area. The table below lists each public water system along with their respective service area(s), customer connections, and water sources. The following section provides a descriptive overview of these four systems and any known planned improvements.

Public Water Systems

System Name	Service Area	Customer Connection	Primary Source
Bally Borough Municipal Authority	Bally Borough, portion of Washington Township	106	One well
Upper Hanover Water Authority	Portion of Hereford Township, along SR 29	56	Two wells (in Hereford Twp)
Red Hill Water Authority	Northeast portion of Hereford Township	45	Two wells, spring-fed reservoir
Hereford Twp. CWS	Manufactured Home parks in central part of Township	450	various

Bally Borough Municipal Authority

This public water system is owned by Bally Municipal Authority and leased to the Borough for maintenance and operation. Water is drawn from a well. The water is treated and stored in a concrete reservoir. The Borough of Bally and at least 100 residences in Washington Township rely on this system. Washington Township purchases the water from the Borough to distribute to Township households.

Upper Hanover Water Authority

Upper Hanover Water Authority is located in Upper Hanover Township, Montgomery County. The Authority draws water from three wells, two of which are located in Hereford Township, and serves a limited number of residents along SR 29 in the village of Chapel. A small amount of the service area of the Upper Hanover Water Authority is in Hereford Township. The system has plenty of capacity. There are concerns about the effects of these wells on the local water table.

Red Hill Water Authority

The Red Hill Water Authority serves the northeastern corner of Hereford Township, overlapping with the Upper Hanover Water Authority service area. There are approximately 1200 connections through this system. About 45 of these are located in Hereford Township. Green Lane Reservoir (which is spring-fed) supplies this system.

Community Water Systems in Hereford Township

There are four modular home communities in the central portion of Hereford Township served primarily by community water systems. Almost all of the units have water and sewer service provided through private community water systems.

A vast majority of the Townships’ residents have on-lot water wells, which draw water directly from groundwater resources into local homes.

Chapter 9 - Community Facilities Analysis

The *Upper Perkiomen Creek Watershed Conservation Plan* has identified groundwater quality as a serious issue in the watershed:

“The Borough of Bally has...lost one of its public water supply wells due to contamination. The Berks Sand Pit Superfund Site is a well-documented example of groundwater contamination that affected over 30 residences in Longswamp Township, Berks County near Huffs Church at the headwaters of the main stem Perkiomen Creek. This ongoing Superfund site cleanup of a former residential and industrial dump site is being conducted by the U.S. EPA and has cleaned over 330 million gallons of groundwater cost federal taxpayers over \$10 million. The project involves pumping and filtering volatile organic compounds (VOCs) such as the solvent trichloroethylene (TCE), and discharging treated wastewater to a headwaters tributary of the main stem Perkiomen Creek. These groundwater quality concerns serve to compound the natural limitations on groundwater quantity – with limited aquifers, increasing numbers of wells, and changing land use with greater potential for contamination.” (p.50)

The Plan goes on to identify a source of groundwater impact in Washington Township.

“The vulnerability of groundwater quantity has been highlighted in the ongoing conflicts associated with the Gabel Quarry in Washington Township, owned and operated by Martin Limestone. This Quarry encompasses over 100 acres in area...and has been excavated to a depth of over 400 feet. The quarry has impacted groundwater aquifer and the neighboring wells dependent on that aquifer within 1,000 feet of the site. Depletion of wells in the area is a major concern. This type of extractive use, or similar uses such as water bottling plants, poses obvious concerns to groundwater supplies in the watershed.

Public Sewer Facilities and Services

The Pennsylvania Sewage Facilities Act of 1966, as amended, commonly referred to as “Act 537,” is the primary law-controlling individual and community sewage disposal systems. Act 537 requires that every municipality prepare and maintain a sewage facilities plan. Act 537 requires municipalities to review their official plans at five-year intervals and perform updates, as necessary. Municipalities can apply to the PADEP for up to 50 percent reimbursement of the cost of preparing an Act 537 plan. High growth municipalities are frequently performing updates to their Act 537 Plan. For stable or slow growth municipalities, 20 years or more may elapse between editions. Regardless of timing, such plans and their approval by PADEP are needed before any major sanitary sewer projects are eligible for funding by the state. An Act 537 Plan was written for Washington Township in 2009.

In Hereford and Washington Township, public sewer service is generally provided where there are public water systems. Sewage disposal systems are in place for the modular home parks in Hereford Township, where there are community water systems. The Bally Borough Municipal Authority provides public sewage disposal to eight properties in Washington Township, located directly outside the Borough. The Authority’s wastewater treatment plant, located in Washington Township, is capable of processing over 200,000 gallons per day. Treated water is discharged into the West Branch of the Perkiomen Creek. The maintenance and operation of the public sewage system and treatment plant were implemented with the construction of the new Washington Township Municipal Authority. The existing sanitary sewerage areas can be seen on Figures 29 and 30.

Municipal Facilities

While a town or village square once served as a community’s center, today many rural communities no longer have a geographic center. However, the need for meeting spaces and a place of local identity is still apparent. In Hereford and Washington Township, this need is fulfilled in the respective municipal complexes. Figures 27 and 28 illustrate the locations of the municipal offices found in Hereford and Washington Townships.

The Washington Township Municipal Complex was completed in 1999 near the intersection of Old Route 100 and Barto Road in the Village of Barto. The Complex provides municipal offices for the Municipal Supervisors, the Municipal Manager, the Planning and Zoning Department, the Washington Township Municipal Authority, and the Public Works Department, as well as public meeting space. The Washington Township Public Works also maintains a garage on site for maintaining the 40+ miles of Township roads during all seasons to assure Township residents safe automotive travel. Hereford Township Municipal Building is located on Seisholtzville Road, just west of the village of Harlem. Township office space, meeting facilities, and two garages are encompassed in the small complex.

Parks and Recreation Facilities and Services

Residents within the Hereford and Washington Township study area have a variety of recreation options, from publicly owned lands (i.e., state, county, and municipal) to private facilities. An inventory of park and recreation facilities in the Townships is provided in the table on the next page. These facilities constitute just over 700 acres of recreational land and provide the citizens with an abundance of both active and passive recreational opportunities.

The Berks County Planning Commission produced a County Greenway, Park and Recreation Plan in 2007. Washington Township produced a Township Comprehensive Open Space and Recreation Plan in 1992. Hereford Township addresses recreation and open space in their 1991 Comprehensive Open Space and Recreation Plan. Although these recreation plans have not been recently updated, the County and Townships have been actively involved in park planning, acquisition, and development activities. Many of the Townships' parks offer unique outdoor recreational opportunities taking advantage of the rural nature of the local environment. Activity Center parks include such special single-use areas as the Grandview Speedway, Bally Sportsmen Park, Hereford Rod & Gun Club, and Tollgate Fishing Park. Other parks in the planning area include two camps, two elementary schools, and one state game land that span the municipal boundary. The World War II memorial in Washington Township could also be considered an open space area, but is small in size.

Hereford Township has 12 parks, totaling approximately 454 acres of parkland. Of this acreage, approximately 309 acres (5 parks of the 11) are privately owned. Washington Township has 13 parks totaling 261 acres of recreation and/or open space. One of the parks in Washington Township is privately owned (43 acres), while six are publicly owned (approximately 250 acres). In sum, Hereford and Washington Townships have 25 parks, open space and recreation parcels on approximately 715 acres of parkland.



Hereford Township Park

Chapter 9 - Community Facilities Analysis

NAME	Size (acres)	Park/Recreation Type	Orientation* (Passive/Active)	All-purpose/ Football Fields	Baseball Fields	Basketball Courts	Camping	Fishing	Golf Courses	Hunting	Pavilions	Picnic Tables	Playground	Soccer Fields	Swimming	Tennis Courts	Other	Walking/Biking Trails	Restrooms	Water and Electric
Hereford Township																				
Bally Sportsmen	50	Private	A					X	X		X									
Camp Mensch Mills	69.5	Private	A	X			X	X	X		X				X			X		
Camp Serranova	80.27	Private	A	X			X				X				X					
Hereford Elementary School	22	Public	A	X								X							X	
Hereford Estates Recreation Park	1.6	Public	A			X							X			X				
Hereford Recreation Center	15.3	Public	A							X	X					X		X	X	X
Hereford Rod & Gun Club	10.28	Private	A						X		X									
Huff Church Memorial Park	34.17	Private	A								X									
Philadelphia Magyar Hungarian Sports Club	122	Private	A				X								X		X	X	X	X
Seisholtzville Fire Company	3.43	Private	A	X																
State Game Lands 315	29.55	Public	P						X											
Tollgate Fishing Park	15.94	Public	A					X												
TOTAL	454.04																			
Washington Township																				
Barto Community Park Athletic Field	6.08	Public	A	X																
Barto Community Park	9.86	Public	A	X	X	X					X		X					X		
Cubbler Court Open Space	1.5	Public	P																	
Forgedale Park	0.5	Public	A					X				X								
Grandview Speedway	40	Private	A														X	X	X	X
Hoffman Estates Open Space	1.8	Public	P																	
Reserve at Bally Springs Open Space	10.15	Public	P																	
State Game Lands 315	152	Public	P						X											
Washington Elementary School / Annex	13.6	Public	A	X	X	X						X	X						X	
Washington Township Park	9.26	Public	A								X	X	X							
Washington Township Treatment Plant	15.76	Public	P										X							
Westfield Drive Open Space	.66	Public	P																	
WW II War Memorial	0.2	Public	P														X			
TOTAL	261.37																			

Source: Hereford and Washington Townships

Trends and Issues

Police Services

- **The Pennsylvania State Police based in Kenhorst serve the majority of the Townships' residents.** The Borough of Bally's police department covers areas of Washington Township adjacent to the Borough.
- **Response times of the Pennsylvania State Police could be improved,** due to geographic distance of the PSP barracks from the Townships that are located in the corner of Berks County.
- **The Berks County Fire Police Association** provides emergency site control, crowd control, scene security, and fire investigation for the Townships.

Fire and EMS Services

- **Three volunteer fire companies provide primary response to protect Hereford and Washington Township residents from fire hazards.** Two fire departments in the Boroughs of Bally and Bechtelsville provide secondary response assistance, as needed.

- **Townships' residents receive emergency medical services (EMS) from Bally Community Ambulance Association.**
- **Berks County's Hazardous Material Response Team** handles emergencies involving large quantities of hazardous materials in the County, including the planning area.

Utility Networks

- **The Reading Gas Division of the UGI CORPORATION supplies the Townships with natural gas.** However, due to the rural nature of the Townships, many residents use propane gas.
- **Metropolitan Edison Company (Met Ed) is the main supplier of electricity to Hereford and Washington Townships.**
- **There are a number of telecommunications services in the Townships,** including D&E Communications and Verizon phone service, Comcast and Service Electric cable television, and a variety of discretionary Internet providers.

Educational Facilities

- **Two school districts serve the planning area:** Boyertown Area School District and the Upper Perkiomen School District. One elementary school from each district is located in the planning area. Local students attend secondary schools outside the planning area.
- **Although rural, the Townships' residents have access to educational options** similar to those found in more populated areas, such as private schools, vocational-technical programs, continuing education classes, and many regional colleges and four-year universities.

Health Care Facilities

- **Four hospitals provide medical care to residents of the region;** Lehigh Valley Hospital, the Pottstown Memorial Medical Center, and the Reading Hospital.

Library Facilities

- **There are no public library facilities located within the study area.** The J.K. Boyer Boyertown Community Library branch of the Berks County Library system, the Red Hill Library of the Montgomery County Library system, and the Hereford Elementary School provide residents with library services.

Solid Waste Management

- **Berks County adopted an Act 101 *Berks County Solid Waste Management Plan* in 1991.** It was updated in 2005.
- **The Township governments do not provide trash collection and disposal services.**

Public Water Facilities

- **There are currently two municipal water authorities and one community water system** operating in the planning area; the Bally Borough Municipal Authority, the Upper Hanover Water Authority, and the community water system located in the modular home area in central Hereford Township. Wells, springs, and reservoirs supply these Authorities with water.
- **Bally Borough Municipal Authority provides water to over 100 households in Washington**

Chapter 9 - Community Facilities Analysis

Township.

- **The Upper Hanover Water Authority's water mains connect wells in Hereford Township** with the Authority's service area in Montgomery County. The Authority serves a limited number of residents along SR 29 in the village of Chapel. There is concern for the effects withdrawal has on the local water table and private well supply.
- **A vast majority of the Townships' residents have on-lot water wells.**
- **Recommendations have been made to share services among the water supply providers**, as found in the Berks County Water and Sewer Management Plan.

Public Sewer Facilities

- **An Act 537 Plan** was written for Washington Township in 2009.
- **In the planning area, public sewer service is generally provided where there are public water systems.**
- **The southeastern area of Washington Township was chosen as the primary sewer services area** to resolve existing contamination problem areas and provide capacity for the designated State Route 100 growth corridor. The Act 537 Plan for Washington Township was used as a basis for creating the Washington Township Municipal Authority's present system.

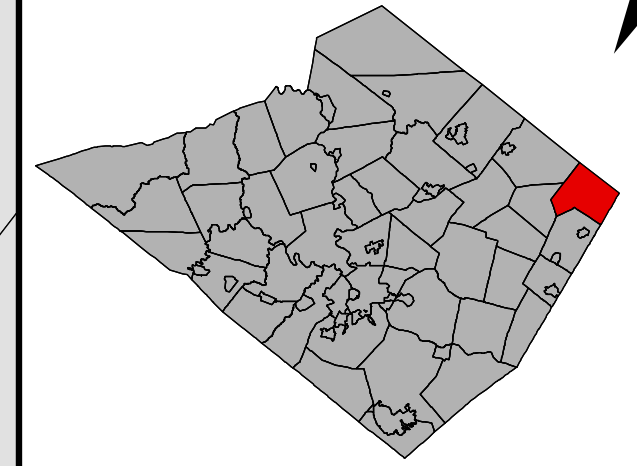
Municipal Facilities and Services

- **Both Hereford and Washington Township have municipal buildings**, which generally serve as the community center. These complexes are multi-purpose, in that they provide Township office space, meeting facilities, and public works garages.












Parks and Recreation Facilities and Services

- **The County and Townships have been actively involved in park planning, acquisition, and development activities** through formal recreation plans and informal initiatives. Berks County Planning Commission produced a County Greenway, Park and Recreation Plan in 2007. Washington Township produced a Township Comprehensive Open Space and Recreation Plan in 1992. Hereford Township addresses recreation and open space in their 1991 Comprehensive Open Space and Recreation Plan.
- **Hereford and Washington Townships have 25 parks and/or open space areas totaling over 715 acres** in the planning area. Hereford Township has 12 parks and/or recreation facilities on roughly 454 acres for its 2,923 (2014) residents. Seven parks and the majority of this acreage are privately owned. Washington Township has 13 parks and/or recreation facilities on 261 acres. One of which is a privately owned facility.







Community Facilities Hereford Township

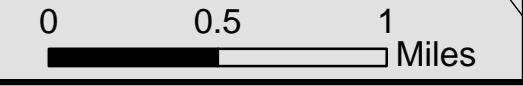


Legend

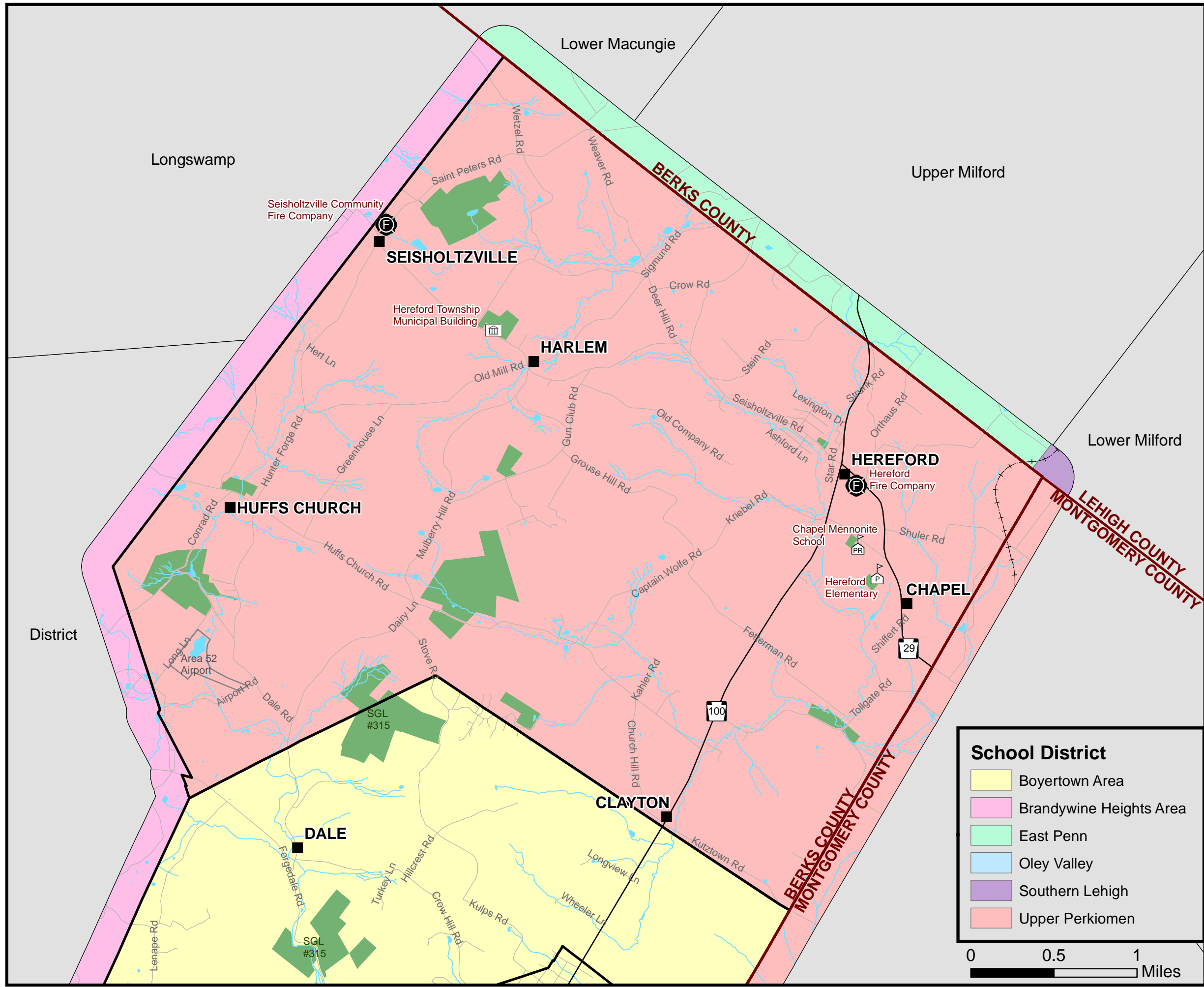
-  Municipal Buildings
-  Fire Stations
-  Public School
-  Private School
-  Recreation
-  Villages
-  Roads
-  Railroads- Active
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

School District

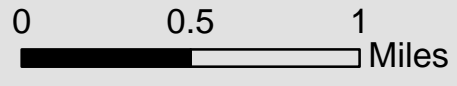
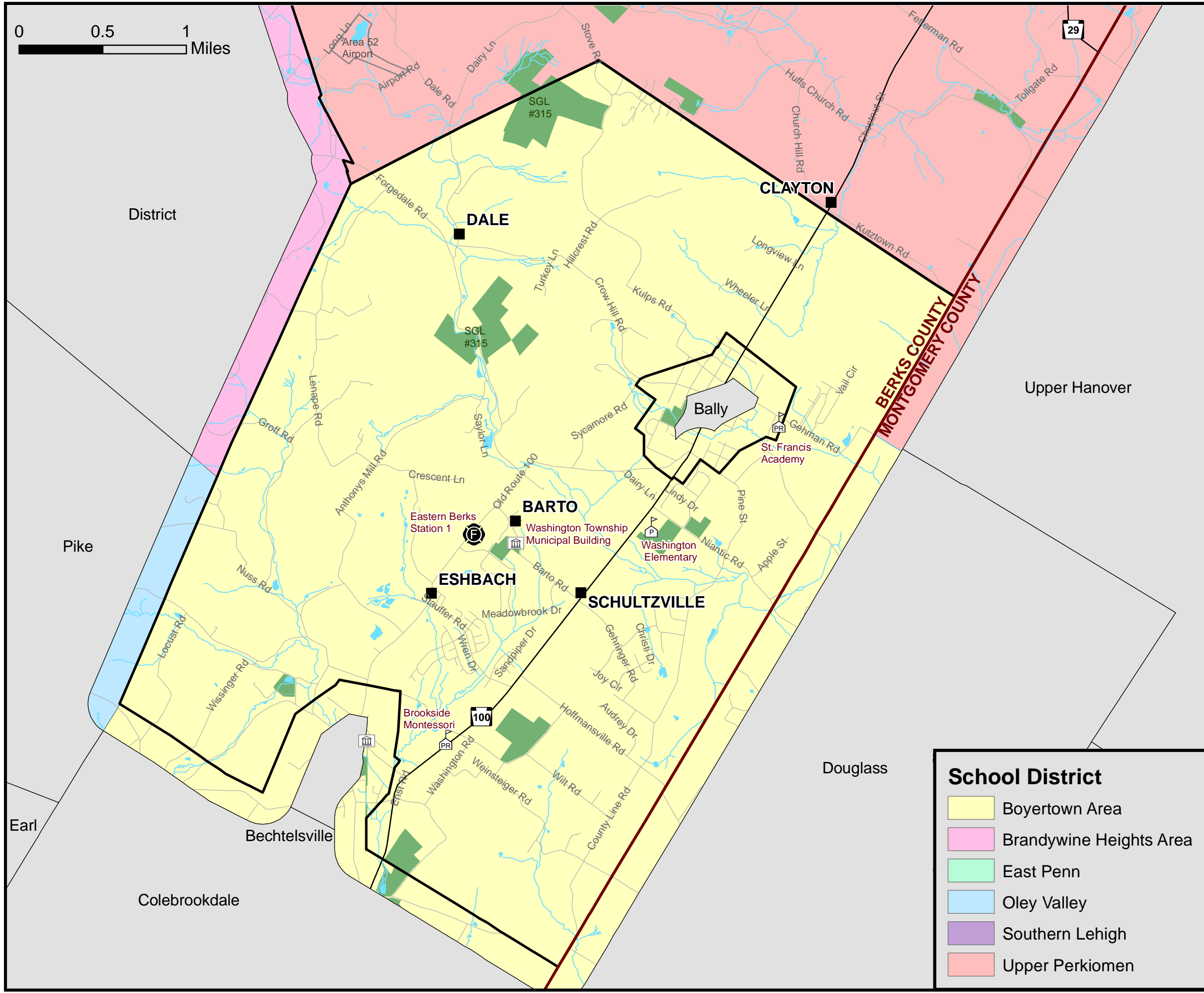
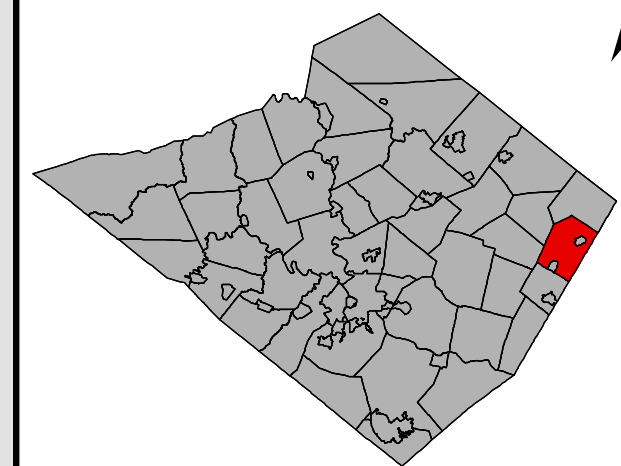
-  Boyertown Area
-  Brandywine Heights Area
-  East Penn
-  Oley Valley
-  Southern Lehigh
-  Upper Perkiomen



Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT
Published by the Berks County Planning Commission



Community Facilities Washington Township



Legend

- Municipal Buildings
- Fire Stations
- Public School
- Private School
- Recreation
- Villages
- Roads
- Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

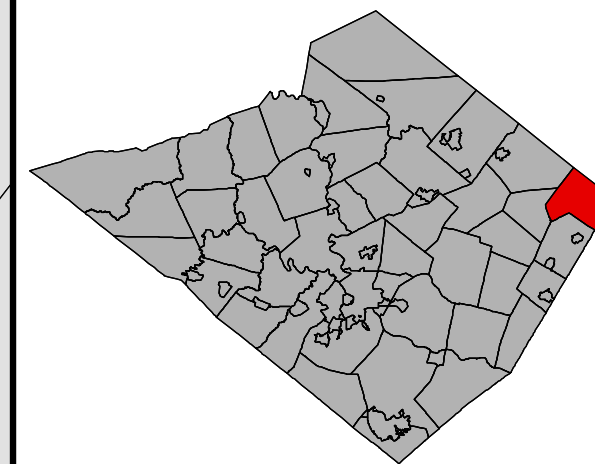
School District

- Boyertown Area
- Brandywine Heights Area
- East Penn
- Oley Valley
- Southern Lehigh
- Upper Perkiomen












Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, PennDOT
Published by the Berks County Planning Commission



Public Utility Service Areas Hereford Township



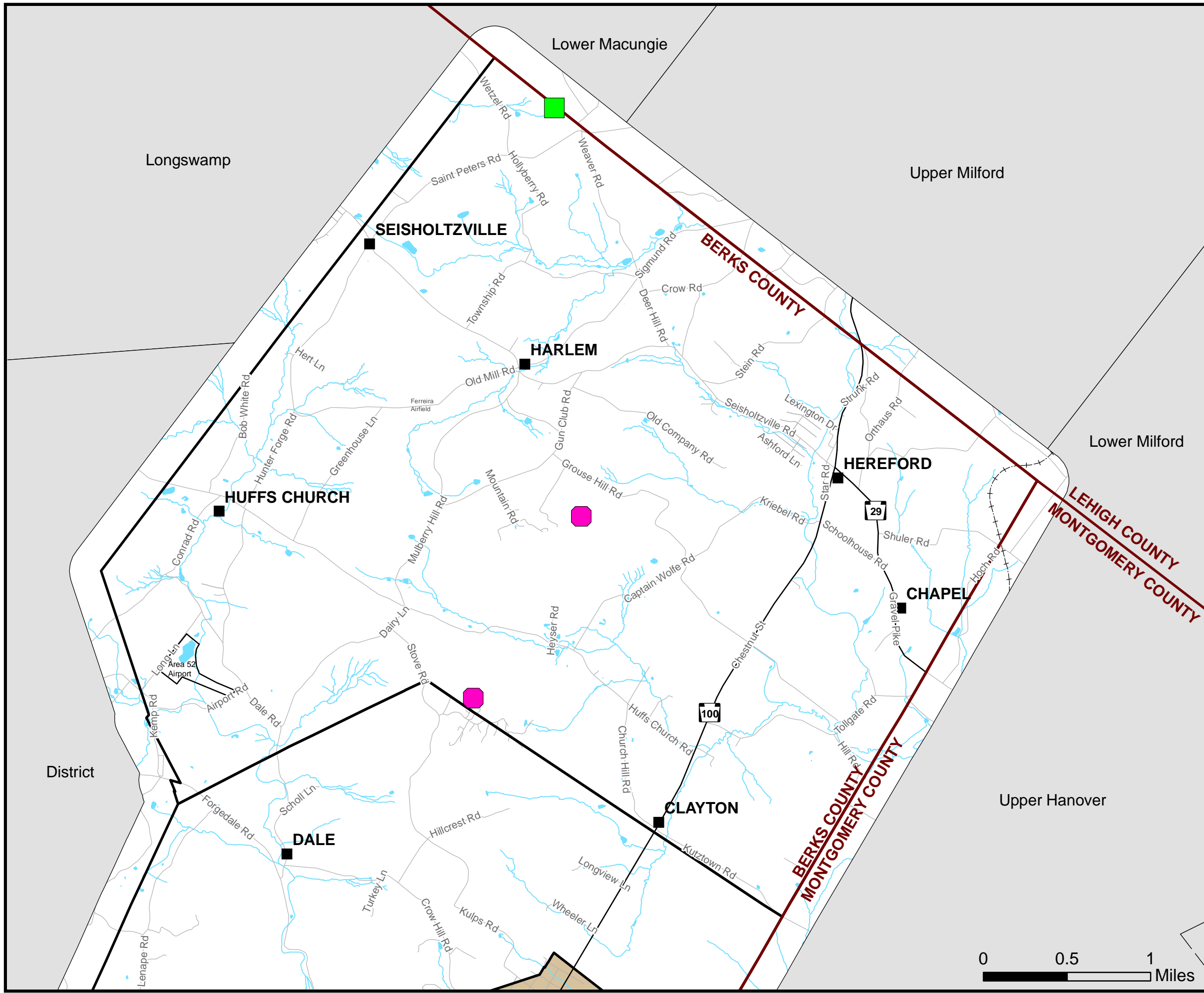
Legend

-  Sanitary Sewer Plants
-  Sanitary Sewer Pumping Stations
-  Met-Ed Substations
-  Cell Phone Service Towers
-  Existing Sanitary Sewer Service
-  Villages
-  Roads
-  Railroads- Active
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

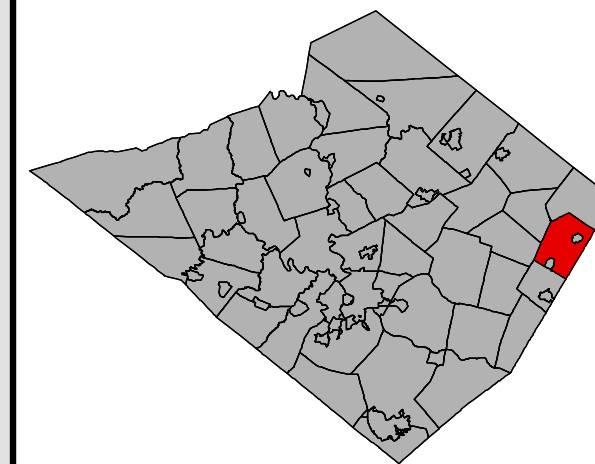
Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

Published by the Berks County Planning Commission












LFM 8/18



Public Utility Service Areas Washington Township



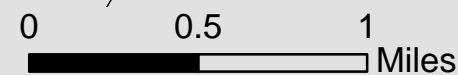
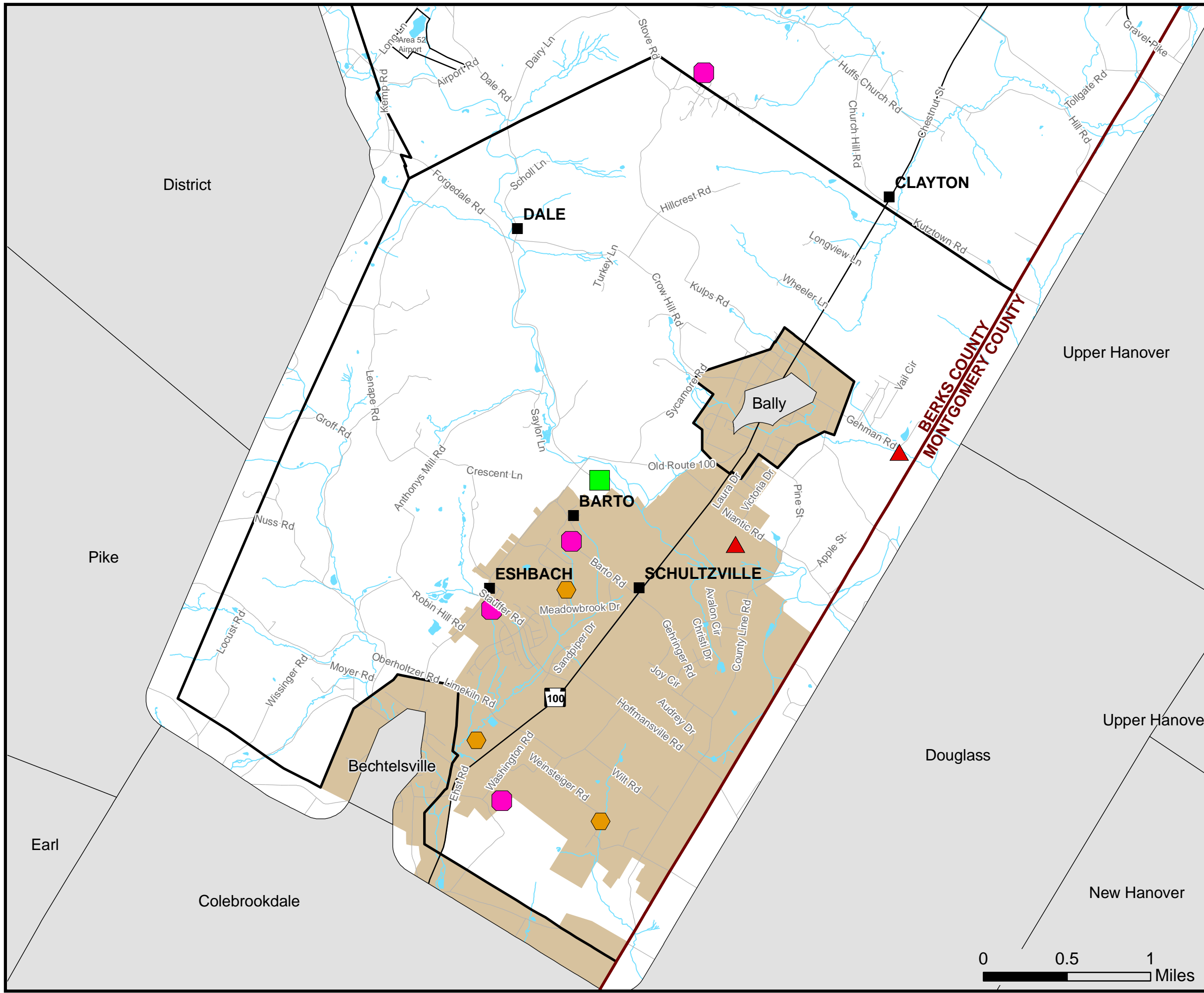
Legend

-  Sanitary Sewer Plants
-  Sanitary Sewer Pumping Stations
-  Met-Ed Substations
-  Cell Phone Service Towers
-  Existing Sanitary Sewer Service
-  Villages
-  Roads
-  Railroads- Active
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES

Published by the Berks County Planning Commission

LFM 8/18



EXISTING LAND USE ANALYSIS

Introduction

A comprehensive study and mapping of existing land uses serves as a guide for future development. A land use study depicts the development patterns within Hereford and Washington Townships and outlines restrictions and opportunities for future growth and development.

Existing Land Use

To a great extent, the existing land use patterns of Hereford and Washington Townships have been influenced and shaped by the region's physiographic features and topography. The close relationship of these natural features with the existing development pattern is evident in the area's transportation network. Historically, transportation routes were developed along corridors where travel and construction were the easiest, thus directly influencing the type, location, and intensity of subsequent land uses. Development in the western portion of the Townships is fairly sparse. Most development has occurred in the lowland areas along the eastern portions of the Townships adjacent to the State Route 100 corridor.

For land use to be practical, it must accurately inventory existing land uses and development characteristics. Then, with proper analysis, future land use schemes can reflect reality, and avoid the creation of nonconforming uses when implemented through zoning regulations. To determine existing land uses, two sources were consulted. First the Berks County Planning Commission has prepared a land use Geographic Information System (GIS) map coverage which blends tax parcel record information with land cover features as derived from aerial photography interpretation. Specifically, tax parcel data is used within "developed" areas while land cover data is used in outlying rural areas. This land cover data can "split" larger properties into several uses. For example, a farm with a house will depict the house as one use, and the farmland as another; this gives a truer picture of uses in outlying rural areas. Conversely, within more populated portions of Washington Township (around the boroughs of Bally and Bechtelsville) the County's tax parcel information was used to determine land use. Here, the tax records list one predominant land use on the entire property, which is also more accurate than aerial photo interpretation when analyzing a "built" environment. Second, the GIS data was reviewed by the Hereford/Washington Joint Comprehensive Planning Committee during this update with corrections noted. Regionally, the existing land use pattern includes a wide range of uses and settings which are depicted on the Existing Land Use Maps, found following this section.

Land Use Distribution

The distribution of land uses in the planning area is quantified in the table on the next page. Figures 31 and 32 illustrate that the existing land use distribution of the planning area is characterized as predominantly rural in nature. Open space land, including agricultural lands, dominate the landscape. Collectively, they comprise nearly 69 percent of the total land area (12,996.56 acres of the 18,845.15 total acres in the planning area).

Land that has been developed comprises 29.5 percent of the land use in Hereford and Washington Townships. Most of the developed land in the planning area is used for single-family low-density housing, with just over 3,386 acres throughout both Townships dedicated to single-family residential uses. The transportation network is the second most dominant developed land use, with just over 700 acres devoted to such uses. High density residential (exceeding one dwelling unit per acre) uses are the third most abundant developed use. Remaining developed land is comprised of institutional, commercial and industrial uses.

Chapter 10 - Existing Land Use Analysis

Existing Land Use in the Hereford-Washington Township Joint Planning Area, 2017						
LANDUSE	Joint Planning Area		Hereford Township		Washington Township	
	# Acres	% of Area	# Acres	% of Area	# Acres	% of Area
Agriculture	5,848.34	31.0%	3,423.43	34.8%	2,424.56	26.9%
Commercial	314.92	1.7%	116.11	1.2%	198.80	2.2%
Industrial	287.09	1.5%	128.20	1.3%	158.88	1.8%
Institutional	243.32	1.3%	92.97	0.9%	150.34	1.7%
Open Space	7,148.22	37.9%	3,809.73	38.7%	3,338.10	37.1%
Recreation	191.73	1.0%	88.99	0.9%	102.73	1.1%
Residential High	628.23	3.3%	177.65	1.8%	450.56	5.0%
Residential Low	3,386.13	18.0%	1,573.83	16.0%	1,812.14	20.1%
Transportation	702.39	3.7%	375.70	3.8%	326.65	3.6%
Water	94.78	0.5%	48.55	0.5%	46.23	0.5%
Total	18,845.15	100.0%	9,835.16	100.0%	9,008.99	100.0%

Source: Berks County Planning Commission

While developed land use percentages are fairly similar, the distribution of developed land uses within each Township is different. Washington Township has a greater percentage of its land devoted to low density residential uses. It also has three times as much high density residential acreage. Hereford Township has greater percentages of agricultural and open space lands. These larger percentages also represent greater acreage since Hereford Township is slightly larger than Washington Township in land area.

The following paragraphs provide further description and definition of each of the land use categories applicable to this planning area.

Residential

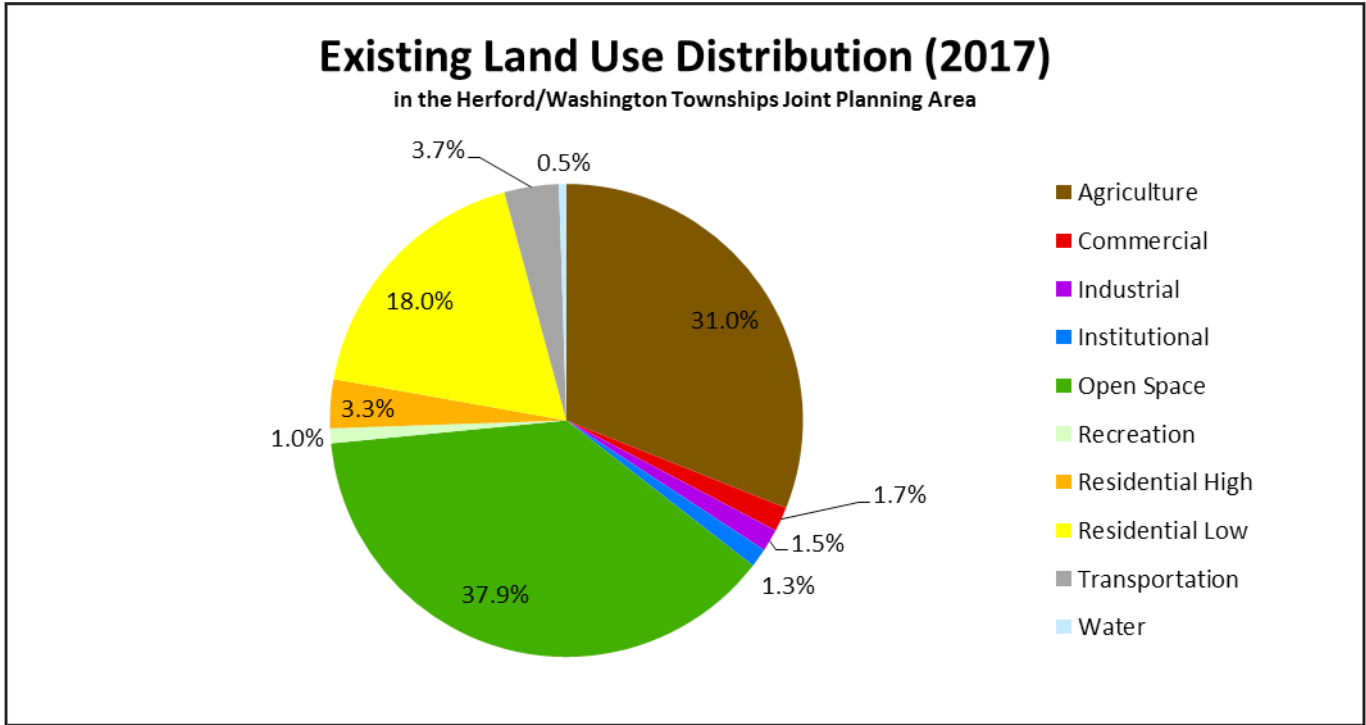
Residential land uses include all establishments offering residence or accommodation, such as homes, apartments, housing for the elderly, and hotels. They include dwelling unit structures; most are characterized by the uniform size and spacing of structures, linear driveways, and expanses of lawn. Residential uses are found throughout the planning area and comprise over 4,000 acres (21.3 percent) of the total land area. Residential uses cover a higher percentage of land area in Washington Township (25.1 percent) than they do in Hereford Township (17.8 percent). The location and intensity of the existing residential development pattern is largely determined by zoning and access to the transportation network. Most are sited adjacent with direct private access to the roadway.

Residential land uses can be further sub-classified as low density and high density, meaning one dwelling unit on one to five acre lots or many dwelling units per acre (such as an apartment building or condominium). Low density residential uses total 3,386.13 acres (18 percent). High density residential uses are quite limited across the planning area, amounting to 628.23 acres (3.3 percent) of total planning area. Hereford Township has a few small, scattered multi-family sites in the Village of Hereford. Washington Township has several multi-family sites along State Route 100 (SR 100) and Old Route 100.

Commercial

The commercial lands category contains such uses as retail, offices, utilities (electric and phone companies) and personal, professional and business services. In the planning area commercial uses cover 314.92 acres (1.7 percent) of the total land area. Commercial areas are typically located along transportation routes that provide easy access for customers and for deliveries. Commercial uses are found along State Route 100 (SR 100), Old

Route 100, State Route 29 (SR 29), and in the Village of Hereford. Small parcels of commercial uses are also found scattered in the western portion of Hereford Township.



Industrial

Industrial land uses include processing, fabrication or assembly of raw materials or component parts, wholesale trade and warehousing. Landfills, junkyards, and quarries are also included within this designation. Industrial lands comprise only a small portion, 287.09 acres (1.5 percent), of the total land area. Slightly more industrial acreage is found in Washington Township than Hereford Township. Like commercial lands, industrial areas are often located adjacent to transportation facilities.

Institutional

Institutional lands are used for public services such as governmental and public safety facilities, educational facilities (including athletic fields owned by educational institutions), cemeteries and religious institutions. Institutional lands total only 243.32 acres (1.3 percent) in the planning area.

Recreation

Recreation land provides space and facilities for people to engage in active and passive recreation activities. These include playgrounds, parkland, state gamelands/forests, as well as recreation land owned by non-profit recreational groups (i.e. homeowners associations and sportsman clubs) and commercial recreation such as golf courses and campgrounds. One (1.0) percent or approximately 191 acres of existing land use in the joint planning area is designated as a recreational use.

There may be some discrepancies between the number of acres of recreational land identified here than what is identified in the Community Facilities Analysis. This is because some of the passive recreational areas are included in the Open Space category. The Community Facilities Analysis chapter should be referenced when looking for specific recreational opportunities within the joint planning area.

Chapter 10 - Existing Land Use Analysis

Agricultural

Agricultural lands are those that are dedicated to crop, dairy, and livestock production and the support of these operations. The planning area continues to host a significant amount of agricultural activity, namely 5,848.34 acres (31 percent) of the total land area. Agricultural areas can be found along SR 100, as well as in the western interior. While the planning area was once dominated by farming, much of the agricultural pattern has been speckled with residential uses. Even so, large contiguous farming areas can still be found in both Townships.

Open Space

Open space is land that is predominantly wooded or open land that does not include a structure such as meadows and fields (not farmland). Residue land associated with large residential lots over five acres, as well as forested land on farmland is also included in this category. The majority of this land is typically private with the exception of municipal watershed lands. Many of these areas may have previously been under cultivation but now provide temporary or permanent open space uses for the planning area. Secondary uses, such as passive recreation, are easily supported in these areas. Open space uses total 7,148.22 acres (37.9 percent) of the total land area, making it the number one land use category in the planning region. This further confirms that the municipalities still remain predominantly rural in nature.

Water

While these lands are covered by water, it is often helpful to know the quantity and distribution of water resources in a planning area as they relate to other land uses. Water resources cover 94.78 acres (0.5 percent) of the planning area. While the number of acres covered by water resources differs slightly between Hereford and Washington Townships, the percentage of land covered is the same.

Regional and Local Development Trends

Historical development of eastern Berks County focused on small villages, located at roadway intersections or along railroad corridors. They served as the social and business centers for the predominantly agricultural community. Churches, schools, and general stores were located in these centers, along with early commercial and industrial uses that developed to support the agricultural industry. Road and rail routes carried trade items between the towns and villages throughout the 19th century.

A number of factors changed the way towns and villages grew during the late 19th and early 20th centuries. Land uses began to segregate; roadways were improved; real estate values rose in downtown areas; and business operations began locating outside the community and business centers, where land was less expensive.

Personal automobiles and improvements to the transportation network influenced land use patterns during the 20th century. Improved roadways, new highways, and affordable vehicles enabled residents to travel greater distances to their work, school, and social destinations in less time. This allowed residents greater flexibility in selecting residential settings. This flexibility has led to scattered development along the road network, as residents seek rural sites accessible to urban areas. Today, we also find commercial and industrial complexes in suburban and rural areas where transportation access is available and land is inexpensive to develop.

Regionally, the larger urban areas of Reading, Allentown, and Philadelphia that surround Hereford and Washington Townships are experiencing out migration into the surrounding areas. This has resulted in the further expansion and spread of suburbanization, encroaching on the adjacent rural areas throughout Bucks, Lehigh, Berks, and Montgomery Counties. As Hereford and Washington Townships lie between these three urban areas, they are vulnerable to widespread suburbanization.

In addition, the agricultural community and economy are changing. Younger generations are taking less interest in continuing family farms. Older generations are selling all or portions of the family farm to pay for retirement or, increasingly, for health care. Farms of all sizes are joining agricultural cooperatives in order to remain viable

in the agricultural market. These changes have made the agricultural landscape of crop fields and dairy and livestock pastures more susceptible to development pressures.

Development pressure is increasing along the SR 100 corridor where areas are prime for development. The topography is relatively level and utilities are available. However, this area also contains some of the most productive soils. Property owners have shown interest in retaining the agricultural and open space landscape through the Agricultural Security program, though this promises only temporary agricultural use.

Development pressure exists in other portions of the planning area, as well. The edges of large farms have been speckled with residential sites that front the local roadways. This has created a landscape that appears less agricultural and more residential, though not quite suburban, as from the perspective of one driving through the planning area. While agricultural and woodland areas remain behind these residences, they are not in the foreground of the Townships' character.



The potential for sprawl of residential subdivisions, strip-type retail development, and unnecessary loss of farmland undoubtedly exists in the planning area. Such land use changes have negative traffic, environmental, and community impacts. Careful planning will be needed to guide the amount, type and timing of future development, as well as the priorities for open space and agricultural preservation efforts.

Land Use Regulatory Measures

Comprehensive Plans are used to guide future land use policy and decision-making. Hereford and Washington Townships produced a Joint Municipal Comprehensive Plan in 2006. Generally, it designated large portions of the Townships for both rural resource protection and agricultural preservation, while development of residential and commercial areas were to be focused on the existing villages, around boroughs and along the SR 100 corridor. A key goal of this plan was to guide development to areas with available infrastructure and reduce development pressure on the rural landscape.

The Pennsylvania Municipalities Planning Code (MPC, Act 247 of 1968, as amended) provides the legal framework for local governments to enact, administer and enforce both zoning, and subdivision and land development regulations. Zoning is a method a community may use to regulate the use of land and structures and is designed to protect public health, safety, and welfare, and to guide growth. In contrast, subdivision and land development regulations do not control which uses are established within the municipality or where a use or activity can or cannot locate. Rather, it controls how a use or activity relates to the land upon which it is located.

Both Townships have enacted zoning ordinances for their respective municipality. The Hereford Township Zoning Ordinance was adopted in 1973, and has been subsequently amended. The Washington Township Zoning Ordinance was adopted in 1982; it has also received amendments since such time. Both Ordinances contain the Townships' general purpose, definitions, zoning districts & map, supplementary regulations, non-conforming uses, roles of zoning officials, and amendments.

Like a Zoning Ordinance, a Subdivision and Land Development Ordinance provides for intended purposes, definitions, enforcement, and the roles of process officials. Hereford Township's Subdivision and Land Development Ordinance was adopted, as growth became an issue. Washington Township has a Subdivision and Land Development Ordinance; it is an amendment (Chapter 107) to the original ordinance of 1989. The Ordinance holds the developer to certain minimum requirements, such as design standards, plan requirements, processing procedures, and acceptance by the Township.

Chapter 10 - Existing Land Use Analysis

Both Townships have a Planning Commission, Zoning Hearing Board or Zoning Board of Appeals, and one or more Zoning Enforcement Officers. The Planning Commission is an advisory body to the Board of Supervisors in matters of planning, zoning, and subdivision control. The Commission reviews all applications for subdivisions and land development in the Township and makes recommendations to the Board of Supervisors. A Zoning Board handles appeals. A Zoning Code officer in Washington Township enforces the zoning regulations, zoning variance applications, and building codes. Hereford Township holds a private contract for enforcement services.

In addition, municipalities may include in their zoning and land development ordinance provisions that require open space, parks, and recreation facilities along with the development of residential and nonresidential uses within their communities. These requirements are authorized under various sections of the MPC. Both Townships utilize a fee-in-lieu provision as an alternative to land donation. The Planning Code also enables municipalities to protect certain natural features of the land, including flood plains, steep slopes, wetlands and other resources.

Agricultural Preservation



Changes in the agricultural economy, population, and American culture and standards of living have increased the pressures to convert farmland to residential uses in many areas of Pennsylvania and across the country. Farming is less attractive to younger generations today and the land is more valuable for its development potential than its production value. Yet many Pennsylvanians feel that agriculture is a significant part of their heritage and worthy of protection. Many municipalities were interested in pursuing farmland protection but felt uncertain of the authority and appropriate means to do so. In 2000, Acts 67 and 68 amended the Municipalities Planning Code (MPC) to address agricultural preservation and other land use issues. These acts clarify the authority of municipalities and counties to create “Locally Designated Growth Areas: as part of their comprehensive land use plans, while encouraging and enhancing the use of transferable development rights.” Such rights are commonly used as a tool to preserve open space and farmland.

There are a number of tools available to the Townships and County to preserve agricultural land. The following is a description of such tools available in Hereford and Washington Townships:

Agricultural Security Areas

The Agriculture Area Security Law (Act 43; 1981) authorized the creation of agricultural security areas to preserve farmland. Agricultural Security Program offers the following features:

- Voluntary for farmers. The farmers to create the ASA submit petitions to township supervisors. They are reviewed every seven years; however, new parcels of farmland may be added to an established ASA at any time.
- A minimum of 250 acres from among all the participating farmers is required.
- An ASA may include non-adjacent farmland parcels of at least ten acres or be able to produce \$2,000 annually from the sale of agricultural products.
- Participants receive special consideration regarding:
 - Local ordinances affecting farming activities.
 - Nuisance complaints.

- And review of farmland condemnation by state and local government agencies.
- An ASA qualifies land for consideration under the Easement Purchase Program at the landowner's request, if the ASA has at least 500 acres enrolled. (Source: PA Bureau of Farmland Preservation website)

According to the Pennsylvania Department of Agriculture 2015 Farmland Preservation Annual Report and as depicted on Figures 11 and 12, 8,021 acres have been enrolled in the Agricultural Security Program across the planning area. In Hereford Township, 59 property owners have enrolled 3,592 acres. In Washington Township, 59 property owners have enrolled 4,429 acres.

Transfer of Development Rights

Transfer of Development Rights (TDR) allows development rights to be purchased and transferred for use at another location. The use of TDRs in Hereford Township could direct growth to certain areas, such as the SR 100 corridor, while permanently preserving agricultural land in other parts of the Townships. A TDR program generally creates a sending district and receiving district. Property owners in the sending district are allotted development rights based on the zoning ordinance. These rights can be sold to property owners in the receiving district to build at higher densities than allowed under the applicable zoning ordinance.

Clean & Green

Clean and Green (also known as The Pennsylvania Farmland and Forest Land Assessment Act of 1974) is a Pennsylvania Department of Agriculture conservation program for land in agricultural use, agricultural reserve, or forest reserve. Property tax rates are adjusted (based on the value set annually by the Dept.) for program participants. Landowners qualify if:

- Property is 10 acres or more of agricultural land.
- For properties less than 10 acres of agricultural land, but gross at least \$2000 annual income from the land.
- Property is 10 acres of forestland.

There are 524 Clean and Green sites located throughout the Townships fragmented in large parcels. There are approximately 11,526 acres of land under this program protection.

Conservation Easements

An easement is the legal agreement between a property owner and an entity (usually a non-profit or public organization). The agreement binds the landowner to protect the character of the property for compensation (usually a tax break), while maintaining ownership. This tool is often used to protect historic landmarks or preserve land.

There are two types of conservation easements in Hereford and Washington Townships, as shown on Figures 11 and 12. There are nine Agricultural Conservation Easements (ACE) in the Townships. There are over 347 acres in the Townships as a part of this program. All ACE's are on or in close proximity to SR 100. Berks County administers the program through its Agricultural Land Preservation Board. The main focus of the Board is to purchase contiguous easements of farmland. Priority is given to parcels located in Agricultural Preservation Areas.

The Berks County Conservancy, now known officially as Berks Nature, and the Natural Lands Trust also conserves agricultural land and woodlands by funding easements. There are currently seven easements in Hereford and Washington Townships. Together they contribute 426 acres to the collection of preserved land in the Townships.

Chapter 10 - Existing Land Use Analysis

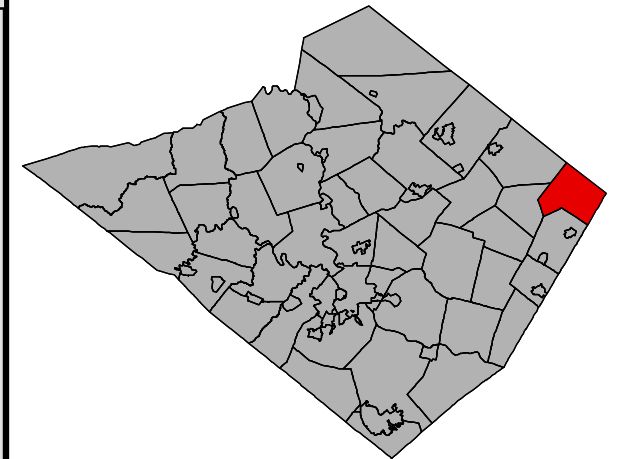
Trends and Issues

- **Most development has occurred in the lowland areas along the eastern portions of the Townships.** Some future development is planned in this area, particularly the southeastern portion of Washington Township where sewer service is available.
- **Both Townships remain predominantly rural.** Nearly 69 percent of the total land in the planning area lands is used for agricultural and open space uses.
- **Most of the developed land in the planning area is used for single-family housing,** with over 3,300 acres throughout both Townships. Roads and rights-of-way are the second most dominant developed land use, with just over 700 acres devoted to this purpose.
- **The Townships vary in their land use distribution, but residential development is the predominant developed land use type.** Washington Township has a greater percentage of its land devoted to single-family residential uses. It also has nearly three times as much multi-family residential acreage. Washington Township has greater percentages of commercial and institutional lands. The Townships' acreage and percentage of industrial land is relatively similar.
- **Development pressure has waned partly due to the recession,** but the potential for sprawl of residential subdivisions, strip-type retail development, and loss of farmland still exists in the planning area.
- **Both Townships have a previously adopted joint comprehensive plan (January 2006) but still maintain separate zoning ordinances.**
- **Residents and officials of the planning area and the County are interested in agricultural preservation.** Nearly 8,021 acres in the planning area have been enrolled in the Agricultural Security Program. That's nearly 2,621 acres more than were enrolled in 2005.













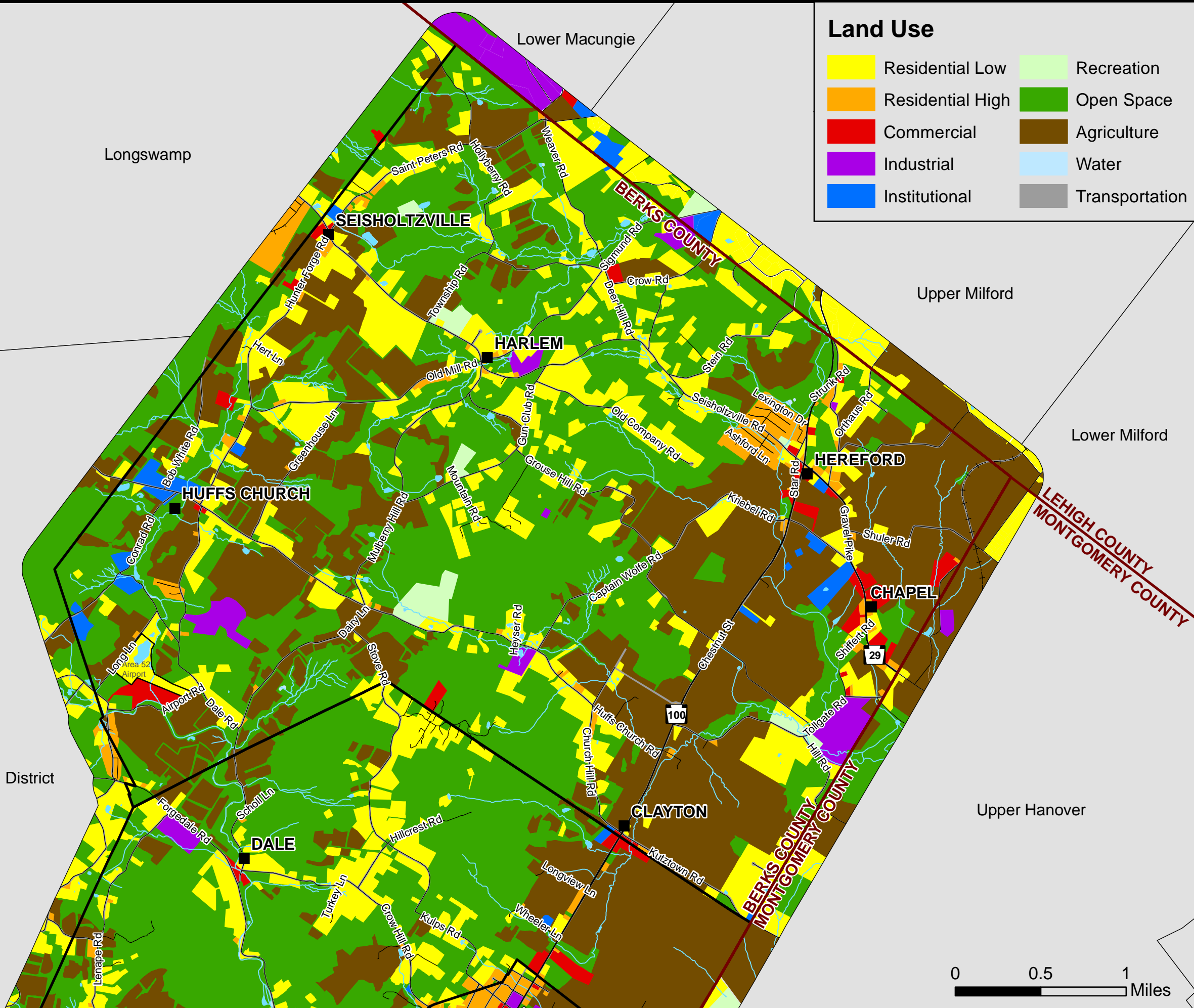
Hereford and Washington Joint Comprehensive Plan Update
Adopted: August 2018

Existing Land Use Hereford Township









Land Use

	Residential Low		Recreation
	Residential High		Open Space
	Commercial		Agriculture
	Industrial		Water
	Institutional		Transportation



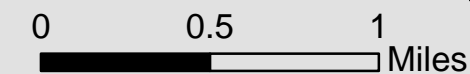
Legend

-  Villages
-  Roads
-  Railroads- Active
-  Streams and Water Bodies
-  Municipal Boundaries
-  County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, US Census Bureau

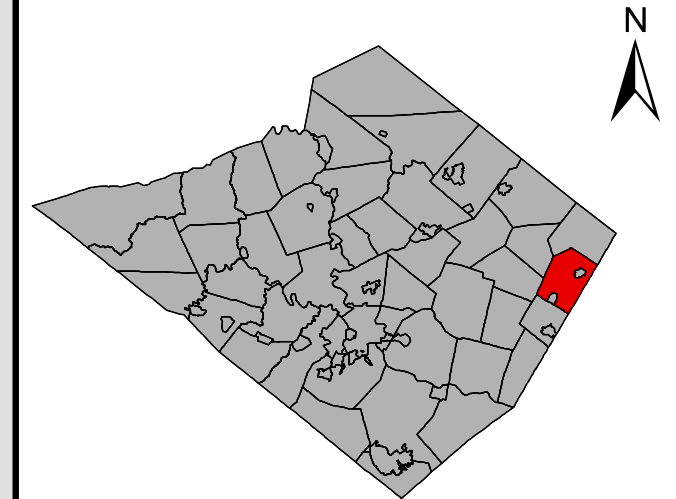
Published by the Berks County Planning Commission

LFM 8/18



Hereford and Washington Joint Comprehensive Plan Update
Adopted: August 2018

Existing Land Use Washington Township



Legend

- Villages
- Roads
- ++++ Railroads- Active
- Streams and Water Bodies
- Municipal Boundaries
- County Boundaries

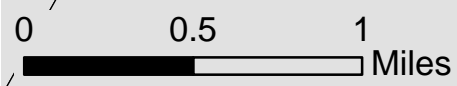
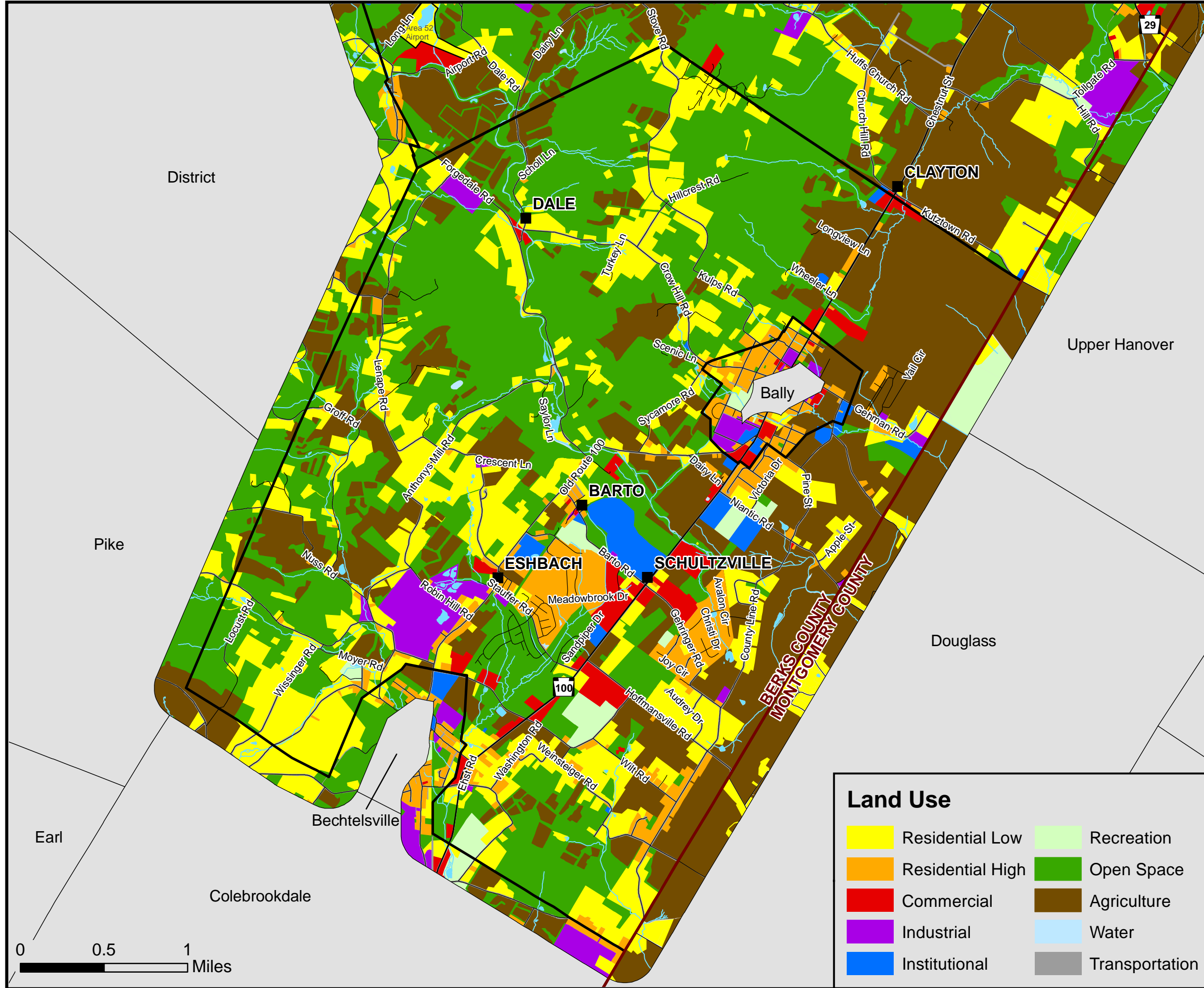
Land Use

- | | |
|------------------|----------------|
| Residential Low | Recreation |
| Residential High | Open Space |
| Commercial | Agriculture |
| Industrial | Water |
| Institutional | Transportation |

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES, US Census Bureau

Published by the Berks County Planning Commission

LFM 8/18



FUTURE LAND USE ANALYSIS

Introduction

The Future Land Use Plan emphasizes land use planning that accommodates projected community and economic growth, directs growth to areas of existing or planned infrastructure, and protects sensitive resources from development and its impacts. The core purpose of the Future Land Use Plan is to manage the amount, intensity, character and timing of development.

Methodology

The Future Land Use Plan was created digitally using a geographic information system (GIS). The existing land use and zoning GIS data was used as the foundation to create the Future Land Use map. Additional GIS data such as public water and sewer areas, slopes, floodplains, tax parcels, and easements were overlaid onto the existing land use. The combination of all the different GIS data allowed an analysis to be performed which determined areas that are currently developed, areas where growth should occur at different densities, the location of agriculture, recreation, as well as areas where industrial and commercial development should occur.

The Future Land Use Plan depicts the pattern of projected land use, targeting areas that are appropriate for urban growth and reinvestment, as well as areas that should be preserved/conserved for their agricultural, recreational or natural resource assets.

The Future Land Use Plan is divided into ten (10) categories:

1. Low Density Residential
2. Medium Density Residential*
3. High Density Residential
4. Mixed Use
5. Agriculture
6. Rural Conservation
7. Commercial
8. Industrial
9. Recreation
10. Transportation Network

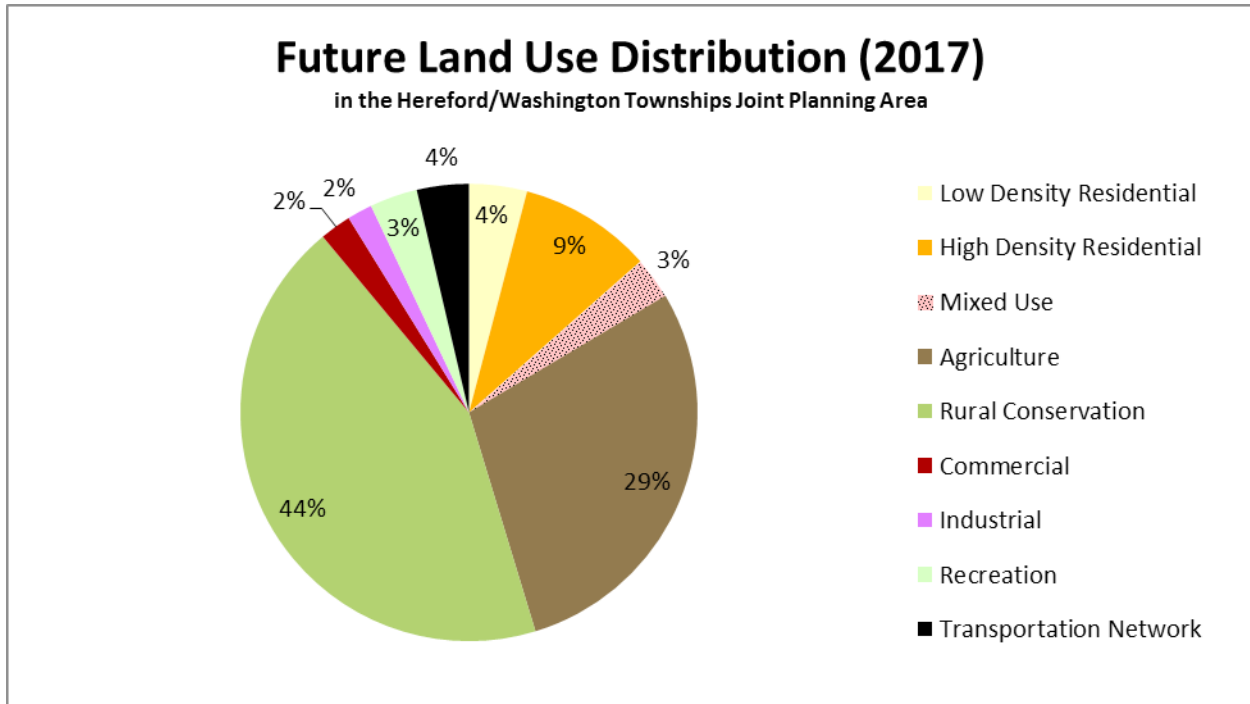
* The Medium Density Residential category is only within the boundaries of the boroughs of Bally and Bechtelsville. It is shown because of the 1000 foot buffer that identifies land uses in neighboring municipalities.

The table and chart on the next page shows the acreage for each of the Future Land Use categories in the region.

Chapter 11 - Future Land Use Analysis

Future Land Use in the Hereford-Washington Township Joint Planning Area, 2017						
LANDUSE	Joint Planning Area		Hereford Township		Washington Township	
	# Acres	% of Area	# Acres	% of Area	# Acres	% of Area
Low Density Residential	773	4.1%	81	0.8%	692	7.7%
High Density Residential	1,772	9.4%	206	2.1%	1,566	17.4%
Mixed Use	558	3.0%	558	5.7%	0	0.0%
Agriculture	5,432	28.8%	3,796	38.6%	1,636	18.2%
Rural Conservation	8,227	43.7%	4,355	44.3%	3,872	43.0%
Commercial	419	2.2%	0	0.0%	419	4.7%
Industrial	333	1.8%	98	1.0%	235	2.6%
Recreation	636	3.4%	374	3.8%	262	2.9%
Transportation Network	693	3.7%	366	3.7%	327	3.6%
Total	18,843	100.0%	9,834	100.0%	9,009	100.0%

Source: Berks County Planning Commission



The following describes the ten (10) land use categories portrayed in the Future Land Use Analysis.

Low Density Residential

This category is primarily intended to provide for single family detached development. With on-lot well and septic systems, a one or one-and-a-half acre minimum should be required. With central water and sewage services, a lot size of approximately ½ acre to 1/3 acre could be appropriate. Also, lot sizes as small as 1/5 acre could be appropriate through the Transfer of Development Rights (described in Chapter 10).

There are approximately 773 acres of Low Density Residential Development in the Hereford and Washington region. This category makes up about 4.1% of the joint planning area.

Medium Density Residential

This category is primarily intended to provide for single family detached homes and twin houses. With central water and sewage services, an average of approximately 2.1 to 6 homes per acre could be appropriate without open space preservation. The Open Space Development option could provide for approximately 1/4 or 1/6 acre average lot sizes with 30 percent of the tract preserved as open space. Also, lot sizes as small as 1/6 acre average lot sizes could be appropriate through the Transfer of Development Rights.

The Medium Density Residential designation does not fall within the boundaries of either Township. This category can be found in the 1000 foot buffer that identifies the adjacent land uses in the neighboring boroughs.

High Density Residential

This category is intended to provide for a mix of housing types at densities at over 6 homes per acre. Higher densities (such as 8 or 9 homes per acre) could be appropriate if the housing was limited to persons age 55 and older or through transfer of development rights. These areas should allow for all housing types. These areas are particularly important to meet obligations under State law to offer opportunities for all types of housing. It also is important to provide opportunities for various housing types in order to meet the needs of different types of households, such as empty nesters, singles, low income and senior citizens. All apartment and townhouse developments (except the smallest) should be required to include some recreation or open space area for residents.

The majority of this designation is located in the southern corner of Washington Township along SR 100 between Old Route 100 and County Line Road. There are also clustered areas of this designation found around the villages of Seisholtzville, Harlem and Huff's Church in Hereford Township. The High Density Residential category contains approximately 1,772 acres or 9.4% of the joint planning area.

Mixed Use

This category is intended to provide for a broad mix of office, commercial, limited industrial, community institutional, and specialized residential development. The Mixed Use designation is also intended to provide for large-scale and automobile-oriented uses which may not be compatible within conventional residential or historic village areas.

The Mixed Use category is only found in Hereford Township along State Route 29. Approximately 558 acres in Hereford Township are designated as Mixed Use.

Agriculture

The need for agricultural preservation and methods to achieve it are described in the Environmental Resource Analysis section of this Plan. A goal of the agriculture designation is to avoid dense residential subdivisions in the middle of active farmland - to protect the investment of the adjacent farmers.

In general, the desire is to preserve large contiguous areas of prime farmland, mainly through encouraging landowners to sell conservation easements to the County, Townships or non-profit agency. As an alternative, owners of land are encouraged to consider selling conservation easements to a developer in return for a "transfer of development rights" (as described in Chapter 10). Townships can also enact Effective Agricultural Zoning (EAZ) regulations. EAZ focuses on preserving agriculture by permitting a wide variety of farm-related uses and restricting non-farm activities that are disruptive to agricultural activities. In EAZ non-farm dwelling unit development is stringently limited (in number and size of lot); typically through sliding scale and fixed area based zoning techniques. Washington Township's "A" zoning district qualifies as EAZ.

Chapter 11 - Future Land Use Analysis

In addition to discouraging large numbers of homes in prime agricultural areas, it is also desirable to carefully locate new homes on a tract to minimize conflicts with agricultural activities. New homes should be placed as far as is reasonable from livestock operations, and preferably should be upwind from livestock.

Agriculture is the second largest Future Land Use category as it encompasses over 5,000 acres or 28.8% of the joint planning region.

Rural Conservation

These lands are characterized by low density development, prominent forest cover, and may contain slopes greater than 15%, as well as fragmented areas of farmland and land eased for open space, natural resource or woodland conservation. Development should be subject to flexible siting standards, conservation design standards, and disturbance limitations designed to avoid the most critical environmental constraints, and allow land to be developed efficiently with the least degree of environmental impact.

Just driving through the Townships one can recognize the rural nature of the region. It's no wonder that the Rural Conservation designation is the number one land use identified on the Future land Use map. Over 8,200 acres of Rural Conservation covers the municipalities. That's nearly half of the acreage of the two municipalities combined.

Commercial

This category is intended to provide for a wide range of commercial development, particularly in areas of more "highway" oriented commercial development. As opposed to the Mixed Use area described earlier in this chapter, these areas should provide opportunities for uses such as gas stations, vehicle sales and auto sales. A careful set of standards are needed to require coordinated traffic access among different uses.

If an excessive amount of commercial zoning is allowed at one time, it may encourage sprawled development, with businesses simply relocating from one business site to a new site, leaving the old site vacant. If the supply of commercially zoned land is held to a moderate amount, it will encourage rehabilitation and redevelopment of older commercial sites.

Hereford Township has no Commercial land; instead they rely on the Mixed Use designation for commercial development. Washington Township, on the other hand, has over 400 acres identified for commercial development. The Commercial land use designation can be found along the State Route 100 corridor from the southern municipal border to northern municipal border with Hereford Township.

Industrial

The Industrial areas are intended to provide for a wide range of industrial uses. These areas are particularly important to meet obligations under State law to provide opportunities for all types of business uses, including some uses that are less desirable. The heaviest industrial uses should need special exception from the zoning hearing board or conditional use approval from the township supervisors.

Both municipalities provide for Industrial uses. In Washington Township Industrial areas are located in close proximity to the Boroughs to take advantage of access to sewer and water. Hereford Township has an area of Industrial designation on the east side of Tollgate Road along the Montgomery County border. Together the Industrial use makes up about 1.8% or 333 acres of the joint planning area.

Recreation

Recreation land provides space and facilities for people to engage in active and passive recreation activities. These include playgrounds, parkland, state gamelands/forests, as well as recreation land owned by non-profit recreational groups (i.e. sportsman clubs, and little league organizations) and commercial recreation (i.e. golf courses, miniature golf courses, racetracks, campgrounds).

Recreational land is located sporadically across the joint planning area. Recreation makes up about 636 acres of land throughout both Townships.



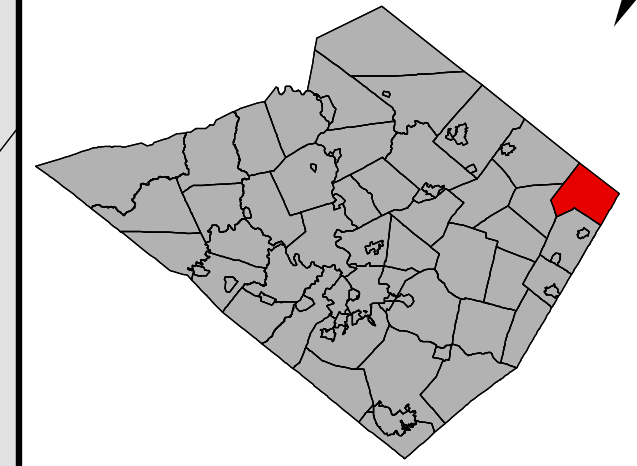
Barto Community Park

Transportation Network

Land in this category contains roads and railroads. While the network of transportation modes that serves Berks County also includes air service, bus and motor freight services, these land uses, as well as parking garages are included in the commercial category.

While many factors can influence growth and development patterns, the existing transportation network has always been prominent in shaping Berks County, as well as the Hereford and Washington planning region. Over time development has historically concentrated near major transportation facilities to take advantage of their accessibility.

Future Land Use Hereford Township

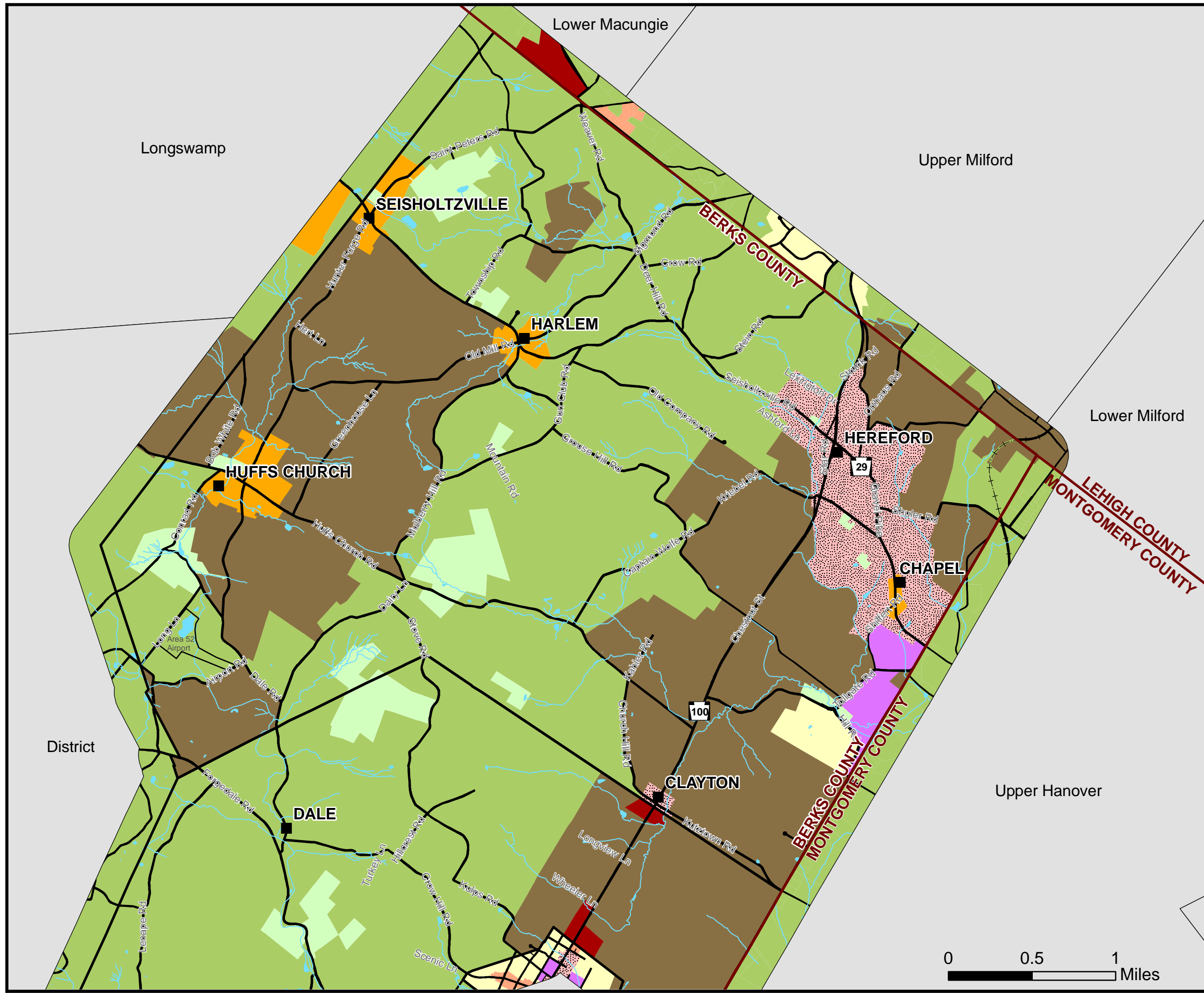


Legend

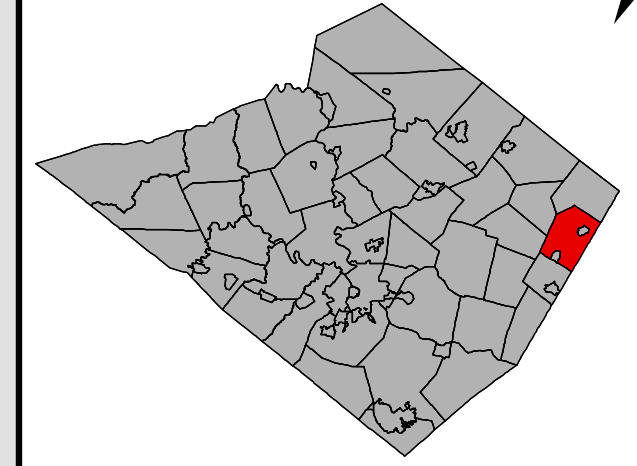
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Agriculture
- Rural Conservation
- Commercial
- Industrial
- Recreation
- Transportation Network
- Villages
- Railroads
- Streams
- Municipal Boundaries
- County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES
Published by the Berks County Planning Commission

BAB 8/18



Future Land Use Washington Township



Legend

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Agriculture
- Rural Conservation
- Commercial
- Industrial
- Recreation
- Transportation Network
- Villages
- Railroads
- Streams
- Municipal Boundaries
- County Boundaries

Source data: Berks County Planning Commission GIS, Berks County GIS/IS, Berks County Mapping, Berks DES
Published by the Berks County Planning Commission

BAB 8/18

