

Highland Township Comprehensive Plan Update 2022 100 Five Points Rd, Coatesville, PA 19320

Acknowledgements

This 2022 Comprehensive Plan Update is a direct result of the generously donated time and effort expended by the Township's Board of Supervisors, Planning Commission, and citizen's Task Force. Members of these all-volunteer groups spent countless hours analyzing data, hearing public input, and discussing the most appropriate methods for managing the Township's future growth and protecting its resources. Accordingly, this document reflects their hard work and difficult decisions. Members of these groups are:

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Chapter 1 Introduction



Horses grazing.

I. Introduction

The 2022 Highland Township Comprehensive Plan updates the Township's 2001 Comprehensive Plan.

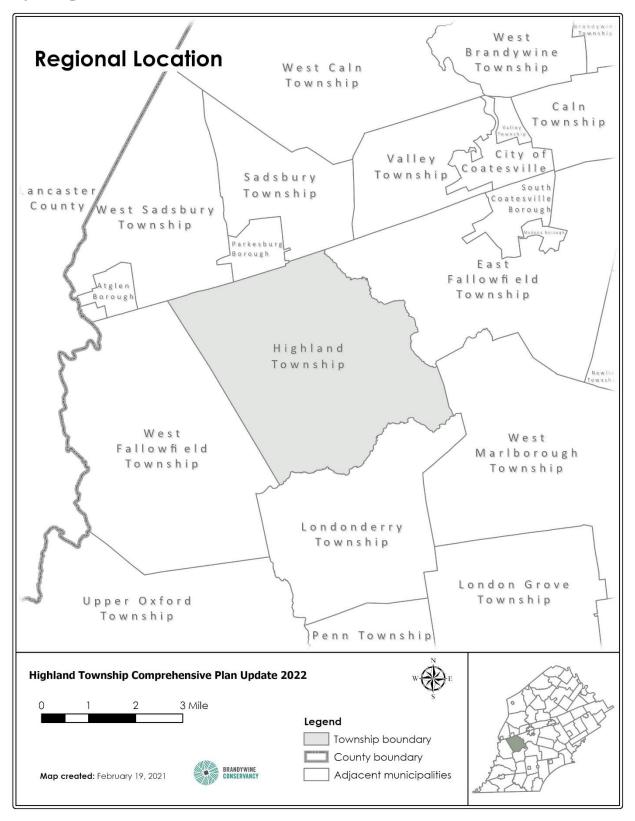
Highland Township is 17.2 square miles (11,001 acres) in size and has approximately 1,259 residents, according to the 2020 census. As shown in Map 1, Highland Township is on the western side of Chester County, near the border with Lancaster County. Located in a rural part of the County, the nearest urban and semi-urban areas are Parksburg and Atglen Boroughs to the north and northwest, respectively, and the City of Coatesville to the northeast.

Highland Township is a rural agricultural community marked by rolling hills and open farmland. The Township's dedication to land preservation has helped preserve the rural character and scenic landscapes of the Township despite population growth in other parts of Chester County.

WHAT IS A COMPREHENSIVE PLAN?

This 2022 Comprehensive Plan intends to guide the development and preservation of the Township over the next 20 years as per the Community Vision, Goals and Objectives included herein. It establishes implementation recommendations for natural, historic, and scenic resources, open space and land preservation, future land use, transportation, community facilities and services and climate resiliency.

Map 1: Regional Location



The Plan's recommendations have no legal effect on the actual use of land, i.e., the Township cannot mandate land utilization or development by adopting this Comprehensive Plan. However, this Plan will serve as an important policy guide for Township officials on various municipal-related topics when establishing work programs for its committees and commissions and seeking public funding for projects identified for implementation.

This Plan also provides guidelines and serves as a foundation for revisions to the Township's primary land use regulations, the Zoning Ordinance (ZO), and the Subdivision and Land Development Ordinance (SALDO). The ZO primarily controls the types and intensities of various land uses and design standards for their existing use and future development. The SALDO primarily establishes procedures for approving new lots and other land developments and establishing design standards for the construction of roads, stormwater management, and other improvements.

HOW WAS THIS PLAN DEVELOPED?

An extensive public participation process was used to develop the 2022 Plan, specifically:

- Establishment of the Comprehensive Plan Update Task Force
- Organizing the Community Visioning Session
- Design and analysis of a Community Planning Survey sent to all Township households
- Formulating a Community Vision, Key Values, and Goals and Strategies
- Analyzing maps and data of existing conditions
- Establishing a Future Land Use Plan
- Development of Implementation Recommendations and priorities
- Organization of several public meetings

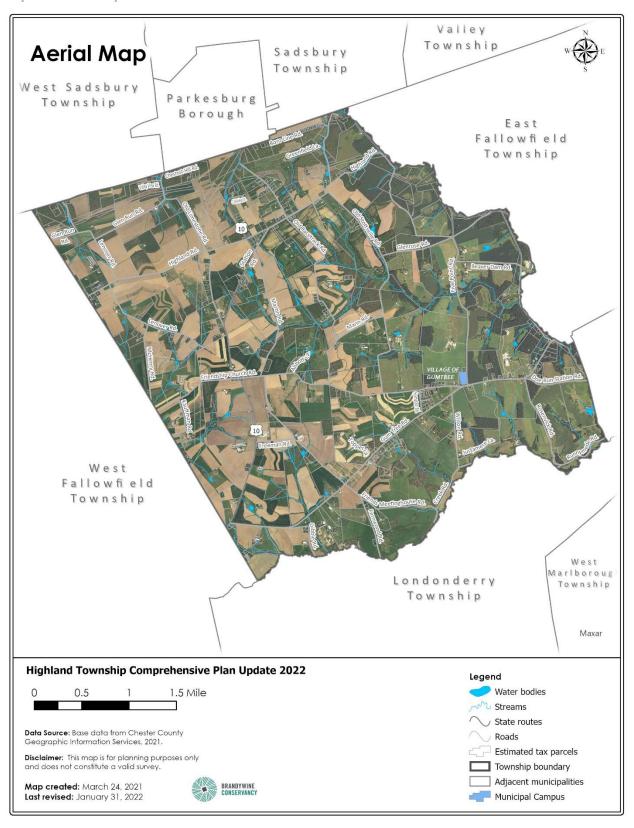
III. Public Participation

The 2022 Plan was developed by Township residents and administrative staff with many opportunities for input and feedback from the public, as described below.

TASK FORCE

The Highland Township Board of Supervisors appointed a 12-member Task Force to work with its planning consultant, the Brandywine Conservancy. Task Force membership included the seven members of the Township Planning Commission, the Planning Commission Solicitor, The Township Zoning Officer, two Township residents representing an array of interests and experience, and a Board of Supervisors member. The Township Secretary/ Treasurer also assisted with the plan. A staff person from the Chester County Planning Commission responsible for overseeing the Township's use of a County Vision Partnership Program (VPP) grant also participated in many Task Force meetings. The Brandywine Conservancy added Thomas Comitta Associates for visioning sub-consulting.

Map 2: Aerial Map



VISIONING SESSION

On June 28, 2021, Highland Township held an Open House and Visioning Session on the lawn of the Township building. In addition to task force members and consultants, approximately 20 members of the public attended. The public provided feedback through various activities on planning issues influencing the future of the Township, including transportation, open space, planning priorities, future vision and spending priorities.

The Session produced "Places Loved" and "Places Needing Improvement" from participant input; Appendix B lists and includes maps of these "Places" as identified by session participants. Participants identified "Spending Priorities" for land preservation or physical improvements through the Visioning exercise. Examples of each include:

- Places Loved Township building; Friendship Church; the open space and natural beauty of the whole Township; Gum Tree Village and road.
- Places Needing Improvement Limestone Road at the intersection with Gum Tree Road, intersection with Friendship Church Road and by North Star Orchards; Gum Tree Road at the intersection with Route 10 and intersection with Five Points Road; Doe Run Station Road.
- Spending Priorities open space preservation; road improvements; stormwater management/climate resiliency.

At this Visioning Session, the Task Force also learned the following from attendees:

- Maintaining and enhancing the quiet, rural character was the issue of most significant importance.
- To maintain the Township's rural character, participants strongly demonstrated that protecting the remaining open space is a high priority.
- Traffic calming and reducing vehicle speeds are a top priority.
- Safety and/or intersection improvements are a top priority, particularly for state-owned roads, Route 10/Limestone Road and Gum Tree Road.

A complete summary of the Community Visioning Session input is in Appendix B.

COMMUNITY VALUES SURVEY

Around the same time the Task Force and planning team the Community Visioning Session, they also prepared an online and mail-out survey to all Township households. This survey asked 20 questions related to Township and regional planning issues. Completed survey responses were combined with the Community Visioning Session input to help define the primary direction and content of the 2022 Comprehensive Plan. The Township received 73 completed surveys out of 517 distributed. This response rate of about 14% is in line with the average survey response rate of approximately 10-15%.

A tabulated summary of survey results is in Appendix C; from survey responses, some of what the Task Force learned included:

- "Rural, quiet lifestyle" was the number one reason survey participants chose to live in the Township.
- "Taxes too high," followed by "no intention of leaving," and "inadequate retirement setting/ not suitable to age in place," were the most significant reasons why survey participants would move out of the Township.
- Survey respondents felt the Township was a good place to live for all age groups but to a slightly lesser degree for people over the age of 65.
- Survey participants identified the following as important planning considerations for the future: "preserving farms and farmland," "conserving open space," and "retaining rural character"
- "Addressing increasing thru traffic on Route 10, Gum Tree, other" was identified as the number one transportation need.
- 52% of the Survey participants answered they have lived in the Township for more than 25 years.



Township Residents participating in the Community Visioning Session.

IV. Plan Adoption

After producing a draft Comprehensive Plan, a public meeting was held by the Township Planning Commission on _______ to present the draft to the public and obtain any suggestions or other input. The final draft Plan was refined based on the public feedback and sent to the Board of Supervisors for review and adoption. Upon completion of the State-

required Act 247 review process, the Board of Supervisors adopted the 2022 Comprehensive Plan Update on ______.

V. Plan Components

Chapter 1: Introduction (including Community Vision, Key Values, and Goals and Strategies)

Chapter 2: Natural, Historic and Scenic Resources

Chapter 3: Open Space and Land Preservation

Chapter 4: Future Land Use **Chapter 5**: Transportation

Chapter 6: Community Facilities and Services

Chapter 7: Climate Resiliency

Chapter 8: Statement of Compatibility

Chapter 9: Implementation Recommendations

Appendices

Chapter 2 (Natural, Historic and Scenic Resources) and Chapter 3 (Open Space and Land Preservation) plan for the protection and, in some cases, restoration of the Township's unique natural, scenic, and historic resources.

Chapter 4 (Future Land Use) includes future use plans of Township land for agricultural, residential, commercial, industrial, and open space purposes.

Chapter 5 (Transportation) includes future plans for the circulation of residents, visitors, and businesses and prioritizes the safety and efficiency of motorists using Township or PennDOT roads.

Chapter 6 (Community Facilities and Services) plans for the community facilities and services offered to Highland Township residents, business owners and their employees, and visitors.

Chapter 7 (Climate Resiliency) plans for increasing resiliency to extreme weather events.

Chapter 8 (Statement of Compatibility) ensures that Plan Chapters seamlessly work together in achieving the shared Community Vision, while a) syncing with the planning efforts of adjoining municipalities and Chester County, or at least b) avoiding adverse impacts to the planning efforts of its neighbors in carrying out its Plan.

Finally, **Chapter 9 (Implementation Recommendations)** outlines specific actions many Township stakeholders can take over the next 10 to 20 years to help achieve the Community Vision and Goals.

Each Chapter's content is supported by technical information summarized in the Plan's Appendices collected and analyzed during the Comprehensive Plan update. For example, Appendix A presents the Township demographic data, including population forecasts to help

determine how much residential growth should be anticipated by the Future Land Use Plan. Appendix B summarizes the input and results of the Community Visioning Session, and Appendix C provides a tabulated summary of the completed Community Planning Survey. Other Appendices present mapped inventories of existing land use, natural resources, open space, and trails, and explain why these subjects are essential in shaping the Plan.

VI. Community Vision, Goals and Objectives

Community Vision

Highland Township is a community cherished by residents for its natural beauty, family farms, and quiet, rural lifestyle. This beloved landscape will be peacefully enjoyed by generations to come through innovative planning that protects the open space and cooperative growth management that mitigates the impacts of development.

Goals				
Natural Historic, and Scenic Resources	Conserve and sustainably manage Highland Township's valuable natural, historic, and scenic resources, including prime agricultura soils, steep slopes, woodlands, interior woodlands, water resources, wetlands, and air quality.			
Open Space and Land Preservation	Advance Highland Township's significant legacy of open space protection through the continued preservation of agricultural lands and unprotected open space.			
Future Land Use	Preserve the rural character of Highland Township by ensuring that future growth is in harmony with open space protection, agricultural preservation, and natural, cultural, and historic resource protection efforts.			
Transportation	Provide a safe, efficient, and well-maintained transportation network that addresses current and future mobility needs while protecting scenic roads and viewsheds.			
Community Facilities and Services	effective and essential to maintaining the general health, safety			
Climate Resiliency	Plan with climate resiliency in mind to protect farms, residents, infrastructure, and the local economy from adverse impacts. Enhance Township facilities through energy efficiency and renewable energy improvements.			

Chapter 2
Natural, Historic and Scenic Resources



I. Introduction

This Chapter presents plans for protecting Highland Township's natural resources and preserving Highland Township's historic and scenic attributes. The Chapter is organized by first providing an overview of Highland Township's existing natural, historic and scenic resources. Next, this Chapter highlights the objectives relating to natural, historic, and scenic resources. Lastly, the Chapter concludes with an outline of resource-related challenges and recommendations intended to address those challenges.

II. Existing Conditions

Highland Township's natural resources are abundant. Generations of rural and agricultural landowners utilized and relied on these natural resources. The natural fabric of Highland's landscape combines geology, soils, topography, water, and vegetative resources; this creates a regionally interesting and ecologically diverse environment. The overall quality of life available to Highland's people, plants, and animals depends upon the continued support and conservation of these sensitive resources. Highland's historic and scenic attributes are extensive and critical components of the Township's rural character and agricultural assets. The Township's residents value the expansive views of rolling fields, century farms, and historic churches. This Comprehensive Plan Update promotes the long-term conservation of these important natural, historic and scenic resources. Specific measures for future land use and protection of these resources are in Chapter 4, Future Land Use Considerations and Chapter 9, Implementation.

NATURAL RESOURCES

Natural resources encompass numerous elements, including water-related natural resources, land-related natural resources, and biological natural resources. As such, the following section is organized into four separate and distinct subsections:

- Water Resources
- Land Resources
- Biological Resources and
- Riparian Opportunities

Water-related natural resources include streams, creeks, rivers, ponds, lakes, wetlands, hydric soils, floodplains, watersheds, and headwater areas. Land-related natural resources relate to moderate and steep slopes and soils, including prime agricultural soils. Biological-related natural resources include woodlands, interior woodlands, and riparian buffers. Riparian buffers, a biological resource, provide significant water quality benefits and are described in greater detail within this Chapter.

Natural resources are critical components of Highland Township's fabric, providing local ecological, societal, and economic benefits while also contributing to the character of the Township and its individual sense of place. A brief summary of natural resources in the Township is on subsequent pages, while a comprehensive inventory is in Appendix D.

Water Resources

Highland Township is home to an extensive network of water resources. Highland's streams, creeks, watersheds, wetlands, and floodplains have significant values that include water quality, flood control, and wildlife/fisheries habitat. When properly adequately protected and managed, these interrelated systems of land and water can filter pollutants, slow flood flows so as not to contribute to greater downstream flood volumes, and provide food, cover, and shade for a wide range of wildlife and fish species. Land conservation and zoning ordinance provisions are two measures that protect these sensitive areas and important natural resources.

A watershed is the land area that provides drainage to a surface water resource through runoff during storms or melting or from springs. Highland Township falls within two major watersheds, the Octoraro Creek Watershed, which leads to the Susquehanna River Basin, and the Brandywine Creek Watershed, which leads to the Delaware River Basin.

Headwater areas are those lands that drain directly into first-order streams, the smallest tributaries of the larger stream network. With 63% of the Township located within headwater areas, Highland Township plays a significant role in protecting water quality in several subwatersheds, including Doe Run, Knights Run Birch Run, and Buck Run. Headwater streams are critical for water quality within a watershed since anything that enters the stream at the start eventually flows downstream and impacts stream health. Forested headwater areas play a

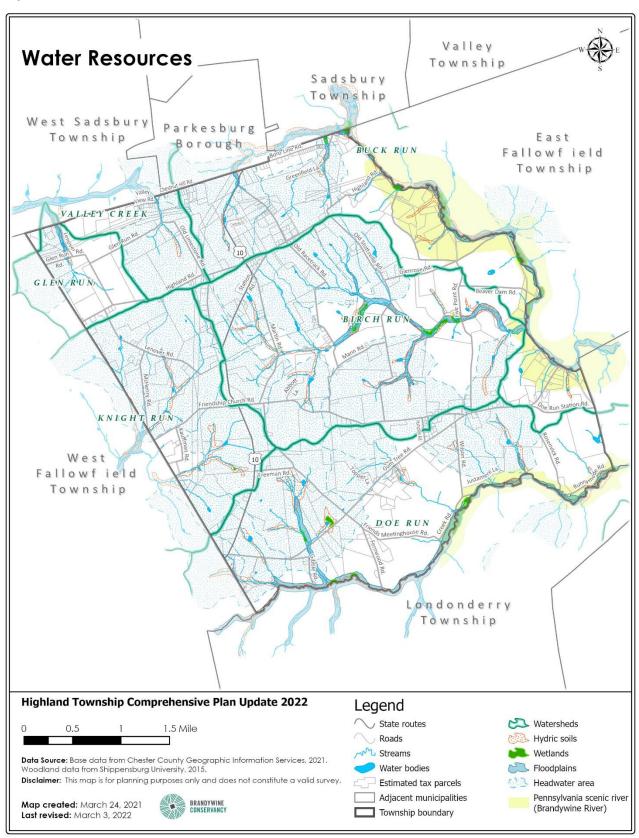
crucial role in maintaining water quality at the top of watersheds and removing the need for intensive and expensive water treatment downstream.

Wetlands, 100- year floodplains, and hydric soils are water resources illustrated on the map on the following page. Hydric soils are "wet" most of the year due to a high seasonal water table. They are often indicators of the presence of wetlands and are often inappropriate for agricultural use or supporting structures of other man-made structures. Wetlands and floodplains are sensitive areas within a community. During heavy rainfalls, wetlands act as sponges to prevent downstream flooding. They also are critical amenities for water quality and wildlife habitat.

Map 3: Water Resources

Map 3 on the following page represents all water-based resources in Highland Township, including streams, water bodies, wetlands, 100- year floodplains, hydric soils, headwater areas, and sub-watersheds.

Map 3: Water Resources



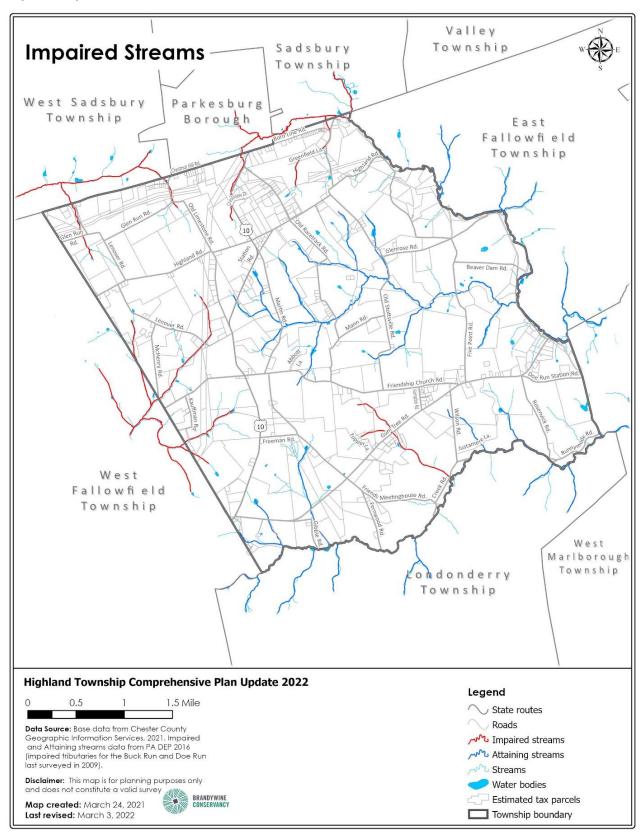
Highland Township has a stream network 46 miles in size. Many streams and tributaries in Highland Township meet the water quality standards for their designated uses, including Birch Run, Buck Run, and much of Doe Run. Both the Buck Run and the Doe Run have been designated as Scenic Rivers by the Pennsylvania Department of Environmental Protection (DEP) due to the waterways' scenic, environmental, and historical attributes and their surrounding corridors. DEP also categorized them as "pastoral streams," having low levels of chemical pollutants and producing an overall good quality flow. "Pastoral" streams have qualities typical of a rural farming environment. DEP has also designated the stream use of the Buck and Doe Runs as Trout Stocking Fishery – Migratory Fish. These two creeks tend to exceed state water quality standards but have no additional DEP special protection status. Two available special protection designations include High Quality and Exceptional Value. Once designated under either of these classifications, a stream's water quality cannot be seriously degraded by adjacent land uses. It may be possible for the Buck and Doe Run to receive this added special protection status in the future, although it typically is a complex and lengthy process.

Several streams and tributaries in the Township, 16% of the total network, are considered impaired by the Pennsylvania Department of the Environment. An impaired stream does not meet the water quality standards for its designated use. These streams are in the northern and western areas of the Township, including Knight Run and its tributaries, Glen Run, Valley Creek, and tributaries of Little Buck Run. Two unnamed tributaries to Doe Run in the southern portion of Highland Township are also classified as impaired. The primary causes for stream impairments in Highland Township are siltation, habitat modification, and organic enrichment largely resulting from agricultural land uses and urban runoff along two streams along the north border. Despite the listed impairments, landowners have completed improvements along these impaired streams, including riparian buffer restoration and the implementation of agricultural best management practices (BMPs). These stream and water quality improvements may not be evident in the data from DEP since the last stream evaluation was in 2009 or 2015.

Map 3b: Impaired Streams

Map 3b on the following page shows both the impaired and non-impaired streams in Highland Township.

Map 3b: Impaired Streams



Land Resources

Moderately steep slopes, steep slopes, and soils, including prime agricultural soils, constitute land-related natural resources. Steep slopes are those lands with a slope equal to or greater than 15%. These lands are divided into two categories. Lands with a slope of 15 to 25% are classified as moderately steep slopes, and lands with a slope greater than 25% are classified as very steep slopes. Steeply sloped lands raise natural resource concerns because they are sensitive to surface disturbances specifically associated with development and vegetation removal. Slopes with removed natural vegetation experience erosion, impacting a community's scenic quality and degrading water quality and fish habitat when soils and rocks carried by stormwater settle into creeks and ponds.

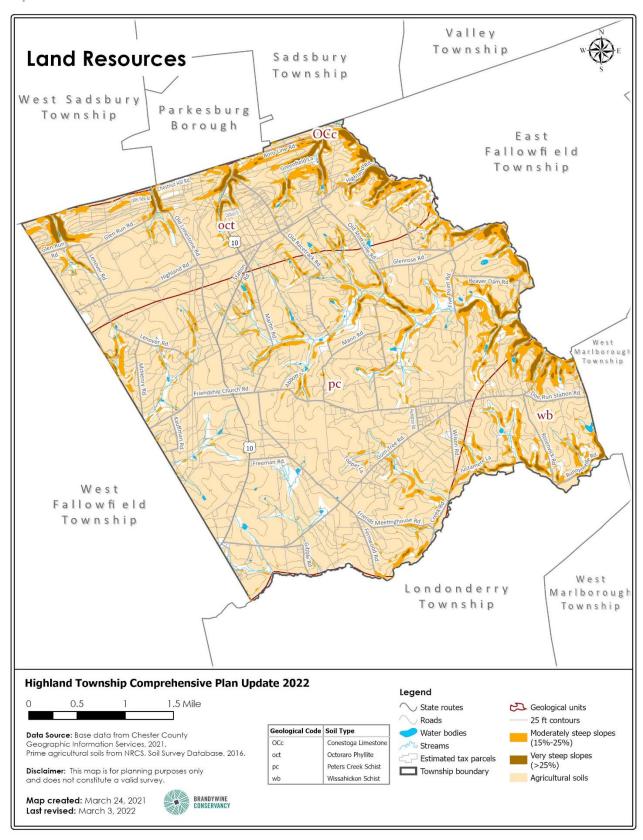
Highland Township is home to an extensive area of rich, fertile soils. Soils that make agriculture land use viable, including prime farmland soils and soils of statewide importance, can be found throughout most of the community. Efforts over the years to protect the lands that these soils are present on, including changes to the Code of Ordinances and significant land preservation efforts, help protect this important natural resource, the agricultural heritage of Highland Township, and the community's character.

Map 4: Land Resources

The Land Resources Map on the following page illustrates agricultural soils, geological units, 25-foot contours, moderately steep slopes (15%-25%), and very steep slopes (greater than 25%). Moderate and steep slopes in Highland Township run along stream beds, with more gradual slopes located throughout the rest of the Township. Very steep slopes exist along the valley walls of Buck Run and Doe Run, on the northern slopes facing the Parkesburg area, and along four roads leading north out of Highland Township: Lenover Road, Old Limestone Road, Route 10 (Limestone Road/S Church Street), and Old Stottsville Road. Moderately steep slopes can be found adjacent to very steep slopes and along tributaries leading to larger streams.

Agricultural soils, both prime agricultural soils and soils of statewide importance, cover approximately 88% of Highland Township, or 9,637 acres. Of the agricultural soils present within the Township, 65% or approximately 7,171 acres are considered prime agricultural soils. The predominant soil types in Highland Township are Peters Creek Schist and Octoraro Phylite, with smaller areas containing Wissahickon Schist and Conestoga Limestone.

Map 4: Land Resources



Biological Resources

Biological-related natural resources include woodlands, interior woodlands, and riparian buffers. Significant stands of woodlands exist in Highland Township, and as a primarily agricultural community, forested areas traditionally have a lower value than open lands that support crop cultivation and pasture. Still, existing woodlands provide many essential benefits for the community overall, Highland Township residents, and wildlife.

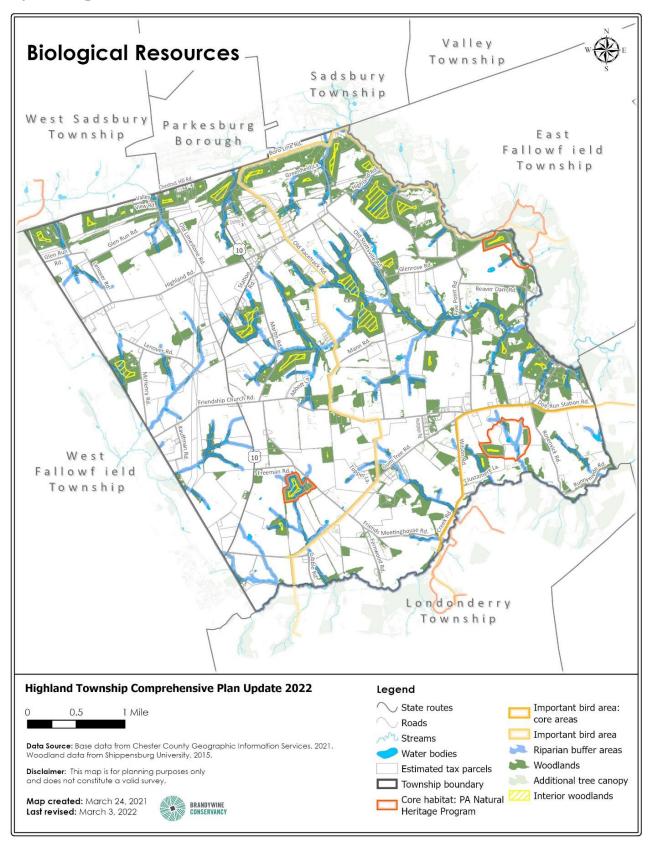
Woodlands can provide significant economic value when properly managed and provide a scenic benefit to the local landscape. Woodlands provide excellent habitat for wildlife, including birds, mammals, reptiles, and insects. Interior woodlands, areas inside a buffer of 300 feet from the woodland edge, are particularly beneficial as they provide habitat that several animal and plant species require. The preservation of these large contiguous tracts of woodland is vital to ensure habitat retention, as forest fragmentation can negatively impact plant and animal life, distribution and composition. Woodlands also help reduce erosion, protect water resources, and provide pollination services for local farmland. Woodlands aid in groundwater recharge by intercepting rainfall and directing the water into the soil, where it replenishes groundwater aquifers.

Map 5: Biological Resources

As shown on the *Biological Resources Map*, Highland Township's woodlands are along the northern and eastern boarders of the Township. Those areas typically are unsuitable for farming, such as steeper slopes of stream valleys, steeper slopes found near the north edge of the Township and along streams, including Buck Run, Birch Run, and their tributaries. About 23% of the Highland Township, or 2,581 acres, is wooded. Approximately 53% of Highland woodlands are on unprotected and 47% on permanently protected land. About 6% or approximately 154 acres of woodlands in the Township are considered interior forests.

In addition to woodlands, interior woodlands, and riparian buffer areas, Map 5 illustrates areas designated as core habitat areas, important bird areas, or core habitat areas within important bird areas. For many species, woodlands and interior woodlands are critical components of these habitats. Important Bird Areas run along the entire eastern portion of the Township and much of the southern border with Londonderry Township. In the southeastern portion of Highland Township, generally bounded by Creek Road, Wilson Road, and Doe Run Station Road, is an Important Bird Area: Core Area, essential to sustaining bird populations. Three areas within Highland Township are designated as Core Habitat areas through the PA Natural Heritage Program: one in the western portion of Highland Township, south of Freeman Road, a second area along the eastern border of the Township, near Buck Run, and a third in the southeastern portion of the Township, south of Doe Run Station Road.

Map 5: Biological Resources



Riparian Opportunities

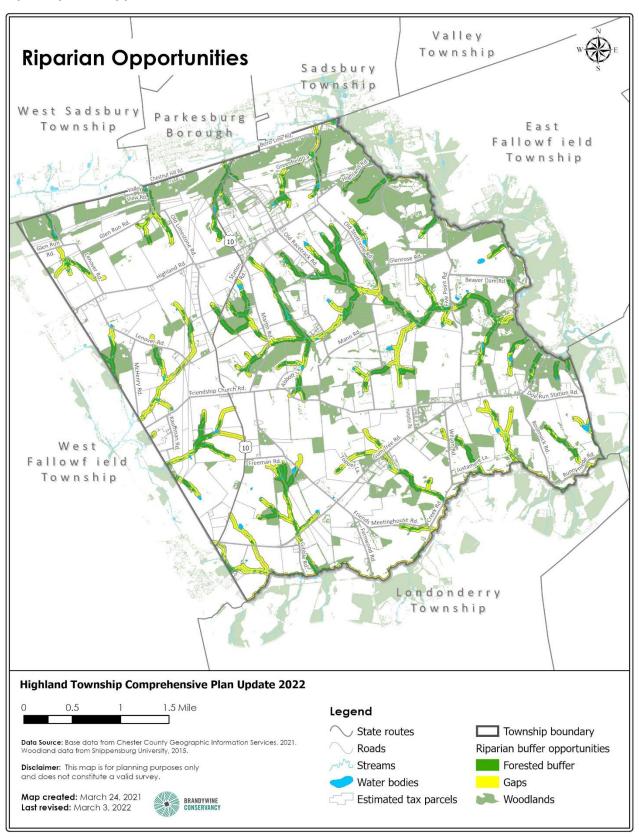
Riparian buffers are forested, or vegetated areas located along stream corridors. While all Highland Township's existing woodlands and native vegetation should be considered valuable natural resources, the riparian zones along the Township's creeks and streams provide particularly significant water quality benefits. The overall quality of the Township's waters depends significantly upon the extent of undisturbed and vegetated riparian areas. These areas act as filters for pollutants found in surface runoff that would otherwise contaminate surface water features. Shade provided by the woodland allows cold water species, such as trout, to procreate and survive. The leaves and branches that fall into the stream provide nutrients to the organisms living in the water. The root system of the riparian forest stabilizes the soil along the banks of the stream, reducing sediment erosion.

Map 6: Riparian Opportunities

The *Riparian Opportunities Map* illustrates Highland Township's riparian forests. The definition of a riparian stream area is a 100-foot forested buffer from both sides of a stream bank. A riparian opportunity exists in an area with no vegetation paralleling a stream channel or woodland, with a lesser dimension. Through revegetation with appropriate native species and proper long-term management, these areas can re-establish in greenways along stream corridors.

Currently, many existing riparian buffers occur along the Buck Run, Birch Run, Doe Run, and their adjacent tributaries. Within Highland Township 51% or approximately 597 acres of riparian buffer areas are forested, and 48%, or approximately 565 acres, of riparian buffer areas are gaps that provide opportunities for reforestation. These opportunities offer the potential to reconnect to fragmented woodlands and further enhance and expand this natural resource. Opportunity areas on lands under permanent protection offer exceptional opportunities for reforestation activities, through grant opportunities to purchase trees and tree planting supplies on permanently protected lands.

Map 6: Riparian Opportunities



HISTORIC AND SCENIC RESOURCES

Historic resources include elements of the built or natural environment that are historically significant. This can consist of archaeological artifacts, structures, buildings, sites, districts, or entire landscapes. A site, district, or landscape may contain multiple historic structures or buildings. A district or landscape may contain multiple structures, buildings, or sites that are historically significant and can include sites within their bounds that do not contribute to the historical context. Scenic resources include roads, vistas, or landscapes with distinctive topography, geology, or aesthetic characteristics. This can include notable hillsides, panoramic vistas, agricultural landscapes, or prominent ridgelines.

Historic Resources

Highland Township is home to buildings, structures, and agricultural landscapes that document Highland's past settlement patterns and agrarian life. The *Historic Resources Map* on page 14 illustrates the inventory of Highland's historic resources presented in the 2001 Comprehensive Plan, based on a study conducted by Chester County in 1982. The following sections further detail information about the development of Highland Township over time, including its agricultural legacy, the formation of the Village of Gum Tree, and the establishment of historic buildings still standing today, such as churches and taverns.

Early History

Before European settlement, the area now Highland Township was home to the Lenni- Lenape people. For over 10,000 years, the Lenni-Lenape lived in parts of Delaware, New Jersey, Eastern Pennsylvania, and Southern New York. Between 1682 and 1686, William Penn reached purchase agreements with the Lenape people in the area for the unsettled portions of southeastern Pennsylvania, reserving land where Lenape Villages inhabited to remain unsold. Unfortunately, these purchase agreements were disregarded after William Penn's death, and by 1737, the Lenape lost all claims to the area as more European settlers moved into the area.

In 1714, Lancelot Fallowfield purchased a portion of William Penn's territory initially acquired from the Lenape. Shortly after, John Salkield bought the land rights to the area and named it Fallowfield after the former owner. In 1743, this land was divided into east and west regions and divided again in 1853, forming the area now Highland Township, which received its name because it is the highest point in the area, at 700 feet above sea level. Today this land is known as East Fallowfield, West Fallowfield and Highland Townships.

Agricultural Legacy

Farming historically has been the primary industry in Highland Township. Reflective of this legacy, there are three existing century farms within the Township. Century farms are farms that one single family owned for a minimum of 100 years consecutively. The Pennsylvania Century and Bicentennial Farm Program requires that a family member must live on the farm permanently, to qualify for the prestigious designation. In addition to this requirement, the

farm must include a minimum of 10 acres of the original landholding or earn more than \$1,000 annually resulting from farm products sales.

Village of Gum Tree

The Village of Gum Tree is Highland Township's sole village. Henry Wetherington, a merchant and entrepreneur, first bought the land in 1737 and built a log cabin to furnish travelers from Philadelphia. Mr. Wetherington called the cabin "The Place of Gum Tree," hence the village's name. Also residing in the village was William Clingan. The large brick structure built in 1805 not only served as his place of residence but also coexisted as part of commerce due to an attached store found on the western end of the building. Another prominent fixture in the Village of Gum Tree was the Gum Tree Hotel which served as a stagecoach stop from Cochranville to West Chester during the 1800s. Over the years, this inn and tavern had different owners and was utilized as a voting center.

Commerce

A residence on the western side of McHenry Road had past commercial usage as Futhey's Tavern. In 1763, Samuel Futhey I moved to Highland Township, where he built a log cabin home and barn located east of the main residence. In 1766, he petitioned for and won approval to build a tavern. Records show that Highland Township's first election was held at Futhey's Tavern in 1854.

Existing Churches

Friendship Methodist Church is the oldest religious structure remaining in Highland Township, organized in the summer of 1830 during a union camp meeting with the Presbyterians. The land was purchased in 1831, with the first building completed in 1832. Over time, as the congregation expanded, there was the need for a bigger sanctuary. In 1872, Mrs. Chalky Coates purchased a plot of land for a hundred dollars and in 1873 erected a "new" building. The parsonage was built years later, in 1910, and in 1949, a successful campaign raised enough money to fund the construction of an addition.

Map 7: Historic Resources

Map 7 illustrates the historic resources distributed throughout Highland Township, with a small cluster located in Gum Tree Village. The location of several historical resources is consistent with historical development patterns, falling along roadways, near streams or other bodies of water. Between the potential and surveyed historic resources, there are 130 resources in Highland Township, with some dating to the late 1600s. Many historic resources, about 32%, were built between 1780 and 1820. The second-largest group of resources, about 21%, were built between 1820 and 1860.

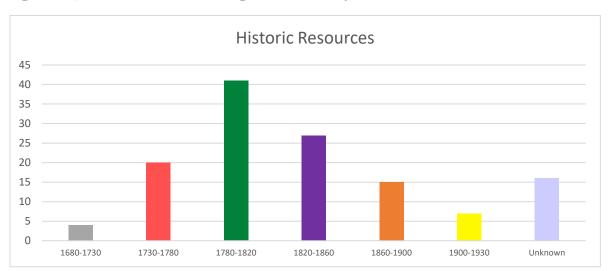
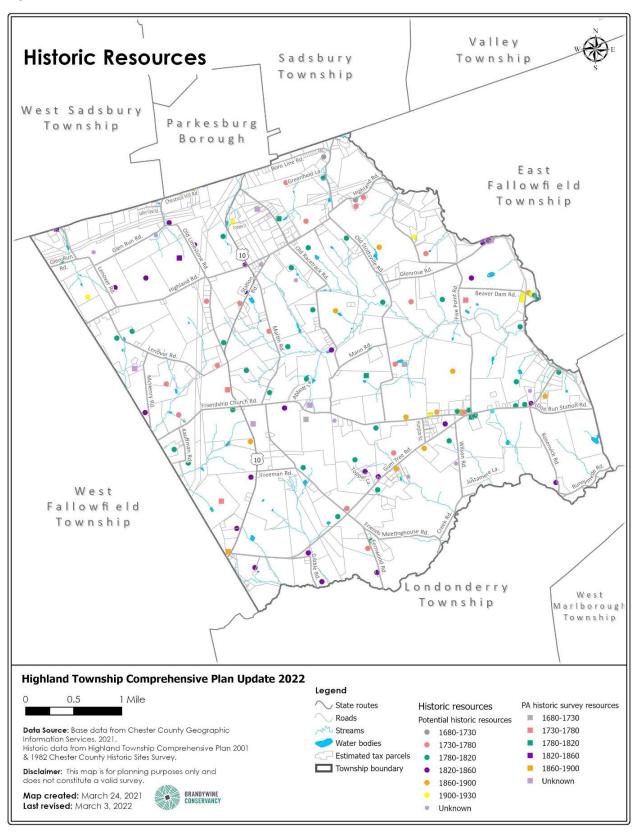


Figure 2-1, Historic Resources in Highland Township

Map 7: Historic Resources



Scenic Resources

One of the defining attributes of Highland Township is its highly scenic landscape and the contribution of these landscapes to the overall quality of life for Township residents and visitors. Residents can find wide-open views of rolling farmland and expansive farmsteads from the Township's public roads through the higher elevations. In the lower elevations and bottomlands, views from the road are sometimes confined by dense but visually inviting woodlands or by hills that quickly slope to long stream valleys containing flowing stream waters, low-lying meadows, and riparian vegetation.

The Township's scenic resources were inventoried as part of the 2001 Comprehensive Plan and separated into scenic landscapes, scenic vistas, and scenic roads. A windshield survey identified scenic resources from public roads both within and bordering Highland Township, recorded on the Scenic Resources Map (Map 8), and updated for the 2022 Comprehensive Plan Update. The study classified views as scenic or not, depending on land use located in the foreground or background of the image.

Scenic landscapes. Scenic landscapes are portions of or all a parcel within immediate view from a public road. Several cases, include a cultivated farm field or a farmhouse and other outbuildings attractively sited on the landscape (e.g., nestled among old hardwood trees or overlooking a pond and wetland marsh). In other cases, the scenic landscape is a thick woodland of varying colors and textures, a combination of field and hedgerow, or meandering stream and grass bottomland.

Scenic vistas. Scenic vistas are distant views of pronounced mountains, hilltops, and valleys. Many exceptionally scenic vistas are possible in Highland due to the wide-open landscape and easy access to its higher elevations along Township roads. These vistas allow views of scenic landscapes many miles away on a clear day.

Scenic roads. Scenic roads are those Township roads, regardless of state or Township ownership, characterized by numerous and diverse scenic landscapes or vista opportunities. Perhaps a bias of the inventory, well-maintained and attractively landscaped properties abutting Township roads added weight to scenic road designations, compared to areas of roadside vegetation covered in invasives or appearing straggly and otherwise unmanaged.

Scenic roads include:

Figure 2-2, Scenic Roads in Highland Township

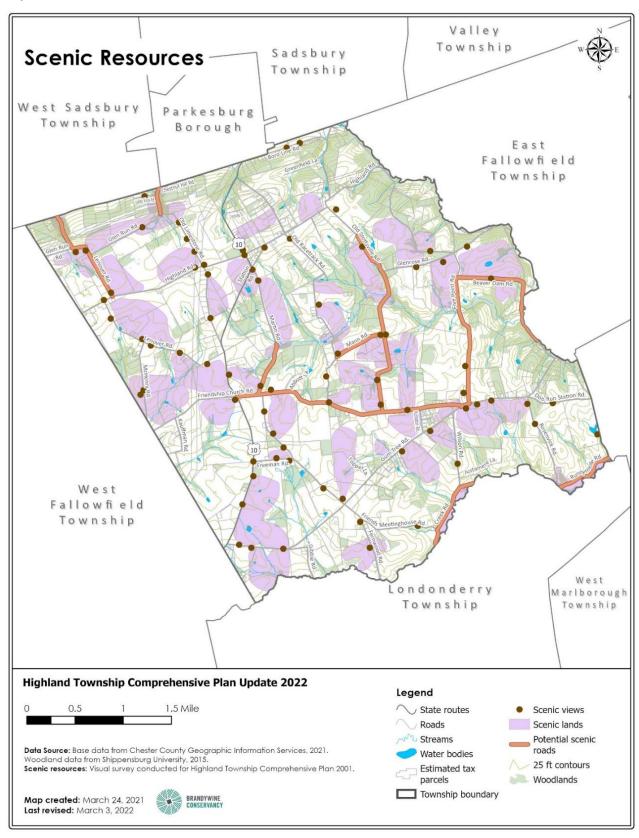
No.	Scenic Roads
1	Beaver Dam Road, from Five Points Road to a point just north of its intersection with Gum Tree Road
2	Creek Road as it traverses through the southern portion of the Township
3	East Friendship Church Road, from Gum Tree Road to Route 10
4	Five Points Road, from Gum Tree Road to Beaver Dam Road
5	Lenover Road, from the border with West Sadsbury Township, to Highland Road
6	Mann Road, from Old Racetrack Road to Old Stottsville Road
7	Martin Road, from East Friendship Church Road to Birch Run
8	Old Stottsville Road, from East Friendship Church Road to a point north of West Glenrose Road
9	Runnymeade Road, from the border with West Marlborough Township to the border with Londonderry Township

Since completing the survey, Highland Township has experienced limited development, leaving the landscape and the associated scenic resources largely intact.

Map 8: Scenic Resources

Map 8 on the following page highlights the scenic resources found within Highland Township, per the scenic resources inventory conducted for the 2001 Comprehensive Plan. Mapped elements include scenic roads, scenic lands, and scenic views. The inventory depicts topographic contours at 25-foot intervals and woodlands to further illustrate the landscape's character. Scenic landscapes, or lands, are evenly dispersed throughout much of the Township. Scenic vistas, or views, are largely found in the southern half and western half of the Township, with less concentrated clusters in the northeast quadrant of the community. Several locations of scenic road segments are along the northern and southern borders of the Township, most scenic roadways are clustered in the center of Highland Township and form an interconnected network of roads with scenic value.

Map 8: Scenic Resources



III. Goal and Objectives for Natural, Historic and Scenic Resources

GOAL

Conserve and sustainably manage Highland Township's valuable natural, historic and scenic resources, including prime agricultural soils, steep slopes, woodlands, interior woodlands, water resources, wetlands, and air quality.



OBJECTIVES

Objective 2-1: Protect Highland Township's prime farmland soils, streams, wetlands,

woodlands, and other natural resources through public education,

regulatory standards, and permanent land conservation.

Objective 2-2: Identify and protect Highland Township's historic resources and scenic

resources, including scenic landscapes, roadways, and viewsheds, that

contribute to the character of the community.

Objective 2-3: Promote methods for responsibly managing natural resources and

protection from invasive species.

IV. Resource Considerations

The following section outlines challenges related to natural, historic, and scenic resources within Highland Township. These elements are potential opportunities to protect those unique characteristics contributing to Highland Township's rural character and agrarian heritage.

NATURAL RESOURCES

Challenges:

Community Planning.

An open space, recreation, and environmental resources plan can provide an opportunity to incorporate critical natural resources, such as prime agricultural soils, wetlands, and woodlands, into open space planning priorities for the community.

Code of Ordinances.

Opportunities exist in Highland Township's Code of Ordinances to enhance natural resource protections. Currently, standards do not require the re-establishment or planting of an impacted riparian buffer when a use is proposed that requires Township permit approval. Additionally, the definition of woodlands does not detail the minimum size or area needed to constitute a woodland.

Public Education, Engagement, and Partnerships.

Natural resources benefit from ongoing stewardship, maintenance, and care. Residents may benefit from continued education regarding current best practices from local experts in the non-profits and/or public sectors, as the community expressed interest in protecting the natural resources that make up the character of Highland Township.

HISTORIC AND SCENIC RESOURCES

Challenges:

Community Planning.

If created in the future, an open space, recreation, and environmental resources plan, can provide an opportunity to incorporate historic resources, whether they are structures, buildings, sites, or landscapes, into open space planning priorities for the community.

Data and Inventories.

The comprehensive inventory of Highland Township's historic resources, last mapped as part of the 2001 Comprehensive Plan and based on data from the 1982 Chester County Historic Sites survey has not been updated. The map produced as part of the 2022 Comprehensive Plan Update is a reproduction of that map.

Public Education, Engagement, and Partnerships.

Currently, the Township is without an organized group of volunteer citizens focused on historic preservation and heritage interpretation. Additionally, a comprehensive document or materials (i.e., brochures, maps, apps, etc.) regarding information of history and heritage of Highland Township does not exist. These documents would educate residents about the people, places, and events that shaped the community.

V. Recommendations for Natural, Historic and Scenic Resources

The following section outlines recommendations related to natural, historic, and scenic resources within Highland Township and intends to respond to the challenges highlighted in the previous section. Feedback generated from the community values survey and the community visioning public open house reinforced the overall desire to protect and preserve the character of Highland Township. The recommendations outlined below seek to protect natural resources within the community and promote their responsible stewardship, preserve the community's historic resources and protect the scenic resources found within the Highland Township. Chapter 9, Implementation, includes a summary of all suggested recommendations.

NATURAL RESOURCES

The recommendations outlined below relate to Objective 2-1, "Protect Highland Township's prime farmland soils, streams, wetlands, woodlands, and other natural resources through public education, regulatory standards, and permanent land conservation," and Objective 2-3, "Promote methods for responsibly managing natural resources and protection from invasive species."

Recommendations:

1. Community Planning.

Consider developing a land preservation plan integrating natural resources into future open space planning efforts.

2. Code of Ordinances.

Consider amending the Zoning Ordinance to enhance riparian buffer requirements, particularly the restoration of any impacted riparian buffer when a new land development is proposed subject to Township approval.

3. Code of Ordinances.

Consider amending the Zoning Ordinance to enhance woodland definitions, particularly quantifying the minimum area necessary for a woodland stand or mass to be considered a woodland by the Township.

4. Public Education, Engagement, and Partnerships.

Partner with non-profits, neighboring municipalities, and/or other governmental entities to ensure property owners have access to information about best practices managing natural resources and invasive species removal.

HISTORIC AND SCENIC RESOURCES

The recommendations outlined below relate to Objective 2-2, "Identify and protect Highland Township's historic resources, cultural resources, and scenic roadways and viewsheds that contribute to the character of the community," and intends to respond to the challenges highlighted in the previous section.

Recommendations:

1. Community Planning.

Consider developing a land preservation plan integrating historic resources into future open space planning efforts.

2. Data and Inventories.

Update the Township's inventory of historic resources. Request through Chester County's Heritage Preservation Coordinator that Chester County develops a Historic Resource Atlas in partnership with Highland Township.

3. Public Education, Engagement, and Partnerships.

Consider the formation of a Township Historical Commission with residents willing to carry out Commission responsibilities, including reviewing land use applications that impact historic resources and advising/making recommendations to elected officials on such applications.

-Or-

Should residents express an interest in forming a volunteer citizen group focused on the heritage of Highland Township and its historic resources, promote such efforts where feasible (i.e., providing meeting space, providing educational materials on the Township website or in the Township building).

4. Public Education, Engagement, and Partnerships.

Publish maps, brochures, and/or other information in digital or print format to highlight Highland Township's heritage and increase resident awareness of the people, places, and/or events important to the Township's local history.

Chapter 3
Open Space and Land Preservation



I. Introduction

This Chapter presents a plan to continue preserving open space in Highland Township. The Chapter is organized by first providing an overview of Highland Township's existing conditions relating to preserved land, including land with agricultural easements, conservation easements, and Township owned land. A detailed explanation of the open space inventory is in Appendix E. Next, the Chapter highlights associated objectives relating to open space and land preservation. Lastly, the Chapter concludes with an outline of resource-related challenges and recommendations intended to address those challenges.

II. Existing Conditions

Highland Township's character agricultural lands and protected open space. In the 2001 Comprehensive Plan, the community established a vision for how Highland Township would look in twenty years' time. That vision stated the following:

"Residents of Highland Township, in the year 2020, continue to enjoy their quiet, rural lifestyle, uninterrupted by regional growth and development, most of which has largely been contained in nearby villages and towns. Scenic beauty emanates from Highland's wide-open landscapes...Of special importance, nearly all of Highland's farmers and owners of other large farm tracts have voluntarily enrolled in Chester County's agricultural preservation program or in the land conservation program offered by both the recently formed local land trust and other local conservancies. As such, this land will forever remain in agricultural and other open space uses."

The term "open space" traditionally encompasses multiple types of land, including publicly owned land such as parks and municipal grounds, privately owned land voluntarily protected in

perpetuity via conservation easements, and preserves owned and maintained by non-profits. In 2001, more than 39% of Highland Township consisted of protected open space, the majority of which was private lands protected with agricultural or conservation easements. Today, as illustrated below in Figure 3-1, Open Space in Highland Township, over 61% of the Township consists of permanently protected open space.

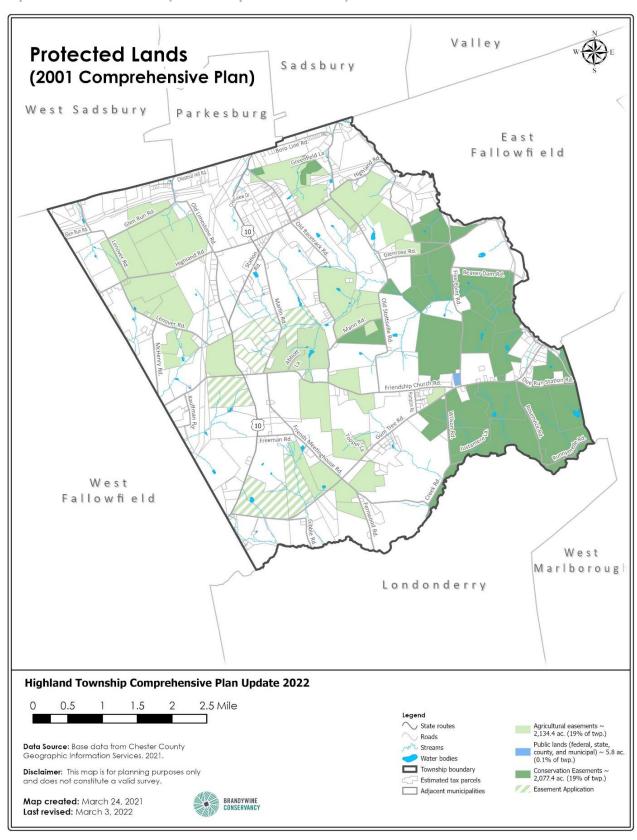
Figure 3-1, Open Space in Highland Township

	2001		2021	
Open Space Protection Type	Acres	Percentage	Acres	Percentage
HOA Open Space	0	0%	0	0%
Township Owned/Public Land	5.8	0.1%	5.8	0.1%
Agricultural Easements	1,655	15%	4,130.4	38%
ALPP Easements (2000)	796	7.2%	-	-
ALPP Easement Applications (2001)	312	2.8%	-	-
Conservation Easements	1,854	17%	2,535.2	23%
Total Open Space (Existing)	4,310.8	39.2%	6,671.4	61.1%
Total Open Space (Existing + Applications)	4,622.8	42%	-	-

Map 9A: Protected Lands (2001 Comprehensive Plan)

The *Protected Lands Map* (2001 Comprehensive Plan) on the following page illustrated Highland Township's and its residents' commitment at that time to open space preservation. As of 2001, about 39% of the Township, or 4,310.8 acres, was protected through agricultural or conservation easements. Although the protected lands were evenly distributed throughout the Township, a distinct divide existed between agricultural easements and conservation easements, with the majority of the agricultural easements located on the western side (light green) and the conservation easements located on the eastern side of the Township (dark green).

Map 9A: Protected Lands (2001 Comprehensive Plan)

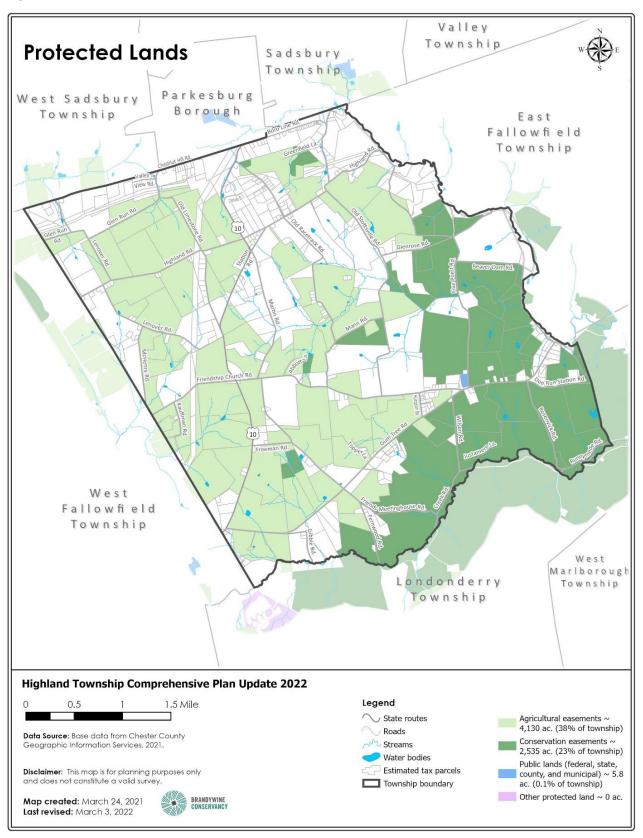


In 2001, while a significant portion of the Township was protected, additional land protection measures such as agricultural preservation zoning were not in place, creating the potential for unwanted suburban land development. As a result of the 2001 Comprehensive Plan and the community's documented desire to remain rural and open, the Township Board of Supervisors implemented additional measures to protect open space. This included an update to the Township's Zoning Ordinance (ZO) to implement agricultural preservation zoning that favored farms and farm residences over non-farm residential uses for much of the Township. In 2004, Highland Township's voters overwhelmingly supported a Board-initiated open space referendum, establishing a local source of funding to support the Board's continued efforts to preserve valued farm- and open land. These efforts, and the generous efforts of residents to voluntarily protect their properties, have been instrumental in helping advance the vision outlined in the 2001 Comprehensive Plan.

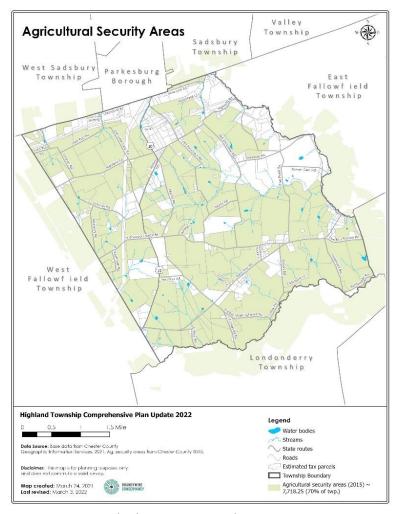
Map 9b: Protected Lands

As shown on the updated *Protected Lands Map on* the following page, Highland Township has continued its deep tradition of land preservation over the last 20 years. Since 2001, the amount of protected land in the Township has increased by more than 50%, with an additional 2,393 acres permanently preserved. Currently, the total of existing protected lands in Highland Township is 6,671.4 acres, an impressive 61% of the Township. Of those existing protected lands, 62% are protected through agricultural easements (depicted in light green), while 38% are conservation easements (represented in dark green). Highland Township has experienced a high degree of success with regard concerning land preservation by partnering with landowners, land trusts, Chester County, and others to preserve many of the most productive agricultural parcels in Highland Township.

Map 9b: Protected Lands



Protecting Highland Township's rural character and supporting the local agricultural economy were key themes that emerged from the public outreach efforts to develop this Plan, including the community visioning public meeting and the community values survey. As the Township looks to the future to continue advancing land preservation efforts, this Chapter outlines additional resources and strategies to help achieve the new open space goal over the next twenty years. The Township Board of Supervisors, Planning Commission and others continue cultivating the interests of farmers and landowners in agricultural or natural resource land preservation in the coming years. The Township will benefit from tools and resources that allow for efficiency and cost-effectiveness to ensure the greatest land preservation impact possible. Two such resources are the Agricultural Security Areas Map and an Agricultural Preservation Opportunities Map.



Map 10: Agricultural Security

Areas

Agricultural Security Areas (ASA), legally recorded areas, are administered at the Township level designed to protect farms and farmland. ASAs intend to strengthen agricultural communities and farmers' rights by providing them with protection from potential nuisance suits and local zoning ordinances that may unreasonably restrict normal farming practices. A voluntary program of the Commonwealth, ASAs are established by a municipality when individual property owners agree collectively to place a minimum of 250 acres of their combined lands within such an area.

As shown on the *Agricultural Security Areas Map* to the left, approximately 70% of the Township is in Agricultural

Security Areas, which amounts to about 7,718.25 acres. Landowners within Highland Township's ASA are also eligible to sell their development rights to Chester County or the Commonwealth of Pennsylvania through County and State agricultural conservation easement programs.

Map 11: Agricultural Preservation Opportunities

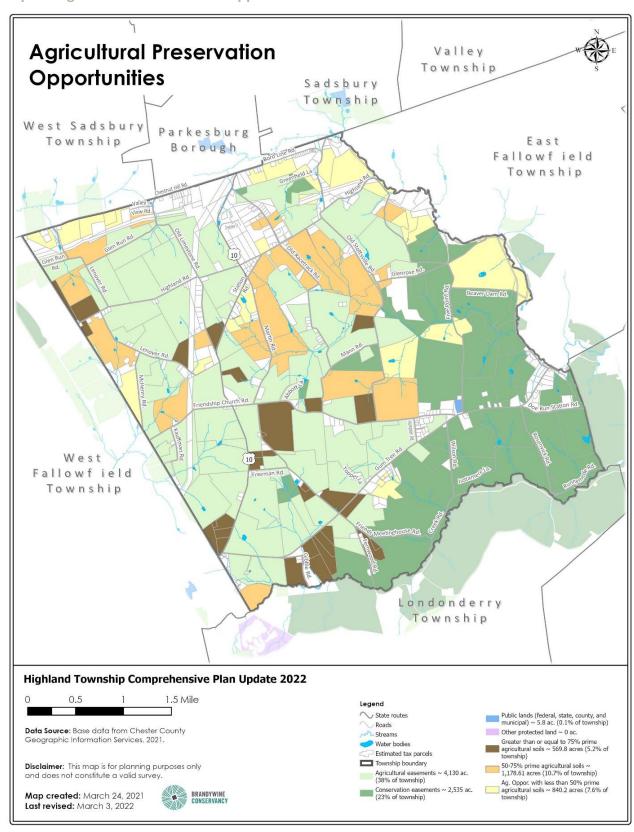
As shown on the *Agricultural Preservation Opportunities Map*, several additional opportunities exist to preserve agricultural and other open lands within Highland Township. These remaining unprotected properties may be eligible for agricultural preservation based on their size and the percentage of agricultural soils found within each parcel. Both characteristics are criteria used to rank private landowners' agricultural land for permanent preservation through Chester County's Preservation Partnership Program.

Of those unprotected lands shown on Map 12 potentially eligible for preservation, lands with the highest percentage of agricultural soils present comprising more than 75% of the property (dark brown), make up approximately 5.2% of the Township, or 569.8 acres. Many of the properties with the highest percentage of prime agricultural soils are on the southwestern portion of the Township and are surrounded by existing protected lands.

Properties with 50% to 75% prime agricultural soils (orange) make up approximately 10.7% of the Township, encompassing 1,178.6 acres. Most of these lands lie in the center of the Township, north of Friendship Church Road, and would increase the amount of contiguous protected agricultural lands if preserved. The preservation of a large mass of actively farmed parcels provides greater agricultural security for landowners than preserving a patchwork of smaller farm parcels that fragment farming areas and increase the potential for encroachment by incompatible non-farming uses.

Properties with less than 50% prime agricultural soils that may be eligible for County or State preservation make up about 7.6% of the Township for approximately 840.2 acres. These properties are dispersed throughout Highland Township, with several concentrations located along the northern and northeastern borders of the Township. While these properties have the least amount of prime agricultural soils, they are still valuable for agricultural preservation and can increase the amount of contiguous protected farmland in Highland Township.

Map 11: Agricultural Preservation Opportunities



III. Goal and Objectives for Open Space and Land Preservation

GOAL

Advance Highland Township's significant legacy of open space protection through the continued preservation of agricultural lands and unprotected open space.



OBJECTIVES

Objective 3-1: Encourage the preservation of agricultural lands

within Highland Township.

Objective 3-2: Encourage the preservation of unprotected open space

within Highland Township.

Objective 3-3: Highlight the ongoing success of open space and land preservation efforts

within the community.

IV. Resource Considerations

The following section outlines opportunities and challenges related to open space and land preservation within the Township. As mentioned previously in this Chapter, Highland Township has experienced a high degree of success protecting its open space, with over 60% of the

Township permanently protected. The items outlined below serve as potential opportunities to further protect and preserve open space within Highland Township.

OPEN SPACE

Challenges:

Community Planning.

A Land Preservation Plan, if created in the future, can provide an opportunity to outline open space planning priorities for the community and act as a tool to assist in the application of Highland Township's Open Space Funds.

Land Preservation.

Highland Township has seen a great deal of success concerning land preservation in the community. Over 60% of the land within Highland Township is protected to date. However, several large parcels within the Township are currently unprotected, providing the opportunity for future land preservation efforts.

Need to promote stewardship of land and natural resources through education and implementation of best management practices in partnership with willing landowners.

Public Education, Engagement, and Partnerships.

All landowners may not know the availability of government and non-profit open space preservation resources and programs within the Township.

The quality of open space benefits from ongoing stewardship. With agricultural lands and other protected open space contributing to the character of Highland Township, and residents expressing an interest in protecting that character, both residents and owners of protected lands would likely benefit from continued education regarding land stewardship best practices from local experts in the non-profit and/or public sectors.

The Township Board of Supervisors' efforts to protect open space and the degree to which it has been successful may not be known to all residents within the Township.

The promotion of Highland's farming community locally and regionally should be explored and pursued to support local agriculture further and connect residents with local goods and services.

V. Recommendations for Open Space and Land Preservation

The following section outlines recommendations related to open space within Highland Township and intends to respond to the challenges highlighted in the previous section. The protection of open space and the retention of Highland Township's rural character were top

priorities expressed during the community visioning public meeting and the community values survey conducted in early 2021. The recommendations outlined below seek to preserve unprotected land within the community, including agricultural land and land with sensitive natural resources. The community visioning session report from the community visioning public meeting is in Appendix B. The report summarizing the community values survey is in Appendix C. A summary of all recommendations in this Plan, including those that follow, is provided in Chapter 9, Implementation.

OPEN SPACE

The recommendations outlined below relate to Objective 3-1, "Encourage the preservation of agricultural lands within Highland Township," Objective 3-2, "Encourage the preservation of unprotected open space within Highland Township," and Objective 3-3, "Highlight the ongoing success of open space and land preservation efforts within the community." To continue preserving Highland Township's farms and other open spaces, while protecting the Township's rural heritage, the following recommendations were identified:

Recommendations:

Community Planning.

- 1) Consider developing a Land Preservation Plan to guide and help prioritize Township open space planning efforts and the application of municipal open space funds.
- 2) Retain Highland Township's dedicated open space tax to generate revenue for future agricultural and/or conservation easements.
- 3) Partner with area land trusts and governmental entities to supplement and extend the supply of dedicated Township open space funds.

Land Preservation.

- 4) Continue to partner with area land trusts to cultivate and secure easements and other forms of restrictive covenants on the Township's unprotected agricultural and other high-resource value lands.
- 5) Support Township landowner applications to enroll eligible farm parcels in the Township's Agricultural Security Area, as enabled under State and County farmland preservation programs.
- 6) Partner with non-profits and/or governmental agencies to provide property owners with ready access to information about land stewardship and promote the implementation of best management practices (BMPs).

Public Education, Engagement, and Partnerships.

7) Partner with area land trusts and Chester County to hold educational forum(s) with owners of large, unprotected Township parcels to discuss the various land conservation

- options available and the environmental and financial benefits of permanent land conservation.
- 8) Consider including educational materials about open space preservation (i.e., maps, brochures, etc.) on the Township website or in the Municipal Building.
- 9) Identify opportunities to support and promote the local farming community (i.e., seasonal events, information on the Township website, brochures, etc.)

Chapter 4
Future Land Use

I. Introduction

This Chapter presents the Future Land Use Plan for Highland Township for the next ten to twenty years. The Chapter is organized by first providing an overview of Highland Township's existing land uses and zoning. Next, the Chapter highlights associated objectives relating to future land use, with a corresponding Future Land Use Map. Lastly, the Chapter concludes with an outline of land use issues and corresponding recommendations.

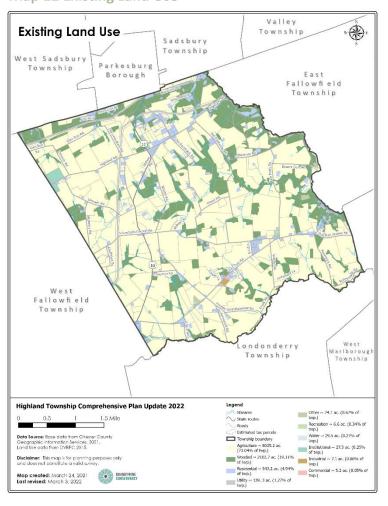
The Future Land Use Plan is consistent with the community vision, overall planning goals, and other Chapters of this Plan. It is also generally consistent with applicable recommendations of Chester County's Comprehensive Plan, Landscapes 3.

II. Existing Conditions

As shown on Map 12, Existing Land Use, most land in Highland Township is for agriculture, including extensive crop and pasture lands, commercial-scale equine operations, commercial hay production, farm dwellings, agricultural outbuildings, grain elevators, and occasional farm stands. Agriculture in Highland also includes commercial feedlots, poultry houses, and manure application to fields, comprising 73 percent of the total land area in the Township in 2020.

Non-farm residential uses in Highland Township comprised only 5 percent of the total land area in 2020 and are primarily found along Township roads, at road crossings, and within the small village of Gum Tree. Residential uses range from multi-acre, rural residential estates to smaller lots with singlefamily detached dwellings to a

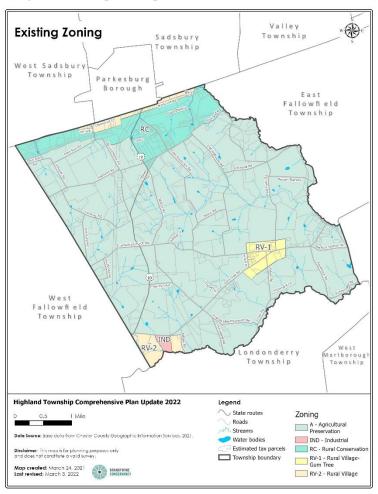
Map 12 Existing Land Use



small number of duplexes, apartments, and mobile homes. Commercial and non-agricultural industrial land uses are scarce in Highland Township, constituting less than one percent of the total Township land area. No public water or sewer facilities exist in Highland Township.

As shown on Map 13, Zoning, 85 percent of the Township, or roughly 9,400 acres, is zoned Agricultural Preservation (AP) District. This zoning was established to implement the 2001 Future Land Use Map's Agricultural Preservation category. The AP District includes the Township's most productive soils and helps sustain the Township's strong agricultural economy. It also discourages uses that could adversely impact agriculture. The AP District permits a wide range of agricultural uses, and landowners can subdivide their land into a minimum of ten-acre parcels for continued farm uses. Non-farm uses of AP zoned lands are more limited, and a landowner can only subdivide his or her land at a ratio of one lot for every twenty-five or more acres for rural residential uses. Each new rural residential lot must be at least an acre in size to accommodate on-lot water and

Map 23 Existing Zoning



sewage disposal but cannot exceed two acres to keep prime farmlands in agricultural production.

Within the AP District, landowners are also able to sever and sell their development rights to Chester County as part of the State and County farmland preservation program, or to another landowner, developer, or the Township, through use of the Transferable Development Rights (TDR) provisions within the Zoning Ordinance. Once the development rights are legally severed, the land is permanently protected through a restrictive covenant. While several landowners have sold their development rights to Chester County, no landowners utilized the Township's TDR provisions. Nevertheless, having the TDR tool available gives Highland's landowners who may not be eligible to sell their development rights to the State or County the ability to sell them to a developer and still preserve their land.



Outside of the Township's productive farmland areas, greater residential use opportunities exist for current and future populations. For example, as shown on Map 13, over a thousand acres in the northern half of the Township are zoned Rural Conservation (RC) District. The establishment of RC zoning implements the 2001 Future Land Use Map's Rural Conservation category, to permit farm or non-farm residential uses on lots of a minimum of five acres. Within this zoning district, land can also be subdivided into house lots as small as two acres, but only when such lots are clustered on the more buildable portions of the land, and permanent open space of at least 70 percent of the tract's total acreage is set-aside. This open space should include any fragile wetlands, steep slopes, riparian forest buffers, or other natural features that otherwise could be lost or degraded by the development.

In addition to the RC District, another 513 acres of the Township are zoned Rural Village (RV) District, which implemented the 2001 Future Land Use Map's Rural Village category. The RV-1 District applies to land in and around Gum Tree Village, while the RV-2 District applies to lands bordering Parkesburg Borough and a smaller area of land lying east of Cochranville. With the Board of Supervisors' approval of public or community water and sewer improvements, subdivision or land development applications within the RV District can include duplexes, triplexes, fourplexes and townhouse apartments, and retail and service commercial use. The RV-2 District also can be used to receive TDRs from the AP District, effectively doubling the density or yield of a proposed TDR development.

Forty acres of the Township are zoned Industrial District (I), to implement the 2001 Future Land Use Map's Industrial category. This I-zoned land is in the southwest corner near Cochranville and PA Route 41 and utilized for farming.

Although 6,671.4 acres of Township land is permanently preserved for agricultural or open space use, 1,847.12 acres of privately owned land is potentially available for residential uses.

Figure 4-1 below shows the results of a hypothetical residential build-out analysis of potentially developable land in the Township conducted during this Plan's formation. For each residential zoning districts, the analysis tabulated the total acreage for potentially developable land, shown in Figure 4-1. The total estimated residential dwelling unit is calculated from the total acreage for each zoning district found in Figure 4-1. Before the calculation, any constrained lands (i.e., presence of floodplain, wetland, steep slopes, and in some cases, woodlands) were removed or netted out of the total acreage figures. For the RC District, the calculation assumed the cluster option as the preferred residential development scenario. For the RV-1 and RV-2 District, multifamily dwellings were assumed to be the preferred residential development scenario, and public water and sewer availability was assumed.

Figure 4-1, Residential Yields by District

Residential Yields by District					
Residential Zoning District	Estimated Dwelling Units	Number of Developable Parcels	Total Net Acres		
A-Agricultural					
Preservation District	48	30	1,385.03		
RC- Rural Conservation					
District	175	24	350.69		
RV-1- Rural Village	16	3	20.31		
RV-2- Rural Village	174	10	91.09		

From a separate study performed during this Plan's formation, the Township concluded that this Plan does not need to show how Highland can accommodate a fair share of regional residential growth required of most municipalities by Commonwealth law. This is because the Township concluded from its study that it falls outside the path of growth. Chester County's Comprehensive Plan, Landscapes3, also shows Highland Township as part of a large preservation area in the western part of the County and designates the Township as a rural resource area which, according to that Plan, is appropriate for preservation or protection. Other portions of the County, such as the Route 1, Route 202, Route 30 corridors, and the fifteen Boroughs and City of Coatesville, are identified as growth areas. Notably, some of the potentially developable land used to generate these totals in the AP District is also designated as a high agricultural preservation opportunity area on Map 11 in Chapter 3 of this Plan.

III. Goal and Objectives for Future Land Use

GOAL

Preserve the rural character and promote the agricultural economy of Highland Township by managing future growth to complement open space protection, agricultural preservation, and natural, scenic, and historic resource protection efforts.



OBJECTIVES

Objective 4-1: Continue to protect and sustain the Township's agricultural economy,

> protect its prime farmland soils, conserve its sensitive natural, historic and scenic resources, and maintain its quiet, rural lifestyle without

harming the land's economic value for Highland's landowners.

Objective 4-2: Accommodate a variety of agricultural and non-agricultural land uses

> within the Township, ensuring compatibility with adjacent land uses or through the use of appropriate site design, spacing, grading, screening, or

planted buffers to separate incompatible land uses.

Objective 4-3: Utilize innovative land development tools and techniques to

accommodate housing and local businesses in areas of the Township that

are less suitable for farming.

Objective 4-4 Pursue regional planning efforts that coordinate land use, housing,

economic, and other decisions between Highland Township, adjacent

municipalities, and Chester County.

IV. The Future Land Use Map

Map 14 is the Future Land Use Map for Highland Township, a vital component of this Future Land Use Plan. This map is very similar to the 2001 Plan's Future Land Use Map, reflecting its success in guiding the Board of Supervisors with informed land use and zoning actions over the past two decades. The new Future Land Use Map retains the four future land use categories: Agricultural Preservation, Rural Conservation, Rural Village, and Industrial. The large area designated Agricultural Preservation on the new map continues to incorporate the Township's best soils for farming and those areas most actively farmed. Two small areas in the southwestern corner of the Township designated as Rural Village and Industrial, respectively, changed to Agricultural Preservation parcels. These properties are active farms and permanently preserved for agricultural or open space uses by Chester County.

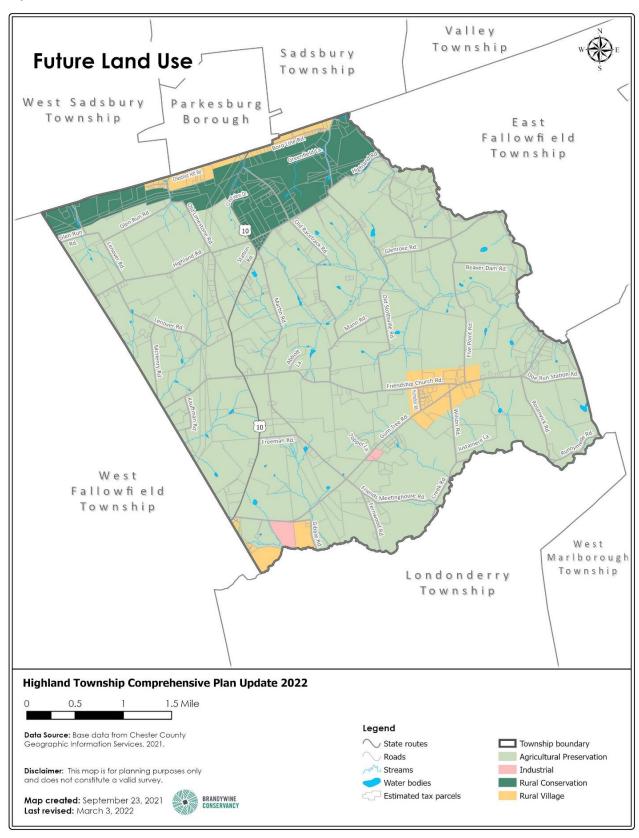
Areas designated either Rural Conservation or Rural Village by the 2001 Plan are remain Rural Conservation or Rural Village on the 2022 Future Land Use Map. These areas typically include poorly suited land for most agricultural uses yet suitable for residential dwellings. Or these areas allow for in-fill, such as in the case of Gum Tree Village. When combined, lands designated Rural Conservation or Rural Village easily accommodate the modest residential growth projections relied upon for this Plan. A variety of dwelling types can be built, and residential densities (number of dwelling units per acre) achieved on lands so designated, although in some cases, subject to public or community water and sewer availability.

As mentioned previously in this Chapter, Highland Township's Board of Supervisors successfully implemented its 2001 Comprehensive Plan. As a result, it has maintained a strong local agricultural economy, retained farms and prime farmland soils, and largely eliminated the threat of suburban sprawl within the Township. The Board also zoned land suitable for new non-farm residential and small-scale commercial uses in several areas of the Township to reflect that land's economic value to landowners. The Township felt little need when drafting its new Comprehensive Plan to dramatically change the course set by the 2001 Plan concerning land use planning and zoning. The following section outlines issues or opportunities identified during this Plan's formation related to future land use in Highland Township. The few items outlined below serve as potential opportunities to address current issues or community concerns.

Map 14: Future Land Use

The future land use map identifies appropriate locations for four key land use categories: Agricultural Preservation (light green), Industrial (pink), Rural Conservation (dark green) and Rural Village (gold).

Map 14: Future Land Use



V. Future Land Use Issues

The following section outlines issues related to future land use in Highland Township.

FUTURE LAND USE

Issues:

Housing.

While the Board of Supervisors has established zoning to accommodate a wide range of housing choices for residents of their Township, a more-affordable housing option that allows residents to age in place, i.e., the accessory dwelling unit (ADU), is not currently permitted in the Township. If permitted by zoning, an accessory dwelling unit could be placed on a lot with a principal single-family detached dwelling and be occupied either by a family member(s) of the principal dwelling or a care-taker responsible for the well-being of the principal dwelling's occupants. The RC District and the RV-1 and RV-2 Districts permit accessory (supplemental) dwelling units only as a conversion of, or attached addition to, the existing single-family dwelling. The Agricultural Preservation District does permit accessory agricultural dwelling units but allows only one for parcels of at least 30 acres in size, and up to two for parcels over 50 acres in size. In addition, a full-time employee of the farm must occupy the accessory dwelling.

Several Township residents expressed interest in housing an elderly parent or other family members in a free-standing dwelling on their property in the Community Values Survey (see Appendix C. This Plan seeks to increase housing choices in the Township, including those which are affordable to a wider range of residents. This Plan recommends a Zoning Ordinance amendment to permit accessory dwelling units (ADUs) to be established in addition to principal dwelling units, on lots and parcels in the AP, RC, and RV Districts provided adequate lot area to accommodate both dwellings' water and sewer needs.

Industrial Land Uses.

The existing land use inventory conducted for this Plan identified an area of the Township south of Gum Tree Road comprised of two heavy industrial land uses: a large junkyard and a commercial recycling center. This area on the 2001 Plan's Future Land Use Map was Agricultural Preservation and is currently zoned AP District. Since the current land uses are industrial rather than agricultural, the 2022 Future Land Use Plan now designates this area as Industrial. The Township may wish to change the zoning of this area from AP to Industrial in the future to provide for greater Plan and zoning consistency. This area would be in addition to that area just south of Route 10 that is currently farmed but planned and zoned for industrial land uses.

Regional Planning.

Rather than zone new land in the Township to accommodate future industrial uses, the Board of Supervisors could pursue a collaborative planning and zoning effort with one or more nearby

municipalities. Such effort, ideally in the form of a multi-municipal or regional comprehensive plan, will would enable participating municipalities to accommodate a wide range of different land uses across the combined planning area, so that Highland, for example, might not need to accommodate industrial uses if one of the other participating municipalities was doing so. In furthering this example, Highland Township might accommodate a concentrated animal feedlot operation where such intense agricultural uses would be inappropriate in the other participating municipalities, particularly those of a more suburban or urban nature. While Highland Township's Board of Supervisors participated in, and adopted, the Octorara Regional Comprehensive Plan many years ago, implementation of that Plan by the participating municipalities never occurred, and that Plan is now out-of-date. Successful examples of multimunicipal Comprehensive Planning and implementation in Chester County include the Oxford Area Multi-Municipal Comprehensive Plan, and the Unionville Region Comprehensive Plan.

VI. Recommendations for Future Land Use

The following section outlines recommendations related to future land use within Highland Township and intends to respond to the issues highlighted in the previous section. Chapter 9, Implementation includes a summary of all discussed recommendations.

FUTURE LAND USE

The recommendations outlined below relate to Objective 4-1, "Continue to protect and sustain the Township's agricultural economy, protect its prime farmland soils, conserve its sensitive natural, historic and scenic resources, and maintain its quiet, rural lifestyle without harming the land's economic value for Highland's landowners; Objective 4-2, "Accommodate a variety of agricultural and non-agricultural land uses within the Township, ensuring compatibility with adjacent land uses, or through the use of appropriate site design, spacing, grading, screening, or planted buffers to separate incompatible land uses"; Objective 4-3, "Utilize innovative land development tools and techniques to accommodate housing and local businesses in areas of the Township that are less suitable for farming"; and Objective 4-4, "Pursue regional planning efforts that coordinate land use, housing, economic and other decisions between Highland Township, adjacent municipalities, and Chester County."

Recommendations:

Community Planning.

10) Evaluate the Township's zoning (both map and text) to ensure general consistency with this Plan's Future Land Use recommendations.

Code of Ordinances.

11) To increase the Township's housing choices and allow Highland's residents to age-inplace, consider amending the Zoning Ordinance to permit accessory dwelling units on lots with principal single-family dwellings in the AP, RC, and RV zoning districts. 12) Consider adjusting the I District, specifically its 25-acre minimum lot size requirement, to accommodate industrial land uses on smaller parcels in the Township, subject to appropriate site design and screening standards to help ensure land use compatibility.

Land Preservation.

- 13) Retain the AP District within the Zoning Ordinance to help protect the Township's prime agricultural soils, encourage sustained agricultural uses of a viable mass of farmland in the Township, and minimize encroachment by uses incompatible with normal agricultural practices.
- 14) Retain the Transferable Development Rights (TDR) provisions within the Zoning Ordinance to provide farm- and other landowners the option to sever and sell their development rights to another landowner, developer, or the Township to be used to enhance a development proposed for the RV-2 District, while permanently protecting the land.

Public Education, Engagement, and Partnerships.

15) Pursue multi-municipal planning opportunities with adjoining or nearby municipalities to, among other benefits, share different land uses based on rural and urban differences and regional needs and maintain general consistency with, and help to implement, the Chester County Comprehensive Plan.

Chapter 5
Transportation

I. Introduction

This Chapter presents a plan for transportation in Highland Township. The Chapter begins with an overview of Highland Township's existing conditions related to its transportation network, including transportation modes, ownership and maintenance responsibilities, roadway classification, traffic generation, commuting patterns, and scenic roadways (Appendix F contains the open space inventory). Next, the Plan highlights the transportation related goals and objectives. Lastly, the Chapter concludes with an outline of transportation-related issues and recommendations to address those challenges.

II. Existing Conditions

Highland Township's transportation network is auto centric and reflective of its rural character. Roadways and bridges are the primary components of Highland Township's transportation-related infrastructure. Highland relies on vehicles for transportation within or outside the Township; vehicles include a personal automobile or buggy, or on-demand services, such as Chester County's Paratransit system or a rideshare service.

MODES OF TRANSPORTATION

The automobile is the primary mode of transportation in Highland Township. Buggies and scooters are also used in Highland Township, providing non-fossil fuel-based transportation methods for Plain Sect residents. No public trails or in-road bikeways currently exist within Highland Township; however, a limited number of sidewalks are in the northwestern corner of the Township. These sidewalks connect two educational facilities, the Octorara Elementary School and the Octorara Primary Learning Center.

Currently, there are two alternatives to the personal vehicle in Highland Township for residents: the Chester County Paratransit system and private rideshare services. The public paratransit system in Chester County is available for any person but typically operates as a service for persons with disabilities or seniors and serves as medical assistance transportation. The agencies that provide this service for all trips within Chester County, and in certain circumstances outside Chester County, include Southeastern Pennsylvania Transportation Authority (SEPTA), the Transportation Management Association of Chester County (TMACC), ROVER Community Transportation, and PART. Rideshare companies such as Uber and Lyft operate in Highland Township, albeit at a more limited frequency than in densely populated municipalities.

No public transit exists in Highland Township. Residents have access to a bus line and passenger rail line in the neighboring municipality of Parkesburg. The rail line in Parkesburg serves as both a passenger and a freight line. SEPTA and Amtrak provide service through Parkesburg for destinations due east and west. Amtrak's Keystone Service route provides access for riders to Lancaster and Harrisburg in the west, Philadelphia to the east, and New York City to the north. A TMACC bus route with multiple stops in Parkesburg provides access to Coatesville and the Chester County Airport. The Borough of Parkesburg also has the sole public electric vehicle

charging station in the region, located at a local restaurant.

OWNERSHIP AND MAINTENANCE

The roadway network in Highland Township has 51.9 miles of roads and one signalized intersection, located at Route 10 and East Highland Road. 48.27 miles of the roadway network are public roads, and 2.82 miles are private roads. Of the 48.27 miles of public roads, 21.34 miles are owned and maintained by the Commonwealth of Pennsylvania (PennDOT), and the remaining 26.93 miles are municipally owned and maintained. According to ownership and maintenance responsibility, a list of roadways in Highland Township is provided below.

Figure 5-1, Roadway Ownership and Maintenance

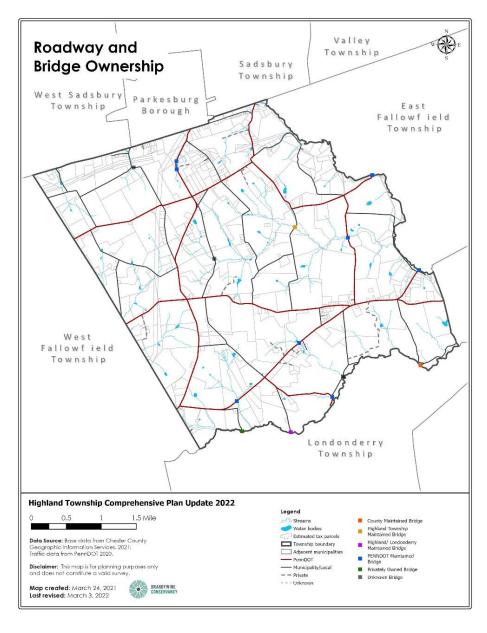
	Acker RD	Glen Run RD	Northwest DR
	Beaver Dam RD	Highland RD	Old Limestone RD
Municipality	Bernard AV	Humpton RD	Old Racetrack RD
or Locally	Boro Line RD	Kauffman RD*	Old Stottsville RD
Owned and Maintained	Chestnut Hill RD	Lenover RD	Rosenvick RD
	Creek RD	Mann RD	Runnymede RD
Roads	E Highland RD	Martin RD	S Beaver Dam RD
	Fernwood RD	McHenry RD	Station RD
	Freeman RD	Murray DR	Valley View RD
	Friends Meetinghouse RD	N Five Point RD	Wilson RD
	Gibble RD		
PennDOT	Buck Run RD	Five Point RD	Old Stottsville RD
Owned and	Creek RD	Friendship Church RD	Old Stottsville RD
Maintained	Doe Run Station RD	Gum Tree RD	S Church ST
Roads			S Friends
	E Friendship Church RD	Highland RD	Meetinghouse RD
	E Highland RD	Limestone RD	W Glenrose RD
	Abbott LA	Hollow View DR	PD 45 Access RD
Privately	Crestview DR	Kauffman RD*	Ridgeview DR
Owned and	Gibble RD	McGuigan DR	Stern Farm LA
Maintained	Greenfield LA	Mountain Laurel CT	Topper LA
Roads	Highland CT	Norcini DR	Windy Hill LA
	Justamere LA		

^{*}Kauffman RD is Municipally Owned and Privately Owned.

Highland Township's roadway network includes a total of 15 bridges. Bridges within Highland Township are owned and maintained by multiple entities. PennDOT owns and maintains the largest number of bridges within Highland Township, followed by the Township itself.

Figure 5-2, Bridge Ownership and Maintenance

Ownership and Maintenance	Number of Bridges	
PennDOT	8	
Chester County	1	
Highland Township	4	
Highland Township and Londonderry Township	1	
Privately Owned	1	



Map 15: Roadway Ownership and Bridge Maintenance

The Roadway and **Bridge Ownership** Map to the left illustrates roadways based on the entity that owns and is responsible for maintaining them. The map also illustrates bridges found within Highland Township, based on the entity that owns and maintains them. Many roadways and bridges within **Highland Township** are owned and maintained but a governmental entity, either at the municipal, county, or state level.

ROADWAY CLASSIFICATIONS

Roadway classification is based on function or character of service. This classification system establishes a hierarchy for roadways, factoring in traffic type, traffic volume, and traffic speeds accommodated along each corridor. The two essential functions are access to property and travel mobility. Access refers to the ease of entering or exiting a roadway from adjacent properties. Travel mobility refers to the ability of the roadway to move traffic. Generally, the greater degree of mobility a roadway has, the lower its access (i.e., an expressway). The greater the access, the lower its mobility (i.e., a local road). The system's functional classifications, as used in Highland Township and based on Chester County's classification system, are described as follows:

Principal Arterials primarily serve to move large volumes of traffic at relatively high rates of speed. Access points are limited and controlled, with a priority focused on moving vehicles. There are no principal arterials in Highland Township. However, in West Fallowfield Township, Route 41 to the west is considered a principal arterial.

Major Arterials interconnect with and augment the principal arterial system. Major arterials serve to move heavy traffic volumes at moderate to high rates of speed. Access points are limited and controlled, with mobility more critical than property access. Pennsylvania Route 10 and S Church Street Road in Highland Township are major arterials. These roadways connect to more intensively classified roadways, such as Route 1, an expressway, and the principal arterials of Routes 30 and 41.

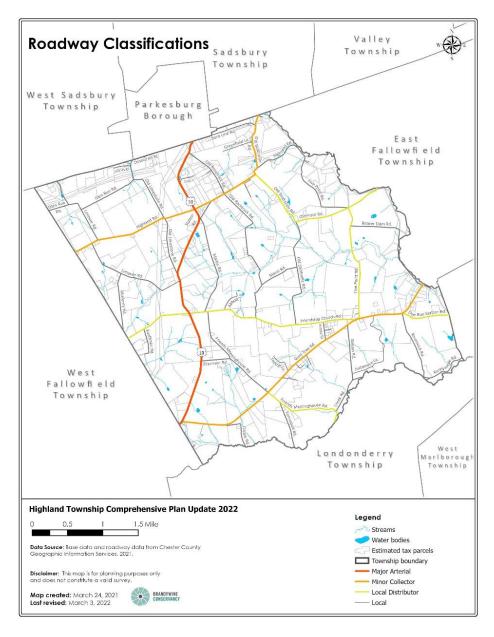
Minor Arterials serve to move moderate to high volumes of traffic at moderate to high rates of speed. Access points are less limited, with mobility being more critical than property access. There are no principal arterials in Highland Township.

Major Collectors are the major contributors to arterial traffic and carry moderate to high traffic volumes at moderate rates of speed. Access points are usually controlled on collector roads. There are no major collector roads in Highland Township.

Minor Collectors facilitate relatively low to moderate volumes of traffic at lower speeds. They gather traffic from local roads and local distributors, directing it to the arterial and major collector road networks. Minor collectors often provide traffic circulation between residential neighborhoods. Buck Run, E Highland, Gum Tree, Highland, and Old Stottsville Roads serve as minor collectors for the Township. These roads collect traffic for the Township and direct that traffic to Route 10 and 41.

Local Distributors serve to move low traffic volumes at low to moderate rates of speed. Access is more important than mobility, with priority given to property access. Creek, Doe Run Station, E Friendship Church, Five Point, Friendship Church, Old Stottsville, S Friends Meetinghouse, and W Glenrose Roads serve as minor collectors within Highland Township.

Local Roads provide the greatest access and access points to adjacent land. Local roads provide for a short distance, low-speed travel and make up many of the Township-owned roads. The remaining Township roads not previously identified are local roads. They are mainly used to handle local traffic and are used primarily by individuals in the community.



Map 16: Roadway Classification

The Roadway Classification Map to the left illustrates road names, classifications, and locations within Highland Township. All roadways in **Highland Township** fall into four classifications: Major Arterial, Minor Collector, Local Distributor, or Local. Route 10, the major arterial in Highland Township, runs northsouth, while the major collectors run primarily east-west. Local distributors have both east-west and north-south orientations.

TRAFFIC GENERATION

In 2020, PennDOT collected traffic count data for Highland Township roads, as summarized below. It should be noted that since the COVID-19 pandemic was occurring in 2020, traffic volumes may have been impacted. Roadways in Highland Township may have experienced reduced volumes from what they would typically experience.

Figure 5-3, Highland Township Daily Traffic Volumes, 2020

Roadway	Starting Point	Endpoint	Volume
SR 10-TR10	Beale Dr. (Parkesburg Borough)	Highland Rd.	8,064
SR 10-TR10	Highland Rd.	Friendship Church Rd.	8,292
SR 10-TR10	Friendship Church Rd.	Gum Tree Rd.	8,602
SR 3081-Highland Road	Twp boundary	SR 10	1,482
SR 3081-Highland Road	SR 10	Stottsville Rd.	994
SR 3079-Stottsville Road	Mount Laurel Ct.	Highland Rd.	1,104
SR 3079-Stottsville Road & SR 3077-Glenrose Road	Highland Rd	Five Point Rd	248
Glen Rose Road	Five Point Rd	Park Rd (East Fallowfield)	180
Five Point Rd	Glenrose Rd	Gum Tree Rd	270
SR 3056-Friendship Church	SR 41 (West Fallowfield)	SR 10	329
SR 3056-Friendship Church Road	SR 10	Gum Tree Rd (SR 3043)	244
SR 3043 (Gum Tree Road)	SR 10	Friends Meetinghouse Rd.	2,862
SR 3043 (Gum Tree Road)	Friends Meetinghouse Rd.	Beaver Dam Rd.	3,033
Doe Run Station Road	Gum Tree Rd.	Beaver Dam Rd.	296
SR 3041-Friends Meeting	Gum Tree Rd.	SR 41 (Londonderry)	414

Note: Volumes are for both directions of travel

Source: PennDOT

This data shows that other than Route 10, a major arterial roadway, only Gum Tree, Highland, and Stottsville Roads have daily traffic volume daily greater than 1,000 vehicles. Gum Tree, Highland, and Stottsville Roads serve as minor collector roads for commuters who want to access Routes 10 and 41.

COMMUTING PATTERNS

Working Township residents have, on average, a shorter commuting time to their place of employment than residents of Chester County overall. As of 2018, workers living in Highland

Township spend 24.9 minutes traveling to work compared to 28.7 minutes for Chester County residents overall. Individuals who live in Highland Township and commute to work primarily use automobiles to reach places of employment and drive alone. Based on data collected in 2018, before the COVID-19 pandemic, residents in Highland Township worked from home at a higher rate, 18.5%, than residents in Chester County overall, 7.5%. Most employed residents work outside Highland Township. According to 2018 US Census Bureau data, close to 600 residents worked outside the Township, approximately 60 worked in the Township, and approximately 170 people lived elsewhere and worked in the Township.

Residents traveled to a variety of employment centers across the region, including Philadelphia, West Chester, and other locations in Chester, Delaware, Lancaster, Berks, and Montgomery Counties, as well as in Maryland and Delaware.



SCENIC ROADWAYS

Highland Township is home to several scenic roads. Scenic roads bring together the visual and physical qualities of the landscape, which, for Highland, is a combination of its vast agricultural areas, rolling hills, ridgelines, narrow stream valleys, and the roadways themselves. Preservation of scenic roads can help the area's residents appreciate nearby history and create a sense of pride in their area. The preservation of these roads adds significantly to the attractiveness of any community, and Highland Township is no exception. The Highland Township 2001 Comprehensive Plan includes an inventory of potential scenic roads, with a Scenic Resources Map. Chapter Two of this Plan includes a reproduction of this map with a description of existing Township roads with high scenic qualities.

III. Goal and Objectives for Transportation

GOAL

Provide a safe, efficient, and well-maintained transportation network that addresses current and future mobility needs.



OBJECTIVES

Objective 5-1: Advocate for improvements to PennDOT owned and/or maintained roadways, intersections, and bridges and Chester County owned and/or

maintained bridges.

Objective 5-2: Advance improvements on Township-owned and/or maintained

roadways, intersections, and bridges.

Objective 5-3: Plan with neighboring municipalities, county, and state entities to ensure

that transportation-related plans and projects in Highland Township and the immediate region are consistent, coordinated, and designed in a

collaborative manner.

IV. Transportation Issues

The following section outlines issues related to transportation within Highland Township. As expressed through input from the community survey, the community visioning public meeting, and task force meetings, concerns related to the transportation network emerged as a major theme. The public meeting and community survey results can be found in Appendix B and Appendix C.

TRANSPORTATION

Issues:

Community Planning.

The public identified transportation as one of the top priority issues for residents. Through the community values survey, community visioning public meeting, and plan task force meetings, residents expressed various transportation network concerns, including traffic calming, truck traffic volumes, cut-through traffic, key corridors and intersections, and roadway maintenance. Appendix B and C summarize this feedback in greater detail.

Highland Township is a predominantly agricultural community with English and Plain Sect farmers. The mixing of buggies, scooters, farm vehicles and automobiles on roadways can impact the efficient movement of traffic.

Bridges are a core component of Highland Township's transportation infrastructure, which requires ongoing monitoring and maintenance. Bridges in the Township are owned and maintained by various governmental entities, including Highland Township, Chester County, and PennDOT.

Funding.

Transportation projects, such as roadway construction, roadway maintenance, bridge construction, and bridge maintenance, are critical to providing a safe and efficient circulation system but costly from an implementation cost and a legacy cost perspective.

Local funding programs provided by regional partners such as Chester County Planning Commission and the Delaware Valley Regional Planning Commission are competitive but provide avenues for advancing municipal and multi-municipal transportation projects.

Data and Inventories.

Roadway and bridge maintenance is an ongoing responsibility for Highland Township, Chester County, and PennDOT, which is time-intensive and costly but necessary to provide a safe and efficient circulation system. Regularly surveying and collecting data about road and bridge conditions can assist with the strategic prioritization of projects.

Highland's road network character includes a series of narrow, rural roads that meander through the countryside, providing significant scenic benefits. These local roads are a cultural resource that requires conservation as land use changes occur. Although conservation is essential to preserve the character of the Township, road segments may require improvements from a safety perspective. A balance is necessary between resource protection and the mitigation of safety concerns. Highland Township's scenic roadway inventory identifying the roads classified as scenic, has not been updated since 2000.

Public Education, Engagement, and Partnerships.

Residents in Highland Township are dependent on access to personal vehicles to reach key destinations in the region, such as grocery stores and medical facilities. On-demand resources are available for those without vehicle access or unable to operate a vehicle through Chester County's paratransit system. Not all residents are aware of this service.

V. Recommendations for Transportation

The following section outlines recommendations related to transportation within Highland Township and intends to respond to the issues highlighted in the previous section. A summary of all recommendations in this Plan, including those that follow, is provided in Chapter 9, Implementation.

TRANSPORTATION

The recommendations outlined below relate to Objective 5-1, "Advocate for improvements to PennDOT owned and/or maintained roadways, intersections, and bridges and Chester County owned and/or maintained bridges," Objective 5 -2, "Advance improvements on Townshipowned and/or maintained roadways, intersections, and bridges," and Objective 5 -3, "Plan with neighboring municipalities, county, and state entities to ensure that transportation-related plans and capital projects in Highland Township and the immediate region are consistent, coordinated, and designed in a collaborative manner."

Recommendations:

Community Planning.

- 16) Evaluate the transportation issues identified through the public outreach part of this Plan to determine the next steps and solutions. Apply for grant funding to study issues such as key corridors, intersection improvements, traffic calming, and cut-through traffic in concert with a transportation planner or engineer. Alternately, explore PennDOT's Local Technical Assistance Program (LTAP) as a potential avenue to assist with further studies.
- 17) Study roadway corridors in partnership with PennDOT and Highland Township farmers (Plain Sect and English) to identify if roadway improvement projects support the safe

- and efficient circulation of horse-drawn wagons, buggies, scooters, or farm vehicles are needed. Such a study should explore strategies to ensure safe nonmotorized vehicle circulation in concert with traffic calming best practices.
- 18) Coordinate with Chester County and PennDOT regarding the maintenance of Countyand State-owned bridges to ensure consistency with Highland Township's Vision, Goals, and Objectives.
- 19) Evaluate the feasibility of converting portions of the historic Pomeroy and Newark railroad to a trail to create a regional north south trail connection along the eastern side of the township.

Funding.

- 20) Apply for grant funding to advance the planning, design and construction of transportation improvement projects in Highland Township.
- 21) Identify and submit transportation projects to the Chester County Planning Commission for inclusion on the County's Transportation Improvements Inventory (TII). The TII is updated biennially and includes projects recommended to CCPC by Chester County municipalities.

Data and Inventories.

- 22) Partner with PennDOT maintenance personnel through their Local Technical Assistance Program (LTAP) to regularly survey Highland Township's transportation network to inventory road conditions and collaboratively identify infrastructure issues on Stateowned and Township-owned roads.
- 23) Consider conducting an update to the scenic roadway identification, inventory, and mapping completed as part of the 2001 Comprehensive Plan and recreated as part of the 2022 Comprehensive Plan Update.

Public Education, Engagement, and Partnerships.

- 24) Provide information (i.e., website, flyer in the municipal building, etc.) for residents about existing Chester County paratransit-related services that support residents with disabilities, seniors, and those without access to, or the ability to use, a personal vehicle.
- 25) Partner with neighboring municipalities to coordinate traffic and transportation issues that cross municipal boundaries, including economic development and land-use decisions in the region that could impact traffic volumes. Advance the planning, design, implementation, and maintenance of roadways, bridges, and intersection treatments where shared interests exist while collaboratively identifying strategies to mitigate cutthrough traffic in rural municipalities.

Chapter 6
Community Facilities and Services



I. Introduction

This Chapter presents a plan for the community facilities and services offered to Highland Township residents, business owners and their employees, and visitors over the next ten to twenty years. The Chapter first describes the existing community facilities and services followed by the goals and objectives related to facilities and services. The Chapter concludes with an outline of issues and corresponding recommendations.

II. Existing Conditions

Highland Township's Board of Supervisors provides its residents, businesses, and visitors with fundamental community facilities and services due to the Township's rural and mostly agricultural nature. Township facilities for public use include the Municipal Building, playground, and adjoining ball field; Township services generally include administrative, tax collection, permitting, code enforcement, and maintenance of Township-owned roads.

The Township Municipal Building is an adaptive reuse of a historic schoolhouse located at 100 Five Points Road in Gum Tree village. This single-story, stone building houses the Township's secretary, Zoning Officer, roadmaster, and road crew. The Municipal Building is open for four hours, one day per week, during which the Township Secretary is available to the public. Otherwise, the Township accepts emails and phone messages for other inquiries. The Township has an informational website and produces and distributes a (monthly, quarterly, annual?) newsletter to its residents. The Municipal Building also serves as the monthly meeting place for

the Board of Supervisors and its Planning Commission. There is a private office space lease on a sector of the building. There is parking in the rear and a salt storage area and garages. The Township also owns two unimproved parcels of land along Boro Line Road that total less than an acre.

Highland Township has eliminated its police department with six part-time officers since the completing the 2001 Comprehensive Plan and now relies on part-time coverage contracted with Parkesburg Borough. The Pennsylvania State Police provides police protection outside of the contracted hours in the Township.

The Township Road crew consists of two full-time employees: the roadmaster and one additional full-time employee. Three additional persons help on-call, primarily for snow removal, in the absence of both full-time employees.

The Township has a semi-improved, unlighted ball field that shares the same 5.5-acre property as the Municipal Building, located next to the rear parking area. The ball field is suitable for baseball, softball, kickball, and general outdoor play and includes a wooden backstop, wire fence, bleacher seating, and picnic tables. This is the only public recreational facility offered by the Township.

According to the Township website, trash hauling, and recycling services are offered to Township residents and businesses through two private companies: A. J. Blosensk, and Allied Waste (Republic Services). Residents and businesses are encouraged to subscribe directly to these two companies for local service.

The Board of Supervisors also relies on, and often contributes financially, to the efforts of other community and public service providers who help to serve Township residents and businesses. For example, Cochranville Fire Company offers fire protection to southern areas in Highland Township and Keystone Valley Fire Company offers fire protection in the northern areas of Highland Township. Keystone Valley was recently formed by merging Parkesburg, Pomeroy, and Westwood Fire Companies. Medic 93 provides rapid response medical service in addition to Keystone Ambulance Service, stationed in Parkesburg.

Highland Township is part of the Octorara Area School District (OASD), providing children in the Township with K-12 public education. OASD has a single campus housing all four of its public schools, located on Highland Road near its intersection with PA Route 41. This campus comprises the Octorara Primary Learning Center (grades K-2), the Octorara Elementary School (grades 3-4), the Octorara Intermediate School (grades 5-6), and the Octorara Junior/Senior High School (grades 7-12). The Octorara Area School District also offers career and technical education through eleven in-school programs for students in grades 10, 11, and 12 and the Octorara Virtual Academy.

The closest public library for use by Highland Township residents is the Parkesburg Library, established in 1891 and located on 105 West Street in Parkesburg Borough. Churches in the

Highland area include, but are not limited to, the Highland Baptist Church, the Cochranville United Methodist Church, the St. Malachi Church, and the Faith Bible Chapel.

As noted earlier in this Plan, the Township Board of Supervisors does not own or operate any public water or sewage treatment facilities, therefore public water or sewer services are not available within the Township. As such, all Township land uses depend on on-lot water (wells) and on-lot sewage disposal systems (OLDS), except for the Highland Court Mobile Home Park relies on privately-owned, community water and sewage disposal systems that only serve the needs of Park occupants; and the Octorara Area School District owns and operates water and sewage systems that serve its school buildings located in and adjoining Highland Township. The treated sewage effluent from these school buildings is discharged into an adjoining West Fallowfield Township stream. Pennsylvania American Water Company (PAWC) is the closest public water and sewer provider, with lines located along Boro Line Road near Parkesburg Borough.



III. Goal and Objectives for Community Facilities and Services

GOAL

Provide community facilities and services that are efficient, cost-effective, and essential to maintaining the general health, safety, and welfare of Highland Township's residents.



OBJECTIVES

Objective 6-1: Provide effective community services, assessing current community

services to identify opportunities to enhance or expand where necessary.

Objective 6-2: Maintain and enhance the Township's municipal building and grounds to

promote it as a local gathering place within the community.

Objective 6-3: Work with neighboring municipalities to plan together, share resources,

and cooperatively manage infrastructure, where feasible and cost-

effective.

IV. Resource Considerations

Highland Township's Board of Supervisors balances the delivery of community services with the financial costs incurred to provide such services and the tax implications to local property owners. Where feasible, the Board collaborates with other municipalities and service providers in the region to satisfy the Highland community's essential needs most cost-effectively.

Given that commercial and non-ag. industrial development in the Township from which to generate property tax revenue is extremely limited, and considering the high number of Township farms enrolled in the State's preferential tax program, Highland's property tax base from which to generate revenue is relatively small. The Board of Supervisors also does not wish to establish new Township-owned facilities or services that might lead to an increase in property taxes to offset their construction, maintenance, or programmatic costs.

Township residents, in general, appear to accept that the level of public or community services available to them in Highland is limited. Participant responses from the community planning survey and community visioning session supported the current level of accessible public facilities and services and did not identify a lack of services to address through this Plan.

The following section describes a few potential opportunities to enhance community facilities and services offered within the Township in the future.

COMMUNITY FACILITIES AND SERVICES

Issues and Opportunities:

- A few participants in the community planning survey conducted for this Plan update included a desire to have more of a social connection with neighbors, a gathering place to meet for social clubs, etc. As residents age in place, having that social fabric will be more critical.
- Other than local churches, the Municipal Building could function as a suitable gathering
 place with only limited improvements and operational changes. For example, a shade
 structure could be included on the property at a relatively low cost, such as a gazebo or
 benches for people to sit on and gather, whether formally or informally. Relocating two
 picnic tables to form a gathering space by the baseball field is another example. The
 Municipal Building would not have to be open outside its regular hours (although this
 could provide indoor space).
- Regarding the Township's current police protection, the Board may wish to evaluate the
 need and costs for increased time spent by Parkesburg Borough officers and the
 Pennsylvania State Police enforcing speed limits on Township roads. The adverse impact
 of through traffic is an issue identified in this Plan's Transportation Chapter. A
 temporary or permanent increase in police hours assigned to roads in the Township
 help improve traffic safety.
- Suppose a proposal on the northern end of the Township requires public water and sewage use. In that case, Highland Township must adopt the Wastewater Facilities Plan regarding public sewer extensions and planning requirements in PA Act 537, by the Pennsylvania Department of Environmental Protection (PADEP). No current plan is likely to satisfy this requirement. Given that the closest public water and sewer lines to

Highland originate at the Pennsylvania American Water Company's South Coatesville facilities, the Township might be able to amend the PADEP-approved Wastewater Facilities Plan serving PAWC's other municipalities.

• During the twenty-year planning period, Highland Township could be designated by PADEP as an MS4 (Municipal Separate Storm Sewer System) community and be required to prepare and file an MS4 permit application, accompanying the Pollution Reduction Plan (PRP). Being rural and having a small population, the Township has not met PADEP's criteria used to designate MS4 municipalities. However, PADEP's threshold continues to drop, and at some point, Highland Township may require state and federal compliance. Through its PRP, Highland will need to demonstrate how it will address existing water pollution sources, requiring the Board to identify how it will fund water quality improvement projects.

V. Recommendations for Community Facilities and Services

The following section outlines recommendations related to community facilities and services within Highland Township and intends to respond to the issues highlighted in the previous section. A summary of all recommendations in this Plan, including those that follow, is provided in Chapter 9, Implementation.

COMMUNITY FACILITIES AND SERVICES

The recommendations outlined below relate to Objective 6-1, "Provide effective community services, assessing current community services to identify opportunities to enhance or expand where necessary," Objective 6-2, "Maintain and enhance the Township's municipal building and grounds to promote it as a local gathering place within the community," and Objective 6-3, "Work with neighboring municipalities to plan together, share resources, and cooperatively manage infrastructure, where feasible and cost-effective."

Recommendations:

Community Planning.

- 1) Consider permitting seasonal use of the Municipal Building and its grounds to serve as a public gathering, including appropriate infrastructure to offer residents and visitors a welcoming experience.
- 2) Consider applying for a small planning grant (i.e., PECO's Green Region initiative) to hire a consultant to prepare a simple master plan for the Municipal Building and grounds to serve as a public gathering area.

Public Safety.

3) Evaluate the need and costs for increased time spent by Parkesburg Borough officers and the Pennsylvania State Police enforcing speed limits on Township roads. Consider, if

feasible, a temporary or permanent increase in hours of police coverage of Township roads to help ensure traffic safety.

Public Infrastructure Planning.

- 4) Be prepared to establish a Wastewater Facilities Plan for Highland Township to support development proposed in appropriate areas with supporting public water and sewer facilities.
- 5) Necessary preparation for MS4 designation in the future?

Public Education, Engagement, and Partnerships.

- 6) Partner with the County and other municipalities in the region, and area public and quasi-public service providers, to collaboratively identify and provide cost-effective programs, resources, equipment, and strategies that meet the public safety, and other community-wide or special population needs and desires in Highland Township.
- 7) Conduct an update of the Highland Township website to include additional information and resources for residents, as indicated in other Chapters in this Plan.
- 8) Consider creating a social media account for Highland Township as a resource for information sharing and highlighting the Township (i.e., Facebook page, Instagram account, etc.)

Chapter 7 Climate Resiliency



I. Introduction

This Chapter presents a plan for climate resiliency in Highland Township. The Chapter is organized by first providing an overview of Highland Township's existing conditions related to historic and projected precipitation and temperature, Township greenhouse gas emissions, and air quality. Next, this Chapter highlights the resiliency objectives. Lastly, the Chapter concludes with an outline of climate-related issues and recommendations intended to address those challenges.

II. Existing Conditions

As an agricultural community, Highland Township's character, economy, infrastructure, and residents are directly impacted by variations in climate. According to the Environmental Protection Agency (EPA),

"Climate is the long-term average of the weather in each place. While the weather can change in minutes or hours, a change in climate is something that develops over longer periods of decades to centuries. Climate is defined not only by average temperature and precipitation but also by the type, frequency, duration, and intensity of weather events such as heat waves, cold spells, storms, floods, and droughts."

Over the last several decades, the climate in Highland Township and the surrounding region has slowly shifted, becoming increasingly warmer and wetter (see Appendix G). In addition to increases in average precipitation and temperature, the region has experienced more frequent

extreme weather events. The region experienced record-breaking floods from the remnants of Hurricane Ida, saw damage from tornadoes, suffered from poor air quality partly due to wildfires out west, and endured a series of heatwaves. In addition, flash flood events and stormwater runoff issues have become more frequent as storm intensity and development increases. Increased frequency of severe weather events and more gradual shifts in temperature and precipitation can significantly impact Township infrastructure such as roads and bridges, lead to more frequent power outages, and may impact agricultural production. In addition, an overall increase in precipitation can lead to more water pollution due to stormwater runoff, while increased temperatures can exacerbate the effects of air pollution. All these effects can impact the quality of life for Township residents.

To help minimize negative climate impacts such as extreme heat, increased flooding, and other extreme weather events on infrastructure, the local agricultural economy, and residents, this Comprehensive Plan Update highlights the municipal benefits of planning for resiliency. As defined by FEMA, the Federal Emergency Management Agency, "[climate] resilience refers to the ability to adapt to changing conditions and rapidly recover from disruptions due to emergencies." Highland Township can be proactive when it comes to decision-making by considering resiliency in municipal planning efforts, leading to more resilient infrastructure, economic stability, and increased community health and safety.

TOWNSHIP POLICIES

Highland Township has already taken steps towards developing a more resilient community through its ongoing dedication to land preservation, natural resource protection, and green design practices. Land preservation, especially in headwater areas, can significantly reduce flood risk and the impacts of stormwater runoff downstream. The Township's adoption of an agricultural security area and the strong history of agricultural preservation also supports regional resiliency and food security as development pressures have led to more farmland conversion. Highland Township is securing its current and future role in the region's agricultural economy by supporting and encouraging farmland protection. In addition, natural resource protections, especially for woodland and riparian areas, help reduce the impacts of water and air pollution since trees act as filters. Trees, hedgerows, and woodlands also help mitigate the impacts of extreme temperatures by providing shade in the summer and insulation and wind breaks in the winter.

Lastly, Highland Township outlines a robust list of green design standards in the Township's Subdivision and Land Development Ordinance requiring subdivision or land development applicants to submit a Green Design Assessment as part of the Preliminary and Final Plan submissions (Article V section 528). The stated purpose of the Green Design Standards section is to ensure "structures and their surrounding landscapes" are "designed, constructed and maintained to:

(a) Decrease energy and water usage, to improve the efficiency and longevity of building systems, and to decrease the burdens on the environment and public health.

- (b) Be consistent with the Community Development Objectives of the Highland Township Comprehensive Plan, Section 103 of the Highland Township Zoning Ordinance, and the Purposes set forth in Section 105 of the MPC, "... to promote the conservation of energy through the use of planning practices and to promote the effective utilization of renewable energy sources..."
- (c) Minimize both short- and long-term negative impacts on the environment and public health."

The required Green Design Assessment requires applicants to address the "applicability and practicality" of a variety of standards, including:

- Site orientation for passive renewable energy use
- Incorporation of renewable energy systems (solar, wind, geothermal)
- Use of native plants with a high carbon storage capacity
- Minimize disturbance to existing vegetation and woodlands
- Meet a minimum LEED Silver standard for building placement, style, dimensions, construction material, overall site design
- Meeting or exceeding the EPA Energy Star rating of 85.
- Incorporating adaptive reuse of existing historic structures and previously developed sites.
- On-lot stormwater and wastewater treatment and storage (including green roofs, rainwater harvesting, and land application).
- Commercial and industrial development should maximize energy efficiency and sustainability, minimizes potential adverse impacts on the health of employees and the public, and incorporate alternative heating and colling processes (i.e., geothermal, solar energy, solar assisted air conditioning and wind energy).

Highland Township ensures that new development will follow a resilient standard for current and future conditions to minimize the impacts by requiring applicable green design standards.

TOWNSHIP PRACTICES

Highland Township has also taken steps to increase the energy efficiency of the municipal building by upgrading to new energy-efficient windows. This investment will save money on annual heating and cooling costs and the increased insulation will provide additional protection against extreme temperatures. The Township limits municipally incurred costs and energy consumption by limiting the number of buildings owned and maintained by the Township and maintaining limited office hours, further conserving energy in municipal facilities. The continued identification of energy-efficiency measures, where necessary, can continue supporting the Township's efforts to manage municipal facilities in a cost-effective and energy-efficient manner. Pennsylvania's Department of Environmental Protection (PA DEP) also provides additional resources to municipalities, residents, and businesses about steps to increase energy-efficiency and rebates for alternative energy systems, electric vehicles, energy-efficient appliances and home improvements.

III. Goal and Objectives for Climate Resiliency

GOAL

Plan with climate resiliency in mind to protect farms, residents, infrastructure, and the local economy from adverse impacts. Enhance Township facilities through energy efficiency and renewable energy improvements.



OBJECTIVES

Objective 7-1: Evaluate areas and populations of potential vulnerability in a

comprehensive and holistic manner.

Objective 7-2: Assess existing and projected areas in need of stormwater management

improvements.

Objective 7-3: Consider practical strategies to conserve energy and incorporate

renewable energy sources into municipal operations, sharing those

successes with the local community.

IV. Resource Considerations

The following section outlines opportunities and issues related to climate resiliency within the Township.

CLIMATE RESILIENCY

Issues:

Community Planning.

Vulnerability assessments comprehensively identify and analyze areas within a
municipality that are susceptible to hazards. These areas may include municipally
owned and managed infrastructure, such as roads, bridges, buildings, and grounds. This
may include other core components of a community and its local economy, such as
agricultural lands, crops, livestock, utilities, or residents. A vulnerability assessment for
Highland Township does not currently exist.

Code of Ordinances.

Including renewable energy provisions into the existing code provides the mechanism
for municipalities to regulate renewable energy systems in their community. Although
Highland Township's Code of Ordinances encourages renewable energy systems
through green design standards for new subdivisions, it does not include specific
renewable energy provisions for existing or new buildings and grounds, for solar, wind,
geothermal, or other renewable systems.

Municipal Operations.

- Regularly tracking data related to energy use in the municipal building and grounds provides information to help identify issues, establish trends, and strategically identify future energy conservation improvements.
- Highland Township's municipal building and grounds require energy to operate, representing a legacy cost for the Township.

Public Education, Engagement, and Partnerships.

- When developing this plan, stormwater runoff was a concern expressed during the
 public engagement process. Uncontrolled stormwater runoff can negatively impact a
 community, including damage to property, erosion, and degraded water quality.
- Cooling centers reuse existing buildings to create safe, designated areas for residents without access to air conditioning to cool down during heatwaves. Promote information on heating and cooling centers in coordination with emergency management.
- Heatwaves and flooding events can impact critical infrastructure. Roadways submerged underwater after creeks flood pose hazards to traffic and can prevent emergency vehicles from accessing residents. Extreme heat can damage transportation

infrastructure. Infrastructure and design standards may require modifications to be more resilient.

V. Recommendations for Climate Resiliency

The following section outlines recommendations related to climate resiliency within Highland Township and intends to respond to the issues highlighted in the previous section. A summary of all recommendations in this Plan, including those that follow, is provided in Chapter 9, Implementation.

CLIMATE RESILIENCY

The recommendations outlined below relate to Objective 7-1, "Evaluate areas and populations of potential vulnerability in a comprehensive and holistic manner," Objective 7-2, "Assess existing and projected areas in need of stormwater management improvements," and Objective 7-3, "Consider practical strategies to conserve energy and incorporate renewable energy sources into municipal operations, sharing those successes with the local community."

Recommendations:

Community Planning.

 Conduct a vulnerability assessment to evaluate areas (i.e., farmland, infrastructure, etc.) susceptible to extreme events such as extreme heat, drought, and/or extreme precipitation.

Code of Ordinances.

2) Consider incorporating renewable energy provisions into the Township's existing Code of Ordinance.

Municipal Operations.

- 3) Annually benchmark energy use in the municipal building and grounds to chart trends in energy consumption.
- 4) Continue to identify and implement strategies to conserve energy in the municipal building, on the municipal grounds, and with Township-owned and maintained infrastructure.

Public Education, Engagement, and Partnerships.

- 5) Analyze transportation corridors in Highland Township in partnership with PennDOT to determine if roadways and adjacent rights-of-way in the Township require stormwater management BMPs.
- 6) Share information with residents about available cooling/heating centers in Highland Township and the adjacent municipalities, coordinate with emergency management through PA's 211 line (i.e., Parkesburg location).

- 7) Collaborate with PennDOT through their technical assistance program to assess the Township's transportation network and standards to determine if changes should be made to increase their resiliency.
- 8) Partner with non-profits and/or other governmental entities to ensure property owners have access to information and resources about the benefits of riparian buffer and woodland restoration, including programs that provide technical assistance, financial assistance, cost-sharing mechanisms, and free resources.

Chapter 8
Statement of Compatibility



I. Introduction

This Chapter demonstrates the compatibility of this plan with surrounding municipal plans, County plans, and other regional planning considerations. The review of existing long-range plans in adjacent communities can provide important information to consider as a part of a community's comprehensive planning process. The goals, objectives and projects identified in neighboring municipalities' plans outline information about a community's future land use decisions, transportation considerations, and recreational opportunities that can be impactful along shared borders. The review of adjacent municipal plans can also identify opportunities to improve planning consistency between communities.

Seven municipalities surround Highland Township: West Sadsbury Township, Sadsbury Township and Parksburg Borough to the north, East Fallowfield Township to the east, West Marlborough Township, and Londonderry Township to the south, and West Fallowfield to the west.

II. Highland Township and Adjacent Municipalities

OCTORARA REGIONAL COMPREHENSIVE PLAN

The Octorara Regional Comprehensive Plan of 2004 includes Highland, West Sadsbury, West Fallowfield, Londonderry Townships, Atglen and Parkesburg Boroughs. This multi-municipal plan was developed to manage growth collaboratively, while maintaining the rural character of the region and protecting sensitive environmental resources.

This plan identifies Atglen and Parkesburg Boroughs as the region's economic centers.

EAST FALLOWFIELD TOWNSHIP COMPREHENSIVE PLAN

East Fallowfield Township adopted its current Comprehensive Plan in 2015 and updated the Township's vision, goals, and objectives from its 1999 Comprehensive Plan. The plan includes ten goals that influenced the land use and infrastructure policies, focusing on community character, environmental, cultural, and historic resources, land use, transportation, housing, economic development, community facilities and services, and regional coordination.

The Future Land Use Plan, from the 2015 Plan, outlines a mix of categories along the shared western border with Highland Township. These are Residential Infill, Agricultural Preservation, and Conservation Easement Areas, with most adjacent land falling in the agricultural preservation and conservation easement areas categories.

The 2022 Highland Township Comprehensive Plan Update is consistent with East Fallowfield Township's treatment of future land use along shared borders.

LONDONDERRY TOWNSHIP COMPREHENSIVE PLAN

The adopted 2007 Londonderry Township Comprehensive Plan Update, which updates the Township's 1993 Comprehensive Plan and open space, recreation, and environmental resources plan, aims to balance land conservation and development, protecting this rural community with significant natural, historical, and cultural resources.

Much like in Highland Township, agricultural preservation is a top priority in the Londonderry Township Comprehensive Plan. Its Future Land Use Plan identifies land along the border with Highland Township as primarily agricultural/ open space with land west of Route 41 as agriculture/ rural residential.

The 2007 Plan also identifies a greenway corridor along the entire shared border with Highland Township, recommending protection along this corridor.

The 2022 Highland Township Comprehensive Plan Update is consistent with Londonderry Township's treatment of future land use along shared borders.

PARKSBURG BOROUGH COMPREHENSIVE PLAN

Adopted in 2020, the Parkesburg Borough Comprehensive Plan Update is an update of its 2002 Comprehensive Plan, focusing on circulation, economic development and revitalization, services and infrastructure, and land use and community character.

Existing land use along the border with Highland Township is primarily single-family residential, with a small portion west of Route 10 as utility/railroad/transportation, also classified as protected lands on the developable land map. Future land use map shows most of the adjacent land as low-density residential, with land east of Route 10 as Open Space and/or Parks, and a small area of land west of Route 10 as Infrastructure.

The 2022 Highland Township Comprehensive Plan Update is consistent with Parkesburg Borough Township's treatment of future land use along shared borders.

SADSBURY TOWNSHIP COMPREHENSIVE PLAN

Sadsbury Township's 2013 Comprehensive Plan Update revises the vision, goals, and objectives from its 2006 Comprehensive Plan. The goals in the plan focus on community character, natural resources, community facilities and services, open space preservation, agricultural preservation, transportation, land use, housing and non-residential buildings, historic preservation, finances, and planning and coordination.

Existing land use along the border with Highland is shown as agriculture; however, the future land use plan shows this area as Traditional Neighborhood Development.

The 2022 Highland Township Comprehensive Plan Update is consistent with Sadsbury Township's treatment of future land use along shared borders.

UNIONVILLE REGIONAL COMPREHENSIVE PLAN

The Unionville Regional Comprehensive Plan Update intends to jointly plan to preserve agricultural uses and businesses, protect open space, and manage growth and development within West Marlborough, Newlin, and East Marlborough Townships. The plan outlines goals and objectives for Natural & Environmental Resources, Cultural & Historic Resources, Land Use & Housing, Open space, Parks & Recreation, Utilities & Infrastructure, Public Services, Transportation & Circulation, and Economy.

The future land use plan prioritizes agricultural preservation in West Marlborough, which is already primarily protected through conservation and agricultural easements.

The 2022 Highland Township Comprehensive Plan Update is consistent with West Marlborough Township's treatment of future land use along shared borders.

III. Compatibility with Chester County and other regional plans



Vista of rolling hills in Highland Township.

LANDSCAPES3: CHESTER COUNTY COMPREHENSIVE PLAN

Landscapes3, adopted in 2018, is the Comprehensive Plan for Chester County. The plan has four primary purposes: establishing vision for preservation and growth across the county and its municipalities; guiding county government decision-making; guiding municipal planning and implementation; and providing a framework for inter-municipal collaboration. Landscapes3 identifies recommendations across six goal areas: Preserve, Protect, Appreciate, Live, Prosper, and Connect.

Highland Township primarily falls within the Rural Resource Area classifications. These areas are not appropriate for significant growth, are a focus for preservation, and reflect the agricultural and rural character of the county. The plan designates most Highland Township as an Agricultural Resource Area. Agricultural landscapes include large concentrations of active and diverse farm operations and related support services. A portion in the northeast corner of Highland Township is a Rural Resource Area. Rural landscapes include open and wooded lands with scattered villages, farms, and residential uses. Within both landscapes, minimal development occurs, as there is a focus on preserving open space, natural resources, and cultural resources. Transportation infrastructure is context-sensitive to the rural character and accommodates residential and farm needs.

Minimal portions of Highland Township fall with the Growth Area classifications, areas that can best accommodate future growth, are planned for a full range of infrastructure and are highly suitable for redevelopment. A small portion in the northwest corner of Highland Township is a Suburban Growth Area. Suburban landscapes are predominantly residential communities with locally oriented commercial uses and community facilities. A small portion along the northern border between Highland Township and Parkesburg Borough is an Urban Center Growth Area.

Urban Center landscapes include historic downtowns and established neighborhoods as civic, economic, and population centers with a traditional town character. A small portion in the southwest corner of Highland Township is a Rural Center Growth Area. Rural Center landscapes are often an extension of a village at a historic crossroads.

The Preserve Chapter highlights Highland Township within an existing protected open space cluster. A conceptual conservation corridor illustrated along the eastern and northern edges of the Township as opportunities for further land conservation efforts. The Connect Chapter designates Route 10, from the Lancaster County line to the south of Route 41, as a focus area for corridor safety improvements.

Chester County Hazard Mitigation (Draft) Plan

Chester County's Hazard Mitigation Plan (HMP) is a planning document to identify, assess, and reduce long-term risk to life and property from hazard events. The 2021 draft plan is an update to the 2015 plan. To remain eligible to receive hazard mitigation grant funding after a federally declared disaster, the Chester County government must prepare such plans. Following the Disaster Mitigation Act of 2000, participating municipalities must identify hazards, potential losses, needs, goals, and strategies.

Although the draft Hazard Mitigation plan does not identify any specific mitigation strategies for Highland Township, the plan includes a hazard vulnerability risk assessment that identifies risks levels for each municipality concerning the risk factor identified for Chester County as a whole (see Figure 8-1).

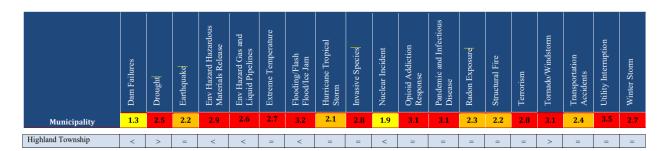


Figure 8-1, Chester County Hazard Mitigation Risk Factors

Chester County Climate Action Plan

Chester County's Climate Action Plan was developed to provide an action plan to improve energy efficiency and reduce greenhouse gas emissions. Its vision is to reduce the County's contributions to climate change while improving the community's health and wellbeing. This includes mitigation of climate impacts through resiliency and planning, transitioning to clean energy, and reducing greenhouse gas emissions through collaboration and government leadership.

The Plan is divided into four sections: Buildings & Energy, Waste Management, Transportation & Land Use, and Agriculture, Food, and Forestry. Some of the strategies identified in this plan include promoting sustainable energy, energy efficiency, and communications, encouraging smart growth, promoting efficient commuter and transit options, encouraging no/low emissions travel and transportation strategies, increasing county waste diversion, and other best practices through partnerships and collaborations, growing and preserving open spaces and natural areas, and supporting local food production and the agricultural community.

Connections 2045: Delaware Valley Regional Planning Commission (DVRPC)

DVRPC's Connections 2045 is a long-range plan for the nine-county, two-state, Greater Philadelphia region, intending to establish a vision for development and growth while prioritizing transportation funding over a 28-year time horizon. The plan is structured around five core principles: sustain the environment, develop livable communities, expand the economy, advance equity and foster diversity, and create an integrated, multimodal transportation network.

The land use vision outlined for Highland Township is primarily rural resource lands with a greenspace network along the eastern and northern boundaries. The greenspace network is an opportunity area to preserve unprotected land, protect natural resources and create a system of interconnected greenways. Out of the one hundred corridors illustrated in the plan, two corridors are identified in Highland Township, the Buck Run and Great Valley Ridgelines corridors.

The majority of Highland Township falls within Conservation Focus Areas. Conservation Focus Areas can be agricultural or natural in their character. The key recommendations for these areas in this Plan are preserving unprotected lands and ensuring any new development is context sensitive.

IV. Compatibility with Pennsylvania Municipalities Planning Code (MPC)

The 2022 Highland Township Comprehensive Plan Update, with a 20-year planning horizon, collectively meets the comprehensive planning requirements of the MPC (Article III, Section 301) as follows:

- "A statement of objectives of the municipality concerning future development" is encompassed in Chapter One: Introduction (see specifically page xx), and Chapter Four: Future Land Use.
- "A plan for land use" and "a plan to meet housing needs" are intertwined in Chapter Four: Future Land Use.
- "A plan for movement of people and goods" is encompassed in Chapter Five: Transportation.

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- "A plan for community facilities and utilities" is addressed in Chapter Six: Community Facilities and Services.
- "A statement of the interrelationships among the various plan components" is found in Chapter Eight: Statement of Compatibility.
- "A discussion of short- and long-term plan implementation strategies" is encompassed in Chapter Nine: Implementation.
- "A statement indicating . . . compatibility with existing and proposed development and plans in contiguous portions of neighboring municipalities" is found in Chapter Eight: Statement of Compatibility.
- "A statement indicating . . . general consistency with the objectives and plans of the County Comprehensive Plan" is found in Chapter Eight: Statement of Compatibility.
- "A plan for the protection of natural and historic resources" is embodied by Chapter Two: Natural, Historic and Scenic Resources and Chapter Three: Open Space and Land Preservation.
- "A plan for the reliable supply of water" is addressed in Chapter Two: Natural, Historic and Scenic Resources and in Chapter Six: Community Facilities and Services.

Chapter 9
Implementation



I. Introduction

The Comprehensive Plan Task Force distilled the Recommendations from each of the preceding Chapters, combined some and added others that came from an overall view of the Plan. Priorities and time frames were assigned to each Recommendation. Each Recommendation is listed on the ensuing pages along with a priority for Implementation and the lead parties in charge.

II. Implementation Recommendations Matrix

Lead Party Abbreviation			
BOS	Board of Supervisors	PA EMS	PA Emergency Services
CC	Chester County	PC	Planning Commission
LT	Land Trust	TS	Township Staff
PA DOT PA	PennDOT	AM	Adjacent Municipalities
S/LP	PA State Police or Local Police Dept		

Implementation Priority by Strategy				
Plan Section	Recommended Action	Lead Parties		
Community Planning	Community Planning			
Natural, Historic and Scenic Resources (Chapter 2)	Consider the development of a Land Preservation Plan, integrating historic resources into future open space planning efforts.	BOS, PC, LT		
	Consider developing a land preservation plan integrating natural resources into future open space planning efforts.	BOS, PC, LT		
	Consider developing a Land Preservation Plan to guide and help prioritize Township open space planning efforts and the application of municipal open space funds.	BOS, PC, LT		
Open Space and Land Preservation (Chapter 3)	Retain Highland Township's dedicated open space tax to generate revenue for future agricultural and/or conservation easements.	BOS, PC, LT		
	Partner with area land trusts and governmental entities to supplement and extend the supply of dedicated Township open space funds.	BOS, PC, LT		
Future Land Use (Chapter 4)	Evaluate the Township's zoning (both map and text) to ensure general consistency with this Plan's Future Land Use recommendations.	PC		
Transportation (Chapter 5)	Evaluate the transportation issues identified through the public outreach part of this Plan to determine the next steps and solutions. Apply for grant funding to study issues such as key corridors, intersection improvements, traffic calming, and cut-through traffic in concert with a transportation planner or engineer. Alternately, explore PennDOT's Local Technical Assistance Program (LTAP) as a potential avenue to assist with further studies.	BOS, PC, PA DOT		

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Transportation (Chapter 5)	Study roadway corridors in partnership with PennDOT and Highland Township farmers (Plain Sect and English) to identify if roadway improvement projects support the safe and efficient circulation of horse-drawn wagons, buggies, scooters, or farm vehicles are needed. Such a study should explore strategies to ensure safe nonmotorized vehicle circulation in concert with traffic calming best practices.	BOS, PC, PA DOT
	Coordinate with Chester County and PennDOT regarding the maintenance of County- and State-owned bridges to ensure issues are addressed consistent with Highland Township's Vision, Goals, and Objectives.	BOS, PC, PA DOT, CC
	Consider permitting seasonal use of the Municipal Building and its grounds to serve as a public gathering, including appropriate infrastructure to offer residents and visitors a welcoming experience.	BOS, TS
Community Facilities and Services (Chapter 6)	Consider applying for a small planning grant (i.e., PECO's Green Region initiative) to hire a consultant to prepare a simple master plan for the Municipal Building and grounds to serve as a public gathering area.	BOS, PC
Climate Resilience (Chapter 7)	Conduct a vulnerability assessment to evaluate areas (i.e., farmland, infrastructure, etc.) susceptible to extreme events such as extreme heat, drought, and/or extreme precipitation.	PC
Code of Ordinances		
Natural, Historic and Scenic Resources (Chapter 2)	Consider amending the Zoning Ordinance to enhance riparian buffer requirements, particularly the restoration of any impacted riparian buffer when any new land development is proposed subject to Township approval.	PC

	Consider amending the Zoning Ordinance to enhance woodland definitions, particularly quantifying the minimum area necessary for a woodland stand or mass to be considered a woodland by the Township.	PC
Future Land Use (Chapter 4)	To increase the Township's housing choices and allow Highland's residents to age-in-place, consider amending the Zoning Ordinance to permit accessory dwelling units on lots with principal single-family dwellings in the AP, RC, and RV zoning districts.	PC
	Consider adjusting the (I) District, specifically its 25-acre minimum lot size requirement, to accommodate industrial land uses on smaller parcels in the Township, subject to appropriate site design and screening standards to help ensure land use compatibility.	PC
Climate Resilience (Chapter 7)	Consider developing a renewable energy ordinance.	PC
Municipal Operations		
Climate Resilience (Chapter 7)	Annually benchmark energy use in the municipal building and grounds to chart trends in energy consumption.	BOS, TS
	Continue to identify and implement strategies to conserve energy in the municipal building, on the municipal grounds, and with Township-owned and maintained infrastructure.	BOS, TS
Land Preservation		
Open Space and Land Preservation (Chapter	cultivate and secure easements and other restrictive covenants on the Township's unprotected agricultural and other high-	LT
3)	Support Township landowner applications to enroll eligible farm parcels in the Township's Agricultural Security Area, as enabled under	LT

	State and County farmland preservation programs.	
	Partner with nonprofits and/or governmental agencies to provide property owners with ready access to information about land stewardship and promote implementing best management practices (BMPs).	LT
	Retain the AP District within the Zoning Ordinance to help protect the Township's prime agricultural soils, encourage sustained agricultural uses of a viable mass of farmland in the Township, and minimize encroachment by uses incompatible with standard agricultural practices.	PC
Future Land Use (Chapter 4)	Retain the Transferable Development Rights (TDR) provisions within the Zoning Ordinance to provide farm- and other landowners the option to sever and sell their development rights to another landowner, developer, or the Township to be used to enhance a development proposed for the RV-2 District, while permanently protecting the land from which the TDRs were severed.	PC
Public Education, Engag	gement and Partnerships	
	Partner with nonprofits, neighboring municipalities, and/or other governmental entities to ensure property owners have access to information about best practices for managing natural resources and invasive species removal.	LT
Natural, Historic and Scenic Resources (Chapter 2)	Consider the formation of a Township Historic Commission with residents willing to carry out Commission responsibilities, including reviewing land use applications that may impact historic resources and advising/making recommendations to elected officials on such applications. -Or-	

	Should residents express an interest in forming a volunteer citizen group focused on the heritage of Highland Township and its historic resources, promote such efforts where feasible (i.e., providing meeting space, providing educational materials on the Township website or in the Township building).	
	Publish maps, brochures, and/or other information in digital or print format to highlight Highland Township's heritage and increase resident awareness of the people, places, and/or events important to the Township's local history.	BOS, TS
Open Space and Land Preservation (Chapter 3)	Partner with area land trusts and Chester County to hold educational forum(s) with owners of large, unprotected Township parcels to discuss the various land conservation options available and the environmental and financial benefits of permanent land conservation.	BOS, LT, CC
	Consider including educational materials about open space preservation (i.e., maps, brochures, etc.) on the Township website or in the Municipal Building.	BOS, TS
	Identify opportunities to support and promote the local farming community (i.e., seasonal events, information on the Township website, brochures, etc.)	BOS, TS
Future Land Use (Chapter 4)	Pursue multi-municipal planning opportunities with adjoining or nearby municipalities to, among other benefits, share different land uses based on rural and urban differences and regional needs and maintain general consistency with, and help to implement, the Chester County Comprehensive Plan.	BOS, PC, AM
	Provide information (i.e., website, flyer in the municipal building, etc.) for residents about existing Chester County paratransit related services that support residents with	TS

	disabilities, seniors, and those without access to, or the ability to use, a personal vehicle.	
Transportation (Chapter 5)	Partner with neighboring municipalities to coordinate traffic and transportation issues that cross municipal boundaries, including economic development and land-use decisions in the region that could impact traffic volumes. Advance the planning, design, implementation, and maintenance of roadways, bridges, and intersection treatments where shared interests exist while collaboratively identifying strategies to mitigate cut-through traffic in rural municipalities.	BOS, PC, AM
Community Facilities and Services (Chapter 6)	Partner with the County and other municipalities in the region, and area public and quasi-public service providers, to collaboratively identify and provide costeffective programs, resources, equipment, and strategies that meet the public safety, and other community-wide or special population needs and desires in Highland Township.	BOS, AM, CC
	Conduct an update to the Highland Township website to include additional information and resources for residents, as indicated in other chapters in this Plan.	BOS, TS
	Consider creating a social media account for Highland Township as a resource for information sharing and highlighting the Township (i.e., Facebook page, Instagram account, etc.)	BOS, TS
	Analyze transportation corridors in Highland Township in partnership with PennDOT to determine if roadways and adjacent rights-ofway in the Township require stormwater management BMPs.	PA DOT

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Climate Resilience (Chapter 7)	Share information with residents about available cooling/heating centers in adjacent municipalities through PA's 211 line (i.e., Parkesburg location).	TS
	Collaborate with PennDOT through their technical assistance program to assess the Township's transportation network and standards to determine if changes should be made to increase their resiliency.	PA DOT
	Partner with nonprofits and/or other governmental entities to ensure property owners have access to information and resources about the benefits of riparian buffer and woodland restoration, including programs that provide technical assistance, financial assistance, cost-sharing mechanisms, and free resources.	LT, TS
Funding		_
Transportation (Chapter 5)	Apply for grant funding to advance the planning, design, and construction of transportation improvement projects in Highland Township.	
	Identify and submit transportation projects to the Chester County Planning Commission for inclusion on the County's Transportation Improvements Inventory (TII). The TII is updated biennial and includes projects recommended to CCPC by Chester County municipalities.	BOS, PC, CC
Data and Inventories		
Natural, Historic and Scenic Resources (Chapter 2)	Update the Township's inventory of historic resources. Request through Chester County's Heritage Preservation Coordinator that Chester County develops a Historic Resource Atlas in partnership with Highland Township.	PC, CC

Transportation (Chapter 5)	Partner with PennDOT maintenance personnel through their Local Technical Assistance Program (LTAP) to regularly survey Highland Township's transportation network to inventory road conditions and collaboratively identify infrastructure issues on State-owned and Township-owned roads.	PA DOT	
	Consider conducting an update to the scenic roadway identification, inventory, and mapping completed as part of the 2001 Comprehensive Plan and recreated as part of the 2022 Comprehensive Plan Update.	PC, BOS	
Public Safety			
Community Facilities and Services (Chapter 6)	Evaluate the need and costs for increased time spent by Parkesburg Borough officers and the Pennsylvania State Police enforcing speed limits on Township roads. Consider, if feasible, a temporary or permanent increase in hours of police coverage of Township roads to help ensure traffic safety.	PA S/LP	
Public Infrastructure Planning			
	Be prepared to establish a Wastewater Facilities Plan for Highland Township to support development proposed in appropriate areas with supporting public water and sewer facilities.	BOS	
	Necessary preparation for MS4 designation in the future?	BOS	