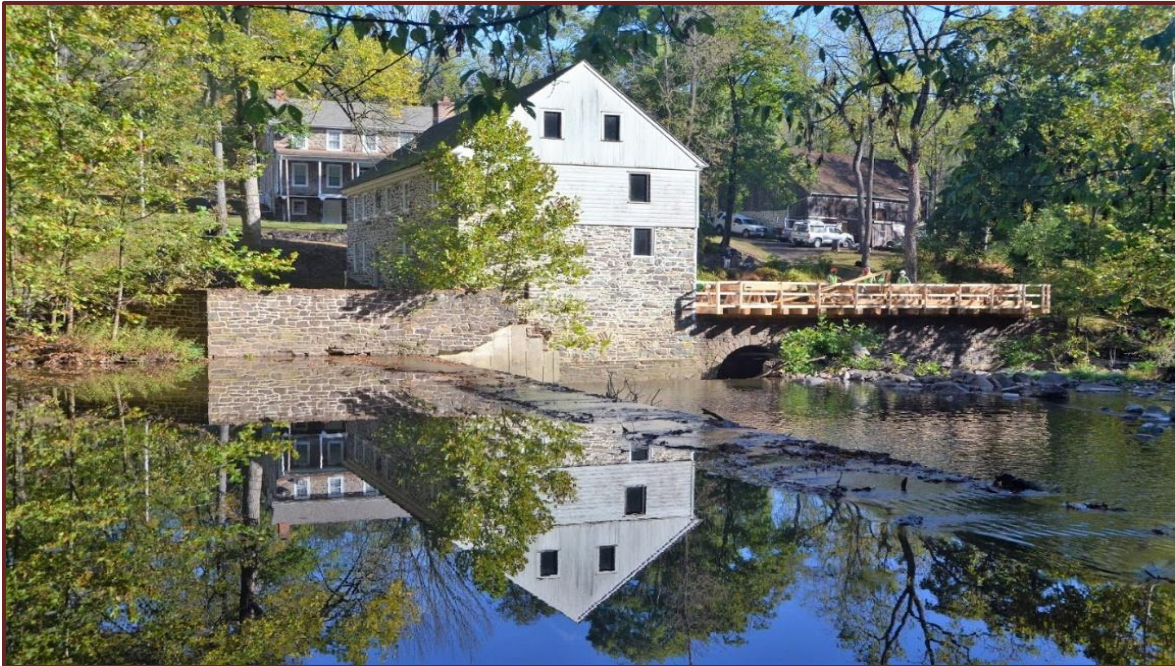


2020 Comprehensive Plan Update

UPPER FREDERICK TOWNSHIP

Montgomery County, PA



Updated November 2020
by
Tackett Planning, Incorporated

Originally prepared January 2008
by CHPlanning Limited

RESOLUTION NO. 2020-18

**A RESOLUTION BY THE
UPPER FREDERICK TOWNSHIP BOARD OF
SUPERVISORS ADOPTING A 2020 COMPREHENSIVE
PLAN UPDATE FOR UPPER FREDERICK TOWNSHIP.**

WHEREAS, in 2008, the Board of Supervisors of Upper Frederick Township adopted a new Comprehensive Plan for Upper Frederick Township; and,

WHEREAS, in June of 2005, Upper Frederick Township adopted a Regional Comprehensive Plan providing a Comprehensive Plan for the municipalities of Colledgeville Borough, Lower Frederick Township, Perkiomen Township, Schwenksville Borough, Trappe Borough and Upper Frederick Township; and,

WHEREAS, the Board of Supervisors desires to update the existing Comprehensive Plan to update the demographics and the goals/objectives of its Comprehensive Plan.

NOW, THEREFORE, BE IT RESOLVED AND IT IS HEREBY RESOLVED, that the Board of Supervisors of Upper Frederick Township, Montgomery County, Pennsylvania, hereby adopts the 2020 Comprehensive Plan Update dated August of 2020, as prepared by Tackett Planning, Incorporated, and consisting of the following textual categories:

- Chapter 1: Introduction & History.
- Chapter 2: Resource Protection.
- Chapter 3: Parks, Recreation and Open Space.

- Chapter 4: Land Use.
- Chapter 5: Economic Development.
- Chapter 6: Housing.
- Chapter 7: Community Infrastructure.
- Chapter 8: Transportation.
- Chapter 9: Evaluation of County and Abutting Municipal Plans.
- Chapter 10: Implementation.

NOW, BE IT FURTHER RESOLVED, that, in conjunction with the adoption of the 2020 Comprehensive Plan Update, the following List of Maps and List of Figures are adopted as being included with the 2020 Comprehensive Plan Update:

List of Maps:

- Map 1: Regional Setting.
- Map 2: Upper Frederick Township Geologic Features.
- Map 3: Upper Frederick Township Prime Agricultural Soils.
- Map 4: Existing Natural Features.
- Map 5: Historic Features.
- Map 6: Recreational Facility Inventory.
- Map 7: Wayland Park Concept Park Plan.
- Map 8: Private Open Space Areas.
- Map 9: Existing Land Use Map.
- Map 10: Agricultural Lands.
- Map 11: Future Land Use Strategy.
- Map 12: Upper Frederick Township Existing and Proposed Trail Network.
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- Figure 6: Approved Farms Through 2017.
- Figure 7: Employment Data.
- Figure 8: Employment Status.
- Figure 9: Income Levels.

- Figure 10: Population and Employment Trends.
- Figure 11: Housing Data.
- Figure 12: Commute to Work Data.
- Figure 13: Road Classifications.
- Figure 14: PennDOT Roadway Classifications.
- Figure 15: Traffic Count Data.

RESOLVED AND ADOPTED into a Resolution on this 12
day of November, 2020.

UPPER FREDERICK TOWNSHIP
BOARD OF SUPERVISORS


Trey Armstrong, Chairman


William J. Tray

Sean A. Frisco

UPPER FREDERICK TOWNSHIP OFFICIALS

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Chapter 1: Introduction & History

1.1 Introduction

Upper Frederick Township was created in 1919 by a Petition to the Court of Quarter Sessions of Montgomery County to separate what was then Fredrick Township into Upper Frederick and Lower Frederick Townships. The Final Decree was entered on Nov.20, 1919. Upper Frederick is a township of the 2nd class and as such is governed by a three-person Board of Supervisors.

Upper Frederick Township is a rural community located in the northwestern portion of Montgomery County, approximately 30 miles from Philadelphia, 15 miles from Norristown and 9 miles from Pottstown, and approximately 25 miles from Allentown. The Township is bordered to the northeast by the Perkiomen Creek. Swamp Creek runs along the southern boundary of the Township. The Township is located just far enough from urbanized areas to help preserve its rural character, but close enough to allow residents access to surrounding urbanized areas for work and shopping.

This local comprehensive plan update is intended to reflect existing conditions and update goals and objectives to reflect new community priorities since its original adoption in 2008, while maintaining consistency with the 2013 Regional Comprehensive Plan. This Comprehensive Plan Update is intended to provide Township residents and elected officials with a solid foundation on which to make future development decisions that respect the Township's character and established priorities, while shaping that character for the future. Particular emphasis is placed on directing growth into areas best suited for present and future populations, while being sensitive to the Township's most vulnerable resources and rural character.

1.2 Community Background

Upper Frederick Township was settled by Europeans in the late 1600's and 1700's, though Native Americans were present in the area prior to European settlement. Frederick Township was first formally recognized as a part of Philadelphia County in 1731. The Township grew up around the villages of Frederick, Obelisk and Perkiomenville. Frederick and Obelisk were settlements along the Great Road, currently known as Big Road or Route 73. Perkiomenville is located in the northern part of the Township and developed near Perkiomen Creek.

Between these villages were numerous farms that were settled by Europeans, primarily of German ancestry, resulting in the Township's strong Pennsylvania Dutch traditions and roots. These farms help give the Township its rural feel and are key contributors to the Township's character. The German settlers were known as the Goshenhoppen, which is one of the oldest continuously existing German settlements in the country. The Henry Antes House that is located in Upper Frederick is an example of one of the German settlement houses. Henry Antes was among the greatest master-builders of the early colonial period and was responsible for the construction of many of the early Moravian buildings and mills in Bethlehem. He is also considered to be one of the most important religious/political leaders in the middle colonies in the 18th century.

The location of Deep Creek Lake also contributed to the Township's development. Many summer residences and camps developed along the perimeter of the property that was to become the Deep Creek Lake Park. As development increased in the Township many of these summer residences were converted into year-round homes.

The Township remained primarily an agricultural community until the mid-1950's when residential pressures began to increase as suburban development grew throughout the Philadelphia region. By 1976 the Township population was 1,418. As development pressures increased into the early 2000's the Township's population more than doubled in less than 20 years. Despite the growth pressures of this time period, Upper Frederick has predominantly maintained its agricultural character.

Rural Scene



The high growth rate began slowing after the Great Recession of 2008 which caused development to all but cease. Recovery has been very slow, but the Township has taken this time of reduced development pressure to implement recommendations of the 2008 Comprehensive plan and reevaluate the effectiveness of existing ordinances in anticipation of future development.

In July of 2001 Upper Frederick Township joined the newly created Central Perkiomen Valley Regional Planning Commission together with the municipalities of Collegeville Borough, Lower Frederick Township, Perkiomen Township, Schwenksville Borough, and Trappe Borough to discuss planning issues and developments of regional significance and maintain a Regional Comprehensive Plan. The region's first comprehensive plan was adopted in June of 2005 and then updated in 2014. The Regional Plan assists communities by encouraging member municipalities to guide growth toward appropriate areas of the Region.

1.3 Regional Setting

The residential development in Upper Frederick Township has predominantly occurred along its major roadways. The villages of Obelisk and Frederick grew along Route 73, while the village of Perkiomenville developed along Route 29. According to the Central Perkiomen Valley Regional Comprehensive Plan (2014), the area along Route 73 is designated as the "Future Growth Area" for the Township. This area is characterized by old and new development on existing road networks that can be serviced by public sewer and water systems.

Both roadways, Route 73 and Route 29, link the area to important commercial and industrial centers. Heading south on Route 29, residents can access King of Prussia, the Pennsylvania Turnpike, and Philadelphia. Northbound Route 29 will carry residents toward Allentown and the Quakertown interchange of the Pennsylvania Turnpike's Northeast Extension. Route 73 provides direct access to the eastern part of the County, including Fort Washington and Route 202 which runs north to Montgomeryville and south to Norristown. Going west on Route 73, residents have access to Boyertown, Route 100, and Berks County.

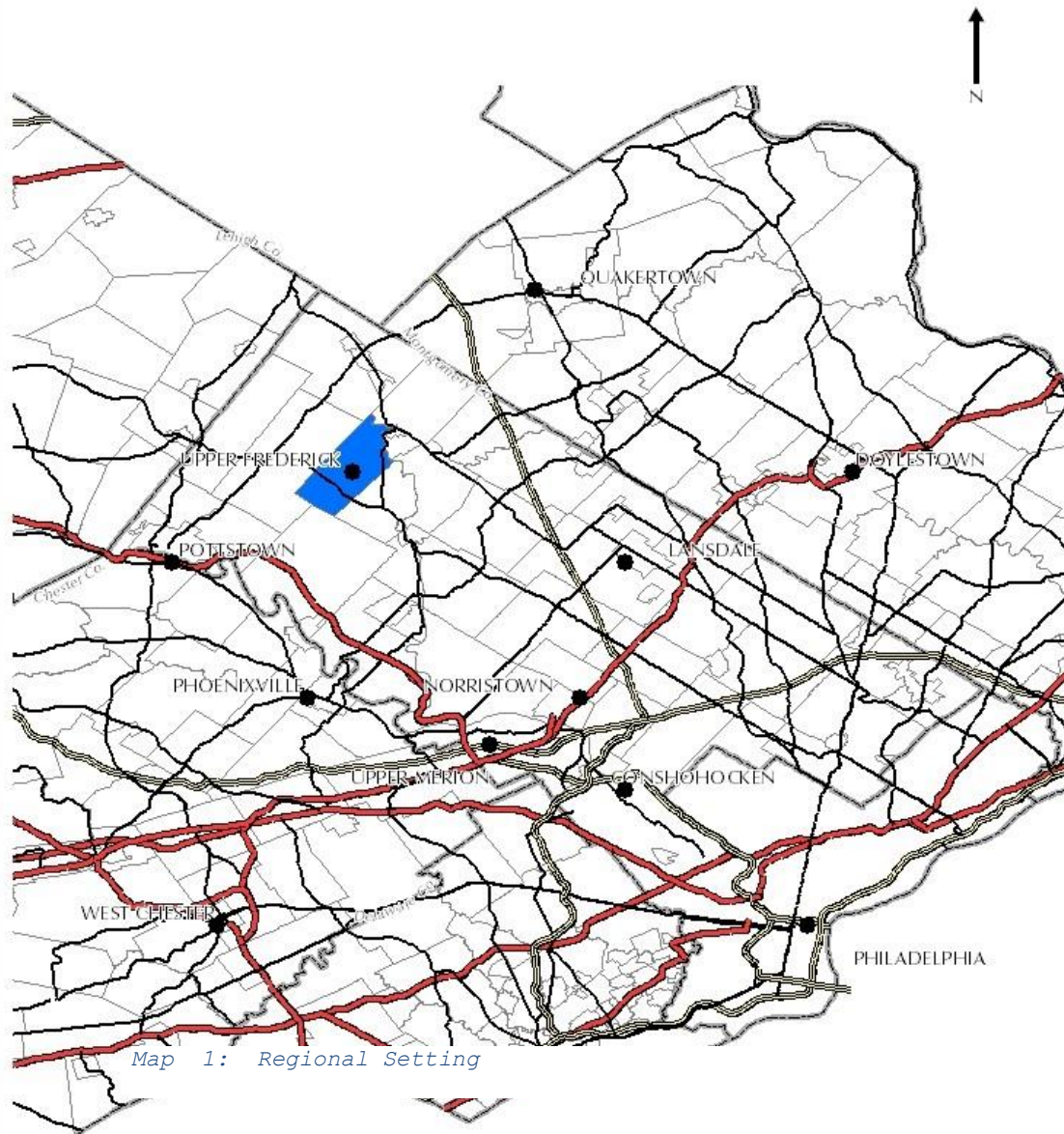
Based on Upper Frederick Township's accessibility to highways and employment centers, its availability of developable land, and the continuing growth in the region, it is essential that the Township anticipate development pressures and be prepared to handle this increased demand. As previously noted, the Township is part of the Central Perkiomen Valley Regional Planning Commission (Commission), which is the volunteer governing body that addresses growth issues at a regional level. The Township, along with Collegeville Borough, Lower Frederick Township, Perkiomen Township, Schwenksville Borough, and Trappe Borough participate in the Commission, and the six municipalities adopted a revised Regional

Comprehensive Plan in February 2014. The Plan designates certain areas of each municipality for growth or conservation, and as it considers land use over a larger area, each municipality does not need to accommodate all uses and intensities as otherwise required. Upper Frederick Township is designated as either Rural Resource Conservation Area or Future Growth Area in the Plan's future land use map. The impacts of these designations for development will be discussed later in this plan.

Subsequent to adopting the Regional Plan, Upper Frederick Township adopted its Open Space Plan in November 2006, which was then updated in May 2015 to reinforce the concepts in the Regional Plan by placing special emphasis on land conservation and preservation for farms and stream corridors.

Map 1: Regional Setting

Map 1: Upper Frederick Township Regional Setting



Map 1: Regional Setting



Date: 03/15/2007

1.4 Population

Similar to the Central Perkiomen Valley Region, Upper Frederick Township experienced relatively fast-paced residential growth in the 1990's and into the 2000's, with expectations that this growth trend would continue into the foreseeable future. However, the 2008 Recession quickly slowed the rate of population growth within Upper Frederick Township and the updated population projections reflect this slowdown.

The 2010 U.S. Census identifies the 2010 population of Upper Frederick Township at 3,523, representing a 12 percent growth rate from 2000 to 2010, approximately one-half the pre-recession growth rate projection of 23 percent for 2000 to 2010. The following chart reflects the high growth rate from 1990 to 2000 (45 percent), which then leveled off. According to the 2015 population projections prepared by the Delaware Valley Regional Planning Commission (DVRPC), Upper Frederick Township is now estimated to have a population of 3,662 in 2020, representing a growth rate of just 4 percent from 2010 to 2020. This is the growth rate now projected to continue into the foreseeable future.

Figure 1: Upper Frederick Township Population Growth

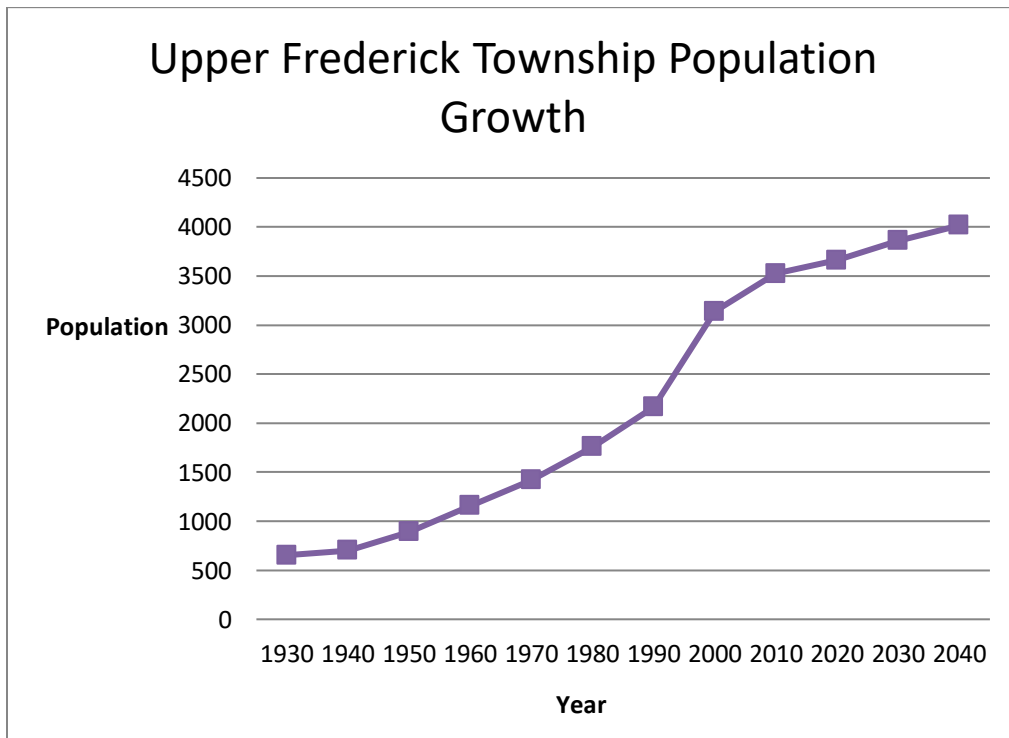


Figure 1: Population Growth

Data Sources: US Census Bureau, Delaware Valley Regional Planning Commission (DVRPC)

Other municipalities in the Central Perkiomen Valley Region; including Collegeville, Trappe and Schwenksville Boroughs, and Lower Frederick and Perkiomen Townships that had also seen increases in population between 1990 and 2000 grew at a slower rate between 2000 and 2010. Collegeville grew by 10%, Trappe Borough grew by 9%, Lower Frederick grew by 1%, and Perkiomen Township grew by 29%, while Schwenksville Borough lost 18% of its population. The entire Central Perkiomen Valley Region's population increased by 11.8% between 2000 and 2010, which is a 24 percent decrease from the 49.5% growth that occurred between 1990 and 2000, and much of this growth reduction came as a result of the 2008 Recession. According to the 2014 Central Perkiomen Valley Regional Comprehensive Plan, the region is estimated to see an average growth rate of 2.6 percent from 2010 to 2020, which is approximately one-half the rate projected for Upper Frederick Township and significantly lower than the growth rate of 11.8 percent from 2000 to 2010 and 49.5 percent between 1990 and 2000.

Approximately 23% of the Township's estimated 2016 population is below 20 years of age. Of the estimated 3,570 2016 Upper Frederick residents, 46% of them are between the ages of 30 and 64. Residents that are 65 years of age and older account for approximately 20% of the Township's current population. Overall, the Township population is aging, which is consistent with national trends as the baby-boomer generation begins to retire. An additional factor in the higher proportion of population 65 and older is likely the presence of the Frederick Living Continuing Care Retirement Community, which recently completed the construction of 55 independent living dwelling units and is in the process of obtaining approval for an additional 76 apartments. Compared to the rest of the Region Upper Frederick continues to have the largest proportion of elderly population.

Figure 2: Upper Frederick Township Age Distribution

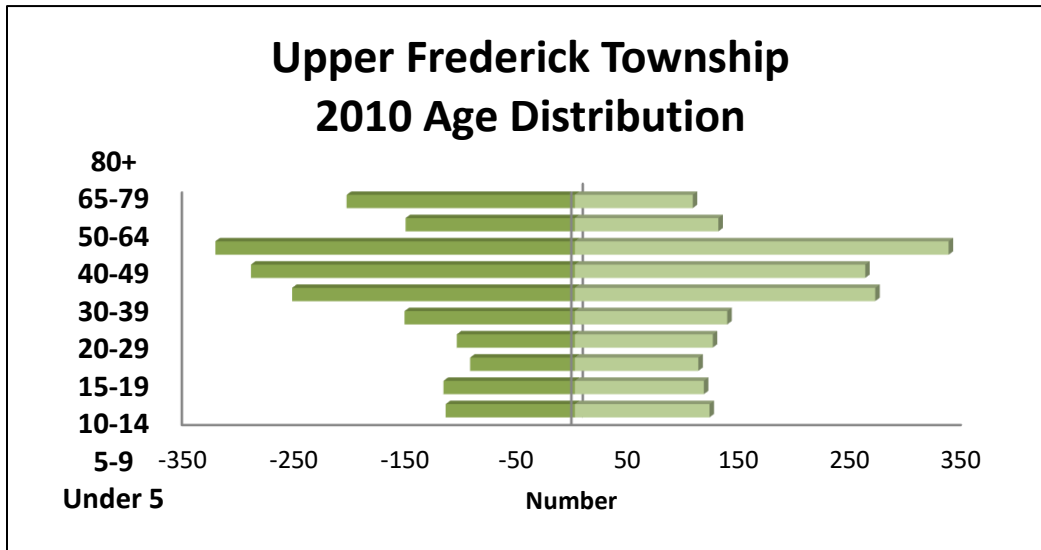


Figure 2: Age Distribution

Data Sources: US Census Bureau, DVRPC

The breakdown of the Upper Frederick Township population by age and gender as of the 2010 Census shows the number of females is only slightly higher than males, 51% and 48.5% respectively. The US Census’s 2016 estimates show the gender breakdown continues to hover around 50.9% for females and 49.0% for males. An updated age distribution will be available after the 2020 US Census.

Upper Frederick Township is the only municipality within the Central Perkiomen Valley Region that is not included in the Perkiomen Valley School District and is part of the Boyertown School District. As of December 2016, the Pennsylvania Department of Education’s Division of Data showed a nearly 3% decline in enrollment between 2011 and 2016 for the Boyertown School District. A steady decline of 2% is projected to continue through 2026. Forty-one percent of residents over the age of 25 had attained a high school diploma or less, while 41% of the population in the Township possessed an education beyond a high school diploma.

1.5 Community Issues Survey

In an effort to identify changing resident concerns and issues over time, a survey that was created and handed out on primary election day, May 15, 2007 was distributed again on primary election day in 2018. The survey was modeled on the survey handed out during the drafting of the Regional Comprehensive Plan and asked respondents to choose the five

issues of most concern to them. The following table summarizes the responses received for each issue identified in the survey.

Figure 3: Community Issues Survey Results Summary

Community Issues Survey Results Summary			
Choose the five issues of most concern...			
Response Summary			
	Primary Election Day 2018	Primary Election Day 2007	
Total Number of Surveys Completed	122	60	
	Response #	Survey %	Survey %
Preservation of open space and natural resources	103	84%	87%
Preservation of agriculture	79	65%	67%
Preservation of historic resources	69	57%	47%
Improvement of traffic and road conditions	104	85%	37%
Improvement in the quality of schools	57	47%	33%
Improvement in drinking and wastewater facilities	48	39%	32%
Additional recreation facilities	33	27%	28%
Water supply	42	34%	21%

Figure 3: Community Issues Survey Results Summary

The results show that residents continue to be concerned about the preservation of open space and natural resources, but improvement of traffic and road conditions jumped significantly from 37 percent in 2007 to 85 percent in 2018. Many specific comments relating to road conditions indicated frustration at the condition of Perkiomenville Road in particular, which is a PennDOT road.

Chapter 2: Resource Protection

Upper Frederick Township is rich in natural, agricultural and cultural resources. Natural resources range from steep slopes, woodland and waterways in the upper and lower portions of the Township to prime agricultural soils in-between. To preserve potentially vulnerable natural resources, the Township has adopted a variety of natural resource protection standards and supports a variety of agricultural protection programs. The Township continues to consider opportunities to preserve key natural resources and agriculture.

Cultural, or historic resources, are found throughout the Township and are highly valuable for the continued unique character of the Township. While the Township has limited regulatory protection requirements for cultural resources, it is fortunate to have many historic structures privately preserved by individual property owners and organizations such as the Goshenhoppens.

The following chapter provides an overview of existing natural, agricultural and cultural resources, existing protections, and future opportunities for protecting these resources.

2.1 Existing Natural Resources

A key component of any comprehensive plan and one that is required by the MPC is a resource protection plan. The issues of resource protection were most recently addressed by the Township in the 2015 Recreation, Park and Open Space Plan (Open Space Plan). The Open Space Plan included several resource protection recommendations that are integrated into this Comprehensive Plan Update. These recommendations form the Township's Resource Protection Plan.

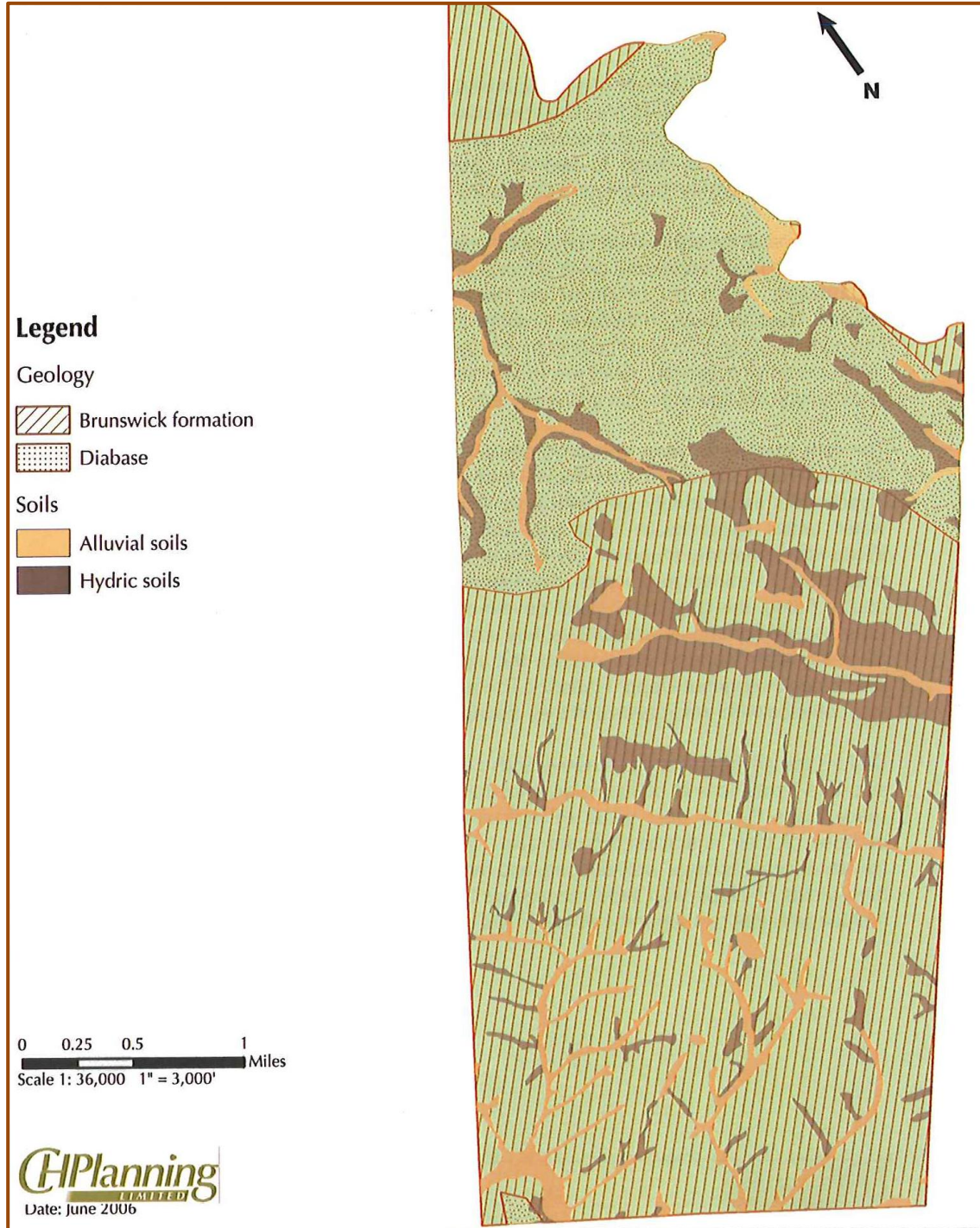
Geology

The lower portion of Upper Frederick Township is predominantly underlain by the Brunswick geology formation, referred to as Brunswick formation, which is comprised of reddish-brown shale, mudstone, and siltstone. The Brunswick formation is responsible for the gently rolling hills and stable slopes that dominate the lower portion of the Township. The Brunswick formation yields an average of around 60 gallons per minutes of moderately mineralized and hard water, which is considered a good yield. However, flow can vary depending on the extent and location of rock joints and fractures.

The upper portion and southeastern corner of the Township is underlain by the Diabase formation. Diabase is very resistant to erosion, weathering, water infiltration, and groundwater movement. The Diabase formation tends to result in hilly, wooded and rocky

terrain. The Diabase formation areas typically experience poor absorption of water into the ground, low well yields, and difficult excavation. These areas are not typically suited for extensive development.

MAP 2: Upper Frederick Township Geologic Features

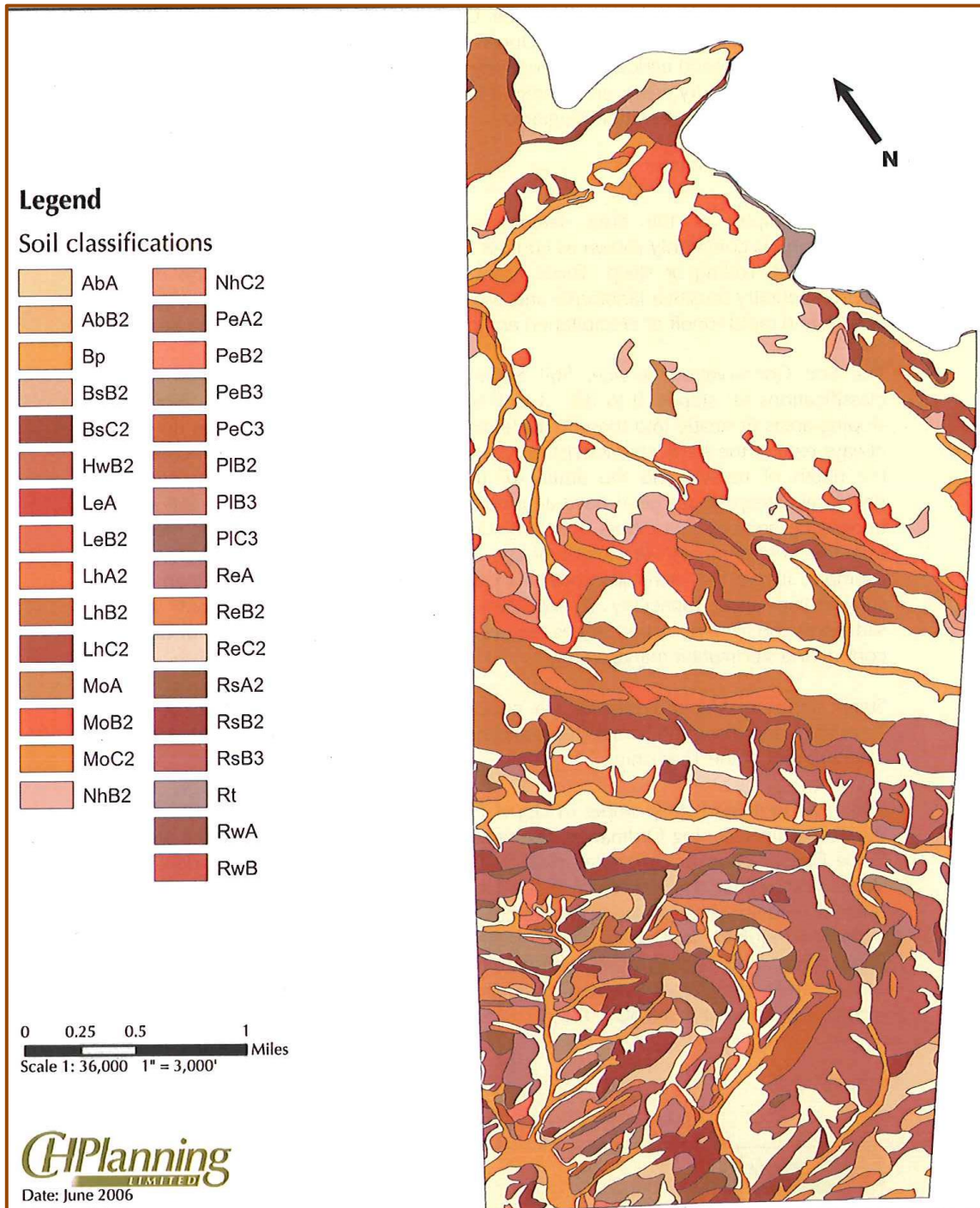


Map 2: Upper Frederick Township Geologic Features

Soils

The soils that are of most concern from an environmental policy standpoint are those referred to as hydric and alluvial and those that are well suited to farming. Hydric soils are routinely wet with poor drainage and are indicators of shallow water tables and the presence of

Map 3: Prime Agricultural Soils



Map 3: Upper Frederick Township Prime Agricultural Soils

wetlands. Alluvial soils are commonly wet soils as they are deposited by floodwaters. These soils are most often found in and indicate the extent of floodplains. Alluvial soils are distributed throughout Upper Frederick Township in isolated areas and in corridors that coincide with streambeds and their floodplains.

Besides the environmentally sensitive soils noted above, soils that are categorized as prime farmland and of statewide importance are commonly identified in open space plans due to their value to agriculture. These soils are productive, and because of their characteristics are also often suitable for development. Prime farmland includes deep, well-drained and moderately sloped soils that can support high yields of crops with little management. Farmlands of statewide importance include soils that can support cultivation but require careful crop management.

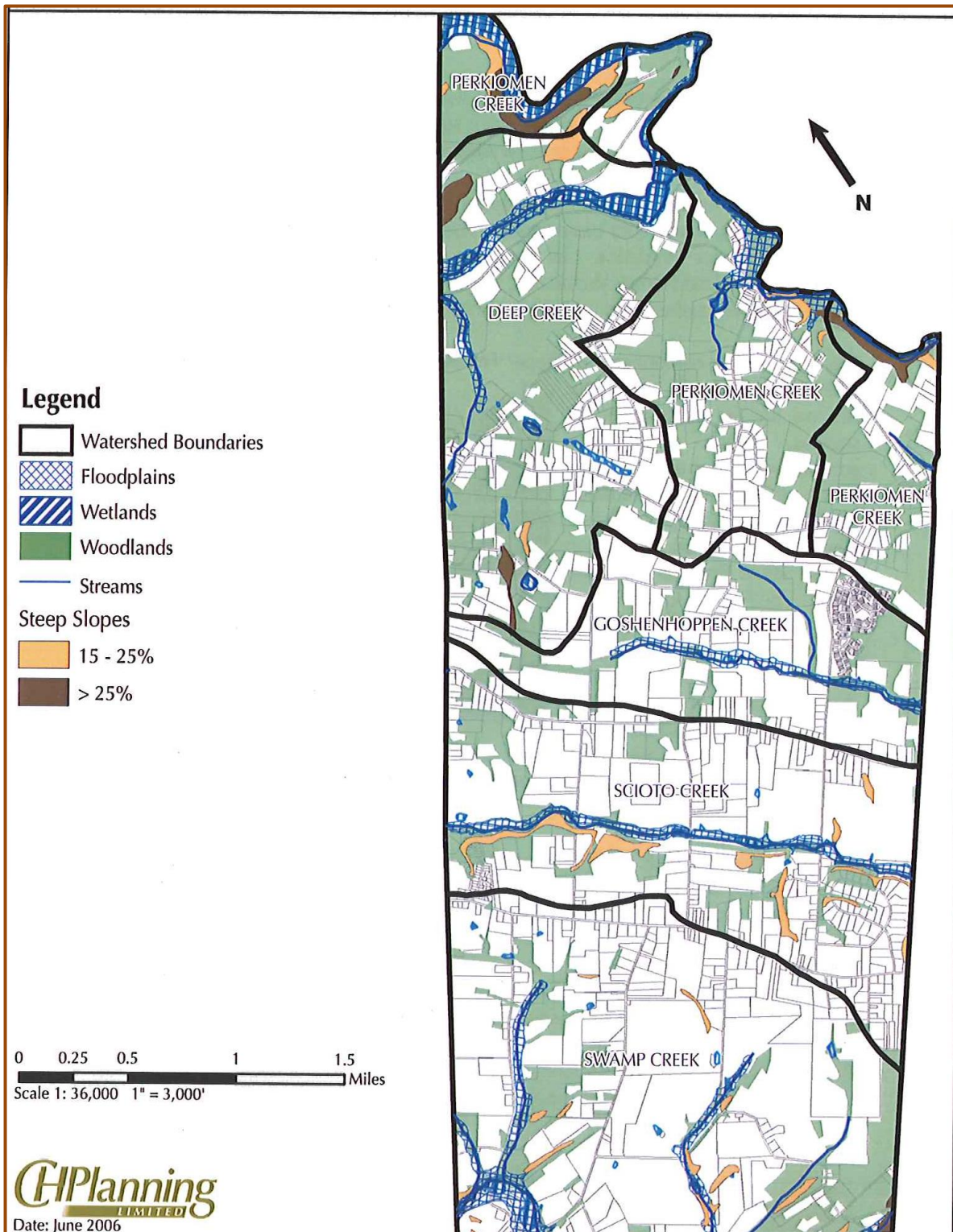
Much of Upper Frederick Township is underlain by prime farmland soils and even more is underlain by soils of statewide importance. Consequently, based on soil capability, farming is viable in the majority of Upper Frederick. From a policy standpoint, having soils with good agricultural capability is a prerequisite for the establishment of agricultural security areas, and therefore is a prerequisite for participation in the County's Farmland Preservation Program.

Steep Slopes

Steep slopes in Upper Frederick are concentrated in the upper portion of the Township, along Scioto Creek, and near the Swamp Creek tributaries in the southern part of the Township.

Those areas that are steep are among the most environmentally sensitive landforms and when disturbed, can increase the erosion of soils and rapid runoff of precipitation and consequential flooding down slope. Increased runoff and sedimentation from disturbed slopes require increased public expenditure for flood control and stormwater management. The development of steep slopes in Upper Frederick is controlled by provisions in the Township's zoning ordinance. Specifically, the ordinance establishes a Steep Slope Conservation overlay district. The SSC district limits use by right on slopes with grades.

MAP 4: Existing Natural Features



Map 4: Existing Natural Features

Hydrology

All of Upper Frederick is located within the Perkiomen Watershed, which consists of minor basins and sub-basins. Upper Frederick has five sub-watersheds: Perkiomen Creek Watershed, Deep Creek Watershed, Goshenhoppen Creek Watershed, Scioto Creek Watershed, and Swamp Creek Watershed. The most visible components of Upper Frederick's hydrology are the streams and creeks that drain the landscape. Streams are fed by two natural sources, direct runoff and groundwater. The major streams flowing through Upper Frederick include the Perkiomen Creek, Deep Creek, Goshenhoppen Creek, Scioto Creek and Swamp Creek, each of which have floodways and floodplains associated with them.

Wetlands are also found throughout the Township. According to the National Wetlands Inventory (NWI) prepared by the U.S. Department of the Interior, Fish and Wildlife Service, most of the wetlands in Upper Frederick are found along streambeds. Additional wetlands may exist in Upper Frederick because the NWI offers only a broad-based generalized overview of wetlands.

Conservation efforts by local watershed groups, such as the Perkiomen Watershed Conservancy, are being pursued to improve the quality of surface waters and better manage the impact of development on them.

The Floodplain Conservation District delineated in the Township Zoning Ordinance prohibits development within the 100-year floodplain boundary due to the potential reduction in the carrying capacity resulting in increased height and destructive ability of floodwater. Only uses such as open space, orchards, required yards, water supply, and utility transmission lines are permitted in the floodplain.

Floodplains

Each of the Township's creeks and streams has associated with it a floodway and floodplain. The floodplains extend beyond the banks of the watercourse and to variable distances depending on stream flow and the adjacent topography. The floodplain areas of greatest concern for protection and for limited development are those portions identified as the 100-year floodplain - the area that commonly floods with the 100-year storm event. Development within the floodplain reduces the carrying capacity and increases the height and destructive ability of floodwater. The Floodplain Conservation District delineated in the Township Zoning Ordinance prohibits development within the 100-year floodplain boundary. Only uses such as open space, orchards, required yards, water supply, and utility transmission lines are permitted in the floodplain.

Groundwater

Groundwater behaves much like surface water, flowing like a stream, only much slower. Groundwater is tapped as a source of drinking water and for industrial purposes where surface water is unavailable. Upper Frederick obtains its entire water supply from groundwater using individual non-system wells. Groundwater replenishment occurs slowly, as precipitation, and in some cases stream water, seeps through the soil down to the aquifer. Open, undisturbed land is essential to groundwater recharge because vegetation retains precipitation where it falls and allows it to soak into the soil rather than run off the surface.

Wetlands

Other important components of the Township's hydrology are wetlands. Wetlands are often identified by the presence of hydric soils (soils which are predominately wet), surface water, and wetland vegetation. Almost all wetlands provide habitat for birds, amphibians, and fish, which in turn support other wildlife. Wetlands also mitigate flooding by holding back floodwater and slowing stream velocity. Wetlands improve water quality – as water flows through a wetland it slows and drops much of its sediment load. In addition, nutrients that can cause algae blooms and other pollution problems downstream are taken up by upstream wetland vegetation.

Some wetlands are easily recognizable because of the obvious presence or influence of water. However, wetlands are not always distinguished easily. Most wetlands are subject only to seasonal flooding and surface water may not be present for much of the year. Other wetlands develop in areas where the soil is saturated for long periods but never flooded.

According to the National Wetlands Inventory (NWI) prepared by the U.S. Department of the Interior, Fish and Wildlife Service, most of the wetlands in Upper Frederick are found along streambeds. Additional wetlands may exist in Upper Frederick because the NWI offers only a broad based generalized overview of wetlands. During the development process the Army Corps of Engineers or a qualified consultant should be enlisted for a final determination to delineate wetlands where they may be suspected to be present.

Woodlands

The presence of woodlands, especially on larger tracts, is important in Upper Frederick for both functional and aesthetic reasons. Woodlands enhance the quality of the environment as they protect against erosion, sustain high water quality and quantity, provide wildlife habitat, improve air quality, moderate temperatures, provide visual and physical buffers, and offer a varied aesthetic and visual relief from developed land.

Most of the land in Upper Frederick above Yost Road and Gottschall Road is in tree cover. White oaks, maples, pin oaks, black oaks, sycamores, and dogwoods are common in this

area. This area is an important block of woodland because it is part of a larger stand that extends into New Hanover and Upper Hanover Townships. This forest provides a sizable habitat for wildlife. In addition, these woods surround part of Deep Creek and part of the Perkiomen Creek, and thereby help to maintain the creeks' water quality. There are also many wooded corridors throughout the Township which permit migrating wildlife to find cover, provide windbreaks between farms, cool the ground, and lend an agrarian atmosphere to Upper Frederick.

2.2 Interconnections of Natural Resources

The Township contains areas of natural resources that are worthy of special protection such as: stream corridors and valleys, floodplains, steep slopes, woodlands, natural resources areas, and wildlife habitat. These features should be preserved and protected. As these resources are protected, care should be taken to ensure they do not become isolated and that connections are made between the resources themselves to better integrate them within the Township as a whole. Interconnected forests provide a sizable habitat for wildlife and water quality. Forested corridors throughout the Township also support migrating wildlife by providing cover, provide windbreaks between farms, cool the ground, and lend an agrarian atmosphere to Upper Frederick.



Swamp Creek

When lands are acquired for open space preservation it will be important to protect these features in relatively larger areas so they can be sustained within the context of the Township and broader region. It is also important that the public is able to access these lands whenever possible. Therefore, as lands are proposed to be acquired and preserved, the following should be considered to help prioritize acquisitions:

- Contiguity with other preserved resource or agricultural lands
- Ability to connect existing preserve parcels
- Presence of unique natural features or natural areas inventory sites
- Presence of historical structures
- Potential to provide greenway or trail connections to other protected lands in the Township and surrounding municipalities
- Areas for floodplain and groundwater protection

Lands preserved following these strategies enhances the value of the lands to be preserved and ensures that resources are protected to keep as much of the resource intact as possible. This serves to enhance existing natural features and maintain the environment. To better connect protected lands, the Open Space plan also made numerous recommendations for trail development.

2.3 Challenges to Natural Resource Protection

Stormwater Runoff

Excess stormwater runoff in Upper Frederick contributes to water pollution, particularly nutrient runoff from agricultural lands. In order to comply with the NPDES MS₄ permit issued to Upper Frederick, agricultural landowners can implement stormwater best management practices, in addition to efforts being done at the county and watershed level by such agencies as the Montgomery County Conservation District. Farm operations can affect water quality and stormwater runoff drastically with nutrients, sediment, and chemicals draining off lands into water bodies during storm events. When new buildings are constructed on farms, small best management practices such as site design that minimizes soil disturbance or placing a green roof on a building can assist in reducing water quality impacts. On a larger scale, strategies that may assist in stormwater management in rural and agricultural areas include:

- Large-scale low impact development (LID)
- Forest protection
- Source water protection
- Water protection overlay zoning
- Conservation
- Aquifer protection
- Stormwater wetlands
- Preservation of riparian buffers

Managing Invasive Plants and Animals

In recent years, the Township and the Region have begun to feel the strain of invasive plants and animals throughout the community. In particular, problems relating to the Emerald Ash Borer and Spotted Lantern Fly have become a major concern in the Region. In 2018, as part of the Montgomery County Greenway and Stewardship Study, an assessment of Bob Wayland Park was completed to assess the various ecosystems within the park and identify challenges and management opportunities. When complete, this study is intended to be used by both public and private property owners as a resource for how to manage natural resources and ecosystems.

2.4 Existing Regulatory Protection Standards

Upper Frederick has several zoning districts and resource overlay districts that regulate the impact of development on natural resources. These include Rural Preservation District, Land Preservation District, Steep Slope Conservation District, Floodplain Conservation District, and Riparian Corridor Conservation District. Additionally, the Township recently adopted Transfer of Development Rights standards to help protect environmentally sensitive areas.

- The Rural Preservation District was established to maintain the rural character of certain portions of the Township and promote the preservation of land and waterways with a unique character. This is accomplished by minimizing the amount of new development which occurs in rural areas, discouraging the location of non-rural uses in proximity to rural areas, maintaining low density development, preserving natural amenities from development, encouraging the retention of vegetation, maintaining rural vistas, and visibly shielding housing units and other non-rural uses to minimize perceived density.
- The Land Preservation District, adopted in 1991, preserves open land, sensitive natural areas, and rural community character by promoting clustered residential development in lieu of conventional lot design. Within this district a minimum of 75% of the parcel area must be preserved as undisturbed open space. In addition to preserving open space the Land Preservation District provides greater design flexibility and efficiency in the siting of services and infrastructure including the opportunity to reduce length of roads, utility runs and the amount of paving required. It also creates compact neighborhoods with direct visual access to preserved open land with amenities in the form of neighborhood open space with a strong neighborhood identity.
- The Steep Slope Conservation District is intended to conserve and protect areas of steep slope from inappropriate development and excessive grading and encourage the use of steep slope areas for open space purposes so as to constitute a harmonious aspect of the continuing physical development of the Township. By preserving areas of steep slopes, defined as areas having slopes greater than 15%, the Township is able to avoid the negative impacts caused by erosion, stream siltation, and soil failure leading to structural collapse.
- The Floodplain Conservation District is intended to protect areas of floodplain subject to and necessary for the containment of flood waters and encourage the use of floodplain areas for open space purposes. Preserving floodplain areas not only

protects the important natural functions of the area such as promoting safe and sanitary drainage, but also protects the Township and local residents from damage associated with flooding.

- Riparian Corridor Conservation District establishes buffer standards and helps protect a range of natural resources along stream corridors. The riparian corridor protection standards adopted apply to properties proposed for development and the standards preserve open space along stream corridors as buffers with the following benefits:
 - prevents nutrients from entering the waterways thus protecting water supplies
 - reduces flood hazards by providing more pervious cover
 - promotes a diversity of plant and animal species
 - serve as potential greenways and trail linkages

- Transfer of Development Rights are standards adopted in response to concern about potential development permitted in the rural areas of the Township. The Township adopted a transfer of development rights ordinance allowing the transfer of development rights from the rural zoning districts to the growth area to help preserve agricultural lands and natural resources. It is noted that the transfer of development rights provision has not been used as of the adoption of this plan.

2.5 Additional Natural Resource Protection Opportunities

Woodland Protection

Woodland areas can be protected with the adoption of a Woodland District to help minimize disturbance of substantial areas of mature woodland that provide a variety of community benefits including, but not limited to, reduction of water runoff, preservation of wildlife habitat, and natural buffering between land uses. The Township should consider opportunities for adopting woodland protection measures.

Easement Acquisition

Easements can either be purchased or donated. The Township should continue to encourage landowners to provide greenway easements where appropriate when fee simple ownership is either not possible or unnecessary.

Public access easements should be pursued for trails. It is unnecessary for the Township to purchase entire tracts of land to secure enough usable space for a trail, which may only require a 50 to 60-foot wide right-of-way.

Private Donations

Sometimes landowners want to preserve their land by donating the full title of the property or by donating their development rights to a non-profit land conservation group. Either of these approaches will permanently preserve land as open space. At this time, if landowners donate development rights, they receive tax benefits, but the land must be permanently restricted from future development. There are a number of land conservation groups operating in Montgomery County that would be willing to take these donations, including:

- Brandywine Conservancy,
- Natural Lands (Formerly Natural Lands Trust),
- Nature Conservancy,
- Conservancy of Montgomery County,
- Perkiomen Watershed Conservancy, and
- Heritage Conservancy.

Land conservation groups may be able to help local landowners develop some of their land while keeping a major portion of the property open and deed restricted. With this approach, there would be a limited development designed in a sensitive manner, allowing a landowner to receive some compensation while preserving the most important environmental and cultural resources on the site.

The Township Manager and the Commissioners can refer interested landowners to these

conservation groups. They also may welcome proposals to donate land to the Township for permanent open space use.

Community Education

Education programs for children and adults help instill a land conservation ethic in Upper Frederick, which may be more important in the long term than any number of regulatory changes. This ethic recognizes and values the existing parks and open spaces in the Township, encourages volunteers to clean up and maintain parks and trails, and keeps the needs of a sound parks and open space plan always before elected officials.

The Township has undertaken an impressive initiative regarding the adoption of regulations to protect natural resources. As the Township looks to the future regarding natural resource protection, it becomes clear that public education regarding the important functions of natural resource protection is critical. To improve the quality of the existing natural resources, individual property owners must understand the value of such protections and be given support and educational resources to initiate such protections voluntarily.

Grant Funding

As funding becomes available in the future, grants can be applied for to assist the Township with implementing additional land acquisition. Grant funding should also be pursued to help restore natural environments on land owned by the Township and other governments and/or nonprofits organizations.

2.6 Natural Resource Protection Goals & Implementation Strategies

Goal 2A: Protect natural resources to ensure a healthy balance of resources remain available on an ongoing basis.

Implementation Strategies:

1. Continue to work with the Montgomery County Open Space Board, Montgomery County Lands Trust, Perkiomen Valley Watershed, and other conservation organizations to encourage land preservation, with an emphasis on stream restoration projects.
2. Consider updating zoning ordinance to expand woodland protections and require new development to consider woodlands as part of a larger woodland network and apply additional preservation requirements.
3. Ensure that new development protects and preserves the Region's existing rural character through innovative growth management techniques.
4. Preserve Lands on which sensitive natural resources exist and deserve protection.
5. Adopt regulations that further add protection to natural resources, such as groundwater protection.
6. Expand the availability of education resources for residents to help them understand the value of resource protection.
7. Pursue funding opportunities that can result in the implementation of natural resource protection priorities.
8. Implement recommendations of Wayland Park Resource study to protect the integrity of the natural resources.
9. Develop educational materials for residents for minimizing the spread of invasive plants and animals.

2.7 Cultural Resources

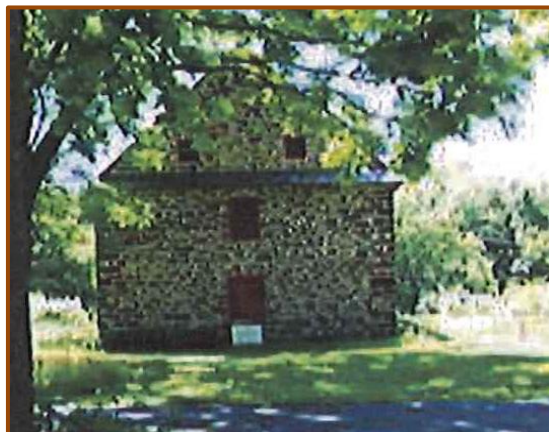
Village Character and Cultural Resource Preservation

Cultural amenities are some of the most valuable resources of a community. The preservation of local heritage is important in maintaining the character and quality of life in Upper Frederick Township. Local heritage consists of the historic buildings, landmarks, and landscapes that provide a link to a community's rural and village past and thereby make a valuable contribution to current educational, cultural, and social environment. The manmade environment reflects a community's cultural heritage and serves to create a spirit unique to that community. Unfortunately, cultural resources are also some of the most vulnerable community resources. Suburban growth continues to spread and threaten the rural landscape and its built contributions to community history and culture.

The following inventory of historic places in Upper Frederick Township provides an overview of key historic resources in the Township. Protecting these sites and others with historic architecture and appropriate zoning, will help to maintain or enhance the character of the village areas of Frederick and Perkiomenville and parts of the Township's rural landscape. Also, of importance will be redevelopment and infill development that is consistent with local historic character.

Upper Frederick is home to four historic and cultural resources, which are listed on the National Register of Historic Places described as follows:

- **John Engelhardt Homestead**, the first site in the Township to be listed on the National Register, was built in the early 18th Century. The home is considered important for its combination of Germanic and Georgian architectural styles and for the level bottom barn that also sits on the property.
- **Conrad Grubb Homestead**, built in 1754, is a three room home typical of Germanic-Pennsylvania style that was the site of a home weaver. The homestead retains much of its original workmanship and materials.
- **Henry Antes House**- Constructed in 1736, Washington made his decision to continue to pursue the British at the Henry Antes House. English and German religious services were also held at the Antes House, as were joint classes for white, black, and Indian school boys.
- **Sunrise Mill**- Sunrise Mill is a 200-acre County owned property located along the Swamp Creek. The core of the property is located



Henry Antes House

within Upper Frederick Township, but the property extends into the surrounding municipalities. The core complex features a sawmill, gristmill, house, barn, dam, and bridge, with the earliest building, the gristmill, dating back to 1767. These structures represent a unique historic setting, which combined with the surrounding natural resources, offer a unique opportunity for a highly desirable County Park. Due to strong interest from the public, the County is working on a plan to be able to incrementally open the property up to the public in the near future.

Additional significant cultural resources within the Swamp Creek area of the Township are listed below. Given their relatively concentrated location, an opportunity exists for the development of a trail to connect these sites.

- Built before 1730, the Hans Neuss log home is one of the oldest log homes in Montgomery County. The home is located in an area experiencing development pressures. Because this property has significant historic value within the community, consideration should be given to the preservation of this property, with a particular emphasis on its historic integrity.
- Bertolet's Meetinghouse is a brick building in the Mennonite style whose graveyard contains the grave of the first known German settler in the area.
- Samuel Bertolet's home contains a barn that, during the Revolutionary War, served as a shelter for Continental Army horses.
- The Christian Stettler House is a 2 1/2 story German log house.
- The Kuntz Homestead, typifying Germanic settlement in rural Pennsylvania, includes a smoke house, a stone summer kitchen, and a barn.

Other valuable historic sites located within Upper Frederick include the following:

- The George Nyce house is a Georgian home built from stone. The house, which has a round plaster flower star at the peak of its gable, was the residence of one of Montgomery County's earliest industrialists.
- The Fenton Russell stone house was built around 1745. It has historically significant features including wide plank floors, log beam supports, and hardwood doors.
- The Dodderer Homestead is a Germanic log house with a stone addition. The original home was built around 1745 and is used as a private residence today.
- The Perkiomenville Hotel, built around 1820, was both a tavern and the central meeting place for the community for many years. The stone arch bridge that is adjacent to the hotel was built around 1810 and is currently preserved by Montgomery County.

- The Leidy Graveyard on Neiffer Road is located at the juncture of four private properties. The graveyard, one quarter of which was used by each family, is encompassed by a stone wall.
- St. Luke's Lutheran Church, formerly Keelors Union Church, is a stone structure that is still used today. The adjacent cemetery is noteworthy for the Victorian carvings on the gravestones.
- Former Church School- located at 3211 Big Road, adjacent to the Township building, was built in 1892, and is currently used as a private residence.

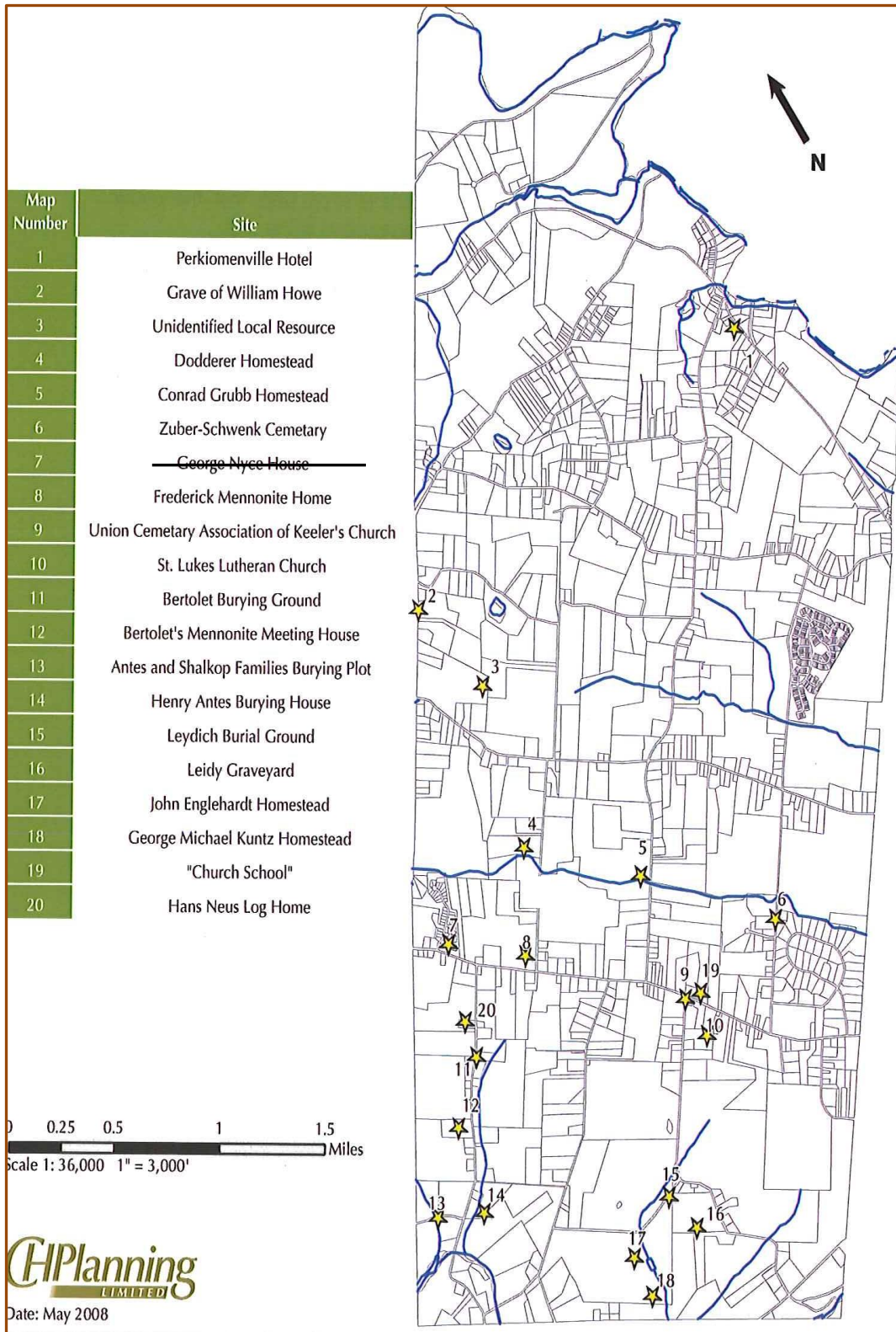


Church School

Upper Frederick also has two archaeological sites within its borders. Generally speaking, local archaeological sites include Indian and Revolutionary War artifacts. The Pennsylvania Historical and Museum Commission identifies the two sites as Perkiomen Rockshelter #4 and Perkiomen Rockshelter #5. The specific location of these sites is not publicly available, as the Commission feels that the public disclosure of the locations could endanger the preservation of the sites.

Archaeological sites are not distributed randomly. Instead, they tend to be clustered together where the environment and topography are conducive to the preservation of artifacts. Based on this, and the fact that Montgomery County has never been systematically searched for archaeological sites, it is possible that other sites are present in the Township and region. The following map shows the location of historic resources in the community.

MAP 5: Upper Frederick Township Historic Features



Map 5: Historic Features

2.8 Cultural Resources Goals and Implementation Strategies

Goal 2B: Encourage the preservation and enhancement of the historic resources that help define the Township's unique character.

Implementation Strategies:

1. Prioritize preservation of lands with historic resources.
2. Preserve undeveloped land where it remains to retain a connection to Upper Frederick's rural heritage.
3. Amend the zoning ordinance to allow a wider range of uses in identified historic structures in an effort to preserve and rehabilitate these resources.
4. Encourage flexibility in renovation standards to preserve historic resources that otherwise would be abandoned or demolished.
5. Promote context appropriate development and design standards for new development proposed in proximity to historic resources.
6. Promote cultural and recreational tourism by coordinating with local nonprofits and/or regional organizations in an effort to promote local resources.
7. Consider working with owners of historic resources in the Swamp Creek area to create an interconnected trail to the various historic sites.
8. If and when available, the Township should consider acquisition/preservation opportunities for the Hans Neuss log home and the Church School property, which could be rehabilitated as community resources such as a senior center or community meeting space.

Chapter 3: Parks, Recreation and Open Space

Upper Frederick contains over 700 acres of permanently protected parklands, 132 acres of which are owned by the Township with the remaining acreage owned by the County. The 2015 Upper Frederick Township Recreation, Park and Open Space Plan Update (Open Space Plan) consists of an in-depth analysis of the park, recreation and open space resources within the Township and those areas immediately surrounding the Township, including recommendations for serving the community into the future. This chapter reinforces the recommendations of the Open Space Plan and provides an overview of existing park, recreation, and open space resources available to residents and recommendations for the future.

3.1 Park and Recreation Opportunities

Existing Recreational Opportunities

Upper Frederick is rich in passive outdoor recreational opportunities. This section provides an overview of existing recreation, park and open space facilities, both public and private, and future priorities.

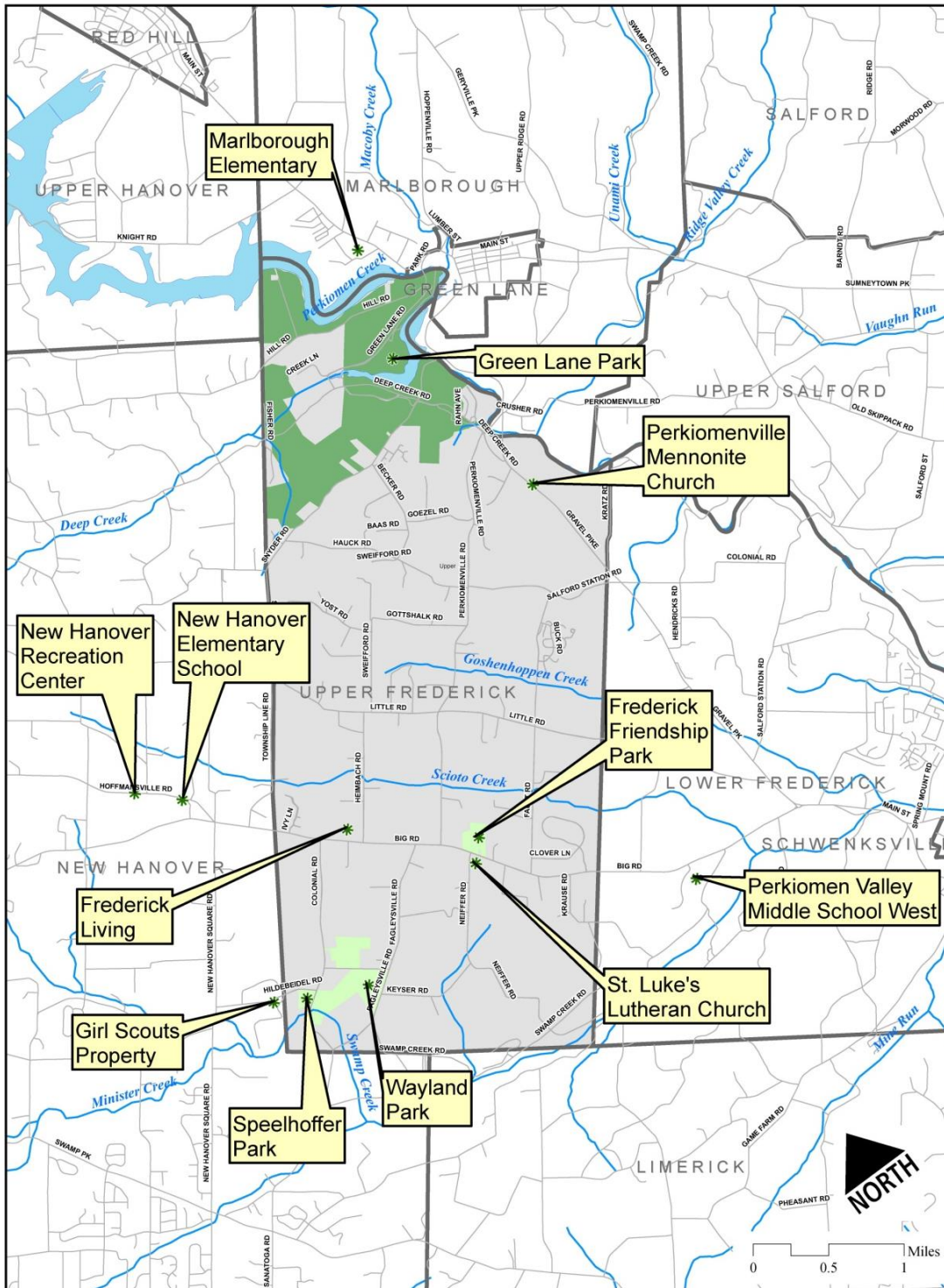
Within the Township there are currently no official Township-sponsored recreational programs. There also does not appear to be active recreational programs offered by other organizations within the Township other than those offered to members within private communities or organizations, such as the Frederick Living Continuing Care Retirement Community or individual churches. Upper Frederick Township maintains an agreement with New Hanover Township where Upper Frederick Township residents are eligible for in-district rates associated with the use of the swimming pool in New Hanover Township. Upper Frederick Township then compensates New Hanover Township for the difference in revenue associated with this discount. The map on the following page identifies facilities with recreational opportunities within the Township and in the immediate vicinity.

Annual community events sponsored by the Township, which are organized and staffed by community volunteers and municipal staff include the following:

- Swamp Creek Stomp 5K and Fun Run
- Flea Market
- Community Day

In addition to the Township-sponsored events, the Goshenhoppen Folk Festival occurs in the Township on an annual basis and is sponsored by the Goshenhoppen Historians.

MAP 6: Recreational Facility Inventory



Map 6: Recreational Facility Inventory

Township-Owned Parks

Upper Frederick Township currently owns three parks totaling 132 acres, each of which was acquired with funding assistance from the Montgomery County Open Space Program. The Township-owned parks include Frederick Friendship Park, Speelhoffer Park and Wayland Park. The following table provides an overview of the Township-owned parks, each of which is discussed in more detail following the table.

Figure 4: Upper Frederick Township Parks and Open Space

Upper Frederick Township Parks and Open Space			
Park Name	Location	Acres	Classification
Frederick Friendship Park	3205 Big Road	25 (including municipal complex)	Community Park- includes walking path, playground and pavilion
Wayland Park	Fagleysville Road	101 acres	Natural Area- includes walking path and hiking trails
Speelhoffer Park	Colonial Road	6 acres	Neighborhood Park- includes dog park

Figure 4: Parks and Open Space

As the Township’s population grows older it will be increasingly important to provide recreational opportunities for all residents. The Township should continue to explore opportunities to provide recreational opportunities for adults and more elderly residents of the Township. These should be developed to take advantage of the Township’s unique characteristics. An ideal opportunity would be providing community garden lots, either at the Township Building or another Township owned property, that would allow an opportunity for residents to meet and participate in local activities.

Frederick Friendship Park and Municipal Complex

The property containing Frederick Friendship Park and the municipal complex is centrally located within the Township at 3205 Big Road and contains 25 acres. Approximately two (2) of the 25 acres is dedicated to the Township building and public works facilities (municipal complex), with the remaining 23 acres available as passive and active park and open space, of which approximately three (3) acres is currently dedicated and available for active park uses.



Frederick Friendship Park is the only township-owned park with active recreational facilities in the Township. Current park facilities include the following:

- Toddler play area including a climbing structure, rocking structures and swings
- Pavilion/picnic area
- Walking trails (approximately 1,125 linear feet paved and 400 linear feet crushed stone)
- Exercise stations
- Roll of Honor
- 20-space parking lot
- Portable restroom

The most recent improvements to Frederick Friendship Park include the construction of 400 feet of a walking trail along the frontage of the park property dedicated to long-time Township resident and planning commission volunteer Kathleen Pramba.

In the fall of 2013 construction of an Honor Roll Monument was completed and dedicated to veterans of all conflicts on Veteran's Day, November 11, 2013. The new monument replaced the original monument which was built in the 1940's during WWII and reportedly fell into disrepair and was later destroyed by a hurricane.

Frederick Friendship Park is the only Township-owned park with active recreational facilities due to deed restrictions on the other two Township-owned parks. Because of this, as opportunities arise for additional active recreational facilities they will be added to this park.

Future phases of work may include picnic tables, additional trails and walking paths, and additional playground equipment for a wider range of age groups.

***Constable Charles Speelhoffer Memorial Park
(Speelhoffer Park)***

Constable Charles Speelhoffer Memorial Park is located at the southwest corner of Colonial Road and Hildebeidel Road. The site contains six (6) acres and is restricted to passive park uses according to a covenant with the Montgomery County Open Space Board. Thanks in large part to grant funding obtained from DCNR, Speelhoffer Park was developed in 2018 with a dog park and parking lot. The Township was also awarded a \$10,000 grant from PECO in 2018 to develop a perimeter walking trail along the exterior of the dog park with a potential connection to Wayland Park across Colonial Road to the east and to the future Swamp Creek Greenway to the south. The trail development is anticipated to occur in 2020. Given the positive response from the community to the dog park, the Township applied for a second grant in 2019 through the DCNR grant program for the construction of additional parking and additional fencing to separate the dog park into two separate areas to allow for grass regrowth. This grant was awarded to the Township in 2020.



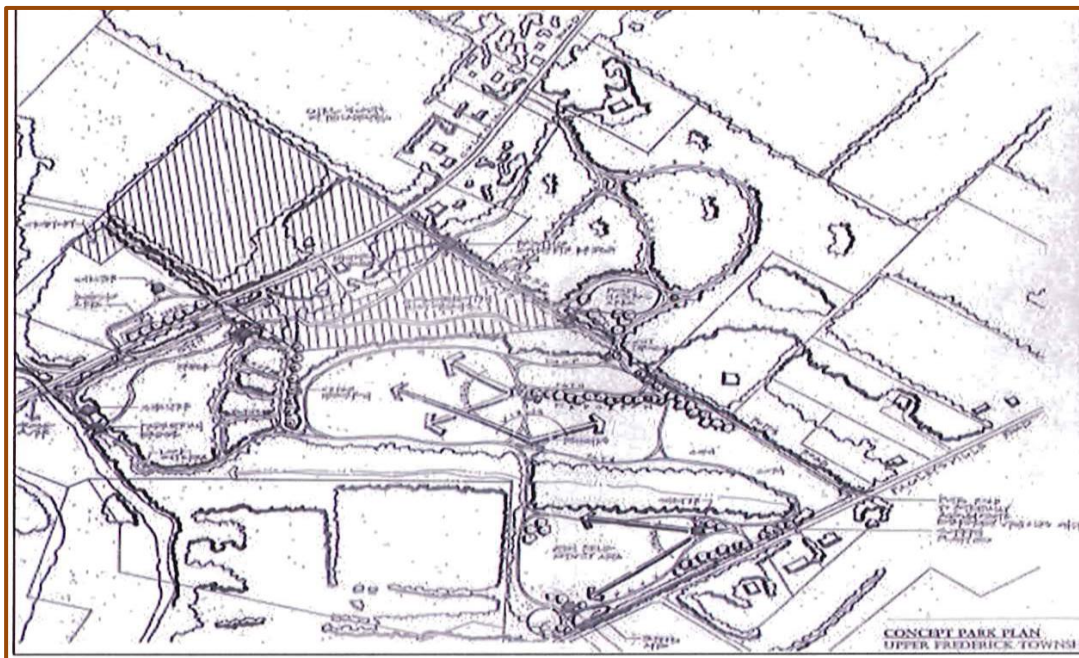
Bob Wayland Memorial Park (Wayland Park)

The Bob Wayland Memorial Park (Wayland Park) is located in the southern portion of Upper Frederick Township with access from Fagleysville Road. Portions of Wayland Park extend to Colonial Road directly across from Speelhoffer Park. Wayland Park contains 101 acres and is also restricted to passive uses. Current amenities include approximately three miles of trails, picnic tables, information kiosk, portable restroom, and wildlife placards.



Plans for the future include expansion of the existing trail system, preservation and expansion of wildflower meadows, a bridge over Swamp Creek, additional trail signage, and a trail connection to Speelhoffer Park and the County planned Sunrise/Swamp Creek Trail proposed along Swamp Creek. A natural resource assessment of Wayland Park was recently completed, and several recommendations were made to control and eliminate invasive plants and animals together with ways to enhance the native plants and animals. The Township should consider preparing an updated master park plan to incorporate the recommendations of the natural resource assessment and develop a detailed trail plan including trail signage.

MAP 7: Wayland Park Concept Park Plan



Map 7: Wayland Park Concept Park Plan

County- Owned Parks and Trails/Greenways

Upper Frederick Township is fortunate to have portions of two significant Montgomery County regional parks and a portion of the Perkiomen Creek Regional Multi-use Trail in the Township. Each of these county-owned parks is discussed in more detail as follows.

Green Lane Park

The northern quadrant of the Township consists of a portion of Montgomery County's Green Lane Park which contains over 3,000 acres and three bodies of water. This regional park offers a variety of recreational activities including fishing, boating, camping, trails for hiking, biking and horseback riding and two children's playgrounds. Green Lane Park is the largest county owned park and is one of the oldest in the region, dating to 1939. Until the summer of 2001, the park included public swimming opportunities; however, the lake remains closed to swimming due to high levels of fecal coliform and e-coli bacteria, most likely due to a combination of failing septic systems, a large Canada goose population, and overland runoff containing animal waste.



Green Lane Park Photo from Montco.org

Future improvement projects identified in the Montco 2040 plan include:

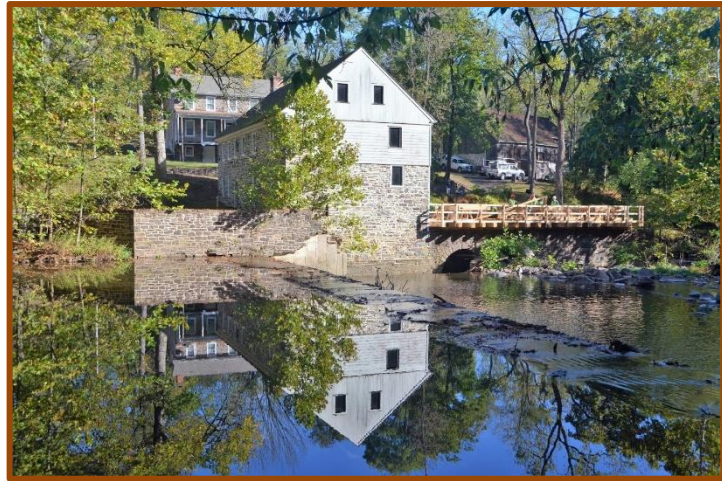
- Expanding trailhead parking near Ward Road, possibly on new property.
- Creating a lower loop trail near Green Lane Road.
- Considering partnerships for an adventure course or similar activity.
- Providing a greenway trail to Mill Hill along the Perkiomen Creek
- Experimenting with pontoon boat environmental education tours
- Addition of fitness stations along trails

Perkiomen Trail

A portion of the 20-mile multi-use Perkiomen Trail traverses the northern portion of the Township through Green Lane Park. The Perkiomen Trail generally follows Perkiomen Creek beginning in Oaks, where it connects to the Schuylkill River Trail, and continuing through Green Lane Park ending in Green Lane Borough. The Perkiomen Trail is predominantly crushed stone with a width of 10-12 feet. Suitable activities on the trail include biking, walking, jogging, horseback riding and cross-country skiing.

Sunrise Mill Park

In the southeastern corner of Upper Frederick Township located at Swamp Creek and Neiffer Roads, at the intersection of Limerick, Upper Frederick, and Lower Frederick Townships is the 236-acre Sunrise Mill County Park. Sunrise Mill is on the National Register of Historic Places. The historic site includes a federal period gristmill, remnants of an adjacent sawmill, a farmhouse (circa 1830-1840), and a



Sunrise Mill Photo from Montgomery County Planning Commission

cantilevered Swiss bank barn built in 1795. The farmhouse and barn are sited close to the mill and Swamp Creek, just above the floodplain. These three buildings, the mill dam, the mill pond, and an 1840s stone-arched bridge are the historic core of the site. This core area is buffered on all sides by forested parkland that forms an extremely scenic landscape. In November 2016 the County began the process of developing the Swamp Creek Greenway and Sunrise Trail Feasibility Study. The Study was adopted by the Montgomery County Commissioners August 8, 2019 and can be found at <https://www.montcopa.org/DocumentCenter/View/25231/Sunrise-Trail--Swamp-Creek-Greenway-Feasibility-Study>. During the public involvement process it became apparent that there is high public interest in formal public access to the site. Although not yet improved for formal public access, the Swamp Creek corridor is informally used for hiking and fishing. Formal opening of this County park land will ultimately serve as a second regional park easily accessible to Upper Frederick Township residents supporting the Township goal of linking Township parks to the Swamp Creek Greenway.

The Montco 2040 Comprehensive Plan identifies the following future possible improvements for the Sunrise Mill Historic Site:

- Public access to the property and trail connections.
- An extension of the property onto the former Camp
- Arthureeta and Camp Joy properties to extend greenway protection along Swamp Creek.
- Operation of the mill as a public/private partnership.
- Preservation of the historic stone arch bridge.

3.2 Privately Owned Open Space

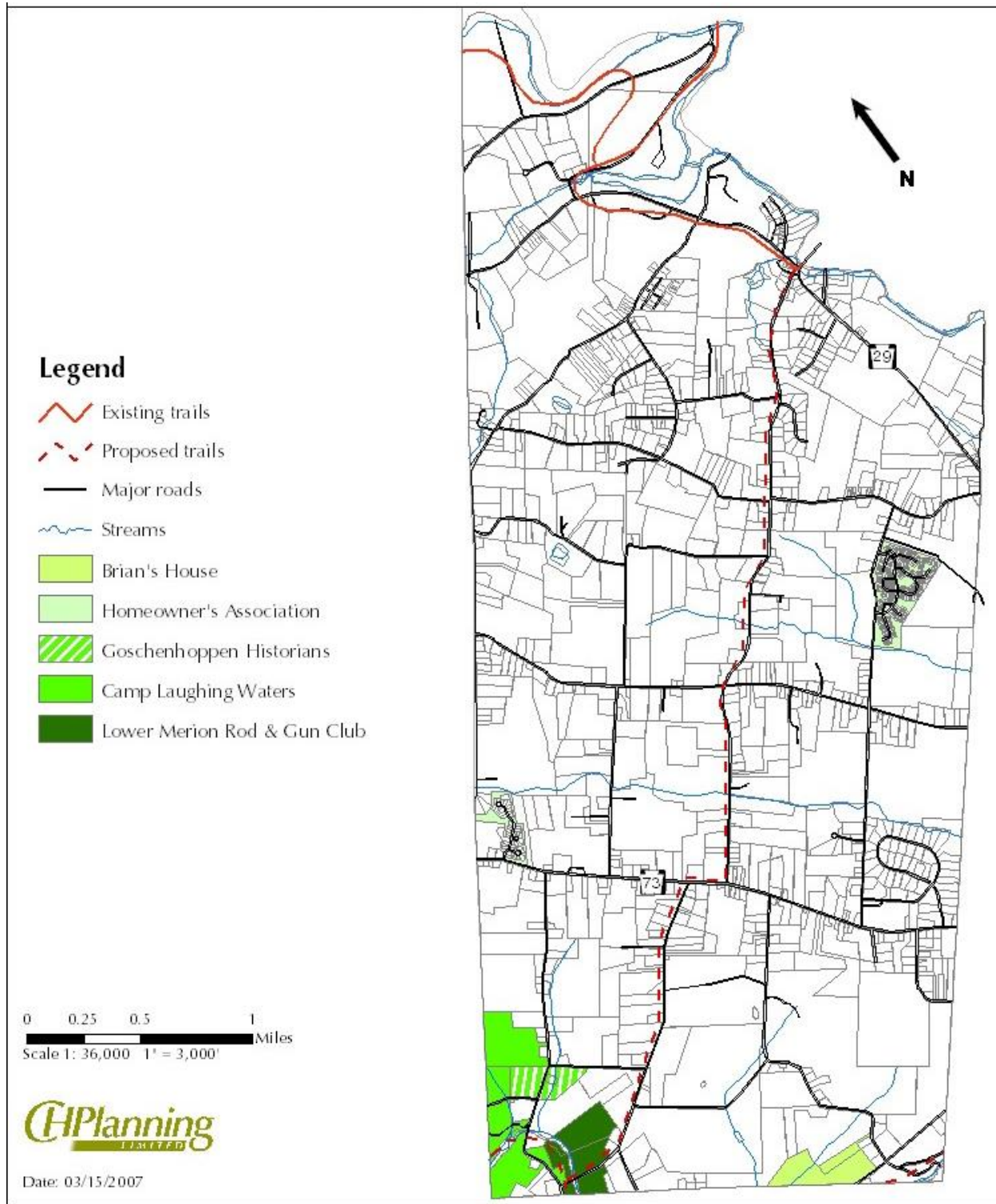
In addition to publicly owned parkland, Upper Frederick contains approximately 280 acres of privately-owned areas of open space. Some of these privately-owned parcels of open space are more vulnerable to development pressures than County and Township owned parklands as they can be sold at any time by the landowners. The majority of this privately held open space is located in the southern portion of the Township.



The Girl Scouts of Philadelphia own close to 135 acres of open space land in the southwestern corner of Upper Frederick Township and in New Hanover Township. The property is used for recreational camps which offer hiking, camping, and horseback riding. In addition, the site has abundant woodlands and wildflowers that provide a serene setting for nature walks. The camp is located in the rural preservation district, which does permit the development of single-family detached homes and agricultural activities. The development of the camp lands would be a significant loss to Upper Frederick as the land contains important streams, wooded areas, and indigenous flora and fauna. To support the preservation of the Girls Scout property, the Township encourages the County to work with the property owner on preservation alternatives combined with the possibility of development of a trail connection between New Hanover and the Swamp Creek along the perimeter of the Girl Scouts property.

Other privately-owned open space areas include parcels owned by the Lower Merion Rod and Gun Club, the Goshenhoppen Historians, and private homeowners' associations. Some of these lands could also be sold and developed. When opportunities for preservation arise, these properties should be identified as high priority.

MAP 8: Private Open Space Areas



Map 8: Private Open Space Areas

3.3 Parks, Recreation and Open Space Goals and Implementation Strategies

Goal 3A: Develop an Interconnected Trail System

Implementation Strategies:

1. Create a safe alternative trail route for the County's proposed West County Trail, if determined appropriate.
2. Provide sufficient roadside shoulders or sidewalks to allow pedestrian and cyclist use of roadways, specifically along high-priority roads where a separate trail is not an option.
3. Consider the development of an interconnected trail between historic resources along Colonial Road linking into the Swamp Creek Greenway.
4. Require strong pedestrian connections between land developments, historic resources, and existing trails.
5. Cooperate with regional efforts to build trail and greenway connections across the landscape.
6. Work with developers to provide greenway easements for trail segments, wherever feasible.
7. Prioritize linkages between the Township's open spaces and recreational land to County trails such as the Perkiomen and Swamp Creek trails.
8. Support the Perkiomen Creek Water Trail project and other waterway trail projects, which offer unique opportunities to provide connections between existing open spaces, county trails, while also preserving the stream corridors for floodplain and riparian protection purposes.

Goal 3B: Preserve Undeveloped Land

Implementation Strategies:

1. Encourage landowners of privately-owned open space to permanently preserve the land, specifically the Girl Scouts of Philadelphia, and the Lower Merion Rod and Gun Club.
2. Continue to pursue funding opportunities for preservation of high-priority undeveloped properties, particularly lands that could connect existing preserved lands providing opportunities for greenway and/or trail connections.

Goal 3C: Link Existing Open Space

Implementation Strategies:

1. Identify areas of the Township that could allow for linkage of existing open spaces to help preserve linear natural features.
2. Pursue sources of funding to purchase easements or land outright to make vital connections between trail/open space segments.
3. Continue development of Greenways through conservation easements along the riparian corridors.
4. Support development of the Swamp Creek Greenway and Sunrise Mill.
5. Provide public access to natural areas while ensuring a high standard of protection.

Goal 3D: Provide Adequate Passive and Active Parkland

Implementation Strategies:

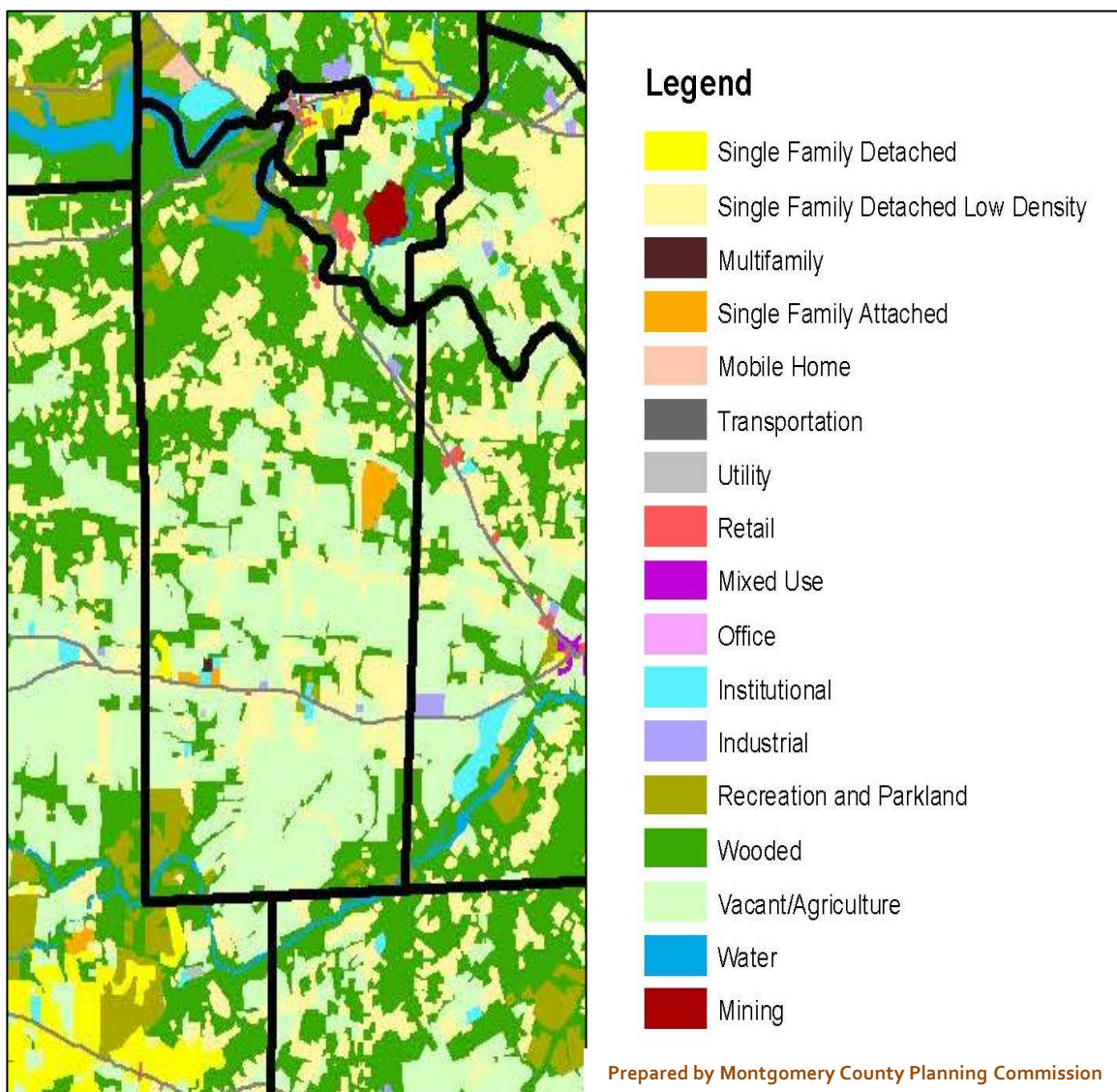
1. Complete park improvements identified in this Plan, including construction of planned trails in the Township parks, as staff time allows.
2. Ensure that the Township has adequate land to address near term and future needs for athletic fields, courts and other play areas.
3. Explore the possibility of obtaining land in the northeast quadrant of the Township for the development of a neighborhood or mini park.
4. Continue partnering, and create new partnerships, with adjacent municipalities to allow Upper Frederick Township residents to participate in recreational programs at in-district prices.
5. Adopt an Official Map to identify properties to potentially be preserved as park or open space areas should they become available for sale.
6. Explore opportunities for obtaining additional land adjacent to Frederick Friendship Park to accommodate additional active park facilities and linking to Scioto Creek.
7. Consider acquisition of the former "Church School" should it become available for a community or senior center.

Chapter 4: Land Use

4.1 Existing Land Use

Despite relatively high growth rates through the early 2000's Upper Frederick Township remains a predominantly rural residential community. The following land use map prepared by Montgomery County Planning Commission illustrates the continued rural character of Upper Frederick Township. The majority of the Township's higher density development is primarily found around Perkiomenville and along Big Road, with one townhome community located along Faust Road.

MAP 9: 2010 Existing Land Use Map



Map 9: Existing Land Use Map

According to 2010 land use data contained in the Central Perkiomen Valley Regional Comprehensive Plan 37.4 percent (2,345 acres) of the Upper Frederick land area is agricultural. This is approximately 95 acres less agricultural land than the amount identified in the 2007 Upper Frederick Comprehensive Plan.

The majority of the agricultural land is located below Little Road. The remaining land is characterized by grassy fields or woodlands. These figures show the large amount of farmland and other non-developed areas present in Upper Frederick Township, and help to justify the Township's desire to maintain its established rural character.

With the exception of Perkiomen Crossing, a townhome development located along Faust Road just below Salford Station Road, higher density development is concentrated along the designated growth areas, which are located along Route 73 and Route 29 and are identified in the Regional Comprehensive Plan (Map 13 – Chapter 10)

Less than 1% of the total land area in Upper Frederick is comprised of retail, office, and industrial use, which includes mixed use, classifications which are individual properties that have more than one use on them.

There are several institutional uses within Upper Frederick which amount to approximately 1.3 percent, or 84 acres, of the total land in the Township. Many of these institutional uses are churches. Aside from churches, the other institutional use in Upper Frederick is the Frederick Living Continuing Care Retirement Community, which sits on 67 acres and has been expanding its facilities significantly in recent years.

Additional land use categories within Upper Frederick include utilities and undeveloped parcels. Utilities are primarily sewer and water company properties, and gas and electric transmission lines. Approximately 67.8 acres or 1.1% of the total land area in Upper Frederick is within this category. Undeveloped or vacant properties account for 450 acres or 7.4% of the total land. These are undeveloped forested parcels, fallow agricultural fields, or vacated agricultural lands.

Land Use Categories

For the purposes of this chapter, existing land use in the Township is divided into sixteen categories based on Montgomery County’s land use classification system. These categories include: agricultural, commercial, single-family residential, multi-family residential, community services, light industrial, recreational, parking, woodlands, utilities, vacant, and waterbodies.



Figure 5: Existing Land Use

Land Use Category	Acres	Percent of Total Acreage
Multi-Family	4	0.1%
Single-Family Attached (townhomes)	24	0.4%
Twin/Duplex	46	0.7%
Mobile Home Park	0	0.0%
Single-Family Detached (< 5 acres)	1,254	20.0%
Country Residence (5 to 20 acres)	924	14.7%
Mixed Use	26	0.4%
Retail	5	0.1%
Office	0	0.0%
Industrial	13	0.2%
Institutional	84	1.3%
Utilities	18	0.3%
Undeveloped	337	5.4%
Public Open Space	964	15.4%
Private Open Space	230	3.7%
Agriculture	2345	37.4%
TOTAL	6,274.00	100.0%

Data Source: Central Perkiomen Valley Regional Comprehensive Plan

Figure 5: Existing Land Use

Zoning Districts

The Upper Frederick Township Zoning Ordinance outlines the following 10 zoning districts: RP rural preservation district, R-80 land preservation district, R-60 medium density residential district, R-40 high density residential district, MHP mobile home park, IR institutional and recreational district, SSC steep slope conservation district, FPC floodplain conservation district, CB commercial business district, and I industrial district. The following section briefly describes each zoning classification.

Rural Preservation District

The Rural Preservation (RP) District helps the Township protect open space from future development. The intent of the RP District is to minimize the amount of new urban or suburban development in the rural portions of the Township that are considered to be especially sensitive areas. Most of the lands within this district consist of County Parks and private recreation lands.

R-80 Land Preservation District (LPD)

The guidelines of the R-80 District require that land subdivision and development be clustered so that most (75% on tracts of 10 acres or more) of the development tract can be preserved as common open space. The district does not reduce the density of permitted development but instead reconfigures it and permits even denser development in some cases. In addition to the R-80 District, all other residential districts are permitted to encourage clustering to preserve open space. Maximum densities permitted for conventional and neighborhood developments are 1 dwelling unit per 2 acres.

R-60 Medium Density Residential District

The R-60 district provides density and dimensional standards that provide for flexibility in site design, preservation of open space, and the appearance of a lower intensity of development than with the more intense development and uses in the R-40, CB and I zoning districts. Permitted uses include single-family detached and attached dwellings, agriculture, parks and recreation areas, and natural areas. Maximum densities allowed in this district are 0.75 dwelling units per acre for all development types.

R-40 High Density Residential District

The R-40 district is intended to promote development at the highest densities that are compatible with the rural character of the Township. The district allows a concentration of dwelling units in areas that would permit efficient future provision of community or central water supply and sewage disposal. Within the R-40 District, the maximum densities allowed range from 1.75 to 6 dwelling units per acre, depending on the type of dwellings being constructed. The range above is for single family detached housing to townhome development.

MHP Mobile Home Park Development

This zoning classification establishes standards of performance and promotes the desirable benefits which planned mobile home parks may have upon the community. This classification ensures the interdependency and compatibility of proposed mobile home park developments with essential public sewer and water facilities. It allows for a greater variety in type, design, and layout of mobile home park developments and creates more affordable and diverse housing to residents of Upper Frederick Township. Mobile home parks are only permitted in R-40 Residential District. Mobile home park developments are allowed a maximum density of 4 dwelling units per developable acre.

IR – Institutional and Recreational District

This district allows medical, educational, religious or similar institutional uses, as well as park and recreation uses. Permitted uses include Township buildings and facilities, and Township, County, State, and Federal parks and open space.

SSC Steep Slope Conservation District

This overlay district was created to protect areas of steep slope from inappropriate development and excessive grading. Areas included in this district are those having slopes of 15 percent or greater. Certain conservation and open space uses are permitted in this district. Applications proposing development within this district need to be accompanied by an erosion and sediment control plan, unless it is a permitted conservation use listed in Section 1804 of the Zoning Ordinance.

FPC Floodplain Conservation District

The intentions behind the creation of this district include protecting floodplains, minimizing danger to public health, permitting and encouraging the retention of open space, and providing sound flood management. The Floodplain District was delineated to cover areas within the 100-year flood, as identified in the Flood Insurance Study, and the accompanying Federal Emergency Management Agency (FEMA) maps.

CB Commercial Business District

This district was established to allow commercial facilities that meet the shopping and personal service needs of residents and to provide ample parking for commercial developments. Regulations are provided that minimize conflicts between commercial facilities and adjacent properties and that minimize congestion and hazardous traffic conditions resulting from commercial development. This district assists the Township in locating commercial facilities in the village cores, near areas where higher density residential uses are permitted.

I Industrial District

The Industrial District permits Class I and Class II industrial uses (as defined in the Zoning Ordinance) as well as integrated industrial park developments, which must contain at least three uses on a total tract size of at least 15 acres. For Class I uses, the minimum lot area is 80,000 square feet (1.84 acre), and for Class II uses, the minimum lot area is 10 acres. The Zoning Ordinance includes regulations on building height, air emissions, noise, odors, utilities, and landscaping for this district.

4.2 Regional Planning

As previously mentioned, Upper Frederick Township, is a member of the Central Perkiomen Valley Regional Commission (CPVRPC), which reviews land development applications considered to be of regional significance to provide input regarding the potential regional impact of substantial development applications. The CPVRPC also conducts studies or other projects that are deemed to be beneficial to all the member municipalities.

Farmland and Forest Protection Programs

Upper Frederick highly values the protection of farmland, in addition to other natural resources, and contains several farms that are utilizing a variety of permanent and temporary protection measures. There are four protection programs available to property owners in the Township, two of which offer permanent protection and two provide temporary protections. All of the programs support the preservation of active farms and forest lands. These programs include the Montgomery County Farmland Preservation Program (permanent), transfer of development rights (permanent), the Pennsylvania Farmland and Forest Land Assessment Act of 1974, referred to as Act 319 (temporary), and the Agricultural Security Area (temporary). According to the Delaware Valley Regional Planning Commission (DVRPC), in Upper Frederick Township there were 2,604 acres of agricultural lands in 2000 and 2,398 acres of agricultural lands in 2010, representing a decrease of approximately three (3) percent from 40 percent to 37 percent of the total Township area.

According to Montco 2040, the County expects to continue preserving farms through the state farmland preservation program. The goal is to preserve at least 6,000 more acres on 100 more farms by 2040, for a total of 14,600 acres and 246 farms by 2040. The County intends to work with partners, such as the Penn State Extension service, the Conservation District, and land conservancies, to provide technical assistance to farmers to keep their farms viable. The County website encourages local municipalities to support farming by allowing farm stands, encouraging compatible development in farming areas, encouraging farmers' markets, preserving farms, and respecting the right of farmers to farm.

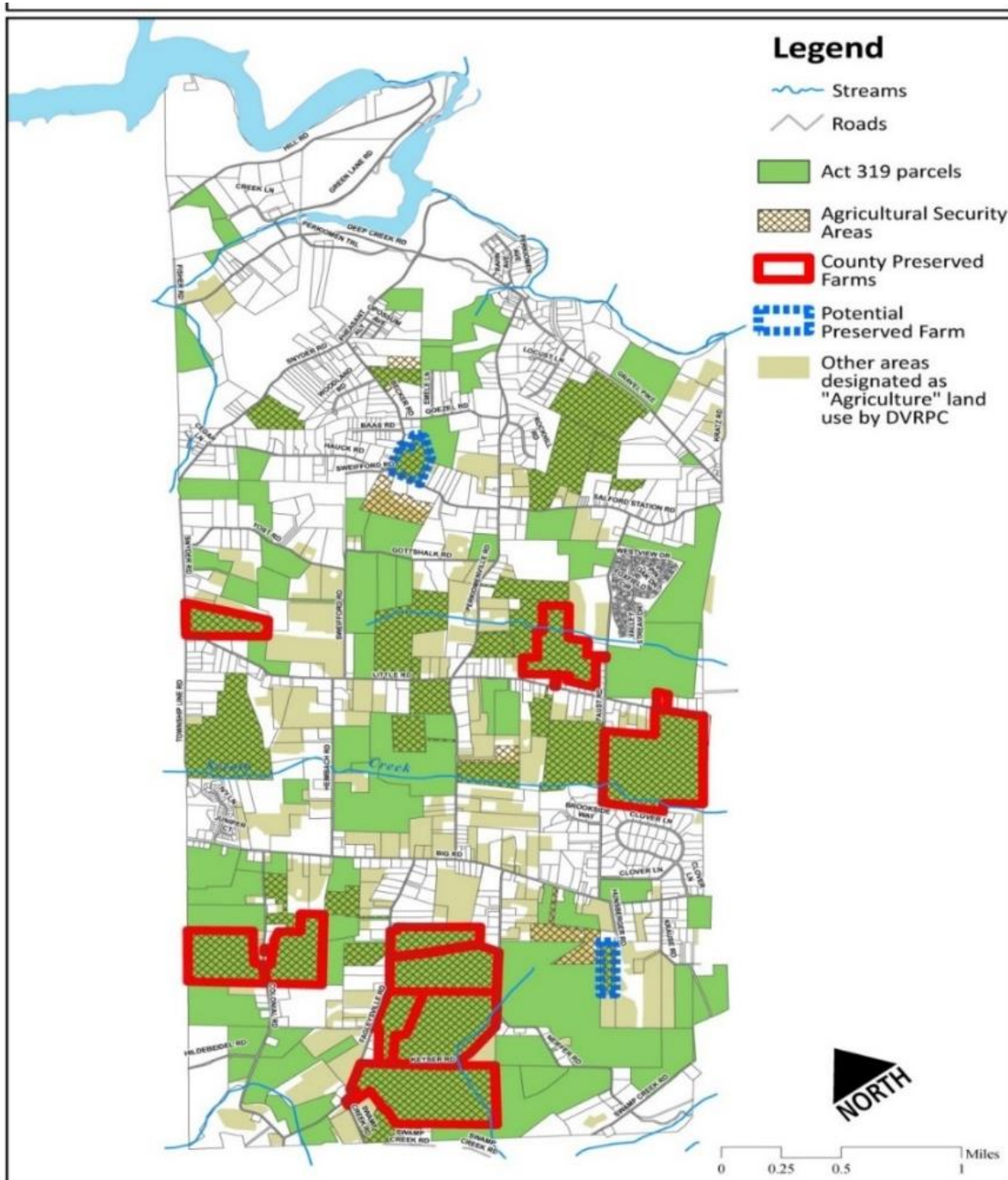
Map 10 provides an overview of the application of the farmland protection programs in the Township, each of which is discussed in more detail on the following pages.

Montgomery County Farmland Preservation Program

The Montgomery County Farmland Preservation Program (Program) purchases agricultural easements from productive farms resulting in the removal of any right to build non-agricultural buildings on the land. The land must remain in farming in perpetuity. The property may be sold, but new owners must continue to grow productive crops or utilize the

property as pasture land. According to the Montgomery County website, Upper Frederick had ten farms totaling 723 acres that are permanently protected under the Montgomery County Farmland Preservation Program. The following table provides an overview of approved farms through 2017.

MAP 10: Agricultural Lands Map



Map 10: Agricultural Lands

Figure 6: Approved Farms through 2017

Montgomery County Farmland Preservation Program				
Approved Farms through 2017				
Name	Acreage	Farm Type	Year	Parcel ID
Nikerle	86	Dairy	1998	55-00-01141-001
				55-00-01140-002
Hutt	38	Beef & Hay	2002	55-00-01703-006
Kwapisz (#1)	51	Crop & Goats	2010	55-00-00544004
Kwapisz (#2)	47	Crop & Goats	2010	55-00-0544-004
Mack	44	Beef, Swine, Poultry	2011	55-00-00991-007
				55-00-00991-106
Marriot	88	Feed Crop	2014	
Mest	101	Dairy	1999	55-00-00886-004
				55-00-00490-004
Slater	107	Crop	1995	55-00-01672-001
Zawada	83	Horse	1994	55-00-01702-007
Linsenmaier	78	Feed Crop	2015	55-00-00931-004
Total	723			

Figure 6: Approved Farms Through 2017

According to the Montgomery County website, as of December 2018, there are 164 farms preserved in Montgomery County under the farmland preservation program totaling 9,307 acres. Funding for the program comes primarily from the County and State, with local municipalities occasionally making contributions. The application to the Montgomery County Farmland Preservation Program first requires the subject property be in the Agricultural Security Area (ASA) program, which is a temporary protection program discussed in the following section. The Program evaluates applicant properties on four main criteria considered important for farmland preservation:

- soil quality
- the farming operation
- clustering potential (proximity to other farms)
- development pressure

Farms selected through this process are then appraised for their development value; the farmer receives payment for sale of development rights, and simultaneously signs a deed of agricultural easement, which will remain with the land in perpetuity.

Additional information about the program is available on the Montgomery County website at <http://www.montcopa.org/FarmlandProgram>. This website includes additional links to a range of resources.

Transfer of Development Rights

The Township recently implemented a Transfer of Development Rights (TDR) ordinance to establish a private mechanism for conserving agricultural and forestry uses of land, preserve open space, scenic views, critical and environmentally sensitive areas, and natural hazard area, and protect lands and structures of aesthetic, architectural, and historic significance. The program allows owners of land in the rural portions of the Township to sell their development rights to developers proposing development within the Township Growth Area allowing additional density in accordance with the standards adopted. The TDR has not been used as of the issuance of this Plan.

Pennsylvania Farmland and Forest Land Assessment Act of 1974 (Act 319)

The Pennsylvania Farmland and Forest Land Assessment Act of 1974, referred to as Act 319, is a temporary farmland and forestry land protection program that offers participating landowners a preferential tax rate on their properties. The program classifies enrolled properties as either agricultural, agricultural reserve, or forest reserve, each of which has specific applicable standards. To be eligible for consideration under Act 319 the property must be a minimum of ten acres and be considered either farmland or forest by the local tax assessing authority. The amount of the tax savings that results from the preferential assessment under Act 319 is dependent on the soil type of the land being considered. Land with more productive soil types realizes greater tax savings. The tax savings that result from the preferential assessment under Act 319 are intended to encourage the preservation of farmland by reducing the costs of running the farm.

While Act 319 encourages open space preservation, it does not ensure it. At any time, a land owner may remove their land from the program and develop the land. Removal of the land from Act 319 designation results in monetary penalties, in the form of payment of back taxes, which is typically factored into development costs. So, while Act 319 offers an incentive for farmland preservation, it is not always enough of an incentive to discourage development.

In the 2006 Plan it was noted that more than 80 properties accounting for approximately 2,600 acres in Upper Frederick were preferentially assessed under Act 319. As of late 2014, the number of parcels assessed under Act 319 increased to 90 with an acreage total of 2,621, representing a slight increase overall since the 2006 Plan was adopted.

Agricultural Security Areas (ASA)

The Agricultural Security Area (ASA) program is a farmland preservation program administered by the Pennsylvania Bureau of Farmland Preservation (Bureau). ASA's are a tool for strengthening and protecting farmland from the urbanization of rural areas. They are intended to promote more viable farming operations over the long term by strengthening the farming community's sense of security in land use and the right to farm.

According to the Bureau's website, entry in the ASA program is voluntary for farmers/landowners. Petitions are submitted to Township supervisors and the following standards apply.

- 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 \$2000 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.

The benefits of enrollment are:

- Prerequisite for applying to the county farmland preservation program.
- Protection against local nuisance ordinances related to farming activity.
- Oversight in certain cases of eminent domain.

The ASA designation is not a permanent designation, and a landowner may develop the property for non-agricultural purposes without penalty. Having an ASA designation is required for any landowner intending to apply for the Montgomery County Farm Preservation Program.

4.3 Future Land Use Plan

To better accommodate anticipated growth, and to help direct development to appropriate locations, Upper Frederick Township participated in a regional planning effort, as allowed by the Pennsylvania Municipalities Planning Code, for the Central Perkiomen Valley. Along with Lower Frederick Township, Perkiomen Township, and the Boroughs of Collegeville, Schwenksville, and Trappe, this effort resulted in the completion of the Central Perkiomen Valley Regional Comprehensive Plan, which maps growth areas in the most appropriate regional locations. This approach allows some municipalities to shift more intensive uses to areas in other municipalities better able to accommodate the uses. The plan also identifies rural resource conservation areas which are locations that contain sensitive natural features, farmland, or other more rural uses.

The agreement that was signed by the Township recognized the goals and objectives of the Regional Comprehensive Plan, established the Regional Planning Commission, and set up a process by which the six municipalities can review developments of regional significance, comprehensive plan amendments, and local zoning amendments. As such, the Regional Comprehensive Plan forms the basis for future land use and zoning decisions in the Township.

According to the Regional Plan, the majority of Upper Frederick Township is designated as a Rural Resource Conservation Area (RRCA) and the Township is not expected to allow high density residential or non-residential development in these areas. While the parcels that are adjacent to PA Route 73 (Big Road) are designated as a Future Growth Area (FGA). Additional FGA is located near the Perkiomenville area at the intersection of Green Lane and Perkiomenville Roads where additional parcels are zoned for R-40 use. It is anticipated that future development will be concentrated in these areas.

4.4 Land Use Goals and Implementation Strategies

Goal 4A: Preserve and enhance the rural character of the Township by protecting valuable natural, scenic, agricultural, and economic assets.

Implementation Strategies

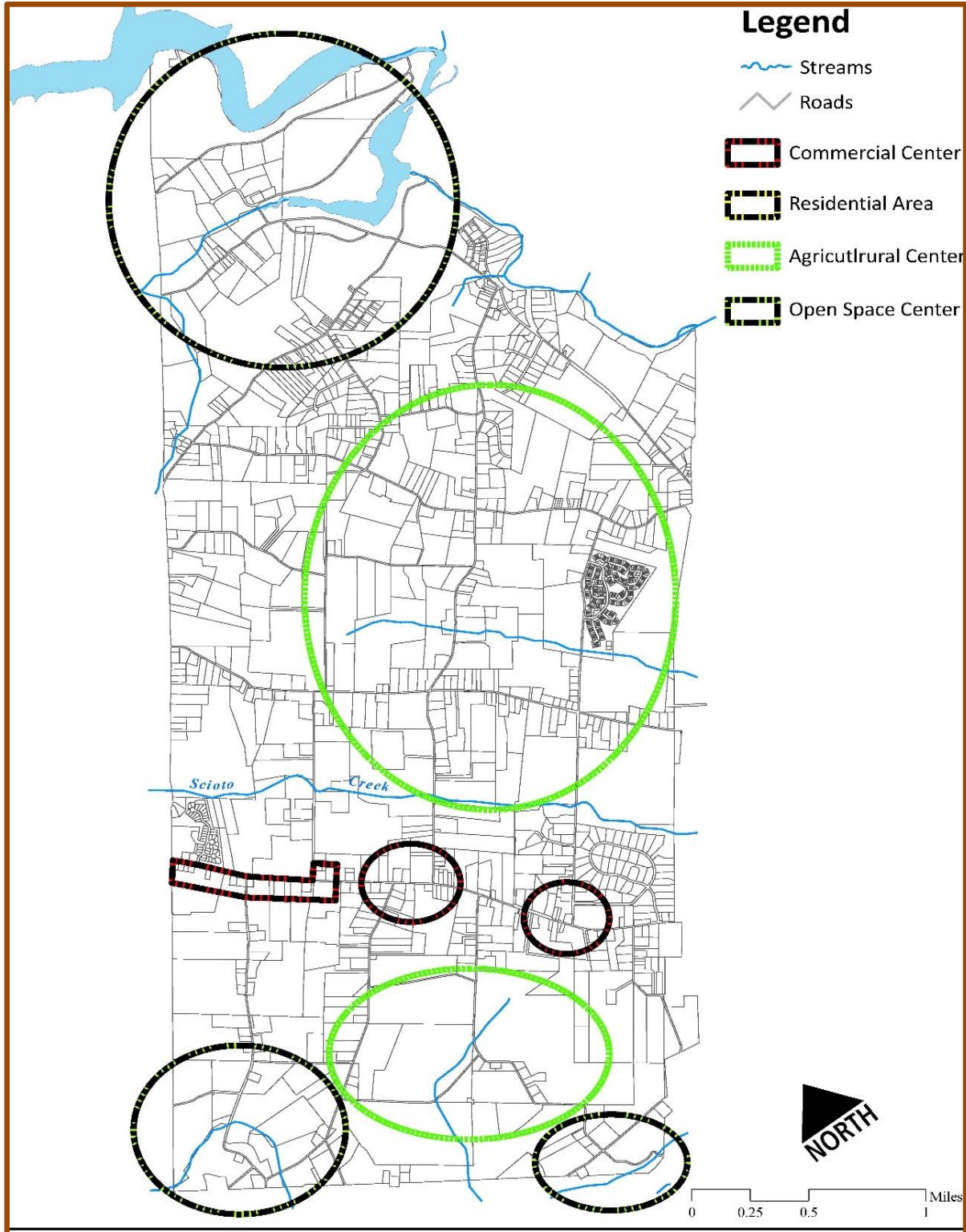
1. Update the zoning map to reflect recommendations of Future Land Use Map, as necessary.
2. Update the zoning ordinance to allow expanded uses of historic structures and establish design standards for new development in proximity to historic resources.
3. Consider the creation of a funding mechanism to purchase development rights in the rural areas of the Township.
4. Continue to utilize opportunities associated with membership in the CPVRPC to establish certain uses elsewhere in the Region.
5. Encourage smaller, neighborhood-oriented shops that support agricultural and tourism opportunities in the designated Commercial Centers.
6. Concentrate new residential development in Growth Areas, particularly higher density development.
7. Support accessory dwellings on existing properties to discourage development of new separate homesites.

Goal 4B: Encourage and protect a variety of agricultural uses throughout the Township.

Implementation Strategies

1. Support agricultural operations, small scale manufacturing: specialized non-noxious production, and technology-based operations, including non-traditional agricultural activities such as farm stands, corn mazes, and animal exhibitions.
2. Encourage property owners to follow best management practices to preserve land productivity and water quality and prevent run-off.
3. Develop educational documents for residents for best practices and make available on the Township website.
4. Continue to conduct outreach to farmers about the benefits of land preservation programs such as Agricultural Security Area (ASA) formation by larger property owners.
5. Work with the municipalities of the Central Perkiomen Valley Regional Planning Commission on the development of a regional farmer's market to support local farmers.

MAP 11: Future Land Use Strategy



Map 11: Future Land Use Strategy

Chapter 5: Economic Development

The underlying driver of development in Upper Frederick Township is the demand for housing created by employment growth within the Philadelphia and Allentown metropolitan areas. As businesses increasingly locate in suburban locations, Upper Frederick is an increasingly attractive option for homeowners. As such, the underlying economic trends that may be driving home purchase decisions in the Township are examined in this chapter.

5.1 Existing Employment

According to the American 2016 Community Survey, the Upper Frederick Township employed population 16 years and over was 1,931 representing approximately 65 percent of this part of the Township's population, which is a slight decrease from the estimate of 66 percent in 2010.

The top employment category in 2000 was manufacturing, which represented 19.3 percent of the total employment at that time. By 2010, the total number of manufacturing jobs decreased to 16 percent of total employment and the second-place employment category. The top employment category in 2010 in the Township was educational services, health care, and social assistance representing 21 percent of the total 2010 employment. This industry shows continued growth in 2016 with estimates of 25 percent. Jobs in the professional industries increased by 2010 to 14 percent of the Township employment, approaching the number manufacturing jobs. This appears to represent a shifting of employment toward professional work, which tends to be supported by the higher average household income and increase in educational attainment. It is noted that employment in the agricultural, forestry, fishing and mining industry grew from one (1) percent in 2000 to three (3) percent of the employed population in 2010.

The overall percentage of the population employed has decreased by 11 percent from 2010 to 2016 based on the U.S. Census estimates, which may be influenced by a combination of a higher percentage of retirees and continued high unemployment rates due to the 2008 recession.

Approximately 92 percent of residents in the labor force are commuting to work by car, truck or van with an average travel time of 31.8 minutes. The following table summarizes the major industry employment categories and the proportion of the employed population in each category compared with the 2000 and 2010 estimates.

Figure 7: Employment Data

Employment Category	2012-2016		
	2000 Census	2010 Census	Census
Agriculture, forestry, fishing, and mining	17 (1%)	53 (2.7%)	44 (2%)
Construction	197(13%)	213 (11%)	171 (9%)
Manufacturing	293 (19.3%)	320 (16%)	251 (13%)
Wholesale Trade	52 (3.4%)	30 (2%)	28 (1%)
Retail Trade	201 (13.2%)	166 (9%)	224 (12%)
Transportation and warehousing, and utilities	52 (3.4%)	73 (4%)	79 (4%)
Information	29 (2%)	29 (1%)	16 (1%)
Finance and insurance, and real estate and rental and leasing	97 (6.4%)	214 (11%)	112 (6%)
Professional, scientific, and management, and administrative and waste management services	142 (9.3%)	276 (14%)	254 (13%)
Educational services and health care and social assistance	237 (15.6%)	413 (21%)	490 (25%)
Arts, entertainment, and recreation, and accommodation and food services	104 (7%)	53 (3%)	109 (6%)
Other services, except public administration	80 (5.3%)	105 (5%)	51 (3%)
Public administration	20 (1.3%)	59 (3%)	54 (3%)
Total Employed Population	1574 (66%)	2075 (76%)	1931 (65%)

Figure 7: Employment Data

Agriculture accounts for approximately 2,500 acres of the land area in Upper Frederick. In 2000, less than 1% of residents employed in the Township had an occupation relating to agriculture. As of 2016, Census estimates show over 2 percent of the residents employed in agriculture, which is a slight increase over 2000. The Township saw a steady increase in the educational services, health care and social assistance occupations since 2000, but many other traditional occupations appear to be declining.

Figure 8: Employment Status

	Census Population 2000	% of total	Census Population 2010	% of total
Population 16 years and over	2,371	100%	2,078	100%
In labor force	1,574	66.4%	2,075	99.8%
Civilian labor force	1,574	66.4%	2,068	99.5%
Employed	1,521	64.2%	1,951	93.9%
Unemployed (% total population >16 years old)	53	2.2%	117	5.6%
Unemployed (Percent of civilian labor force)	53	3.4%	NA	NA
Armed Forces	NA	NA	7	.3%
Not in labor force	797	33.6%	633	30.5%

United States Census 2000 and 2010

Figure 8: Employment Status

Figure 8 indicates that a higher percentage of the population 16 years and older was in the labor force. This will be an interesting trend to follow as more of the population reaches retirement age.

5.2 Existing Income

The median household income in Upper Frederick according to the 2012-2016 American Community Survey was \$71,232 and the per capita income was \$35,496, which are below the County median household income of \$81,902 and per capita income of \$42,995. The difference between the County median household income and the Township median household income is 13 percent, while the difference between the per capita incomes is higher, 17.4 percent. The explanation for the latter difference is likely due to the residents of the Frederick Mennonite Home who are living on a fixed income. Approximately 20.2% of household incomes were between \$50,000 and \$74,999. Forty-eight percent of households earned \$75,000 or more.

Census data collected between January 2012 and December 2016 shows, 4.1 percent of families and 3 percent of individuals in Upper Frederick were living below the poverty level.

Figure 9: Income Levels

Income (Household)	2010 Number	Percent	2016 Estimate	Percent
Households	1,270	100.0%	1,462	100.0%
Less than \$10,000	44	3.5%	39	2.7%
10,000 to \$14,999	31	2.4%	111	7.6%
\$15,000 to \$19,999	20	1.6%	61	4.2%
\$20,000 to \$24,999	24	1.9%	50	3.4%
\$25,000 to \$29,999	14	1.1%	43	2.9%
\$30,000 to \$34,999	39	3.1%	13	0.9%
\$35,000 to \$39,999	46	3.6%	57	3.9%
\$40,000 to \$44,999	68	5.4%	55	3.8%
\$45,000 to \$49,999	31	2.4%	41	2.8%
\$50,000 to \$59,999	83	6.5%	88	6.0%
\$60,000 to \$74,999	231	18.2%	208	14.2%
\$75,000 to \$99,999	253	19.9%	248	17.0%
\$100,000 to \$124,999	181	14.3%	232	15.9%
\$125,000 to \$149,999	92	7.2%	103	7.0%
\$150,000 to \$199,999	51	4.0%	40	2.7%
\$200,000 or more	62	4.9%	73	5.0%
Median Household income (dollars)	\$75,625		\$71,232	

Figure 9: Income Levels

Data source: U.S. Census Bureau; American Community Survey 2010 and 2012-2016 Estimates

5.3 Population and Employment Projections

The Delaware Valley Regional Planning Commission (DVRPC) develops population projections for the individual municipalities in the greater Philadelphia region. According to these projections, the population of Upper Frederick Township is expected to increase from 3,564 persons in 2015 to 4,076 in 2045, representing an anticipated growth rate of 14.37 percent over the 30-year period. This represents a significant reduction from pre-recession growth rate projections of 52.8% over the 30-year period from 2000 to 2030.

Figure 10: Population and Employment Trends

Year	Population	Total Employment
2015	3,575	808
2020	3,725	829
2025	3,966	862
2030	4,206	895
2035	4,431	926
2040	4,634	954

Data source: DVRPC arcgis.dvrps.org- updated 9/21/2017

Figure 10: Population and Employment Trends

The DVRPC also creates employment forecasts for all the jurisdictions in its service area. According to these estimates, there are approximately 808 persons employed in Upper Frederick Township in 2015. By 2040, it is projected that 954 persons will be employed in the Township. These additional 146 employees represent a growth rate of 18.1 percent. This increase is slightly higher than the projected increase in population which may reflect an increase in the proportion of residents working from home.

5.4 Economic Development Summary

The Township remains predominantly a bedroom community, with the majority of employed residents leaving the Township for work. This trend is expected to continue into the foreseeable future, but the Township continues to support economic development opportunities in designated areas of the Township. In particular, the Township is supportive of businesses that provide services directly to residents, those that support the agricultural community, and those that incorporate the restoration and reuse of historic resources.

5.5 Economic Development Goal and Implementation Strategies

Goal 5A: Encourage Limited Commercial and Industrial Development in Designated Areas

Implementation Strategies

1. Continue to encourage commercial enterprises in the Growth Areas that serve Township residents as well as supporting agricultural and tourism opportunities.
2. Support low-impact home occupations within the Township.
3. Adopt zoning standards that promote adaptive reuse of historic properties within the Township.
4. Revisit the boundaries of the commercial zoning districts and consider zoning amendments to the designated commercial districts to reflect village-style development and accessory residential uses.
5. Encourage low-impact industrial uses in designated areas.

Goal 5B: Support the Agricultural Economy

Implementation Strategies

1. Encourage local farmers to participate in a regional farmers' market to boost agriculture.
2. Consider updates to the Zoning Ordinance to promote the Township's farms and develop heritage, eco, and agricultural tourism opportunities in the Township.

Chapter 6: Housing

One of Upper Frederick Township's overall planning goals is to maintain the Township's character in the face of increasing development pressures. The Township experienced a considerable amount of residential development pressure prior to the recession of 2008. With the uncertainty associated with future residential development, this chapter addresses the potential impacts of this housing growth and outlines general plans and strategies to accommodate growth while maintaining the Township's rural character.

6.1 Housing Overview

According to the U.S. Census data, as of 2010, there were 1,450 housing units in Upper Frederick Township of which 1,379 (95.1%) were occupied. Of the occupied units, 1,116 (80.9%) were owner occupied housing units while 263 (19.1%) were renter-occupied housing units. The average household size decreased from 2.79 in 2000 to 2.51 in 2010, representing a 10 percent decrease with the renter-occupied average household size decreasing most significantly from 2.48 to 1.63, or 34 percent.

Data by housing unit type from the U.S. Census American 2016 Community Survey, differs from the 2010 U.S. Census data, but is provided for general comparative purposes. According to the American 2016 Community Survey, Upper Frederick Township had 1,500 housing units which continued to be predominantly characterized by single-family detached housing units. Of the estimated 1,500 housing units in the Township, 879 (59%) are identified as single family detached housing units and 406 (27%) are single-family attached units, with the remaining 215 units identified as multi-family units. The American 2016 Community Survey indicates that 240 (16%) of the housing units were built between 2000 and 2009, which is a decrease from the 546 new housing units built between 1990 and March 2000. In the Central Perkiomen Valley the change of housing units from 2000 to 2010 was 12 percent and in Montgomery County the change was 7.6 percent for the same timeframe. So, while the rate of growth declined from the 1990's, the Township rate of growth from 2000 to 2010 was still higher than in the Region and Montgomery County.

According to the American 2016 Community Survey, the median value of owner-occupied housing units in the Township was \$237,200, while the median value for the County was \$293,800. The median value for owner occupied housing units in 2010 was \$141,600 compared to the County's median housing price of \$160,700. The median value of owner-occupied housing units was approximately 88 percent of the County value in 2000. While Upper Frederick Township is predominantly characterized by single family detached housing units, it appears that the greatest increases in housing type in the 2000's were in multi-family housing units. Mobile home/trailer units decreased over the decade.

Figure 11: Housing Data

Housing Types	2000 Number	2000 Percent of Total	2010 Number	2010 Percent of Total	Percent Change 2000 to 2010
Single-Family Detached	690	66.0%	851	64.8%	23.3%
Single-Family Attached	294	28.1%	370	28.2%	25.8%
Multi-Family (2-4 Units)	32	3.1%	37	2.8%	15.6%
Multi-Family (5+ Units)	0	0.0%	29	2.2%	100%
Mobile Home/Trailer	29	3.0%	26	1.9%	-10.3%
Total Housing Units	1045	100.0%	1,313	100.0%	

Figure 11: Housing Data

Source: US Census Bureau 2010, SF1 data

The following sections more closely examine the composition of the Township’s Housing stock in relation to fair share requirements and future growth demands.

Fair Share Analysis

Fair share analysis is completed as part of a comprehensive plan to ensure that affordable housing types are reasonably accommodated in municipalities throughout the Commonwealth. Fair share housing types typically include single-family attached units, such as twins, duplexes, and townhouses, multifamily units (apartments), and mobile home parks. Because Upper Frederick is part of the Central Perkiomen Valley Regional Planning Commission, the fair share analysis was conducted on a regional basis as part of the Regional Comprehensive Plan. The fair share analysis contained in the Regional Comprehensive Plan establishes that 18.82 percent of the Region’s net acreage is currently zoned for fair share uses, which exceeds the standards typically required for such uses. Additionally, approximately 42 percent of house units in the Region qualify as fair share housing types. Overall, the Region exceeds minimum fair share housing requirements. To maintain compliance with fair share requirements into the future, growth areas are identified throughout the Region to allow for higher-density residential development. In Upper Frederick Township growth areas are identified along Big Road (Route 73) and in the Perkiomen area along Route 29. Based on the fair share analysis of the regional Comprehensive Plan and the designated growth areas, Upper Frederick is found to comply with fair share requirements.

6.2 Projected Housing Demand

According to the Regional Comprehensive Plan, in order to accommodate the projected population for the Central Perkiomen Valley Region, 1,005 new dwelling units will be needed in the Region by 2030. This will bring the Region's total housing units to 11,001. To maintain the current fair share ratio of 1.38 and meet the projected housing demand, the 422 of the 1,005 new units would need to fair share qualifying units. According to the Regional Comprehensive Plan, based on current zoning, there is adequate capacity for projected housing demands based on vacant land and existing zoning.

Based on the population projections summarized in Section 1.4, the 2010 population of the Township was 3,523. Population projections prepared by DVRPC estimate the 2030 population of Upper Frederick Township to be 3,860, which is an increase of 337 residents, representing a rate increase of approximately 10 percent over the ten years. Based on the average household size of 2.51 residents, the expected number of new housing units needed through the year 2030 is estimated to be 134 dwelling units. This estimate is significantly lower than pre-recession estimates.

As part of the 2007 Upper Frederick Township Comprehensive Plan a zoning analysis was conducted to determine approximately how many households could be accommodated in Upper Frederick Township utilizing the minimum lot sizes and maximum lot yields of developable land in the various zoning districts. That analysis indicated that within the R-40 and R-60 zones, most of which are within the designated growth areas of the Regional Comprehensive Plan, approximately 822 units of housing can be accommodated. Given that very little development has occurred since the adoption of the 2007 Comprehensive Plan and projections of 134 new dwelling units are needed through 2030, the Township is considered to have adequate capacity for future housing demands.

6.3 Growth Management

In an effort to manage growth the Township has adopted designated growth areas along Big Road and near Perkiomenville along Route 29 and encourages higher-density development to locate in these areas. In addition, the Township adopted a transfer of development rights ordinance (TDR) since the adoption of the 2007 Comprehensive Plan. A TDR program is one where development rights on properties outside the growth areas are purchased by a private party and then transferred to properties within receiving areas/growth areas. The result is less development in the designated rural areas of the Township and increased density in the "receiving" areas.

Another growth management consideration available in the Township is the purchase of development rights (PDR). This program is utilized by the County for acquiring

development rights from farms currently in the ASA program to protect agricultural land. In the County program, development rights are purchased from landowners who in turn preserve their property from future residential development. In effect such voluntary programs allow a landowner to capitalize on their development potential without actually developing the property. This program is discussed in more detail in the land use chapter.

6.4 Conclusion

Population projections show that population growth will continue at a much slower rate in Upper Frederick Township than pre-recession projections. Based on the previous discussion, the Township is able to accommodate future housing demands and has implemented policies and zoning to direct higher-intensity development toward the growth areas, which helps to preserve the Township's rural character.

6.5 Housing Goals and Implementation Strategies

Goal 6A: Encourage a variety of housing to meet the needs of residents while preserving the rural nature of the Township.

Implementation Strategies

1. Review the residential standards of the zoning ordinance to ensure that a diverse and affordable choice of housing is possible in the short and long-term.
2. Focus new residential growth in the designated Future Growth Area along Route 73 and in Perkiomenville.
3. Encourage the use of the Transfer of Development Rights program and the County's Purchase of Development Rights to preserve farms.
4. Continue to support accessory dwelling units where appropriate.

Chapter 7: Community Infrastructure

7.1 Water Facilities

The availability of a reliable water supply is one of the more, if not most, important determinants to where development occurs. As noted earlier in the plan the presence of the diabase formation in the geology of Upper Frederick Township directly affects water supply. As diabase is an igneous rock with high mineral content and low porosity, well yields in the Township are severely limited. Most residences in the Township obtain water from individual wells; however, the yields from these wells are among the lowest in the region.

While most homes are using groundwater as a water supply, there are two central water systems currently in the Township. One serves the Perkiomen Crossing development of townhouses, off Faust Road just north of Goshenhoppen Creek. This system serves 330 housing units with two wells, a raw water storage tank, a chlorination facility and pump house. The second serves the Ivy Ridge development, located off Big Road between Colonial and Township Line Roads. The system serves 47 homes and 2 commercial properties. Both developments also have central wastewater treatment plants.

7.2 Sewage Facilities

Residents of Upper Frederick Township are primarily served by individual on-lot septic systems, with the exception of developments that are served by one of four central wastewater treatment plants, typically referred to as package plants, which are described in more detail in the following paragraphs. The Township does not have a public sanitary sewer system extending throughout the township.

On January 24, 1966, the Pennsylvania Sewage Facilities Act (Act 537) was enacted to correct existing sewage disposal problems and prevent future problems. To meet this objective, the Act requires proper planning in all types of sewage disposal situations. Local municipalities are largely responsible for administering the Act 537 sewage facilities program. Municipalities are required to develop and implement comprehensive official plans that provide for the resolution of existing sewage disposal problems, provide for the future sewage disposal needs of new land development; and provide for future sewage disposal needs of the municipality. This official plan is sometimes called the "base" plan or the "Act 537 plan."

In 2000, Upper Frederick Township adopted their Official Act 537 Sewage Facilities Plan, which continues to remain in effect. The goals of the Act 537 Plan are to assess future wastewater needs in the Township, to develop a coordinated sewage management policy

that will reduce public health risks and environmental damage, and to allow the Township to encourage growth in an orderly manner without incurring an undue burden for poorly designed sewage facilities.

Of the four operating surface water discharge wastewater treatment plants (WWTP) within the Township, two are currently operated by the Township. The other two WWTPs are privately owned and operated. The rest of the Township is served primarily by on-lot disposal systems or isolated private treatment systems. Although the soil in many areas of the Township is classified as either marginal or unsuitable for sub-surface disposal there is no evidence that any public health concerns exist from existing disposal facilities.

The first WWTP owned and operated by the Township serves the Perkiomen Crossing development. It is permitted for 47,850 gallons per day (gpd) and approximately 88 pounds per day (lbs./day) of biological oxygen demand (BOD). The plant consists of two sequencing batch reactor (SBR) units, each with a capacity of 32,500 gpd, discharging treated effluent to the Goshenhoppen Creek. The plant employs a comminutor and bar screen, an equalization basin, and chlorination and de-chlorination facilities.

The second WWTP operated by Upper Frederick Township serves the Ivy Ridge development. This facility has a permitted flow capacity of 15,000 gallons per day and approximately 30 pounds per day of biological oxygen demand. The plant is also a sequence batch reactor, similar to the Perkiomen Crossing facility. The plant discharges treated effluent into the Scioto Creek.

The Frederick Mennonite Community currently owns and operates an extended aeration activated sludge WWTP, which discharges into an unnamed tributary of the West Swamp Creek. The plant is rated at 25,000 gpd, with a 35,000 gpd hydraulic capacity. The average annual flow during 1997/98 was 24,700 gpd.

The Girls Scouts of Southern Pennsylvania currently owns and operates an extended aeration activated sludge WWTP at Camp Laughing Waters. While the campground extends into New Hanover Township the plant is located in Upper Frederick Township, discharging into the West Swamp Creek. The plant is permitted to treat 45,000 gpd, while the actual flows are currently closer to 30,000 gpd.

7.3 Stormwater Facilities

Upper Frederick Township has a stormwater ordinance regulating nonpoint source discharges within the municipality. Upper Frederick Township was issued an MS4 permit for its municipal separate storm sewer system to comply with PA Department of Environmental

Protection's Phase II National Pollutant Discharge Elimination System (NPDES) program. At the regional scale, the Perkiomen Watershed Conservancy formed the Perkiomen MS₄ Partnership with 13 municipalities. While Upper Frederick is located within the Perkiomen Watershed, it has chosen to not join the Perkiomen MS₄ Partnership and rather pursue compliance with the requirements of Phase II NPDES independently. The MS₄ stormwater management program has six elements termed "minimum control measures" which when implemented should result in significant reduction in pollutants discharged into receiving waters. These elements include:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention/Good Housekeeping

7.4 Community Facilities

While the availability of water and sewer service is an important determinant to the intensity of development within the township, the availability of other public facilities helps to generate the overall demand for residential and commercial growth. These facilities often attract people to the township in general, while the water and sewer service areas help determine where in the township they will reside or work. Therefore, the next sections of this chapter will outline the other community facilities within the township.

Education Facilities

Upper Frederick lies within the Boyertown School District. The Boyertown Area School District is situated on the northwestern edge of the greater Philadelphia metropolitan area. The district is about 45 miles northwest of Philadelphia, 20 miles south of Allentown, and 20 miles east of Reading and straddles the Montgomery-Berks County line. It encompasses Colebrookdale, Douglass, Earl and Washington Townships and the boroughs of Bally, Bechtelsville and Boyertown in Berks County plus the townships of Douglass, New Hanover and Upper Frederick in Montgomery County. According to the School District website, the total population of the district is 41,330 people, based on the latest Boyertown Area School District estimates. According to the Pennsylvania Department of Education, the 2015 population estimate for the Boyertown School District is 7,031. The district consists of six elementary schools, two middle schools and one high school. Students from Upper Frederick Township attend New Hanover-Upper Frederick Elementary School, which is located in New Hanover Township, and then go on to attend Middle School East in

Gilbertsville, and the Boyertown Area High School in Boyertown. There are no schools located within Upper Frederick Township and given the relatively low density of the Township, there are no plans in the foreseeable future to construct new schools within Upper Frederick Township.

Libraries

There are no libraries within Upper Frederick Township. The nearest library is the Perkiomen Valley Branch of the Montgomery County – Norristown Public Library in Schwenksville. While there is no permanent library in the Township, there is a bookmobile that stops at St. Luke’s church two times a month. To supplement the bookmobile service, book-sharing structures also referred to as Free Little Libraries could be placed throughout the Township at locations such as the Township building and/or local churches to allow residents to take and leave books to share with other residents.



Medical Facilities

There are no public medical facilities within Upper Frederick Township. The nearest hospitals are Grandview Hospital in Sellersville and Pottstown Memorial Medical Center in Pottstown. Due to the distance of these facilities there are currently three medi-vac sites that have been established in the Township. The designated locations are in the field behind the township building, next to the tennis courts in Green Lane Park, and behind the apartment units at the Frederick Mennonite Home. These parcels were selected to minimize potential noise conflicts with nearby residents.

Municipal Building

The Upper Frederick Township Building is located at 3205 Big Road. The Township Building is adjacent to Frederick Friendship Park which contains a small children’s playground and a picnic pavilion.

The Township Building houses Township staff offices and is host to meetings of the Board of Supervisors, Planning Commission, Zoning Hearing Board, and other committees as needed. The space available in the existing building is limited for staffing needs and its ability to accommodate larger meetings. Consideration of a building expansion, or acquisition of the neighboring historic structure, should be considered for additional space, when deemed appropriate.

Emergency Services

Emergency Services include fire and police services. Upper Frederick Township does not have its own police force. Police services are provided by the Pennsylvania State Police,

which has a barracks in Skippack Township approximately 8 miles from Upper Frederick. In 2018 the Township joined with other municipalities of the Central Perkiomen Valley Region to study the feasibility of creating a regional police force. The study was still under consideration at the time of adoption of this Comprehensive Plan Update.

Fire protection in the Township is provided by private volunteer fire companies. The Upper Frederick Township Fire Company was formed by a group of concerned residents in 1951. The Upper Frederick Township Fire Company (Fire Company) is composed solely of volunteers who serve the community. Currently there are 32 active personnel, three administrative members, and five social members serving the fire company.

While the Fire Company could always use and appreciate more volunteers, the current staffing is able to handle the calls that are received. To ensure adequate water supply the Fire Company has a tanker truck that is used. In addition, there are several ponds throughout the Township that can be accessed for water when necessary. The Township does not envision public water supplies to be available in the Township in the foreseeable future. In the case of extreme emergencies in the northern portion of the township, the Fire Company can draw down the supplies in the Reservoir. Although there is no immediate need for additional fire services, community support is vital to the maintenance of the fire company. When the Township experiences future development, it may need to consider funding for public safety services.

A short-term measure to provide water for fire emergencies could be the installation and management of cisterns at key locations within the Township. A 20,000 gallon cistern was installed at the Ivy Ridge development. Another potential location for a cistern could be at the Township Building although it is recognized that the costs associated with the installation and maintenance of new cisterns must be taken into account when considering additional locations.

As most residences in the township are well maintained most calls are within the national average. It should also be noted that the Perkiomen Crossing development has not, as anticipated, experienced a higher call volume due to its density. In fact, the call rate to the development is below the national average for buildings with its design and age. This indicates that residents are keeping their buildings in good repair and are not letting maintenance lag.

7.5 Energy Conservation & Renewable Energy

Upper Frederick recognizes the importance of energy conservation and supports opportunities for property owners to pursue renewable energy. The Township currently requires new development to meet Uniform Building Code requirements, but additional requirements could be considered. The Township can also promote energy conservation and the use of renewable energy sources through educating residents on sustainable building and acting as a resource outlet to residents or business owners who wish to implement sustainable and energy-efficient design into a new or existing structure.

There are a number of renewable energy opportunities that individual land-owners can install to reduce reliance on electricity drawn from the grid system.

- **Solar Energy**- is derived from the sun's radiation and is classified as active or passive. In recent years the cost of installing solar panels has come down to make it a much more affordable option for generating renewable energy. Technology has also improved significantly in the past several years, making solar and storage of the energy produced in batteries much more cost-effective.

Community solar, or solar farms, are another alternative for producing renewable energy, but on a larger scale. The Township should consider establishing regulations to support such sources of renewable energy, while still protecting the rural character of the Township.

- **Geothermal/Ground Source Heat Pumps**- are wells in the soil that greatly increase the efficiency of heating and cooling in buildings.
- **Wind Energy**- Wind energy consists of turbines of various sizes and designs that power electrical generators. While wind generators tend not to offer as good a return on investment as solar in this part of the Commonwealth, improved technology over time may contribute to more opportunities for wind generation.

7.6 Infrastructure Goals and Implementation Strategies

Goal 7A: Ensure adequate public services are available to meet the needs of the community.

Implementation Strategies:

1. Ensure future water supplies along Route 73 are also capable of supporting emergency management measures. If determined necessary, consider the use of cisterns to store water for use during fires and other emergency incidents.
2. Ensure that existing medi-vac sites are maintained to minimize potential nuisance complaints.
3. Monitor public services by tracking response times and volume of service calls to determine when expansion of services might be necessary.
4. When deemed appropriate, consider expansion of the Township building or acquire the neighboring historic structure for additional public and/or administrative space.
5. If found to be cost-effective and feasible, consider being part of a regional police force.
6. Promote integrated, green stormwater management systems that protect surface and groundwater resources, such as raingardens and naturalized stormwater facilities.
7. Encourage Free Little Libraries at public gathering places throughout the Township to supplement the Bookmobile service.

Goal 7B: Promote practices that reduce energy consumption and promote renewable and non-polluting energy sources

Implementation Strategies:

1. Promote an efficient and flexible electric grid system that prioritizes local and regionally generated clean power.
2. Support utilization of renewable energy systems by considering model projects on Township property and supporting individual renewable energy systems.
3. Update zoning and land development ordinances as needed to support generation of local renewable energy.
4. Utilize the Township website as a resource center for information on energy conservation.
5. Expand local recycling program, as deemed necessary.
6. Support ride-sharing and other forms of improved transportation alternatives.

Chapter 8: Transportation

The transportation system is extremely important because of our need for mobility and our ongoing reliance on the automobile. Given this ongoing reliance on the automobile, and the lack of public transit, individual vehicles are anticipated to be required for the foreseeable future for residents to reach their places of employment, as well as retail centers, schools, etc.

According to the 2010 Census, 88 percent of the working population in Upper Frederick commuted to work alone by vehicle, which illustrates the critical role the road network plays for the Township to function economically. According to the Census data, the number of residents carpooling dropped by approximately 50 percent since the year 2000. Opportunities for increasing carpooling rates should be supported by the Township to help encourage carpooling. The following table summarizes Census data relating to commuting trends in the Township.

Figure 12: Commute to Work Data

Commute to Work Data for Upper Frederick (U.S. Census Bureau)						
	2000		2010		2017	
Workers 16 years and over	1,492		1,897		1,893	
Car, truck, or van - - drove alone	1,205	81%	1,675	88%	1,668	88%
Car, truck, or van - - carpoled	182	12%	107	5.6%	116	6.1%
Public transportation (including taxicab)	0	0%	0	0%	0	0%
Walked	25	1.7%	16	0.8%	0	0%
Worked at home	75	5.0%	74	3.9%	109	5.8%
Mean travel time to work (minutes)	34.8		32.5		33.6	

Figure 12: Commute to Work Data

In addition to transportation alternatives, technological improvements combined with employer willingness to accommodate flexible work schedules and working from home, it is anticipated that more people have the opportunity to work from home, potentially reducing the commuting needs. However, according to the Census data, the rate of people working from home since 2000 has increased very minimally.

8.1 Existing Roadways

Upper Frederick Township's Roads and Highway Department (Roads Department) consists of four full-time and two part-time summer employees. The Roads Department is responsible for the maintenance and upkeep of approximately 14 miles of Township roads including removal of snow and ice, roadway patching, paving and surface treatments, storm drainage, signs, brush cutting and right-of-way maintenance. In addition to road maintenance, the Roads Department maintains the Township park properties and undertakes special park improvement projects. The Township also has a winter service agreement with the Pennsylvania Department of Transportation to plow an additional 9 miles of state roads within the Township borders.

Jurisdiction

Jurisdiction over roads refers to ownership and responsibility for maintenance and installation of improvements. Public roads in the Township are under the jurisdiction of the Commonwealth of Pennsylvania, Montgomery County, or Upper Frederick Township. Within the limits of applicable laws, the local municipalities have complete control over roads under their jurisdiction but must coordinate with PennDOT and the Montgomery County Department of Roads and Bridges regarding state and county roads. However, for planning purposes, the Region has the responsibility of designating all the roads under an appropriate functional classification relative to the purposes they are intended to serve. These classifications are addressed in the following section.

Classification

Functional classification is the grouping of roads into a hierarchy by the character of service and function they provide. It was developed as an important planning and design tool for comprehensive transportation planning. The system is based on standards established by the American Association of State Highway and Transportation Officials (AASHTO) and is used by the Pennsylvania Department of Transportation (PennDOT). It provides design guidelines appropriate for each road, as well as a way to coordinate road functions and improvements among neighboring communities and throughout the region and the state. A hierarchical road classification system permits a logical and efficient road network to be established. In Upper Frederick road hierarchy is expressed using a unique terminology including semi-controlled access (arterials), feeder (collectors), residential/rural (minor collectors), cul-de-sac (local), and rural (local).

Two major considerations in classifying roads are access to abutting property and travel mobility. Access refers to the level of control over vehicles entering or exiting a roadway to or from adjacent properties. Mobility refers to the ability of a road to move traffic.

Expressways. Expressways emphasize a high degree of mobility but have virtually no access to abutting properties. Expressways enable traffic to move at high speeds and a high level of efficiency over long distances. There are no existing or planned expressways within Upper Frederick Township; however, two nearby expressways serve the Township, the Northeast Extension of the Pennsylvania Turnpike (I-476) and Route 422.

Semi-controlled access highways/arterials. The primary function of semi-controlled access highways/arterials is to move traffic efficiently at the highest speeds and efficiency other than expressway levels. Their secondary function is to allow access from lower classified streets and driveways. However, the number of intersections with arterials should be limited for reasons of safety and efficient traffic flow. Principal arterials generally carry larger volumes of traffic for longer distances than minor arterials at higher speeds. In Upper Frederick Township, Route 73/Big Road and Route 29 are classified as semi-controlled access highways/arterials.

Feeders/collectors. Feeders/collectors provide a mix of efficient traffic movement and more frequent access to lower classified streets and driveways. Feeder roads shall be those which are used as connecting and through roads to serve residential areas and to connect residential roads to semi-controlled access highways and community facilities, with light traffic volumes. They generally serve shorter trips with more localized purposes and at lower speeds than arterials. Major collectors should allow more efficient traffic flow with fewer driveway intersections than Minor Collectors. Minor collectors should allow efficient traffic flow for short trips within the Township and permit more individual driveway access than major collectors. In Upper Frederick Township Perkiomenville Road and Neiffer Road are classified as feeder/collector roads.

Residential/rural roads. Residential/rural roads shall be those which are used strictly to serve residential areas and do not serve as through roads in development. As examples, residential/rural roads primarily provide access to abutting properties while discouraging the mobility of through traffic. Residential/rural roads in the Township include Fagleysville Road and Hill Road.

Rural roads. Rural roads are those not qualifying under any of the other classifications, and on which at least 75% of all road frontage consists of lots greater than two acres, with minimum lot widths of 200 feet. All roads not classified in the previous categories are considered to be rural roads. These roads primarily provide access to adjacent properties, with the lowest operating speeds over the shortest distances.

Cul-de-sac roads. Cul-de-sac roads shall be those roads with one end open for vehicular access and the other end terminating in a vehicular turnaround. These cul-de-sac roads

are considered to be rural roads but tend to have their own unique design standards. The following table provides a summary of road classification within the Township.

Figure 13: Roadway Classification

Functional Classification	Roadway
Expressway	None
Semi-controlled Highway/Arterial	Route 73; Route 29
Feeder/Collector	Perkiomenville Road
	Neiffer Road
Residential/Rural	Fagleysville Road;
	Hill Road
Rural/Cul-de-Sac/Local	All other roads

Figure 13: Road Classifications

The following map provides a summary of the road classifications as established by PennDOT.

Figure 14: PennDOT Roadway Classifications

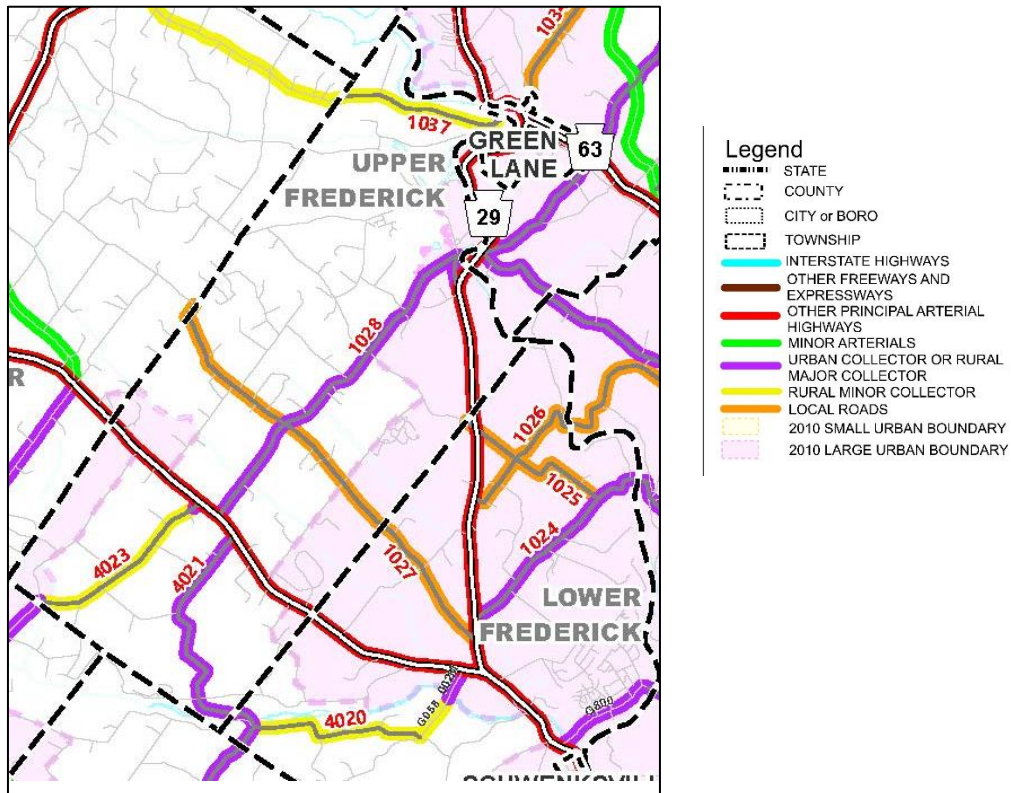


Figure 14: PennDOT Roadway Classifications

As development increases in the Region, it is anticipated that the existing transportation system will need to accommodate higher volumes of traffic as illustrated by the following table showing traffic counts on higher-use roads in the Township. The table includes a comparison of past traffic counts, where available for the same road segment to illustrate changes over time. With the exception of Gravel Pike from Kratz Road to Haywood Road, traffic counts have increase on all major roads in the Township since the early 2000's. Particularly noteworthy is the traffic increase of more than double on Fagleysville Road between the years 2000 and 2015.

Figure 15: Upper Frederick Traffic Count Data (Source: DVRPC)

Road	From Limit	To Limit	Most Recent Traffic Counts		Traffic Counts from 2007 Comp Plan	
			Year	AADT	Year	AADT
Big Rd	Township Line Rd	Fagleysville Rd	2017	8657		
Big Rd	Fagleysville Rd	Perkiomenville Rd	2017	8651	2002	7595
Big Rd	Perkiomenville Rd	Neiffer Rd	2018	9170	2000	6922
Big Rd	Neiffer Rd	Pa 29 Gravel Pike	2017	7292		
Gravel Pike	Deep Creek Rd	Upper Ridge Rd	2018	7471		
Gravel Pike	Kratz Rd	Haywood Rd	2016	5152	2005	5840
Gravel Pike	Deep Creek Rd	Upper Ridge Rd	2015	6770		
Gravel Pike	Salford Station Rd	Haywood Rd	2013	5073		
Neiffer Rd	Swamp Creek Rd	Keyser Rd	2016	1366	2001	929
Perkiomenville Rd	Little Rd	Pa 29 Gravel Pike	2018	1940	2003	1394
Fagleysville Rd	Swamp Creek Rd	Pa 73 Big Rd	2015	1155	2000	473

Figure 9: Traffic Count Data

8.2 Road Condition

The existing road network in Upper Frederick is not anticipated to change in any great regard. Recognizing that several local roads have severe curves and grades, and/or limited width and condition of paving, the Township continues to prioritize the maintenance of the existing road network to maximize safety and efficiency, recognizing that narrow rural roads with sharp curves and steep hills cannot carry traffic as safely and efficiently as roads with wide travel lanes and shoulders, and long, sweeping curves, with gentle grades. Roads that are seriously constrained by existing features also limit access to abutting properties. These roads are not suitable for access to higher intensities of development unless major improvements are made. Therefore, new development should be directed toward those areas of the Township where the road system can accommodate additional traffic associated with new development. Roads that are least constrained are generally more suitable for access to all intensities of development and can generally be improved more efficiently. While safety is a primary consideration in traffic planning, it must also be balanced with maintaining community character.

8.3 Relationship to Land Use

There is frequently a direct relationship between a road's functional classification and the variety and intensity of land use types that abut it. With the exception of expressways, roads that carry the most traffic generally have the widest variety of uses, while roads with less traffic have less variety among abutting land uses.

8.4 Road Maintenance and Improvements

As previously mentioned, the Township is responsible for the ongoing maintenance of its road system, except for State highways. Roadway maintenance is an ongoing concern in the Township due to traffic volumes, persistent high-water table, and the use of heavy farm machinery and trucks on smaller roadways. In addition, the Township is responsible for stormwater maintenance along state highways (Routes 29 and 73) within the Township.

Maintenance is also a concern on the north-south roads in the Township. According to the Township's Emergency Management Plan, in the event of an incident at the Limerick Generating Station local roads are to be used by local residents to access PA Route 73 eastbound to PA Route 113. In case an evacuation is ordered, it is highly important for the Township to maintain safe driving conditions on these routes. As the Township grows, some of the narrower bridges may need to be redesigned for two-way traffic to accommodate the additional traffic in the case of an emergency. However, such improvements should incorporate context sensitive design strategies to maintain the rural character of these



local roads. Since the adoption of the last Comprehensive Plan the County completed the reconstruction of the Colonial Road Bridge, which includes wide shoulders to accommodate pedestrian traffic.

The latest Transportation Improvement Program (TIP) was approved by Delaware Valley Region Planning Commission (DVRPC) June 28, 2018. The TIP is the region's capital budget for federal and state transportation funds. The TIP establishes the priority regional transportation projects to be funded by federal and state transportation funds through 2030. The funds will be used for transit, road, bridge and trail projects and improvements designated for regional priority. No TIP projects are identified within Upper Frederick Township at this time.

8.5 Trail System

Within and surrounding Upper Frederick are several trail development efforts that, upon completion, will result in significant recreation and transportation alternatives for residents of the Township and Central Perkiomen Valley. The Township has the opportunity to link into these efforts at strategic points to develop strong connections within the Township and with neighboring municipalities. These connections could offer Township residents a means of accessing other trails and parks that exist outside the municipal borders, as well as commercial centers.

Both Montco 2040 and the Central Perkiomen Valley Region Plan have proposed regional trail networks, which are consistent with each other and act to tie the Region's major trails together.



Perkiomen Trail - The 22.5-mile Perkiomen Trail is a rail-trail that runs through the Perkiomen Creek Valley from its junction with the Schuylkill River Trail at Oaks to Green Lane Park, a portion of which is in Upper Frederick Township. Most of the trail is a 10-foot wide cinder or stone aggregate (non-paved) surface with grass shoulders. Selected sections are paved where deemed appropriate.

The multi-use trail follows the Perkiomen Creek and connects three County parks (Lower Perkiomen Valley Park, Central Perkiomen Valley Park, and Green Lane Park) and two County historic sites ("Mill Grove" – Audubon Wildlife Sanctuary and Pennypacker Mills). It passes directly through ten (10) municipalities making connections to numerous

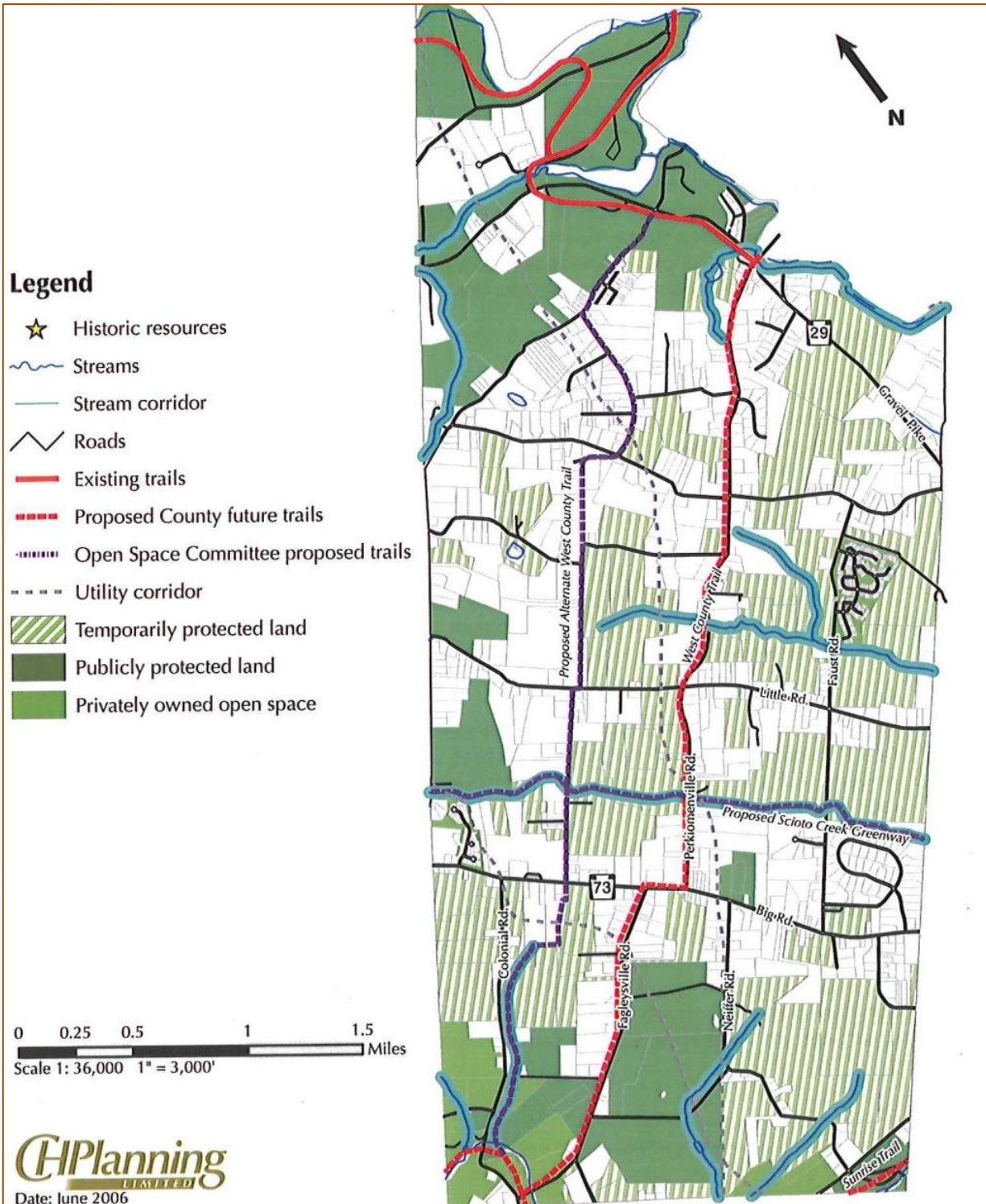
municipal parks and open spaces along the scenic waterway. The trail provides access to Valley Forge National Historical Park via its connection to the Schuylkill River Trail extension.

West County Trail - The proposed West County Trail would pass directly through Upper Pottsgrove on its way from the Pottstown area through the southeastern corner of Douglass Township. The trail would then continue through New Hanover Township and run south to north through Upper Frederick Township where it would connect to the Perkiomen Trail. The current proposed alignment of this trail is along roads in the Township with relatively high traffic counts. The Township trail map includes an alternative alignment on lower traffic roads that should be investigated in more detail when planning efforts for this trail begin.

Swamp Creek Trail (Sunrise Trail) - The proposed Swamp Creek Greenway Corridor/Trail, also known as the Sunrise Trail, is anticipated to run along the scenic rural Swamp Creek Valley and ultimately connect New Hanover Township to Schwenksville with connections to the County's Sunrise Mill Historic Site and Speelhoffer and Wayland Parks in Upper Frederick. The trail will utilize County and municipal lands, easements on private and school district properties, and local rural road segments where necessary. This trail will also make connections to a system of nature footpaths located in the nearby Stone Hill Greenway. In addition to the proposed trail, Swamp Creek itself is an important open space destination. Regional linkages may be made with the continuing expansion of the nearby Stone Hill Greenway. During the recent development of a feasibility study for the Swamp Creek Greenway, the County received a significant amount of pushback from residents of Lower Frederick and may postpone plans for trail connections through Lower Frederick.

In addition to the County regional trail network, Upper Frederick has the opportunity to partner with surrounding municipalities to create greenways which could connect significant areas of open space and recreational resources. Map 12 on the following page shows proposed trails of regional significance and the alternate alignment proposed to connect Green Lane Park to parks and greenways in the southern portion of the Township.

MAP 12: Upper Frederick Township Existing and Proposed Trail Network



Map 12 Upper Frederick Township Existing and Proposed Trail Network

8.6 Aviation

Upper Frederick does not have any commercial airports within its boundaries; however, several small privately-owned general aviation airports do exist nearby. The most significant near-by airfield is Heritage Field, formerly the Pottstown-Limerick Airport, which is approximately three miles from Upper Frederick Township. The closest commercial airports are Reading Regional Airport (30 miles to the west), Lehigh Valley International Airport (38 miles to the north), Trenton Mercer Airport (50 miles to the east), and Philadelphia International Airport (50 miles to the south).

8.7 Public Transportation

Due to the rural nature of the Township, regular public transit routes are not regularly available for residents. The closest transit routes are SEPTA bus lines Route 93 and Route 99 that run through adjacent Townships. Route 93 runs along Ridge Pike through Limerick Township and connects Norristown to Pottstown. Route 99 runs from Norristown to Royersford Borough. Given the rural nature of the Township, it is not anticipated that public transportation directly serving the Township will be feasible in the foreseeable future. However, innovative companies such as Uber and Lyft are beginning to offer transportation alternatives, together with ride-sharing opportunities, that could significantly assist residents without a car of their own to get places and also employ residents with cars.

8.8 Future Needs

In large part the future needs for transportation will be heavily dependent on where future growth will occur. As the Township intends to focus more intensive residential development along Route 73 (Big Road) this corridor over time may require improvements, such as signals and turning lanes at major intersections to better control traffic flow and improve safety. Additionally, as traffic increases on Big Road, there may be ancillary traffic increases on nearby roads, especially during the Goshenhoppen Folk Festival, which attract residents and visitors who access these sites from Colonial and Fagleysville Roads. These traffic impacts are currently not problematic, but in the future the Township may need to consider the impacts of additional large-scale events and increased traffic volumes due to new development.

As identified in the community survey, residents expressed concern about the maintenance of local road, in particular Perkiomenville Road, which is a PennDOT Road. The Township should continue to coordinate with PennDOT representatives on areas of deficiency and share resident concerns about maintenance concerns.

Funding

Within growth areas, and on adjacent roads needed to serve those areas, road improvements can be programmed to accommodate existing traffic and new traffic generated by the concentrations of new development. Upper Frederick can consider enacting traffic impact fees to help offset the costs of off-site road improvements needed to handle traffic increases from new development.

To implement this program, the Township must comply with Article V-A of the Pennsylvania Municipalities Planning Code governing Municipal Capital Improvement. It requires a transportation capital improvements plan based on a land use assumptions report and a roadway sufficiency analysis. Following the preparation of such a plan, ordinances imposing transportation impact fees may be enacted.

Even if transportation impact fees are imposed, the most significant funding for road, intersection, and bridge improvements must still be sought through traditional state and federal funding sources and programming. As noted previously, there are no regionally funded projects planned at this time for Upper Frederick.

8.9 Montgomery County Transportation Vision

The County Montco 2040 Plan establishes the following priorities that directly relate to Upper Frederick Township:

- New road choices and improved road conditions.
- Bridges and roads that are in a good state of repair.
- An extensive county trail system that is connected with local municipal trails and regional trails.
- Improved bike ability of roads and bicycle facilities.
- An expanded sidewalk and pedestrian network designed to make walking easy, comfortable, and safe.
- Increased use of travel demand management strategies.

The Montco 2040 Plan indicates the County will take the following steps to connect communities by 2040:

- Encouraging more collaboration and partnerships - the County will participate actively in local and regional organizations while encouraging municipalities to work together and expand multi-municipal planning.
- Improving transportation quality and options - priorities include improving the current road system, adding new Turnpike interchanges; improving the frequency of service on the Norristown, Warminster, and West Trenton lines; extending the Norristown High Speed Line to King of Prussia; and making communities more walkable.
- Expanding county trails and greenways - expanding the county trail system is a priority, beginning with completion of the Schuylkill Valley, Chester Valley, Pennypack, Wissahickon, and Cross County trails.

In 2018 Montgomery County adopted *Bike Montco: The Bicycle Plan for Montgomery County*, which offers a vision of a safe and efficient bicycle network for the County. As the Township considers improvements to the transportation system consideration should be given to the County Montco 2040 Plan and the Bike Montco Plan.

8.10 Transportation Goals and Implementation Strategies

Based on the information presented above, the following are goals and implementation strategies are established by the Township.

Goal 8A: Maximize the efficiency and quality of the existing roadway transportation system

1. Limit curb cuts along arterial roadways.
2. Continue to encourage PennDOT to maintain roads identified with deficiencies within the Township.
3. Maintain roadways identified as evacuation routes event to access to Route 73.
4. Expand shoulder width on roads to better accommodate bicycle traffic.
5. Direct new development toward those areas of the Township where the road system can accommodate additional traffic.
6. Future bridge improvements should incorporate context sensitive design strategies to maintain rural character.
7. Support the County Transportation priorities as they relate to Upper Frederick Township, including Complete Streets policies.
8. Consider enactment of traffic impact fees, if determined appropriate.
9. Regularly assess the condition of the local transportation system and if major deficiencies are identified, pursue the process to add these projects to the regional Transportation Improvement Program (TIP) or other state and regional transportation grants.

Goal 8B: Develop an interconnected pedestrian/bicycle trail system consistent with the Bike Montco Plan

1. Develop a plan for prioritizing key pedestrian and bicycle improvements including mobility access points linking residential areas to parks, open space, commercial and employment centers.
2. Require new developments to construct segments of pedestrian facilities planned through or adjacent to proposed development.
3. Continue to pursue grant funding to assist with the design and construction of planned pedestrian facilities.

Goal 8C: Support alternative transportation opportunities within the Township

1. Support innovation and new technology that support alternative means of transportation and ridesharing.
2. Support the installation infrastructure that supports electric vehicles and other transportation alternatives.

Chapter 9: Evaluation of County and Abutting Municipal Plans

As required by §301(a)(5) of the Pennsylvania Municipalities Planning Code (MPC), the Regional Comprehensive Plan shall contain a “statement indicating that the existing and proposed development of the municipality is compatible with the existing and proposed development and plans in contiguous portions of neighboring municipalities, or a statement indicating measures which have been taken to provide buffers or other transitional devices between disparate uses, and a statement indicating that the existing and proposed development of the municipality is generally consistent with the objectives and plans of the county comprehensive plan”. Upper Frederick Township borders six (6) municipalities, all of which are in Montgomery County. Policy consistency between the Upper Frederick Township 2020 Comprehensive Plan Update and neighboring municipalities is summarized as follows.

9.1 Lower Frederick Township

Lower Frederick Township has historically used the Central Perkiomen Valley Regional Comprehensive Plan as the official Comprehensive Plan for the Township. However, in response to local development pressures Lower Frederick began the process of developing a township comprehensive plan in 2019. The Lower Frederick Township zoning map shows two zoning classifications along its boundary with Upper Frederick Township. The area along the northerly side of Route 73/Big Road adjacent to Upper Frederick Township is zoned OI- Office Industrial, which allows a variety of office and industrial uses. This classification is adjacent to medium density residential zoning in the designated growth area in Upper Frederick. The remainder of the land along the boundary in Lower Frederick is zoned R-1- Rural Residential, which permits a low-density residential development, and is found to be consistent with the much of the low-density land in Upper Frederick Township. Although it is noted that the portion of land in Upper Frederick along Route 29 adjacent to Lower Fredrick is zoned industrial. The Lower Frederick zoning classifications along the boundary with Upper Frederick are generally considered to be consistent although it is noted that in each township there is an area that allows industrial in proximity to residential uses.

9.2 Limerick Township

Limerick Township shares a small boundary with Upper Frederick Township in the southeastern portion of Upper Frederick Township. Limerick Township adopted their comprehensive plan in 2009 and a Greenways and Trails Master Plan in 2013. According to the Limerick Future Land Map the area adjacent to Upper Frederick Township is

designated as Resource Conservation. The Limerick Township Zoning Map supports this with a zoning classification of R-1- Residential Agricultural which is the lowest-density zoning classification within the Township. This designation is consistent with the Upper Fredrick Township zoning designation of Rural Preservation District in this area.

9.3 New Hanover Township

New Hanover Township shares a boundary with Upper Fredrick Township along the westerly boundary of Upper Frederick Township. The New Hanover zoning along the Upper Frederick Township boundary is residential zoning of varying densities. The lower portion of this common boundary consists of the Girls Scouts Camp Laughing Water, which extends between both municipalities and is zoned residential R-25, according to the New Hanover zoning map.

9.4 Upper Hanover Township

Upper Hanover Township is a member of the Upper Perkiomen Valley Regional Planning Commission. In 2011 the Upper Perkiomen Valley Regional Planning Commission adopted the 2011 Comprehensive Plan Update. The Future Land Use Map contained in the 2011 Comprehensive Plan Update identifies the area of Upper Hanover Township adjacent to Upper Frederick Township as Public Open Space. According to New Hanover Township's Zoning Map the area of New Hanover Township abutting Upper Frederick Township consists of Green Lane Reservoir and associated park lands, which are zoned R-1 Agricultural Low Density Residential. These land uses are consistent with similar land use and zoning in that portion of Upper Frederick Township.

9.5 Marlborough Township

The northeast portion of Upper Frederick Township borders on Marlborough Township. Marlborough Township is part of the Upper Perkiomen Valley Regional Planning Area and utilizes the Upper Perkiomen Valley Regional Comprehensive Plan as their Comprehensive Plan. Accordingly, much of the area of Marlborough Township adjacent to Upper Frederick Township is designated as Public Open Space and Recreation due to the presence of Green Lane Park, with the exception of a small area along Route 29 designated as Retail/Office/Residential and zoned Village Commercial, which is in proximity of higher-density residential and industrial uses/zoning in Upper Frederick Township. Along Route 29 there is a mix of zoning classifications and land designations. In Upper Frederick Township this area is predominantly identified as industrial with some higher-density residential zoning and in Marlborough Township a portion of this area is zoned Village Commercial.

9.6 Green Lane Borough

Green Lane Borough is also located along the northeast portion of Upper Frederick Township. It only borders Upper Frederick for a small distance where Green Lane Park is located. Green Lane Borough is also part of the Upper Perkiomen Valley Regional Planning Area and utilizes the Upper Perkiomen Valley Regional Comprehensive Plan as their Comprehensive Plan. The area of shared border is predominately identified as Public Open Space.

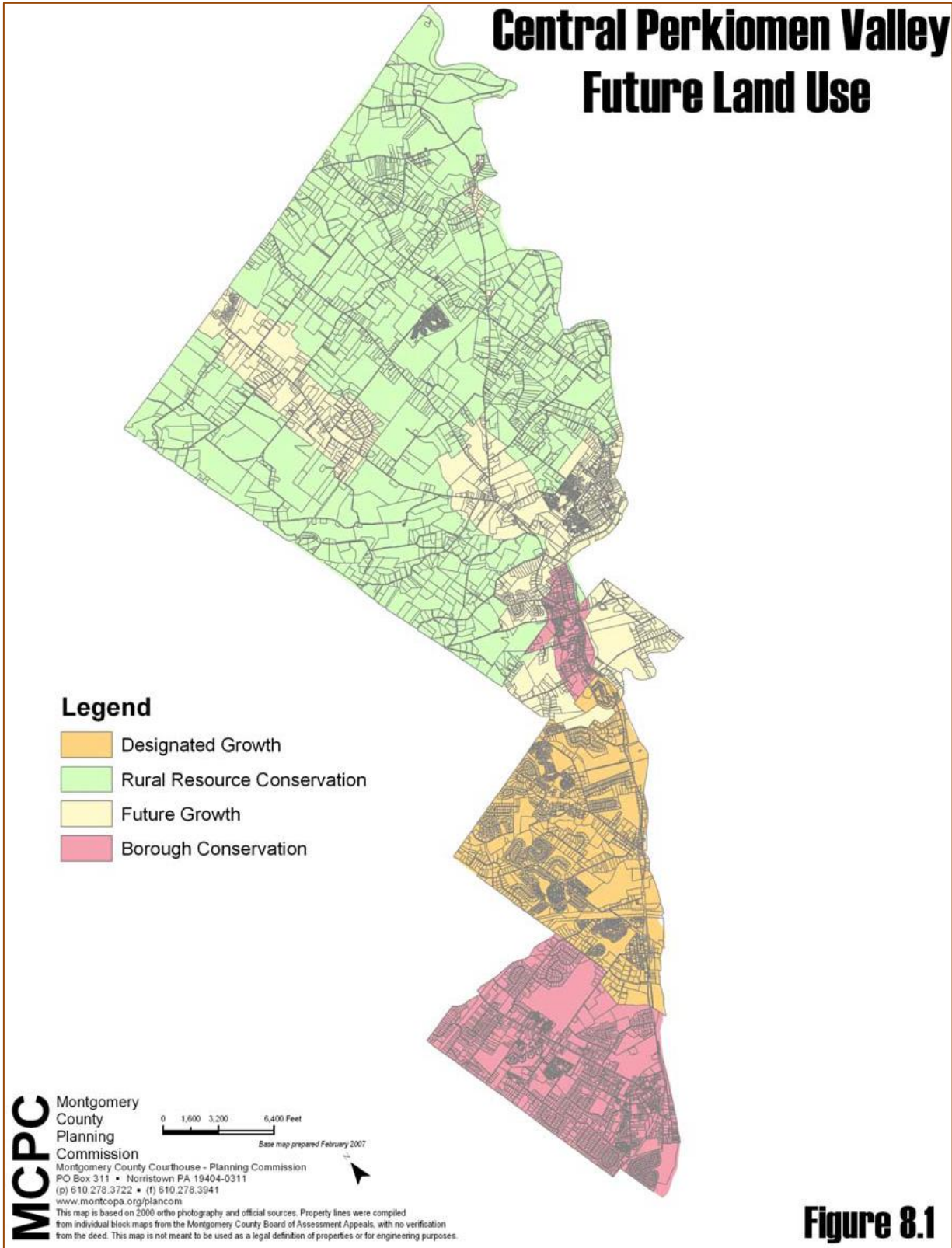
9.7 Montco 2040: A Shared Vision

Montgomery County's Comprehensive Plan titled Montco 2040: A Shared Vision was adopted January 15, 2015. The County Comprehensive Plan focuses on an overall vision for Montgomery County in 2040. As it relates to Upper Frederick Township, Montco 2040 generally reinforces the goals and recommendations of the Upper Frederick Township Comprehensive Plan Update.

9.8 Central Perkiomen Valley Regional Plan

The Central Perkiomen Valley Regional Comprehensive Plan was originally adopted in June 2005, and then updated in 2014. This plan involves the communities of Upper Frederick, Lower Frederick, Collegeville, Schwenksville, Perkiomen, and Trappe. The plan highlights the importance of investment in open space and regional economic development. As noted earlier in this document the Township has undertaken steps to bring its zoning and land use plans into compliance with the Regional Plan. As such, this Comprehensive Plan is considered to be substantially consistent with the Regional Plan while reinforcing the recommendations of the Regional Plan in the Township. The Central Perkiomen Valley Future Land Use Map is provided on the following page for reference purposes.

MAP 13: Central Perkiomen Valley Future Land Use



Map 13 Central Perkiomen Valley Future Land Use

9.9 Additional Township Plans

Emergency Operations Plan (EOP)

Upper Frederick adopted an Emergency Operations Plan (EOP) in 2004 to outline the activities to be taken by the municipal government and other officials to protect the lives and property of the citizens of Upper Frederick in the event of a natural, technological, or terrorism emergency or disaster and to satisfy the requirements of the PA Emergency Management Services Code. This plan covers disasters that may occur from weather incidents or from being in close proximity to the Limerick Generating Station. The Emergency Management Coordinator and the elected officials within the Township have most of the responsibility in the case of an emergency. The evacuation routes designated for Upper Frederick are local roads to Route 73 to Route 113 North. The EOP is accompanied by emergency response checklists as well as a Limerick Radiological Response Plan.

In terms of natural disasters, Upper Frederick's zoning ordinance districts assist in protecting housing and businesses from damage by restricting development on steep slopes and within floodplains. In addition, the Rural Preservation district also serves to protect sensitive rural lands from being developed. By restricting development in such a manner, Upper Frederick is reducing the chance of floods, severe erosion or landslides, and sinkholes by only developing lands with stable and suitable soils and proper drainage.

2015 Recreation, Park and Open Space Plan

The 2015 Recreation, Park and Open Space Plan is an update of the 2006 Upper Frederick Township Open Space Plan (2006 Plan). This update builds upon the work completed in the 2006 Plan with a particular emphasis on updating Township demographic information, inventorying the current recreation, park and open space facilities, identifying needed facilities for the existing population and establishing a level of service to be achieved and maintained for existing and future residents and employees.

Chapter 10: Implementation

Goals and Implementing Strategies

The Upper Frederick Comprehensive Plan is a document that reinforces the Central Perkiomen Valley Regional Plan, last updated in 2014, while establishing goals and implementation strategies that more specifically address the priorities of Upper Frederick Township. The following tables summarize the goals and implementation strategies of the Township. The tables also include responsible parties and timeframes. Short-term is anticipated to occur in 2-3 years, medium-term would be anticipated in 3-5 years, and long-term in more than five years.

Resource Protection

GOAL 2A: Protect natural resources to ensure a healthy balance of resources remain available on an ongoing basis.

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Continue to work with the Montgomery County Open Space Board, Montgomery County Lands Trust, Perkiomen Valley Watershed, and other conservation organizations to encourage land preservation, with an emphasis on stream restoration projects.	Township	Ongoing
2. Consider updating zoning ordinance to expand woodland protections and require new development to consider woodlands as part of a larger woodland network and apply additional preservation requirements.	Township	Short-term
3. Ensure that new development protects and preserves the Region’s existing rural character through innovative growth management techniques.	Township	Ongoing
4. Preserve Lands on which sensitive natural resources exist and deserve protection.	Township, County, State	Ongoing
5. Adopt regulations that further add protection to natural resources, such as groundwater protection.	Township	Medium-term
6. Expand the availability of education resources for residents to help them understand the value of resource protection.	Township	Short-term
7. Pursue funding opportunities that can result in the implementation of natural resource protection priorities.	Township	Ongoing
8. Implement recommendations of Wayland Park Resource Study to protect the integrity of the natural resources.	Township	Ongoing/ Short-term
9. Develop educational materials for residents for minimizing the spread of invasive plants and animals.	Township	Ongoing/ Short-term

Resource Protection

GOAL 2B: Encourage the preservation and enhancement of the historic resources that help define the Township's unique character.

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Prioritize preservation of lands with historic resources.	Township, County	Ongoing
2. Preserve undeveloped land where it remains to retain a connection to Upper Frederick's rural heritage.	Township, County	Ongoing
3. Amend the zoning ordinance to allow a wider range of uses in identified historic structures in an effort to preserve and rehabilitate these resources.	Township	Short-term
4. Encourage flexibility in renovation standards to preserve historic resources that otherwise would be abandoned or demolished.	Township	Short-term/ Ongoing
5. Promote context appropriate development and design standards for new development proposed in proximity to historic resources.	Township	Short-term/ Ongoing
6. Promote cultural and recreational tourism by coordinating with local nonprofits and/or regional organizations in an effort to promote local resources.	Township, Region, County	Ongoing
7. Consider working with owners of historic resources in the Swamp Creek area to create an interconnected trail to the various historic sites.	Township, Region, County	Ongoing
8. If and when available, the Township should consider acquisition/preservation opportunities for the Hans Neuss log home and the Church School property, which could be rehabilitated as community resources such as a senior center or community meeting space.	Township	Long-term

Parks and Open Space

GOAL 3A: Develop an Interconnected Trail System

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Create a safe alternative trail route for the County's proposed West County Trail, if determined appropriate.	County, Township	Long-term
2. Provide sufficient roadside shoulders or sidewalks to allow pedestrian and cyclist use of roadways, specifically along high-priority roads where a separate trail is not an option.	Township, PennDOT	Ongoing
3. Consider the development of an interconnected trail between historic resources along Colonial Road linking into the Swamp Creek Greenway.	Township, County, Goshenhoppens	Medium-term
4. Require strong pedestrian connections between land developments, historic resources, and existing trails.	Township	Ongoing
5. Cooperate with regional efforts to build trail and greenway connections across the landscape.	Township, County, State	Ongoing
6. Work with developers to provide greenway easements for trail segments, wherever feasible.	Township	Ongoing
7. Prioritize linkages between the Township's open spaces and recreational land to County trails such as the Perkiomen and Swamp Creek trails.	Township, County	Ongoing
8. Support the Perkiomen Creek Water Trail project and other waterway trail projects, which offer unique opportunities to provide connections between existing open spaces, county trails, while also preserving the stream corridors for floodplain and riparian protection purposes.	Township, Perkiomen Watershed Conservancy, County	Ongoing

GOAL 3B: Preserve Undeveloped Land Parcels

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Encourage landowners of privately-owned open space to permanently preserve the land, specifically the Girl Scouts of Philadelphia, and the Lower Merion Rod and Gun Club.	Township, Land Owners	Ongoing
2. Continue to pursue funding opportunities for preservation of high-priority undeveloped properties, particularly lands that could connect existing preserved lands providing opportunities for greenway and/or trail connections.	Township	Ongoing

GOAL 3C: Link Existing Open Space		
IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Identify areas of the Township that could allow for linkage of existing open spaces to help preserve linear natural features.	Township	Short-term
2. Pursue sources of funding to purchase easements or land outright to make vital connections between trail/open space segments.	Township	Ongoing
3. Continue development of Greenways through conservation easements along the riparian corridors.	Township, County	Ongoing
4. Support development of the Swamp Creek Greenway and Sunrise Mill.	Township, County, State	Short-term, ongoing
5. Provide public access to natural areas while ensuring a high standard of protection.	Township	Ongoing
GOAL 3D: Provide Adequate Passive and Active Parkland		
IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Complete park improvements identified in this Plan, including construction of planned trails in the Township parks, as staff time allows.	Township	Ongoing
2. Ensure that the Township has adequate land to address near term and future needs for athletic fields, courts and other play areas.	Township	Ongoing
3. Explore the possibility of obtaining land in the northeast quadrant of the Township for the development of a neighborhood or mini park.	Township	Ongoing
4. Continue partnering, and create new partnerships, with adjacent municipalities to allow Upper Frederick Township residents to participate in recreational programs at in-district prices.	Township, Surrounding Municipalities	Short-term/ Ongoing
5. Adopt an Official Map to identify properties to potentially be preserved as park or open space areas should they become available for sale.	Township	Medium-term
6. Explore opportunities for obtaining additional land adjacent to Frederick Friendship Park to accommodate additional active park facilities and linking to Scioto Creek.	Township	Medium-term
7. Consider acquisition of the former "Church School" should it become available for a community or senior center.	Township	Long-term

Land Use

GOAL 4A: Preserve and enhance the rural character of the Township by protecting valuable natural, scenic, agricultural, and economic assets.

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Update the zoning map to reflect recommendations of Future Land Use Map, as necessary.	Township	Short-term
2. Update the zoning ordinance to allow expanded uses of historic structures and establish design standards for new development in proximity to historic resources.	Township	Short-term
3. Consider the creation of a funding mechanism to purchase development rights in the rural areas of the Township.	Township, County	Medium-term
4. Continue to utilize opportunities associated with membership in the CPVRPC to establish certain uses elsewhere in the Region.	Township, CPVRPC	Ongoing
5. Encourage smaller, neighborhood-oriented shops that support agricultural and tourism opportunities in the designated Commercial Centers.	Township	Ongoing
6. Concentrate new residential development in Growth Areas, particularly higher density development.	Township	Ongoing
7. Support accessory dwellings on existing properties to discourage development of new separate homesites.	Township	Ongoing

GOAL 4B: Encourage and protect a variety of agricultural uses throughout the Township

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Support agricultural operations, small scale manufacturing: specialized non-noxious production, and technology-based operations, including non-traditional agricultural activities such as farm stands, corn mazes, and animal exhibitions.	Township	Ongoing
2. Encourage property owners to follow best management practices to preserve land productivity and water quality and prevent run-off.	Township, County	Ongoing
3. Develop educational documents for residents for best practices and make available on the Township website.	Township, County, CPVRPC	Medium-term
4. Continue to conduct outreach to farmers about the benefits of land preservation programs such as Agricultural Security Area (ASA) formation by larger property owners.	Township, County	Ongoing
5. Work with the municipalities of the Central Perkiomen Valley Regional Planning Commission on the development of a regional farmer's market to support local farmers.	Township, CPVRPC	Medium-term

Economic Development

GOAL 5A: Encourage Limited Commercial and Industrial Development in Designated Areas

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Continue to encourage commercial enterprises in the Growth Areas that serve Township residents as well as supporting agricultural and tourism opportunities.	Township	Ongoing
2. Support low-impact home occupations within the Township.	Township	Ongoing
3. Adopt zoning standards that promote adaptive reuse of historic properties within the Township.	Township	Short-term
4. Revisit the boundaries of the commercial zoning districts and consider zoning amendments to the designated commercial districts to reflect village-style development and accessory residential uses.	Township	Short-term
5. Encourage low-impact industrial uses in designated areas.	Township	Ongoing

GOAL 5B: Support the Agricultural Community

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Encourage local farmers to participate in a regional farmers' market to boost agriculture.	Township, CPVRPC	Ongoing
2. Consider updates to the Zoning Ordinance to promote the Township's farms and develop heritage, eco, and agricultural tourism opportunities in the Township.	Township CPVRPC	Ongoing

Housing

GOAL 6A: Encourage a variety of housing to meet the needs of residents while preserving the rural nature of the Township

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Review the residential standards of the zoning ordinance to ensure that a diverse and affordable choice of housing is possible in the short and long-term.	Township	Short-term
2. Focus new residential growth in the designated Future Growth Area along Route 73 and in Perkiomenville.	Township	Ongoing
3. Encourage the use of the Transfer of Development Rights program and the County's Purchase of Development Rights to preserve farms.	Township, County	Ongoing

Community Infrastructure

GOAL 7A: Ensure adequate public services are available to meet the needs of the community

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Ensure future water supplies along Route 73 are also capable of supporting emergency management measures. If determined necessary, consider the use of cisterns to store water for use during fires and other emergency incidents.	Township, Public Service Agencies	Ongoing
2. Ensure that existing medi-vac sites are maintained to minimize potential nuisance complaints.	Township, Public Services Agencies	Ongoing
3. Monitor public services by tracking response times and volume of service calls to determine when expansion of services might be necessary.	Township, Public Services Agencies	Ongoing
4. When deemed appropriate, consider expansion of the Township building or acquire the neighboring historic structure for additional public and/or administrative space.	Township	Ongoing
5. If found to be cost-effective and feasible, consider being part of a regional police force.	Township, Region	Short-term
6. Promote integrated, green stormwater management systems that protect surface and groundwater resources, such as raingardens and naturalized stormwater facilities.	Township	Ongoing
7. Encourage Free Little Libraries at public gathering places throughout the Township to supplement the Bookmobile service.	Township, Residents	Short-term

GOAL 7B: Promote practices that reduce energy consumption and promote renewable and non-polluting energy sources

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Promote an efficient and flexible electric grid system that prioritizes local and regionally generated clean power.	Township, County, CPVRPC	Short-term/ Ongoing
2. Support utilization of renewable energy systems by considering model projects on Township property and supporting individual renewable energy systems.	Township	Medium-term/ Ongoing
3. Update zoning and land development ordinances as needed to support generation of local renewable energy.	Township	Short-term
4. Utilize the Township website as a resource center for information on energy conservation.	Township	Ongoing
5. Expand local recycling program, as deemed necessary.	Township	Medium-term
6. Support ride-sharing and other forms of improved transportation alternatives.	Township, County	Ongoing

Transportation

GOAL 8A: Maximize the efficiency and quality of the existing transportation system

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Limit curb cuts along arterial roadways.	Township, PennDOT	Ongoing
2. Continue to encourage PennDOT to maintain roads identified with deficiencies within the Township.	Township	Ongoing
3. Maintain roadways identified as evacuation routes event to access to Route 73.	Township, PennDOT	Ongoing
4. Expand shoulder width on roads to better accommodate bicycle traffic on the roadways.	Township, PennDOT	Ongoing
5. Direct new development toward those areas of the Township where the road system can accommodate additional traffic.	Township	Ongoing
6. Future bridge improvements should incorporate context sensitive design strategies to maintain rural character.	County, PennDOT	Ongoing
7. Support the County Transportation priorities as they relate to Upper Frederick Township, including Complete Streets policies.	Township	Ongoing
8. Consider enactment of traffic impact fees, if determined appropriate.	Township	Medium-term
9. Regularly assess the condition of the local transportation system and if major deficiencies are identified, pursue the process to add these projects to the regional Transportation Improvement Program (TIP) or other state and regional transportation grants.	Township, County, PennDOT	Ongoing

GOAL 8B: Develop an interconnected pedestrian/bicycle trail system consistent with the Bike Montco Plan

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Develop a plan for prioritizing key pedestrian and bicycle improvements including mobility access points linking residential areas to parks, open space, commercial and employment centers.	Township	Long-term
2. Require new developments to construct segments of pedestrian facilities planned through or adjacent to proposed development.	Township	Ongoing
3. Continue to pursue grant funding to assist with the design and construction of planned pedestrian facilities.	Township, County	Ongoing

GOAL 8C: Support alternative transportation opportunities within the Township

IMPLEMENTATION STRATEGIES	RESPONSIBLE PARTY	TIMEFRAME
1. Support innovation and new technology that support alternative means of transportation and ridesharing.	Township, County	Ongoing
2. Support the installation infrastructure that supports electric vehicles and other transportation alternatives.	Township	Ongoing